

# Tract 8057 Residential Subdivision Project

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## Draft Environmental Impact Report

*SCH No. 2012022065*

### **COUNTY OF ALAMEDA**

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# INTRODUCTION

## PURPOSE OF THE ENVIRONMENTAL IMPACT REPORT

The California Environmental Quality Act and the California Environmental Quality Act Guidelines (together “CEQA”) require an Environmental Impact Report (EIR) to be prepared for any project which may have a significant impact on the environment. An EIR is an informational document, the purposes of which, according to CEQA are “to provide public agencies and the public in general with detailed information about the effect which a proposed project is likely to have on the environment; to list ways in which the significant effects of such a project might be minimized; and to indicate alternatives to such a project.” The information contained in this EIR is intended to be objective and impartial, and to enable the reader to arrive at an independent judgment regarding the significance of the impacts resulting from the proposed Project.

## BACKGROUND AND PURPOSE FOR THIS EIR

This EIR evaluates the potential environmental impacts that may be associated with the proposed Tract 8057 Residential Subdivision Project (“Project”) in the Fairview area of Alameda County, California. The Applicant is Northbrook Homes. The Lead Agency is the County of Alameda.

Previously, the environmental review process for the Project began with the preparation of an Initial Study, in accordance with *State CEQA Guidelines* §15063. The Initial Study evaluated the potential environmental effects of the Project against the applicable significance criteria set forth in the Environmental Checklist (*CEQA Guidelines Appendix G*). The initial study identified a number of potentially significant impacts in several different environmental resource areas (e.g., aesthetics, air quality, biology, geology, hydrology and noise) and included mitigation measures to reduce impacts to levels of less than significant. The County determined that a Mitigated Negative Declaration was the appropriate form of environmental document for compliance with CEQA and the Initial Study/Mitigated Negative Declaration (“IS/MND”) was released for public review in late February 2012 for a 30-day public review period along with a Notice of Intent to Adopt a Mitigated Negative Declaration. A public hearing before the Alameda County Planning Commission was held in early June 2012 with the intent to adopt the IS/MND and approve the Project.

The public hearing drew substantial interest from interested citizens whose comments, both written and verbally at the hearing, questioned a number of the conclusions reached in the IS/MND, including those related to aesthetics, biology, drainage and traffic. Some commenters felt that the IS/MND provided insufficient information regarding environmental effects and asked that an EIR be prepared that would include an assessment of alternatives which is not required in an MND.

Following the June 2012 public hearing a thorough evaluation of the public comments was undertaken. In order to provide a stronger factual understanding of the issues raised by public comments, the Project sponsor commissioned further studies regarding aesthetics, hydrology/drainage and traffic.

Information generated from these studies was compiled, summarized and presented at an informational public hearing before the Alameda County Planning Commission in early February 2013. Interested members of the public voiced similar concerns regarding views, drainage and traffic and repeated the request that an EIR be prepared.

After considering the degree of public controversy on these issues, the Planning Commission and County staff, with the concurrence of the Project Applicant, determined that an EIR would be the appropriate form of environmental document for compliance with CEQA and that the EIR would focus on the issues that reflect continued public concern, namely, aesthetics, biology, hydrology/drainage, land use (i.e., conformity to the Fairview Area Specific Plan), and traffic.

The IS/MND that was released for public review in February 2012 remains an important part of the administrative record for this Project and is included as part of this EIR as **Attachment A**. Resource topic areas considered in the IS/MND and determined to not require further environmental analysis or review are:

- Air quality
- Cultural Resources
- Geology/Soils
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Mineral Resources
- Noise
- Population & Housing
- Public Services
- Recreation
- Utilities & Service Systems

Mitigation measures included in the IS/MND to reduce potentially significant impacts remain as required mitigation measures of the Project, if approved, and are included in the Mitigation Monitoring and Reporting Program (MMRP) for the Project.

## **EIR REVIEW PROCESS**

This EIR is intended to enable County decision-makers, public agencies and interested citizens to evaluate the broad environmental issues associated with the proposed Project. An EIR does not control the agency's ultimate discretion on the Project. As required under CEQA, the agency must respond to each significant effect identified in the EIR by making findings and if necessary and warranted, by adopting a statement of overriding considerations. In accordance with California law, the EIR must be certified before any action on the Project can be taken. However, EIR certification does not constitute Project approval.

Together, this Draft EIR (Draft EIR) and the subsequent Final EIR (Final EIR) will constitute the EIR for the Project. During the review period for this Draft EIR, interested individuals, organizations and agencies may offer their comments on its evaluation of Project impacts and alternatives. The comments received during this public review period will be compiled and presented together with responses to



these comments in the Final EIR. The County decision-makers will review the EIR documents and will determine whether or not the EIR provides a full and adequate appraisal of the Project and its alternatives.

In reviewing the Draft EIR, readers should focus on the sufficiency of the document in identifying and analyzing the possible environmental impacts associated with the Project. Readers are also encouraged to review and comment on ways in which significant impacts associated with this Project might be avoided or mitigated. Comments are most helpful when they suggest additional specific alternatives or mitigation measures that would provide better ways to avoid or mitigate significant environmental impacts. Reviewers should explain the basis for their comments and, whenever possible, should submit data or references in support of their comments.

This Draft EIR will be circulated for a 45-day public review period. Written comments may be submitted to the following address:

Phil Sawrey-Kubicek  
Alameda County Planning Department  
224 W. Winton Avenue, Room 111  
Hayward, CA 94544  
Telephone: 510/670-5400  
Email: [phil.sawrey-kubicek@acgov.org](mailto:phil.sawrey-kubicek@acgov.org)

After reviewing the Draft EIR and the Final EIR and certifying the EIR as adequate and complete, the Alameda County Planning Commission will be in a position to consider approval, denial, or modification of the Project and related actions.

## CONTENT AND ORGANIZATION OF THE EIR

A Notice of Preparation (NOP) was issued in March 2013 to solicit comments from public agencies and the public regarding the scope of the environmental evaluation for the Project. An EIR Scoping Meeting was held on March 18, 2013 which was attended by two members from the community and which resulted in several comments being submitted electronically. The NOP is presented in **Attachment B** and all written comments received during the NOP comment period are presented in **Attachment B**. These comments have been taken into consideration during the preparation of the Draft EIR.

An Executive Summary follows this introduction as Chapter 2. This summary presents an overview of the Project and the environmental impacts which are found in this EIR (and the IS/MND) to result from the Project, along with the mitigation measures that would reduce the impact to a level of less than significant. The full description of the Project is included in Chapter 3. Chapters 4 through 9 present environmental analysis of the Project, focusing on the following issues:

4. Aesthetics
5. Biological Resources
6. Hydrology and Water Quality
7. Land Use/Planning
8. Traffic/Transportation
9. Agriculture

Chapter 10 presents other CEQA considerations, including a discussion of significant and irreversible modifications in the environment, growth inducing impacts, and cumulative impacts.

Chapter 11 presents an evaluation of three Project alternatives and compares the environmental effects of each alternative against those of the Project.

Chapter 12 lists the persons who prepared the Draft EIR.

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## EXECUTIVE SUMMARY AND IMPACT OVERVIEW

### SUMMARY DESCRIPTION

This EIR analyzes the potential for environmental impacts resulting from implementation of the proposed Tract 8057 Residential Subdivision Project (“Project”) in the Fairview area of unincorporated Alameda County, California. The Applicant is Northbrook Homes. The Lead Agency is the County of Alameda Planning Department.

The 10.1-acre project site is located at 25000 Fairview Avenue, and is an undeveloped hilly site consisting predominantly of non-native grassland habitat. Currently, a few head of cattle and horses graze the property, under the supervision of an agricultural tenant. Topographically, the site consists of a flat ridge along its highest elevation, dropping off downward toward the east, west and south with slopes generally ranging from 15 to 20 percent gradient.

The Project proposes 15 single family residential parcels on an internal access road that connects Fairview Avenue just east of Walters-Dinos Court to the flat portion of the site at the upper elevation. Residential lots would range in size from 10,026 to 16,617 square feet. Three parcels (Parcels C, E and F) would be created as conservation areas, outside of the developed part of the site, where future active use or development would be prohibited, in perpetuity. The median lot size would be 11,465 square feet and the average lot size would be 12,019 square feet.

Approximately 50 percent of the site would be altered in accordance with the proposed grading plan for use as streets, a stormwater detention basin and sites for future single family homes. The lots would cover the flatter upper portion of the Project site while the lower elevation of the northeast facing lots (conservation area E) would remain undeveloped as dedicated private resource area for wildlife, plant life and wetland mitigation. The beginning reach of a public-access trail for hiking and equestrian use would be provided, starting at the foot of the PG&E parcel at Fairview Avenue and extending upslope alongside the proposed access road (Street “A”) to the twin PG&E powerline support pylons which are located at the upper elevation on the PG&E parcel; connecting the end point of the trail at that point to other trails in the general area and eventually to trails in the Five Canyons area would be the responsibility of others.

In addition to site grading for the future development, the two ‘bowl’ shaped parts of the Project site are known to consist of unstable colluvial material of varying depths. One of the bowl areas involves the site of the proposed stormwater detention basin (in Parcel C); the other involves the lower elevations of Parcel E. In accordance with the recommendations of the geotechnical engineer, the colluvial material would be removed temporarily and then replaced with compacted engineered fill after creating a key way and installing subdrains. Once the soil remediation work in Conservation Parcel E is complete, no further disturbance of that part of the site would occur.

The following approvals will be required: a Tentative Subdivision Map, Grading Plan, Stormwater Pollution Prevention Plan, and, potentially, permits from both the US Army Corps of Engineers (Corps) and from the Regional Water Quality Control Board (RWQCB) if either agency determines

that the removal of a small depression at the top of the property of approximately 1,080 square feet is subject to the agency's jurisdiction pursuant to the federal Clean Water Act.

## SUMMARY OF IMPACTS AND MITIGATION MEASURES

The analyses in Chapters 4 through 10 of this document provide a description of the existing setting, potential impacts of Project implementation, and recommended mitigation measures to avoid or reduce potentially significant impacts that could occur as a result of Project implementation. **Table 2.1** at the end of this chapter lists a summary statement of each impact and corresponding mitigation measures, as well as the level of significance after mitigation. Mitigation measures that were included in the 2012 Initial Study for this Project (included in Appendix 1) are included in Table 2.1, although discussion of these impacts are not included in the body of the EIR.

### SIGNIFICANT AND UNAVOIDABLE IMPACTS THAT CANNOT BE MITIGATED TO A LEVEL OF LESS THAN SIGNIFICANT

The Project is inconsistent with certain policies, and guidelines of the *Fairview Area Specific Plan* that seek to minimize site grading and to retain natural landforms. The inconsistencies are identified and discussed in Chapter 7, Land Use and, taken together, would result in a significant environmental impact. Implementation of Mitigation Measure LU-1 would reduce the impact to a less than significant level. However, there are secondary environmental effects (and, potentially, additional inconsistencies with the *Specific Plan*) associated with LU-1. If the County decides to not require implementation of LU-1, its impact would be Significant and Unavoidable. All other impacts are either less than significant or can be reduced to a less than significant level through mitigation, as discussed in the following text and table, and for which supporting evidence and discussion is provided in the EIR or the Initial Study/Mitigated Negative Declaration, incorporated into this EIR.

### IMPACTS REDUCED TO A LEVEL OF LESS THAN SIGNIFICANT THROUGH MITIGATION

The following potentially significant impacts would be reduced to less than significant levels with implementation of mitigation measures:

#### Aesthetics

- a) Scenic Vistas. The grading required to construct Street A would substantially alter natural slopes and contours on the PG&E easement which is considered a scenic vista as part of the scenic route system of Alameda County. The visual impact is considered **potentially significant** but would be reduced to a **less than significant** level by Mitigation Measure **Vis-1** which requires the review of the final grading plan for Street A by the County Planning Director, prior to permit issuance, to ensure that the sculpting of the slopes enhance the topography visible from Fairview Avenue.
  
- b) Light and Glare. The Initial Study found that the addition of 15 new homes on the Project site would add new sources of light to the area, adversely affecting nighttime views of nearby neighbors within the area and increased loss of starlight visibility. Mitigation Measure (MM) **Vis-2** requires the preparation and implementation of a lighting design plan conforming to standard Alameda County lighting guidelines. Compliance with MM **Vis-2** would reduce the potential impact to a less than significant level.

Air Quality. The Initial Study found that construction of the Project would result in temporary emissions of dust and construction vehicle emissions which would contribute to regional emissions.

With implementation of construction best management practices as set forth in Mitigation Measure **Air-1**, construction-period air quality impacts would be reduced to a level of less-than-significant.

### Biological Resources

#### a) Special Status Plant Species

The Initial Study found that the Project would result in removal of non-native annual grassland that could serve as habitat for two special-status plant species that have the potential to inhabit the site: big scale balsam root and most beautiful jewel flower. Potential impacts to these species will be mitigated through pre-construction site surveys by a qualified biologist to determine the presence (or absence) of the subject plant species. If examples of these plant species are found the Project applicant must either (i) transplant the plants to the conservation easement area, away from where the site would be disturbed, or (ii) collect seeds and plant the seeds within the conservation area (Mitigation Measure **Bio-1**). With requirements that the plans for provision of compensatory habitat be approved through the appropriate regulatory agencies, the impacts of the Project would be less than significant.

#### b) Nesting birds.

The Initial Study found that construction activities could disturb and adversely impact on-site or nearby nesting birds, which are protected by the provisions of the Migratory Bird Treaty Act. With implementation of a pre-construction nesting bird survey and establishment of buffer setback zones or areas to keep construction activities away from nesting birds, if found (Mitigation Measure **Bio-2**), the impact would be reduced to less than significant.

#### c) Aquatic life and wildlife habitat.

The Initial Study found that grading and other site disturbance and construction activities could result in increased rates of erosion and stormwater runoff containing particles of fill or excavated soil. Deposition of eroded material in adjacent down gradient water features (i.e., creeks and streams which flow to larger water bodies including Don Castro Reservoir and ultimately San Francisco Bay) could endanger aquatic life and reduce wildland habitat. Mitigation Measure **Bio-3**, calling for the preparation and implementation of a Storm Water Pollution Prevention Plan (SWPPP) and the use of Best Management Practices during construction was found to reduce the potential impact to a level of less than significant.

#### d) Loss of wetlands.

Surveys of the site by two different biologists identified one small area on the Project site that exhibited characteristics of a wetland that could qualify as being within the jurisdiction of state or federal agencies (State Water Resources Control Board and/or the U.S. Army Corps of Engineers). Mitigation Measure **Bio-4** requires the Project applicant to submit a wetland delineation application to the respective regulatory agencies for a determination of jurisdictional status. If the area in question is determined to be within the jurisdiction of the regulatory agency, the Project applicant must comply with mitigation requirements established by the regulatory agency by setting aside an appropriate sized area on the Project site that would be preserved in perpetuity as compensation for the area determined to be wetlands and that would be lost due to proposed grading and site disturbance for the Project. Compliance with MM **Bio-4** would reduce the loss of wetlands to a less than significant level.

e) Loss of wildlife corridor.

The Initial Study found that construction of Street A on the PG&E property could interfere substantially with the movement of native resident wildlife species or with established migratory wildlife corridors and impede the use of native nursery sites. It also found that grading, construction and resident use of homes on the upper elevations of the Project site would reduce and restrict area for wildlife activity. Mitigation Measure **Bio-5** requires the Project applicant to:

- i) Conduct the nesting bird surveys required under MM Bio-2
- ii) Establish a conservation easement on the lower elevations of the Project site in order to set aside in perpetuity an area preserved for migratory wildlife and for the wetland mitigation; and
- iii) Employ wildlife-friendly design principles in the design and implementation of the project's landscape plans for revegetation of the cut slopes on the PG&E parcel and in the area surrounding the proposed storm water detention basin.

Compliance with MM **Bio-5** would reduce the loss of wildlife corridor to a less than significant level.

f) Loss of protected trees.

The Initial Study found that the proposed alignment of Street A on the PG&E property might require the removal of or damage to one or both clusters of Cypress trees and/or a cluster of blue gum trees which are considered to be protected by Tree Preservation Policies in the Fairview Area Specific Plan. Mitigation Measure **Bio-6** requires the Project applicant to modify the grading plan and to realign the design for Street A to avoid disturbing the natural grades that are within the drip line areas of the Cyprus tree cluster and the blue gum tree cluster; if any trees need to be replaced, replace at ratio of 5 new 15-gallon trees for each tree removed, all subject to the approval of the Director of Planning.

Geology/Soils. Soils exposed during site grading would be subject to erosion during storm events. Implementation of a required Storm Water Pollution Prevention Plan (Mitigation Measure **Geo-1**) as well as filing a notice with and obtaining a Construction General Permit from the Regional Water Quality Control Board and implementing the requirements of the permit and the provisions of the SWPPP would achieve compliance with the Alameda County Clean Water Program and thereby reduce the potential impact to a less than significant level.

Hydrology and Water Quality Construction activities at the site will disturb soils and create potential erosion concerns. Mitigation of this potential impact is achieved through the following measures:

- a) Implementation of a required Storm Water Pollution Prevention Plan (Mitigation Measure Geo-1).
- b) Compliance with the County grading ordinance and implementation of Best Management Practices (BMPs); and
- c) Compliance with the county's C.3 provisions of the Alameda County Municipal Regional Stormwater National Pollutant Discharge Elimination System (NPDES).

Implementation of Mitigation Measures Hydro-1, Hydro-2 and Hydro-3 would reduce potential hydrology/water quality impacts to less than significant levels.

Noise Construction activities would generate noise and would temporarily and intermittently increase noise levels at adjacent residential receivers. Mitigation measure Noise-1 requires the Project applicant and the contractor to adhere to and comply with specific noise reduction measures including compliance with the county's Noise Ordinance which limits noise generating activities to the hours of 7 am to 7 pm weekdays and 9 am to 8 pm on weekends, and identification of a "disturbance coordinator" whom local residents could contact the case of noise complaints, and other measures.

Traffic The analysis of traffic and circulation in Chapter 8 of the Draft EIR identified three potentially significant impacts, Traf-5, Traf-6 and Traf-7:

*Hazards Due to Design Features or Incompatible Uses*

**Impact Traf-5: Hazards Due to Design Features.** The proposed Project includes installation of a new roadway intersecting Fairview Avenue that could result in hazards due to an insufficient sight distance for outbound left turns from the Project entrance or for merging with westbound traffic at peak periods. This is a *potentially significant* impact.

**Mitigation Measure**

**Traf-5: Project Driveway Design Modification.** The Project applicant will:

- a) Construct an acceleration lane for outbound traffic turning right and heading westbound on Fairview Avenue. The westbound acceleration lane will allow outbound vehicles greater sight distance for the right turn movement, allowing motorists to better find gaps in westbound traffic.
- b) Design the project driveway to prohibit outbound left turns for project vehicles, for which there is inadequate sight distance. Outbound turning vehicles destined for eastbound Fairview Avenue will instead turn right onto westbound Fairview Avenue and reverse direction at the Fairview/Hansen roundabout approximately 1,800 feet west of the project driveway. Elimination of the outbound left turn is expected to improve safety for such vehicles.
- c) In coordination and consultation with Alameda County Traffic Engineering division, the Project applicant shall arrange for the installation of traffic calming devices including but not limited to precautionary signage near to or ahead of the curve east of the driveway, warning westbound vehicles of cross-traffic ahead, advising motorists to slow to 20 (or 25) mph, or installing an additional radar speed detection and display device. Design and implementation of such devices are subject to engineering study and to the review and approval of the County Director of Public Works.

*Emergency Access*

**Impact Traf-6: Emergency Access.** The proposed Project includes a new internal roadway system with only one connection to existing roadways, resulting in inadequate emergency access absent a second means of access to and from the site. This is a *potentially significant* impact.

The proposed site plan provides for an Emergency Vehicle Access (EVA) at the point where Street A is closely parallel to Karina Street on the adjacent Tract 6102 subdivision (which has access from Fairview Avenue via Jelincic Drive). This proposed point of contact between the two adjacent subdivisions would allow emergency vehicles to access each of the communities in the event of an emergency situation in the other, and allow residents in each of the communities a second means of access out from the area to reach the public roadway network.

### Mitigation Measure

**Traf-6: Emergency Access Design.** The emergency vehicle access between the Project tract and Tract 6012 shall be designed to meet City of Hayward Fire Department requirements and other applicable regulations, with final approval of the design by the City of Hayward Fire Marshal. Implementation of mitigation measure Traf-6 as approved by County design review and the City Fire Marshal would reduce the Project's emergency access issues to *less-than-significant* levels.

### *Construction-Period Traffic Disruption*

**Impact Traf-7: Construction.** Construction-related impacts resulting from daily trips involving construction workers, delivery of supplies and materials and the movement of construction equipment to and from the site generally would not be considered significant due to their temporary and limited duration. However, depending on the construction phasing and truck activity, this is a *potentially significant* impact.

### Mitigation Measure

**Traf-7: County Review of Construction Plan.** The Project applicant shall prepare a Construction Operations Plan detailing the anticipated schedule of trips involving construction workers and equipment and delivery of materials and supplies, to and from the Project site during the various stages of construction activity, including phases for earth movement (grading), roadway construction, installation of backbone utilities (water, sewer, drainage, electricity, gas, CATV, etc.), and construction of houses. The Plan will be reviewed by the County of Alameda for compliance with applicable regulations.

All other impacts would be less than significant without the need for mitigation, as detailed in Table 2.1.

## ALTERNATIVES

The four alternatives analyzed in Chapter 11 are summarized below:

**Alternative A: No Project, No Development Alternative.** Alternative A is a “no project” alternative. It assumes the proposed Project is not approved and the site remains in an undeveloped state, with no development of roadways or residences.

**Alternative B: Reduced Density Alternative.** Alternative B assumes that a subdivision with fewer lots would achieve a greater degree of consistency with the *Fairview Area Specific Plan* and would therefore avoid or reduce the severity of the potentially significant environmental impacts associated with the Project.



**Alternative C: Different Access Alternatives.** Alternative C assumes that to avoid potential traffic hazards associated with access entering into and exiting out from the Project site entrance at the foot of the PG&E parcel, access to the Project site would come instead from one of three other directions:

- C-1: Access from Fairview Avenue via Jelincic Drive/ Sarita Street/Karina Street using the existing paved streets in the Jelincic subdivision (Tract 6102);
- C-2: Access from Fairview Avenue via a new roadway through an existing undeveloped property (APNs 417-270-3-0 and -6-0), located at 24830 Fairview Avenue; or
- C-3: Access from Fairview Avenue via Old Fairview Avenue and through private property located at 25110 Old Fairview Avenue (APN 417-270-11-0).

**Alternative D: Less Grading Alternative.** Alternative D assumes that site grading would be limited to that which is required to construct the proposed access roadway (Street A) as proposed (i.e., from Fairview Avenue, via the PG&E parcel) and not to undertake mass grading of the residential lots, thereby achieving a greater degree of compliance with the *Fairview Area Specific Plan*.

#### Alternatives Conclusion

As discussed in Chapter 7, Land Use, if Mitigation Measure LU-1 is not ultimately required, Impact LU-1 would be the only significant and unavoidable impact (SU) identified in this Draft EIR. Alternative D describes an approach to site grading that would be consistent with Mitigation Measure LU-1 and would more closely conform to the grading and land-form related policies and guidelines of the *Fairview Area Specific Plan*. However, as noted in Chapter 7, implementation of Mitigation Measure LU-1 (and, by extension, adoption of Alternative D) would have a number of off-setting secondary environmental effects which the County decision-makers must weigh in determining the ultimate conclusions of this Draft EIR. Aside from the inconsistencies with the *Specific Plan*, all other Project impacts are either less than significant or can be reduced to that level through implementation of the mitigation measures contained in this Draft EIR.

Alternative A, the No Project, No Development Alternative, has no impacts as it does not propose any change to the site. Alternative A would be the environmentally superior alternative.

The CEQA Guidelines also require that “if the environmentally superior alternative is the ‘no project’ alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives” (CEQA Guidelines Section 15126.6(e)(2)). In general, the environmentally superior alternative minimizes adverse impacts to the environment, while still achieving the basic project objectives.

Alternative B, the Reduced Density Alternative.

Taken by itself as an alternative to the Project, the reduction in the number of lots from 15 to 14 or 13 or even 12 would not be environmentally superior to the Project because the environmental impacts arise not as a result of density but primarily from the effects of the excavation and grading required to construct Street A on the PG&E parcel and the mass grading plan that would alter the existing natural contours and prepare the site for future home construction. Reducing the number of lots would not result in the Environmentally Superior alternative unless it is combined with elements of Alternative D, as summarized below.

Alternative C: Different Access Alternatives.

All of the three access alternatives would be environmentally superior to the proposed alignment of Street A on the PG&E property because each would require substantially less grading, would avoid impacts to a scenic vista, would avoid the loss of the Monterey cypress tree cluster and would eliminate the potentially hazardous condition for vehicles entering and exiting the site onto Fairview Avenue, as proposed under the Project. However, none of the three access alternatives is feasible and each, therefore, is rejected.

Alternative D, the Reduced Grading Alternative

Under Alternative D, the proposed grading plan would be substantially modified to eliminate the proposed re-contouring of the site for future home construction. Under this alternative approach, site grading would be limited to the construction of internal streets and utilities, leaving the remaining parts of the site in their natural condition. Alternative D would be the same as implementation of Mitigation Measure LU-1, as discussed in Chapter 7, Land Use.

## CONCLUSION

Since Alternative B would not result in fewer impacts, and since none of the access alternatives in Alternative C are feasible, and since Alternative D would raise its own set of environmental effects, the environmentally superior project is the Project.

**Table 2.1: Summary of Project Impacts and Mitigation Measures**

Potential Environmental Impacts	Recommended Mitigation Measures	Resulting Level of Significance
<b>Significant and Unavoidable</b>		
<p><b>Impact LU-1</b> Specific features of the Project are noted as inconsistent and have been found to be substantially inconsistent or in conflict with certain policies, principles of guidelines of the <i>Fairview Area Specific Plan</i> and which are recognized as having been adopted for the purpose of avoiding or mitigating environmental effects. Such conflicts or inconsistencies are potentially significant impacts of the Project as proposed. Other features are also discussed which have been found to be consistent with the <i>Specific Plan</i> and for which there would be no impact, or a less than significant impact.</p>	<p><b>Mitigation LU-1:</b> To avoid and reduce the Project's conflicts with the policies, principles and guidelines of the <i>Fairview Area Specific Plan</i>, the Project applicant shall revise the Project Grading Plan and Stormwater Protection Plan. The redesigned project may include the following:</p> <ol style="list-style-type: none"> <li>a. To comply with the geotechnical engineer's recommendations, excavation and grading would be required to correct for the two colluvium areas on the Project site. The colluvium would have to be removed and replaced as engineered fill. This work would need to be completed at one time and could not be accomplished on a lot-by-lot basis. After completion of the corrective work, follow a revised grading plan that reestablishes existing slopes and slopes to the maximum extent practicable.</li> <li>b. If a feasible access alternative to Street A cannot be identified, off-haul the excavated material from the PG&amp;E parcel to off-site locations, rather than balancing cut and fill on site in a manner inconsistent with existing natural topography;</li> </ol>	<p>Less than Significant if Mitigation Measure LU-1 is implemented;</p> <p>Significant and Unavoidable if Mitigation Measure LU-1 is not adopted.</p>

Potential Environmental Impacts	Recommended Mitigation Measures	Resulting Level of Significance
	<p>c. Revise the Stormwater Protection Plan so that stormwater flows continue to flow in their natural direction, downhill towards Deer Canyon, rather than being redirected to Sulphur Creek;</p> <p>d. Utilize drilled pier and grade beam foundation systems to place homes on the site's natural topography, rather than grading the site for stepped pad foundations.</p>	
<b>Less than Significant with Mitigation</b>		
<p><b>Impact Vis-1:</b> Scenic Vistas. The Project would not result in substantially altered views of the topmost ridge or the hill on the site from identified public streets or areas. Although the grading required for Street A would substantially alter natural slopes and contours on the PG&amp;E easement, and although the landscaping along Street A would substantially soften the view of the PG&amp;E easement and Street A from Fairview Avenue, which represents a scenic vista as part of the scenic route system of Alameda County. The impact would be potentially significant.</p>	<p><b>Mitigation Vis-1 Design Review of Fine Grading.</b> The final Grading Plan for Street A shall be reviewed by the Planning Director prior to permit issuance to ensure that the sculpting of the slopes enhances the topography visible from Fairview Avenue.</p>	<p>Less than Significant</p>
<p><b>Impact Vis-2: Nighttime Light and Glare.</b> The addition of 15 new homes on the Project site would add new sources of light to the area. Light from inside the homes, as well as street lighting and the movement of vehicles could adversely affect nighttime views by nearby neighbors within the area including incrementally increased loss of starlight visibility.</p>	<p><b>Mitigation Vis-2: Lighting Design Plan.</b> The Applicant shall design lighting to be sensitive to neighboring land uses and to minimize energy use, according to standard County lighting guidelines. The Alameda County Planning Department shall review the design plans to ensure compatibility of the Project with all applicable guidelines. The general lighting guidelines for County projects include the following items:</p> <ul style="list-style-type: none"> <li>• Applicant shall submit a lighting plan for review and approval by the Planning Director prior to issuance of grading permits.</li> <li>• Applicant shall design public area lighting so as to evenly illuminate areas of concern, but so as not to intrude upon private areas any more than necessary. Public areas not essential to security should be illuminated only when necessary for occupation by use of timers or motion detector circuits.</li> <li>• Applicant shall use the lowest wattage lamps reasonable for illumination of the area of concern.</li> <li>• Applicant shall install only full cutoff-shielded lights for illumination of public areas.</li> <li>• Applicant shall design and place night time</li> </ul>	<p>Less than Significant</p>

Potential Environmental Impacts	Recommended Mitigation Measures	Resulting Level of Significance
	<p>lighting and security lighting so that it is no higher than necessary to illuminate the area of concern for security or visual comfort, and that the lighting is directed toward the area of concern, and always below the horizontal.</p> <ul style="list-style-type: none"> <li>• Applicant shall not position night lighting to illuminate areas beyond the site boundaries, nor shall the applicant position general lighting to radiate above the horizontal, but shall place lights or install shielded lights to illuminate only the area of concern.</li> <li>• Residents shall extinguish any lights not required for onsite security reasons.</li> <li>• The Homeowners Association shall enforce these conditions through CC&amp;Rs for the Project.</li> </ul>	
<p><b>Impact Air-1: Construction Dust and Exhaust.</b> Construction of the Project would result in temporary emissions of dust and exhaust, from a combination of vehicles, equipment and fugitive dust particles that could adversely affect local air quality.</p>	<p><b>Mitigation Air-1: Basic Construction Management Practices.</b> The Project sponsor shall demonstrate compliance with all applicable regulations and operating procedures prior to issuance of demolition, building or grading permits, including implementation of the following BAAQMD "Basic Construction Mitigation Measures":</p> <ul style="list-style-type: none"> <li>• All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.</li> <li>• All haul trucks transporting soil, sand, or other loose material off-site shall be covered.</li> <li>• 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.</li> <li>• All vehicle speeds on unpaved roads shall be limited to 15 mph.</li> <li>• 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.</li> <li>• 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.</li> <li>• All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall</li> </ul>	<p>Less than Significant</p>

<b>Potential Environmental Impacts</b>	<b>Recommended Mitigation Measures</b>	<b>Resulting Level of Significance</b>
	<p>be checked by a certified mechanic and determined to be running in proper condition prior to operation.</p> <ul style="list-style-type: none"> <li>• Post a publicly visible sign with the telephone number and person to contact at the Lead Agency regarding dust complaints. 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.</li> </ul>	
<p><b>Impact Bio-1. Potential disturbance of protected plant species.</b> Disturbance of the Project site and/or the PG&amp;E property for grading and construction activities has the potential to impact two special status plant species - big-scale balsamroot and most beautiful jewel flower, which are ranked 1B by CNPS.</p>	<p><b>Mitigation Bio-1: Conduct Special Status Plant Survey.</b> During the months between March and June, and prior to the commencement of grading activities, the Project applicant's biologist shall conduct a survey to validate Olberding's negative finding for big-scale balsamroot and most beautiful jewel flower. If examples of these two plant species are not found, no further mitigation is required. If examples are found, impacts to the plants shall be avoided by (a) relocating the plants to locations on the Project site that would not be disturbed by grading and construction activities; and b) collecting seeds from the plants and planting the seeds elsewhere on the Project site.</p>	<p>Less than Significant</p>
<p><b>Impact Bio-2: Potential disturbance of nesting birds and nesting bird habitat.</b> Proposed grading and construction activities on the Project site and the PG&amp;E property may result in the removal of vegetation that can serve as nesting habitat for birds such as migrating songbirds. Removal of vegetation could also directly destroy nests, eggs, and immature birds, if present.</p>	<p><b>Mitigation Bio-2: Pre-Construction Nesting Bird Surveys.</b> The Project Applicant's biologist shall prepare a nesting bird survey three days prior to the removal of vegetation and/or commencement of construction. The purpose of the survey is to determine the absence or presence of nesting bird species. Nesting bird surveys shall be performed prior to January to identify any potential nesting trees prior to the birds laying eggs. If the survey does not identify any nesting special-status bird species in the area to be disturbed by the construction activity, no further measures are required.</p> <p>However, if nest sites or young are located, a no-disturbance buffer shall be established around the active nest. The biologist will establish a no-disturbance buffer of between 150 and 200 feet and the site protected until August 15 or until the young have fledged (typically 3 to 4 weeks).</p> <p>Further, if nests are found, removal of on-site shrubs and trees should be avoided; if removal cannot be avoided, then the removal of this vegetation should occur outside of the breeding season, (i.e., not between the months of January and July).</p>	<p>Less than Significant</p>

Potential Environmental Impacts	Recommended Mitigation Measures	Resulting Level of Significance
<p><b>Impact Bio-3: Potential impacts to aquatic life and wildlife habitat.</b> Grading and excavation activities could expose soil to increased rates of erosion and stormwater runoff during construction periods which could adversely affect aquatic life within the adjacent water features. Surface water runoff could remove particles of fill or excavated soil from the site, or could erode soil down-gradient, if the flow were not controlled. Deposition of eroded material in adjacent water features could increase turbidity, thereby endangering aquatic life, and reducing wildlife habitat.</p>	<p><b>Mitigation Bio-3: Stormwater Prevention Plan.</b> The Project sponsor shall comply with and implement <b>Mitigation Geo-1</b> which requires the preparation of a Storm Water Pollution Prevention Plan (SWPPP) and the use of best management practices (BMP's) such as hay bales, silt fencing, placement of straw mulch and hydro seeding of exposed soils during construction.</p>	<p>Less than Significant</p>
<p><b>Impact Bio-4: Potential Impacts to Wetlands.</b> Based on observations by biological resource consultants Zander and Olberding at a joint site visit in February 2012, there appears to be one small area of potential wetlands on the Project site that could be subject to the jurisdiction of the U. S. Army Corps of Engineers pursuant to Section 404 of the Clean Water Act. Disturbance of this area by grading or other activities, without proper permitting authorized by the ACOE, and appropriate mitigation, would result in a loss of wetlands and a significant impact of the Project.</p>	<p><b>Mitigation Bio-4: Wetland Delineation and On-Site Mitigation.</b> The Project applicant shall engage a qualified biologist to prepare a formal wetland delineation in accordance with ACOE protocols and shall submit the delineation documentation for formal review by the ACOE. If the ACOE determines that the one potential wetland area on the Project site is subject to ACOE jurisdiction, the Project applicant shall obtain the necessary permits from the ACOE to authorize disturbance or filling of such wetlands, and the Project applicant shall comply with all requirements of the ACOE permit which shall include, at a minimum, the designation of an area on the Project site of equal or greater size as the wetland area. The Project applicant shall ensure, to the satisfaction of the Alameda County Planning Director and the ACOE, that such on-site wetland mitigation area is preserved in perpetuity, which may be achieved by creating such an area within the Conservation Easement to be created in accordance with Mitigation Bio-5b and subject to the restrictions as set forth therein.</p>	<p>Less than Significant</p>
<p><b>Impact Bio-5: Potential interference with migratory wildlife corridors.</b></p> <p>a) Construction of Street A on the PG&amp;E property could interfere substantially with the movement of native resident wildlife species or with established migratory wildlife corridors and impede the use of native nursery sites.</p> <p>b) Grading, construction and resident use of homes on the upper elevations of the Project</p>	<p><b>Mitigation Bio-5a: Pre-Construction Nesting Bird Surveys.</b> To address the potential loss of native nursery sites, implement <b>Mitigation Bio-2</b> as described above on the PG&amp;E property.</p> <p><b>Mitigation Bio-5b: Establish Conservation Easement.</b> The Project shall incorporate a conservation easement across the lower elevations of the Project site, below the proposed limits of grading to prevent future grading alterations, private fencing and the introduction of non-native plants or animals, and to retain it in its current natural state, or allow planting of only native plant species. The</p>	<p>Less than Significant</p>

Potential Environmental Impacts	Recommended Mitigation Measures	Resulting Level of Significance
<p>site would reduce and restrict area for wildlife activity.</p>	<p>Easement shall prohibit structural or recreational improvements or grading disturbance of any kind not required for the installation and proper maintenance of the Storm water protection features. The conservation easement would ensure that to the extent the lower portions of the Project site are used as wildlife corridors, such use would be allowed to continue in perpetuity.</p> <p><b>Mitigation Bio-5c: Wildlife-Friendly Design Principles on PG&amp;E Property &amp; Around Stormwater Treatment Features.</b> Replacement grasses, planting and landscaping of the cut and fill slopes for Street A, the entryway, and around the bio-remediation and detention areas, shall comply with Bay-Friendly Landscaping Principles as determined by the County Planning Director, with an emphasis on enhancing wildlife habitat values. The gate to the PG&amp;E service road should be designed to accommodate passage by local mammals.</p>	
<p><b>Impact Bio-6: Conflict with local conservation regulations.</b> Removal of or damage to trees protected by the Fairview Area Specific Plan Tree Preservation Policies would be a potentially significant impact.</p>	<p><b>Mitigation Bio-6: Comply with the Fairview Area Specific Plan policies regarding the preservation of large, mature trees.</b> To assure compliance with the Fairview Area Specific Plan policies regarding the preservation of large, mature trees, the Project applicant shall:</p> <ul style="list-style-type: none"> <li>a) Adjust the grading plan for the construction of Street A so that natural grade is maintained within the drip line of the two Monterey cypress tree groups located uphill from Fairview Avenue on the PG&amp;E property at approximate elevation 590 feet;</li> <li>b) Adjust the grading plan further so as to maintain natural grades within the drip lines of the cluster of mature blue gum trees (<i>Eucalyptus globulus</i>) located on the easterly boundary of the PG&amp;E property at approximately elevation 675 feet, all in accordance with the recommendations of the Consulting Arborist.</li> <li>c) Remove the failed Monterey cypress from the PG&amp;E property and replace it with at least five (5) 15-gallon sized trees or one boxed, native specimen tree, the exact species, location and method of installation for which shall be approved by County Planning Director.</li> </ul>	<p>Less than Significant</p>
<p><b>Impact Geo-1: Soil Erosion during Construction.</b> The grading and construction associated with building 15 new homes as well as the access road into the site are activities that could lead to the substantial erosion of topsoil. Given the hilly topography of</p>	<p><b>Mitigation Geo-1: Construction General and SWPPP Permit.</b> The Project sponsor shall obtain coverage under the State Water Resources Control Board (SWRCB) Construction General Permit, including implementation of a Storm Water Pollution Prevention Plan (SWPPP) in accordance with procedures and specifications of the Alameda</p>	<p>Less than Significant</p>

<b>Potential Environmental Impacts</b>	<b>Recommended Mitigation Measures</b>	<b>Resulting Level of Significance</b>
<p>the Project site, construction activities including mass grading, roadway construction and building 15 new homes could potentially result in substantial soil erosion.</p>	<p>County Clean Water Program.</p> <ol style="list-style-type: none"> <li>1. The Project sponsor shall ensure that construction practices for the Project comply with practices to prevent water pollution under the provisions of the Construction General Permit. In order to obtain a permit, the Project Applicant must file a Notice of Intent (NOI) with the Regional Water Resources Control Board (RWQCB) prior to the start of construction.</li> <li>2. Pursuant to the requirements of the Construction General Permit, the Project sponsor shall prepare and implement a SWPPP. The SWPPP shall be consistent with the terms of the General Permit; the Manual of Standards for Erosion and Sedimentation Control Measures by the Association of Bay Area Governments (ABAG); the Best Management Practices (BMPs) as provided in the California Stormwater Quality Association (CASQA) handbooks; policies and recommendations of the local urban runoff program (County of Alameda); and the Staff Recommendations of the RWQCB. The SWPPP shall incorporate BMPs to reduce the potential for pollutants in runoff waters and to prevent pollutant transport off-site during construction activities. Examples of BMPs include, but are not limited to the following:               <ol style="list-style-type: none"> <li>a) Only clear land which will be actively under construction in the near term (e.g., within the next 6-12 months), minimize new land disturbance during the rainy season, and avoid clearing and disturbing sensitive areas (e.g., steep slopes and natural watercourses) and other areas where site improvements will not be constructed.</li> <li>b) Provide temporary stabilization of disturbed soils whenever active construction is not occurring on a portion of the site through water spraying or application of dust suppressants, and gravel covering of high-traffic areas. Provide permanent stabilization during finish grade and landscape the Project site.</li> <li>c) Safely convey runoff from the top of the slope and stabilize disturbed slopes as quickly as possible.</li> <li>d) Delineate the Project site perimeter to prevent disturbing areas outside the project limits. Divert upstream run-on safely around or through the construction. Runoff from the Project site should be free of excessive sediment and other constituents. Control</li> </ol> </li> </ol>	



Potential Environmental Impacts	Recommended Mitigation Measures	Resulting Level of Significance
	<p>tracking at points of ingress to and egress from the Project site.</p> <ul style="list-style-type: none"> <li>e) Retain sediment-laden waters from disturbed, active areas within the Project site.</li> <li>f) Perform activities in a manner to keep potential pollutants from coming into contact with stormwater or being transported off site to eliminate or avoid exposure.</li> <li>g) Store construction, building, and waste materials in designated areas, protected from rainfall and contact with stormwater runoff. Dispose of all construction waste in designated areas, and keep stormwater from flowing onto or off these areas. Prevent spills and clean up spilled materials.</li> </ul>	
<p><b>Impact Hydro-1: Construction-Period Erosion and Siltation.</b> Construction of the proposed Project would involve site grading for the access roadway over the PG&amp;E property, construction of the proposed on-site storm drain detention basin, trenching for underground utilities, and grading for the 15 home sites. Such disturbance would present a threat of soil erosion by subjecting unprotected bare soil areas to runoff during construction, which could result in siltation to receiving waters.</p>	<p><b>Mitigation Hydro-1. Implement Mitigation Geo-1.</b> File a Notice of Intent and obtain approval of and implement a Storm Water Pollution Prevention Plan (SWPPP) in accordance with Mitigation Measure Geo-1.</p> <p><b>Mitigation Hydro-2: Comply with the County Grading Ordinance.</b> The Project shall conform to all requirements and provisions of the Alameda County Grading Ordinance. As part of the Grading Ordinance, the Applicant shall obtain a water quality certification or waiver from the Regional Water Quality Control Board. This process ensures conformance to BMPs during construction to control wind and water erosion that could affect surface and ground water quality.</p> <p><b>Mitigation Hydro-3: Comply with the C.3 Provisions of the Alameda County Municipal Regional Stormwater National Pollutant Discharge Elimination System (NPDES) Permit (MRP) – NPDES Permit No. CAS612008.</b> The Project sponsor shall demonstrate compliance with the County's NPDES permit C.3 requirements by preparing a detailed Stormwater Management Plan (SMP), incorporating the most appropriate post-construction source control measures into the Project design. The Stormwater Management Plan shall be prepared during County's review of project engineering design and shall incorporate the required post-construction (permanent) stormwater quality controls. The SMP should include, but is not limited to demonstration of the following:</p> <ol style="list-style-type: none"> <li>1. The proposed finished grade,</li> <li>2. The storm drainage system including all inlets, pipes, catch basins, overland flows, outlets and water flow directions,</li> </ol>	<p>Less than Significant</p>

Potential Environmental Impacts	Recommended Mitigation Measures	Resulting Level of Significance
	<ol style="list-style-type: none"> <li>3. The permanent stormwater treatment system (soil and landscape-based treatment facilities, filters and separators), including all design details,</li> <li>4. Design details of all source control measures (preventing contact between stormwater and potential sources of pollution) and site design measures (reductions in flow from impervious surfaces) to be implemented,</li> <li>5. Calculations demonstrating that stormwater treatment measures are hydraulically sized as specified by the County's stormwater permit, and</li> <li>6. An Operations and Management Plan to ensure continued effectiveness of structural BMPs and implementation of non-structural BMPs.</li> </ol>	
<p><b>Impact Hydro-4: Increased Impervious Surfaces.</b> The Project would increase the amount of impervious surface area on the Project site. Absent an appropriately designed and managed stormwater prevention plan, increase in impervious surface area could increase the amount of surface runoff and allow pollutants to enter the storm drain system and potentially violate Storm Water Quality Regulations.</p>	<p><b>Mitigation Hydro-4:</b> Implement <b>Mitigation Hydro-3</b>, above.</p>	<p>Less than Significant</p>
<p><b>Impact Noise-1: Temporary Noise Impacts During Construction.</b> The construction of the Project would generate noise and would temporarily and intermittently increase noise levels at adjacent residential receivers.</p>	<p><b>Mitigation Noise-1: Construction Noise Control.</b> To ensure construction-period noise levels are reduced to the extent feasible, the following construction noise control Best Management Practices are required:</p> <ul style="list-style-type: none"> <li>• All construction contractors and subcontractors shall comply with the County Noise Ordinance.</li> <li>• Noise-generating activities at the construction site should be restricted to the hours of 7:00 a.m. to 7:00 p.m. on weekdays and 9:00 a.m. to 8:00 p.m. on weekends.</li> <li>• All internal combustion engine driven equipment will be equipped with intake and exhaust mufflers that are in good condition and appropriate for the equipment.</li> <li>• Locate stationary noise generating equipment as far as possible from sensitive receptors when sensitive receptors adjoin or are near a construction project area. Construct temporary noise barriers to screen stationary noise generating equipment</li> </ul>	<p>Less than Significant</p>

Potential Environmental Impacts	Recommended Mitigation Measures	Resulting Level of Significance
	<p>when located near adjoining sensitive land uses. Temporary noise barriers could reduce construction levels by 5 dBA.</p> <ul style="list-style-type: none"> <li>• Utilize "quiet" air compressors and other stationary noise sources where technology exists.</li> <li>• The contractor shall prepare a detailed construction plan identifying the schedule for major noise-generating construction activities. The construction plan shall identify a procedure for coordination with adjacent noise sensitive residences so that construction activities can be scheduled to minimize noise disturbance.</li> <li>• Designate a "disturbance coordinator" who would be responsible for responding to any local complaints about construction noise. The disturbance coordinator will determine the cause of the noise complaint (e.g., starting too early, bad muffler, etc.) and will require that reasonable measures warranted to correct the problem be implemented. The disturbance coordinator shall conspicuously post the coordinator's telephone number at the construction site and include it in the notice sent to neighbors regarding the construction schedule.</li> <li>• Control noise from construction workers' radios to a point where they are not audible at existing residences bordering the project site.</li> </ul>	
<p><b>Impact Traf-5: Hazards Due to Design Features. The proposed Project includes installation of a new roadway intersecting Fairview Avenue that could result in hazards due to an insufficient sight distance for outbound left turns from the Project entrance or for merging with westbound traffic at peak periods.</b></p>	<p><b>Traf-5: Project Driveway Design Modification.</b> . The Project applicant will:</p> <p>a) Construct an acceleration lane for outbound traffic turning right and heading westbound on Fairview Avenue. The westbound acceleration lane will allow outbound vehicles greater sight distance for the right turn movement, allowing motorists to better find gaps in westbound traffic.</p> <p>b) Design the project driveway to prohibit outbound left turns for project vehicles, for which there is inadequate sight distance. Outbound turning vehicles destined for eastbound Fairview Avenue will instead turn right onto westbound Fairview Avenue and reverse direction at the Fairview/Hansen roundabout approximately 1,800 feet west of the project driveway. Elimination of the outbound left turn is expected to improve safety for such vehicles.</p> <p>c) In coordination and consultation with Alameda County Traffic Engineering division, the Project</p>	<p>Less than significant</p>

<b>Potential Environmental Impacts</b>	<b>Recommended Mitigation Measures</b>	<b>Resulting Level of Significance</b>
	applicant shall arrange for the installation of traffic calming devices including but not limited to precautionary signage near to or ahead of the curve east of the driveway, warning westbound vehicles of cross-traffic ahead, advising motorists to slow to 20 (or 25) mph, or installing an additional radar speed detection and display device. Design and implementation of such devices are subject to engineering study and to the review and approval of the County Director of Public Works.	
<b>Impact Traf-6: Emergency Access.</b> The proposed Project includes a new internal roadway system with only one connection to existing roadways, resulting in inadequate emergency access absent a second means of access to and from the site.	<b>Design Review for Emergency Access.</b> It is expected that the Project's emergency access elements will be reviewed with design-level project approvals by the County and would be required to meet applicable regulations.	Less than significant
<b>Impact Traf-7: Construction.</b> Construction-related impacts resulting from daily trips involving construction workers, delivery of supplies and materials and the movement of construction equipment to and from the site generally would not be considered significant due to their temporary and limited duration. However, depending on the construction phasing and truck activity, this is a <i>potentially significant</i> impact.	<b>Traf-7: County Review of Construction Plan.</b> The Project applicant shall prepare a Construction Operations Plan detailing the anticipated schedule of trips involving construction workers and equipment and delivery of materials and supplies, to and from the Project site during the various stages of construction activity, including phases for earth movement (grading), roadway construction, installation of backbone utilities (water, sewer, drainage, electricity, gas, CATV, etc.), and construction of houses. The Plan will be reviewed by the County of Alameda for compliance with applicable regulations.	Less than significant
<b>Less than Significant Impacts</b>		
Aesthetics - Scenic Corridor	No mitigation warranted.	N/A
Aesthetics - Changed Visual Character.	No mitigation warranted.	N/A
AQ: Operational Emissions.	No mitigation warranted.	N/A
AQ: Construction Period Exposure of Sensitive Receptors.	No mitigation warranted.	N/A
AQ: Operational Period Exposure of Sensitive Receptors.	No mitigation warranted.	N/A
Geo re: Seismic Hazards	No mitigation warranted.	N/A
Geo re: Unstable Soils	No mitigation warranted.	N/A
Geo re: Expansive Soils	No mitigation warranted.	N/A

<b>Potential Environmental Impacts</b>	<b>Recommended Mitigation Measures</b>	<b>Resulting Level of Significance</b>
Geo re: Septic Tanks	No mitigation warranted.	N/A
GHG Emissions	No mitigation warranted.	N/A
Consistency with GHG Plans	No mitigation warranted.	N/A
Routine transportation, use or disposal of hazardous materials.	No mitigation warranted.	N/A
Emission of hazardous or acutely hazardous materials, or involve a site on the Cortese list, be exposed to hazards associated with a private air strip or airport, or interfere with an emergency evacuation plan	No mitigation warranted.	N/A
Exposure of people to hazards associated with wildland fires.	No mitigation warranted.	N/A
Impacts on groundwater	No mitigation warranted.	N/A
Ground-borne Noise and Vibration: There are no sources of ground-borne noise or vibration that affect the Project area or would result from development of the Project area.	No mitigation warranted.	N/A
Permanent Noise Levels.	No mitigation warranted.	N/A
Aircraft Noise: The Project site is located more than two miles from the closest municipal airport.	No mitigation warranted.	N/A
Cumulative Noise: The Project would not make a cumulatively considerable contribution to increased traffic noise in the area.	No mitigation warranted.	N/A
Population & Housing: The Project would result in an increase of 41 residents at the Project site. The impact related to population growth would be less than significant.	No mitigation warranted.	N/A
Public Services: Increased Public Service Demand. The Project would increase the number of residents at the site. However, the Project could be adequately served with existing facilities and the impact related to public services would be less than significant.	No mitigation warranted.	N/A
Impact Traf-1: Project-Generated Traffic. Traffic generated by the proposed Project would increase traffic levels at vicinity intersections. However, these increases would	No mitigation warranted.	N/A

<b>Potential Environmental Impacts</b>	<b>Recommended Mitigation Measures</b>	<b>Resulting Level of Significance</b>
either still be within acceptable service levels or not contribute to delays above threshold levels. This is a less than significant impact.		
Impact Traf-2: Project-Generated Bicycle Demand: Bicycle use would increase in the vicinity of the Project but would not conflict with adopted policies, plans or programs.	No mitigation warranted.	N/A
Impact Traf-3: Project-Generated Pedestrian Demand. The Project may result in a small increment of pedestrian activity in the vicinity but would not be in conflict with adopted plans, policies or programs.	No mitigation warranted.	N/A
Impact Traf-4: Project-Generated Transit Demand. The Project may increase levels of transit usage in the vicinity. However, the Project has adequate access to existing transit services with available capacity and would not impede or interfere with existing services.	No mitigation warranted.	N/A
Impact Traf-8: Project-Generated Traffic Contribution to Cumulative Levels. Traffic generated by the proposed Project would contribute to cumulative increases in traffic levels at vicinity intersections. However, other than those listed in separate impacts, these increases would either still be within acceptable service levels or the Project would not contribute a cumulatively considerable level to delays or speed reductions.	No mitigation warranted.	N/A
Impact Util-1: Increased Water Demand and Wastewater Generation. The proposed Project represents new development and related increases in water demand and wastewater generation within the existing service areas for East Bay Municipal Utilities District (EBMUD) and the Oro Loma Sanitary District. As a standard condition of any project, the proposed Project will pay appropriate development impact and utility connection fees toward ongoing improvement and maintenance of the water and wastewater systems and comply with all applicable regulations regarding utility sizes and	No mitigation warranted.	N/A

<b>Potential Environmental Impacts</b>	<b>Recommended Mitigation Measures</b>	<b>Resulting Level of Significance</b>
connections. While the proposed Project would lead to an increase in demand for water and generation of wastewater, it would utilize existing water facilities and resources and would not cause an exceedance of wastewater treatment requirements or result in the need for new off-site facilities.		
Impact Util-2: Increased Solid Waste Generation. The Project would increase solid waste generation at the site but would be served by a landfill with sufficient permitted capacity to accommodate the Project's solid waste disposal needs, and would not impede the ability of the County or the City of Hayward to meet the applicable federal, state and local statutes and regulations related to solid waste.	No mitigation warranted.	N/A
Impact Util-3: Increased Energy Consumption. The Project would have an incremental increase in the demand for gas and electrical power. However, the Project is expected to be served with existing capacity and would not require or result in construction of new energy facilities or expansion of existing off-site facilities and would not violate applicable federal, state and local statutes and regulations relating to energy standards.	No mitigation warranted.	N/A

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## PROJECT DESCRIPTION

### INTRODUCTION

This chapter describes the Project location, existing land uses at the Project site, details of the proposed Project, the Project objectives, and intended uses of the EIR.

### PROJECT SITE

#### LOCATION

The Project site is a 10.1-acre undeveloped property located on the north side of Fairview Avenue, approximately 1,000 feet east of Jelincic Drive in the Fairview area of unincorporated Alameda County. The Project site is comprised of two parcels owned by Lerob LLC, and identified as Assessor's Parcel Number (APN) 417-0260-4-0 (7.52 acres) and APN 417-270-9-0 (2.56 acres). The smaller of the two parcels is approximately 350 feet north of Fairview Avenue and has no street frontage; the larger parcel is a flag lot with a narrow (21 feet wide) stem connecting to Fairview Avenue, but the majority of its area is 750 feet northeast of Fairview Avenue, 'behind' the smaller parcel. (**Figures 3.1 - 3.3**).

The Project applicant has acquired an easement within a roughly 2-acre portion of an adjacent 11.6-acre parcel (APN 417-260-5-0) owned by Pacific Gas & Electric (PG&E). The easement allows for the construction of a roadway ("Street A") that would provide vehicular access to the Project site from Fairview Avenue. For the purposes of this EIR, the Project and the Project site include this portion of the PG&E property.

To simplify compass directional references in this EIR, Fairview Avenue is considered to run in a generally east-west orientation and to form the Project site's southern edge; the development known as the "Jelincic Subdivision" (Tract 6102) is to the west, the PG&E power line corridor is to the east, and a large area of private lands and public open space is to the north (the Five Canyons development is farther north). **Figure 3.1** shows "Reference North" as used in this document as well as True North.

The PG&E property is used as a high voltage power line corridor. Pylons support twin sets of 230 Kv (kilovolt) power lines that are part of PG&E's electric power distribution system. Aside from the pylons and overhead power lines, the PG&E property is undeveloped and also functions as an open space corridor between residential homes to the east (on Old Fairview Avenue) and the Project site on the west, and continues downhill to the south from Fairview Avenue through existing rural residential and vineyard properties and extends to the north through the Five Canyons community.

The Project site and the adjacent PG&E property have been leased to a local cattle rancher for horse and cattle grazing. A corral, located at the high point on the PG&E property, is where the rancher provides water and feed to his livestock to supplement on-site grazing. Other than infrequent visits by the rancher, and grazing by the livestock, there are no other activities occurring at the Project site.



## GENERAL PLAN DESIGNATION

The land use designation of the Project site, as provided in the *Fairview Area Specific Plan*, is “R-1-B-E.” This is a single-family residential land use category (R-1) that is subject to an overlay zone (“B-E”) requiring minimum lot sizes of 10,000 square feet. The *Fairview Area Specific Plan*, adopted September 1997, is part of the Alameda County General Plan and is the operative land use policy document for this part of unincorporated Alameda County. In addition, the Fairview Area is within the area covered by the Eden Area Plan, an element of the Alameda County General Plan.

## EXISTING SITE CONDITIONS

The Project site, comprised of the 10.1-acre nearly rectangular development area, together with a 2-acre access easement on the adjacent PG&E property, encompasses approximately 12 acres with an overall irregular shape extending north of Fairview Avenue. The Project site’s dimensions are approximately 1,250 feet long by 340 feet wide, but the southern boundary of the development area narrows to about 240 feet, with a narrow stem extending between Fairview Avenue and the main part of the Project site. The site is mostly hilly with slopes of 20 to 30 percent on each side of a ridge dividing its northern and southern portions.

Slopes near the ridge top are between 5 and 15 %, and the overall average slope on the Project site is about 23%. The ridge descends gently from a knoll on the PG&E parcel in a northwest direction across the site (about 25 feet downwards at a 7% slope), and then continues north along the west side of the site towards its northern boundary, with elevation changes of less than five feet. There is a slight saddle on the ridge, with a shallow depression that fills with water during the rainy season (15 to 20 feet across and not more than a few inches deep). The southern portion of the Project site slopes downward to the southwest into a steep-sided bowl, below and west of which is a relatively large (3-acre) undeveloped parcel and beyond to the west, the Jelincic subdivision. The northeastern portion of the Project site slopes down to the east towards the non- easement portion of the PG&E parcel, within which is a small drainage flowing north into a tributary of San Lorenzo Creek, in a large deep valley north of the Project site. Beyond that, farther north, is the Five Canyons residential development.

The Project site is undeveloped, and has been used for horse and cattle grazing but not for any known human residential use in the past century. There are no structures on the property. The site is dominated by non-native grasses and thistles; a dense copse of eucalyptus trees and large shrubs are located on the lower elevation of the PG&E property adjacent to the northeast corner of the Project site. A pile of rocks and small boulders (mostly under 2 feet in diameter) is located near the ridge where it crosses the middle of the site. Another pile of dirt, believed to have been deposited on the Project site by the grading contractor for the adjacent Jelincic subdivision, is located towards the far northerly end of the ridge. The narrow stem of the larger parcel appears as an unpaved gravel road or lane. The rancher whose cattle and horses graze the site has used this narrow strip as his means of access to the upper elevations of the site to bring water and to service his livestock. PG&E personnel also use this as their means of access to service the PG&E power line tower.

Aerial and site photos reflect the existing character of the site (**Figure 3.3** and **Figures 3.13 through 3.17**). The site provides exceptionally broad vistas across Hayward to San Francisco Bay and the peninsula beyond, as well as the East Bay hills east and north of the Fairview area. Views to the northwest extend to Mt. Tamalpais in Marin County. The site is one of the highest and largest undeveloped sites in the vicinity.

The PG&E parcel slopes upward fairly steeply from an elevation of about 550 feet above mean sea level at Fairview Avenue to a knoll at the top at about 700 feet elevation where there are two pylon

structures supporting PG&E transmission lines. The power lines continue north towards the Five Canyons area, splitting off to (or merging from) separate lines to the north and east. The easement area of the PG&E parcel is predominantly an open slope of native and non-native grasses, with two groups of mature Monterey cypress trees about 100 feet up slope from Fairview Avenue. Horses are kept in a corral near the twin pylons at the top of the slope.

## **SURROUNDING LAND USES AND SETTING**

The Fairview area of Alameda County consists of gently rising elevations above downtown Hayward, characterized primarily by single family residential development and served by several arterial roadways. Historically, Hayward and the hills to the north and east were used for various forms of agriculture, the hilly area primarily being used for cattle and horse grazing and for chicken farms. Over the past 20 to 30 years, more and more large parcels in the Fairview area have been developed with suburban-style residential subdivisions.

The surrounding area contains a mixture of rural residential parcels, suburban tract homes, small subdivisions, individual lots and agricultural or undeveloped properties of between one and ten acres, such as the Project site. The largest single use in the vicinity is the 34-acre Lone Tree Cemetery, about ¼ of a mile west of the PG&E property, at the southeast corner of Fairview Avenue and Hansen Road. The properties south of Fairview Avenue, from the cemetery on the west extending to the round-about at Star Ridge Road on the east are semi-agricultural and rural residential in character and sparsely developed, with horse uses (e.g., pastures, small barns, etc.) with a few supporting small-scale grape vineyards. In the opposite direction, to the north, there are three large undeveloped but steep and mostly wooded parcels of between 2 and 12 acres, with access from Old Quarry Road. Other large undeveloped parcels are nearby, including the northern portion of the PG&E power line property immediately east of the Project site, several properties directly west of the Jelincic subdivision (towards D Street), some of which are in common ownership, and an undeveloped 4.3-acre site located at 24830 Fairview Avenue (between Walters-Dinos Court and Jelincic Drive which was previously a proposed 13-lot subdivision that was never approved (Tract 7921).

Further north (and directly bordering the PG&E parcel, but roughly 200 feet from the northeastern corner of the Project site) is a large portion of the Five Canyons Open Space owned and managed by the East Bay Regional Park District, dominated by a long wooded valley that extends about 1.3 miles in a northwesterly direction towards Don Castro Reservoir. An active recreational park facility borders the open space area to the east (Five Canyons Park, managed by the Hayward Area Recreation and Park District). Beyond these parklands, to the north and west is the Five Canyons development area of generally single family residential uses, with some subareas of attached townhomes.

Several subdivisions developed since the 1980s and '90s are in the vicinity of the Project site, such as the adjacent Jelincic development (Tract 6102) - a 40-lot single family subdivision that is partially built out, a residential enclave of several single family homes that front on Old Fairview Avenue east of the PG&E parcel, and about 20 homes along Blackstone Court (an area that also contains an East Bay Municipal Utilities District [EBMUD] water tank). Almost directly northwest of the Jelincic subdivision is a subdivision of about 30 homes along Machado Court. The 70s-era subdivision on Walters-Dinos Court lies south of the Project site and directly west of the PG&E parcel and is fully built out with 7 single-family homes.

## PROJECT DESCRIPTION

### 15-lot Subdivision, Access and Circulation

The property is owned by Lerob LLC, a wholly-owned subsidiary of the Boston Private Bank & Trust Company, acquirers of the former Borel Bank of San Mateo. The Project applicant, Northbrook Homes, is acting as an agent for Lerob LLC in its pursuit of land use entitlements and environmental clearances that would permit and authorize the subdivision of the site into 15 separate residential lots. The lots would have a minimum size of 10,000 square feet, as shown on the Preliminary Site Plan (**Figure 3.4**). To access the site, Street A is proposed, beginning at Fairview Avenue on the PG&E property. Street A would climb the hillside in a gentle switchback manner to maintain acceptable (15% maximum) grades and then cross onto the large, flatter plateau in the middle of the Project site, approximately 150 feet in elevation above Fairview Avenue. Street A would continue northward along the site's western edge to provide access to lots 7 - 15. One short cul-de-sac (Street B) would access lots 1 - 6. The Project also includes a vehicular connection to the Jelincic subdivision at Karina Street, providing an emergency vehicular access (EVA) for both subdivisions.

Of the 10.1 acres of the site, 4.1 acres would comprise the individual lots, 4.4 acres would be established as conservation parcels C, E and F (including a stormwater detention basin), the private streets would constitute 1.2 acres and other unusable parts of the site would comprise 0.4 acres. Based on the *Fairview Area Specific Plan* method for determining maximum allowable density, the site has a gross developable site area of 5.2 acres, which is the total site area less: a) slopes of 30 percent or greater (3.3 acres); b) riparian and wetland areas (0.02 acres); and c) private streets including guest parking spaces (1.2 acres) and d) other "unservable or undevelopable" parts of the site (0.4 acres). The maximum allowable density for the R-1-B-E (single family residential, 10,000 square foot minimum building site area) as provided in the *Fairview Area Specific Plan* is 3.5 units per acre of the gross developable site area, or, in the case of the Project, 18 lots, three more than the proposed 15-lot subdivision. The individual lots would range between 10,026 and 16,617 square feet, and have an average area of 12,019 square feet. The average median lot width (measured midway between the front and rear property lines) would be 90 feet and range between 68 and 158 feet.

### Water and Wastewater Utilities

Water service in the area is provided by East Bay Municipal Utilities District (EBMUD). Service to the future homes and for landscape irrigation would be provided by way of a connection to the existing underground water supply line that serves the Jelincic subdivision. Wastewater infrastructure would connect sewer laterals from Project homes to a main sanitary sewer in the Street A and Street B rights-of-way and would flow downhill and connect either to the main sewer trunk line in Fairview Avenue or would be installed beneath Karina Street and connect to the main trunk line that serves the Jelincic subdivision at a point approximately 200 feet downhill.

### Geotechnical Considerations

A preliminary geotechnical investigation of the project site was performed by Berloger Geotechnical Consultants on behalf of the applicant.<sup>1</sup> The findings of the Berloger investigation were based in part on the soil conditions found in eight test pits of between 4 and 13 feet deep at different locations on the Project site. The investigation identified two large areas of colluvium along with other, more stable

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<sup>1</sup> Berloger Geotechnical Consultants, *Preliminary Geotechnical Investigation Borel Bank Properties Residential Subdivision, Fairview Avenue, Hayward, California*. July 8, 2010. (included in this Draft EIR as **Attachment 5**)

areas of hard Panoche sandstone and clay shale. One of the colluvial areas is the bowl-shaped area in the southern portion of the site (to the southwest of the twin PG&E pylons); the other is the lower portion of the sloped area in the northeastern part of the site, below Lots 7 - 12. Colluvium is a problematic material in terms of slope stability; when saturated in major storm events, areas of colluvium are prone to slope failure.

In accordance with the Berloger recommendations, the colluvial material would need to be over excavated, removed from its current location and stored temporarily elsewhere on site; then a keyway is installed at the base of the excavation, along with subdrains. A keyway is a specially-formed amount of fill material that is placed at the foot of the excavated area that serves to stabilize the slope above; subdrains are used to facilitate the outflow (seepage) from future rainfall and percolation and enhance slope stability. Once these steps are completed, the excavated material, mixed at a ratio of approximately 50-50 with material excavated from other parts of the site, would be placed back into the excavated area, above the keyway, and compacted in place in accordance with engineering criteria, reestablishing the original slope and contour of the site. Once these corrective measures are completed, the risk of slope instability is substantially mitigated, thereby allowing the construction of streets and building pads, above. The two locations on the Project site where colluvial material has been identified are shown on Plate 2 of the Berloger report (**Attachment 5**).

### Storm Water and Drainage

The proposed plan for stormwater management has been designed to comply with Alameda County's current hydro-modification requirements which include the use of a linear bio-filtration system along the downslope (western) edge of Street A. The bio-filtration feature is designed to absorb and filter stormwater from the street surface, pavements, landscaped areas and from rooftop downspouts; stormwater flows that exceed the absorption capacity of the filtration feature would flow by gravity to an on-site stormwater detention basin. Stormwater would be held in the detention basin and released on a controlled basis so that the amount of stormwater leaving the site, at full buildout, would not exceed the amount or rate of runoff from the existing undeveloped property. Outflow from the detention basin would be conveyed in a pipe beneath Street A and would discharge into the main storm drain pipe in Fairview Avenue. (See the Preliminary Site Plan, Preliminary Grading Plan, Preliminary Utility Plan and Preliminary Stormwater Protection Plan in **Figures 3.4 - 3.7**).

## **SITE PLAN AND ARCHITECTURAL DESIGN CONCEPTS**

The Preliminary Site Plan (**Figure 3.4**) shows the proposed lot lines and designated building envelopes on each lot indicating where future homes would be built. Standard lot widths are 75 or 80 feet with minimum 15-foot side yards; some lots are considerably wider and larger than others. The houses would be sited so as to conform to setback standards and height limitations of the *Fairview Avenue Specific Plan* and applicable provisions of the County Zoning Ordinance.

Preliminary architectural plans for future houses on the Project site have not been submitted for review. However, the Project applicant has indicated that there would be three different house plans, two (2) two-story plans and one (1) single-story plan. Two-story homes would be built on the eight (8) split-level downslope lots (Lots 6, and 8-14); one-story homes would be built on the seven (7) flat-pad lots (Lots 1-5, 7 & 15). Each home would have a two-car enclosed garage and an entry porch. Varying elevations incorporating exterior detailing would be developed for each plan type. The homes would range from 2,000 to 2,800 square feet. Elevations would be designed to minimize the appearance of mass when viewed from the street. Varied rooflines and features such as nested gables would reduce the apparent mass of each home to smaller elements and provide variation and visual interest. Exterior materials would utilize Hardiplank or equivalent hardboard siding with wood details, such as Juliette

balconies, columns, vents and other embellishments. Each home would incorporate stone into the porch column bases. Variety in the wood and stone elements would be intended to create a degree of individuality to each home. The materials and detailing on the front elevation would be applied consistently on all sides of each home.

Landscaped areas would be irrigated with an automatic irrigation system; irrigated lawn areas would be minimized. In addition to meeting California's Title 24 energy standards, the Project would be built in compliance with the CalGreen California Green Building Standards Code which guides both building and irrigation systems. The landscaping plan would apply Bay-friendly landscaping practices.

Homes would be designed to be solar-ready, designed structurally to carry the additional roof loads and equipment locations anticipated in the final design. Each home would also include a dedicated circuit in the garage for charging electric vehicles.

Architectural designs for the houses, when submitted, will be reviewed for conformance with the County's Residential Design Guidelines, which are expected to be adopted by September 2014, when the proposed homes will be subject to a Site Development Review.

## **OTHER PROJECT FEATURES**

### **1. Conservation Parcels C, E and F**

The Site Plan includes designation of three parcels (Parcels C, E and F) as "Conservation Parcels" which are parts of the Project site that would be preserved in perpetuity as open space. As noted above, the unstable colluvial material occurs mostly in Parcels C and E and, based on the recommendations of the geotechnical engineer, substantial excavation and soil replacement would be required to achieve acceptable slope and soil stability criteria. In addition, grading on Parcels C and F would be required for Street A and to construct the stormwater detention basin.

### **2. Lot 6**

Because existing and prevailing slopes on Lot 6 exceed 30% slope, and grading-related policies, principles and guidelines in the *Fairview Area Specific Plan* recommend against alteration or development of such slopes except as needed for roads or custom-designed homes, the home on Lot 6 will be custom-built on pier and grade beams instead of on an excavated pad, thereby substantially retaining the existing grades and contours on Lot 6. A cross-section illustration of a home on Lot 6 is shown in **Figure 3.10**.

### **3. Public Multi-Use Trail**

In response to concerns expressed during public meetings and long-standing community desires for an improved trail system in the Fairview area, the Project applicant has agreed to include construction of a 10-foot wide trail between Fairview Avenue and the northern edge of the Project easement on the PG&E property – approximately where the twin pylons are located at the top of the slope. Extending and connecting the trail from this initial segment across the balance of the PG&E property would be the responsibility of others, to be determined; the Project applicant's commitment to build the initial segment of the trail would be conditioned upon similar commitments from other entities to complete the trail. Once the full extent of the trail is completed it would enable trail users to connect to an existing trail near the terminus of Blackstone Court and, from there, connect to trails in the Five Canyons Open Space. The trail would be designed to accommodate equestrians, bicycles and hikers.

#### 4. Fencing Along Karina Street

In response to a concern expressed by the owner of the new house on Karina Street in the Jelincic subdivision, the Project includes construction of a 6 foot tall fence along the west edge of Street A between lots 7 and 15, with a gate at the location of the emergency access connection between Street A and Karina Street. The fence would be made of a solid material (e.g., wood) to minimize nighttime glare effects from the wash of car headlights along Street A.

### CONSTRUCTION SCHEDULE

The Project applicant's preliminary schedule for Project construction indicates that rough grading and construction of Street A, Street B, the storm water detention basin, and installation of trunk infrastructure (e.g., drainage, water and sewer utilities, power and cable TV) and grading for the 15 home sites would occur in one phase between May and mid-October of 2015. Home building would commence in August 2015 and be completed by mid- 2016.

### PROPOSED GRADING

The Preliminary Grading Plan (**Figure 3.5**) involves movement of approximately 63,000 total cubic yards (cy) of material, of which approximately 36,000 cy is excavated for Street A on the PG&E parcel; grading for Lots 1-5 and Street B would involve the remaining 27,000 cy. **Figure 3.18** graphically depicts where material would be excavated ("cut" - in red) and where it would be placed ("fill" - in blue).<sup>2</sup> Cuts and fills would be balanced resulting in all material being utilized on site, thereby avoiding off-haul of material elsewhere. Some of the cross-section illustrations that are shown on the Preliminary Grading Plan (**Figure 3.5**) are more easily seen in **Figures 3.8 - 3.12**; these cross sections illustrate the extent to which the grading plan would change the physical shape and contour of the Project site, at different locations. The grading required for Street A on the PG&E parcel is illustrated in Cross Sections I-I and G-G, (**Figures 3.11 and 3.12**). Section I-I shows the deepest cut on the PG&E parcel required for Street A of approximately 30 feet; cross section G-G taken across Street A slightly farther uphill (**Figure 3.12**) shows a series of 5-foot retaining walls; other retaining walls are required along the side yards of Lots 1, 7 - 10 and 13, with wall heights ranging from 3 to 6 feet. Existing elevations near Street B would be re-contoured and lowered by about 8 feet for the building pad for Lot 4, while the high point of the ridge at the northwestern corner would be lowered by about 2 feet.

### PROJECT OBJECTIVES

The Project applicant's main objective in undertaking the Project is to:

Provide high quality market-rate single-family homes on a desirable site compatible with surrounding residential development.

Secondary objectives of the Project are to:

1. Create an on-site stormwater control and detention system that meets current County and Regional Water Board engineering requirements, and provides relief to chronic flooding problems downstream on the North Fork of Sulphur Creek;

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<sup>2</sup> Figure 3-18 was prepared in 2010 and was based on an earlier 18-lot site plan and is not consistent with the current 15-lot Project proposal. Nevertheless, the figure provides a fair indication of where material would be cut and where it would be placed, as described above.

2. Grade and develop the site so as to direct all impervious surface drainage through bio-filtration facilities and thence to a single detention basin that is easily accessible;
3. Avoid or minimize the off-haul of excavated earth by using cut and fill material on-site;
4. Create an emergency vehicular access (EVA) for mutual access to/from the adjacent Subdivision Tract 6102; and
5. Provide a public equestrian, bicycle and hiking trail on the easement portion of the PG&E property.

## **INTENDED USES OF THE EIR AND REQUIRED APPROVALS**

The Draft and Final EIR for the Project will be relied upon by other public agencies in considering their approval of the following required permits and plans:

- Tentative Subdivision Map - Alameda County Planning Commission
- Grading Plan - Alameda County Public Works Agency
- Stormwater Pollution Prevention Plan - Alameda County Public Works Agency

Permits granted pursuant to Sections 401 and 404 of the Clean Water Act regarding the filling of jurisdictional wetlands may be required from the following two agencies:

- U.S. Army Corps of Engineers
- San Francisco Bay Regional Water Quality Control Board (RWQCB)

Figure 3.1: Site Location

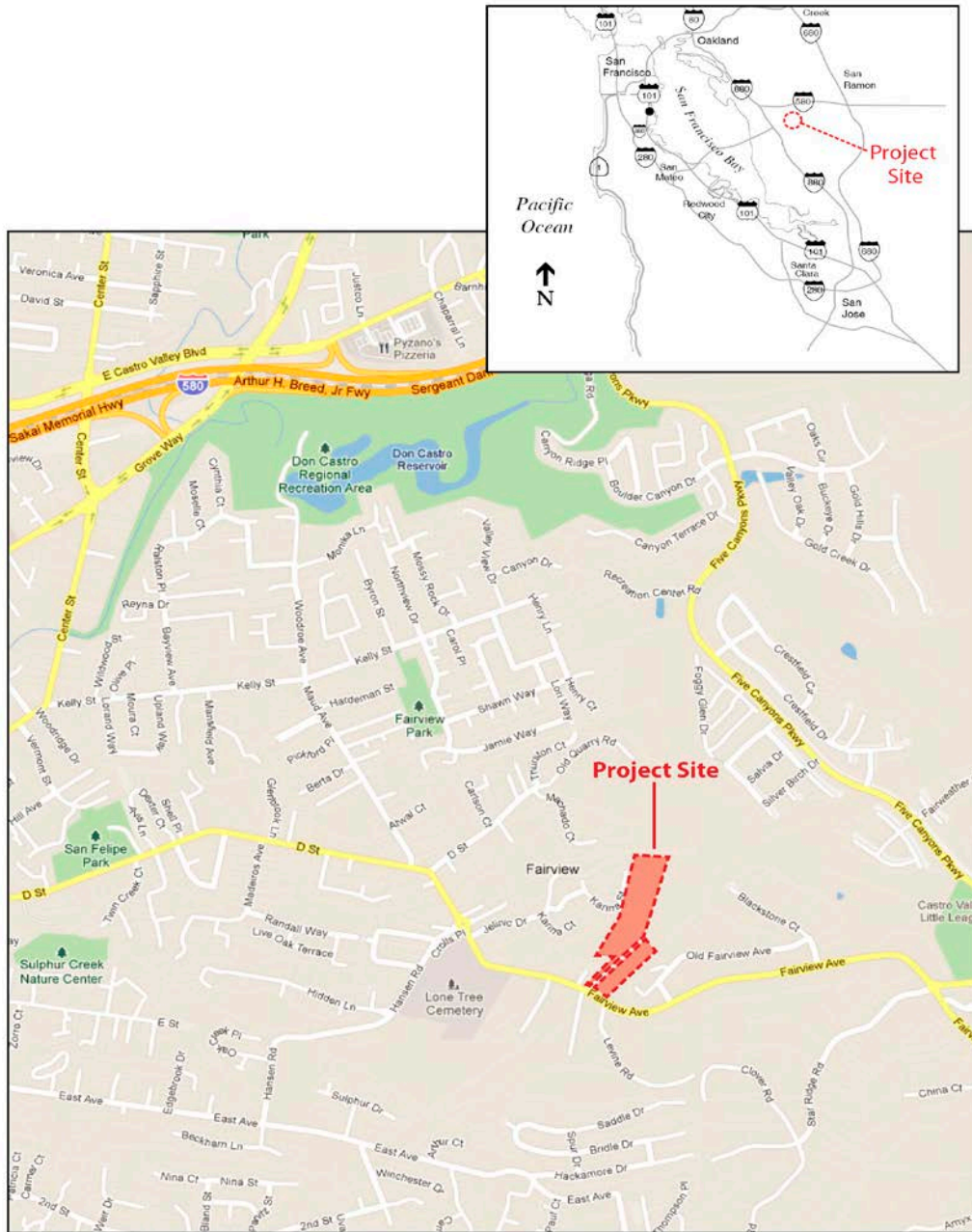




Figure 3.2: Parcels Comprising the Project Site

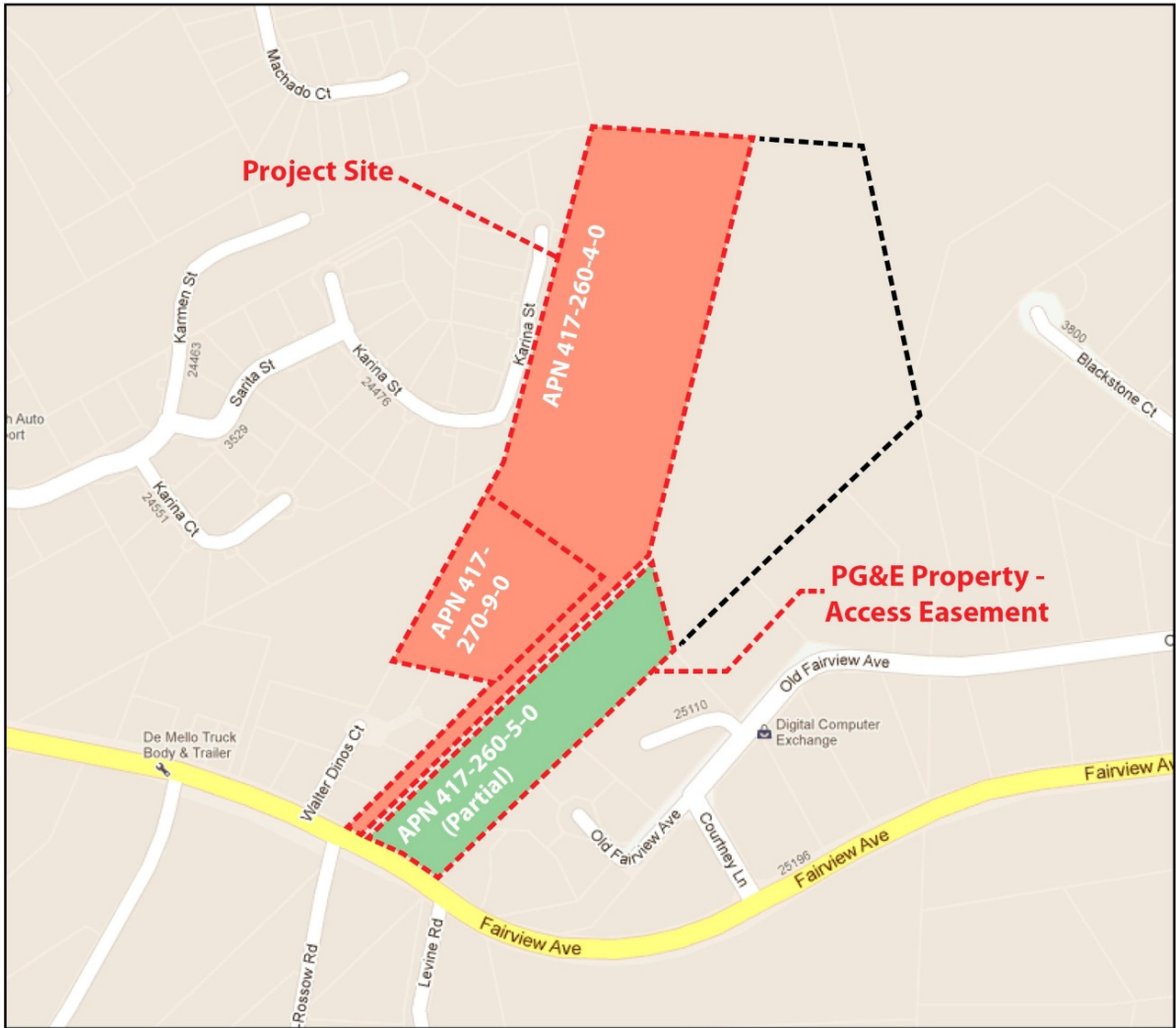


Figure 3.3: Aerial Photo



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Figure 3.4: Preliminary Site Plan

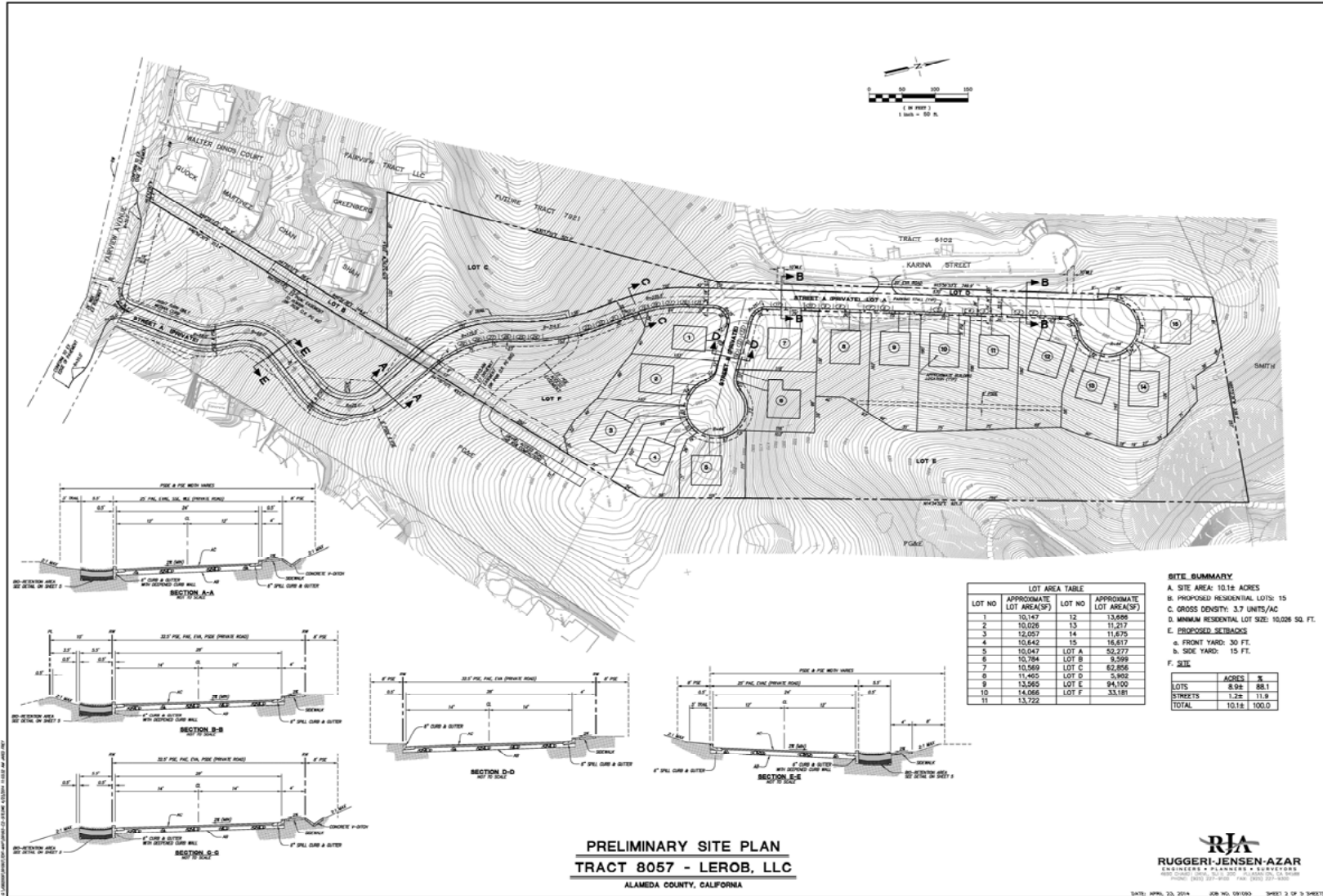


Figure 3.5: Preliminary Grading Plan

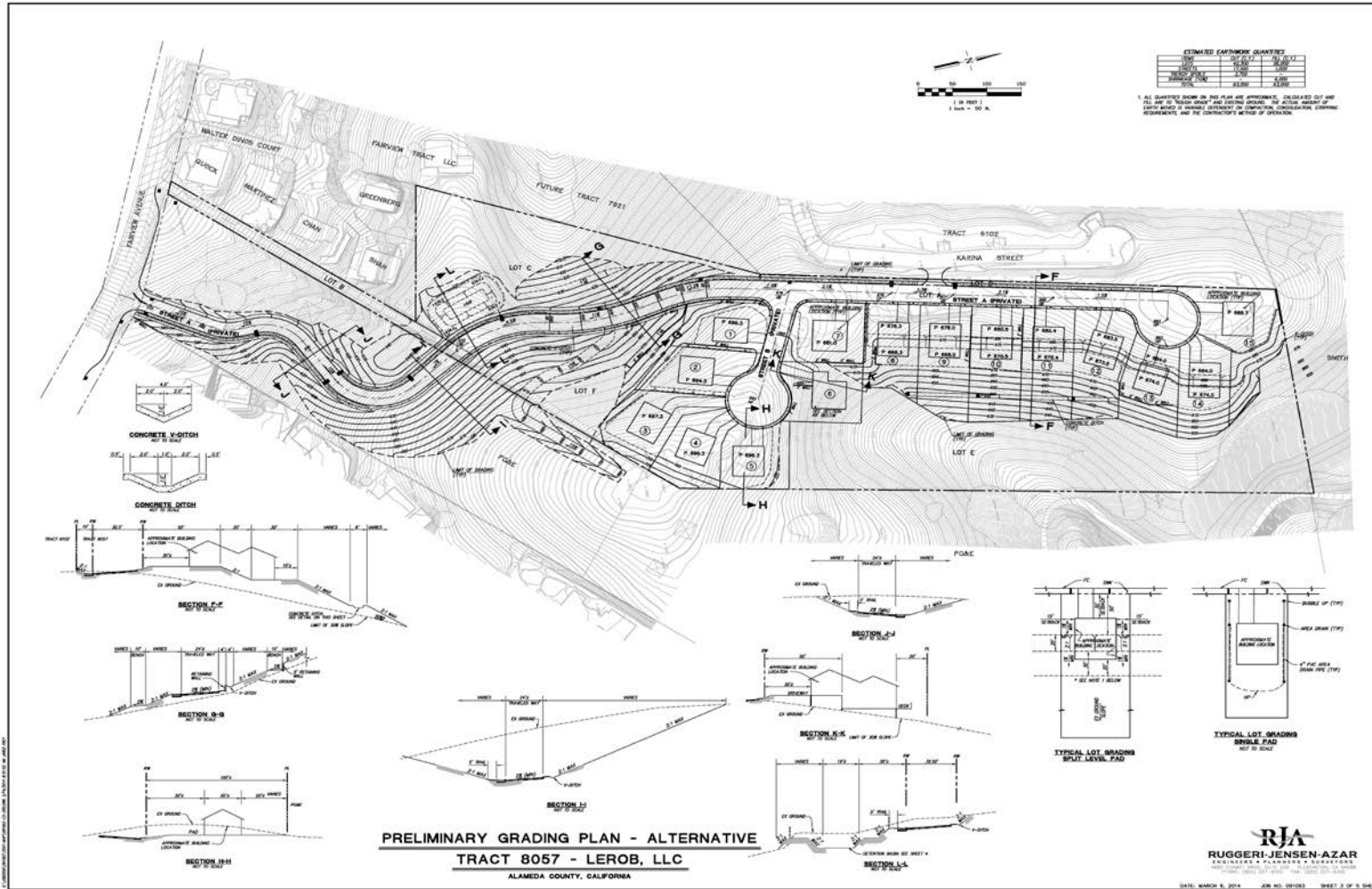


Figure 3.6: Preliminary Utility Plan

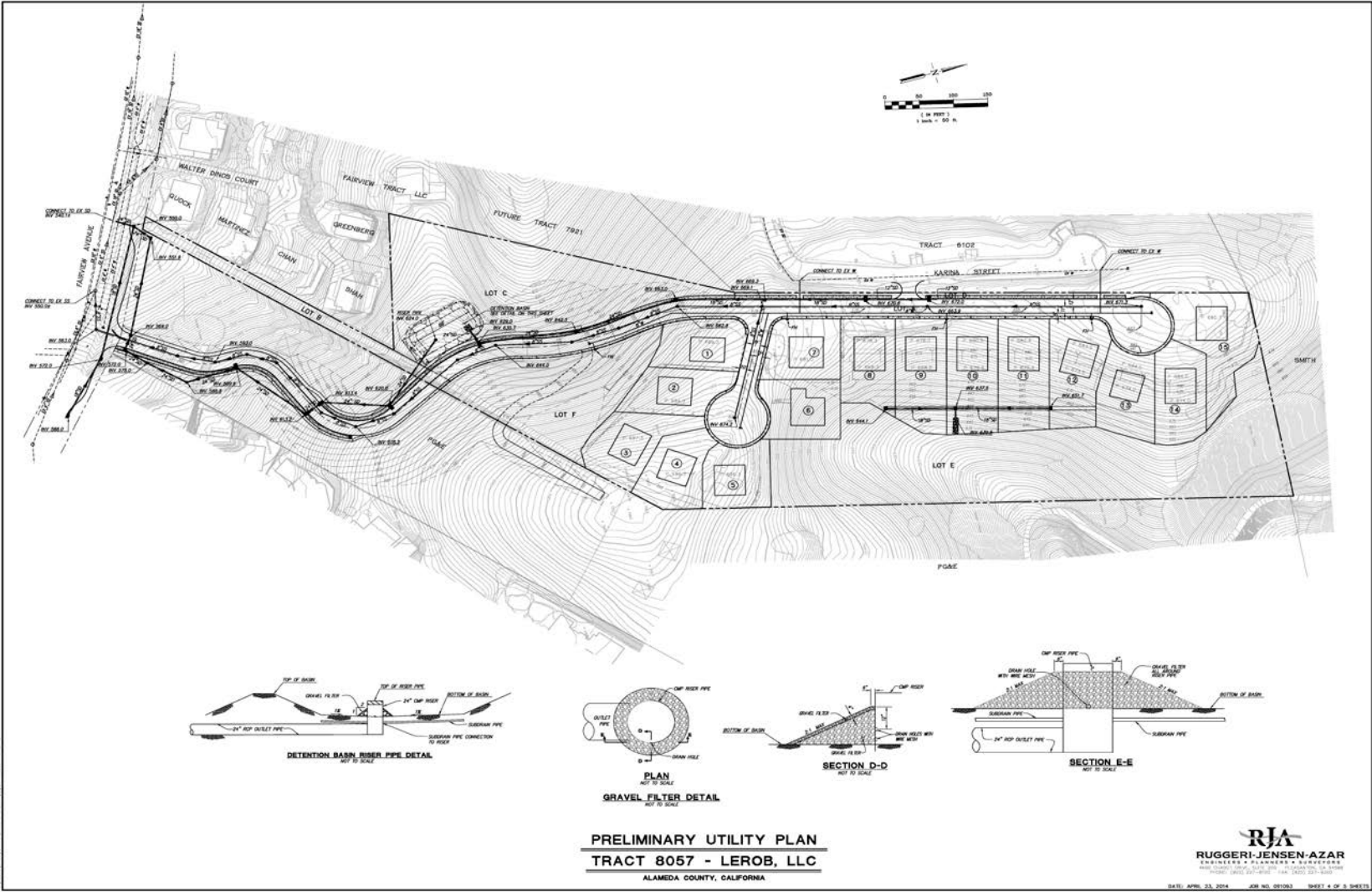


Figure 3.7: Preliminary Stormwater Protection Plan

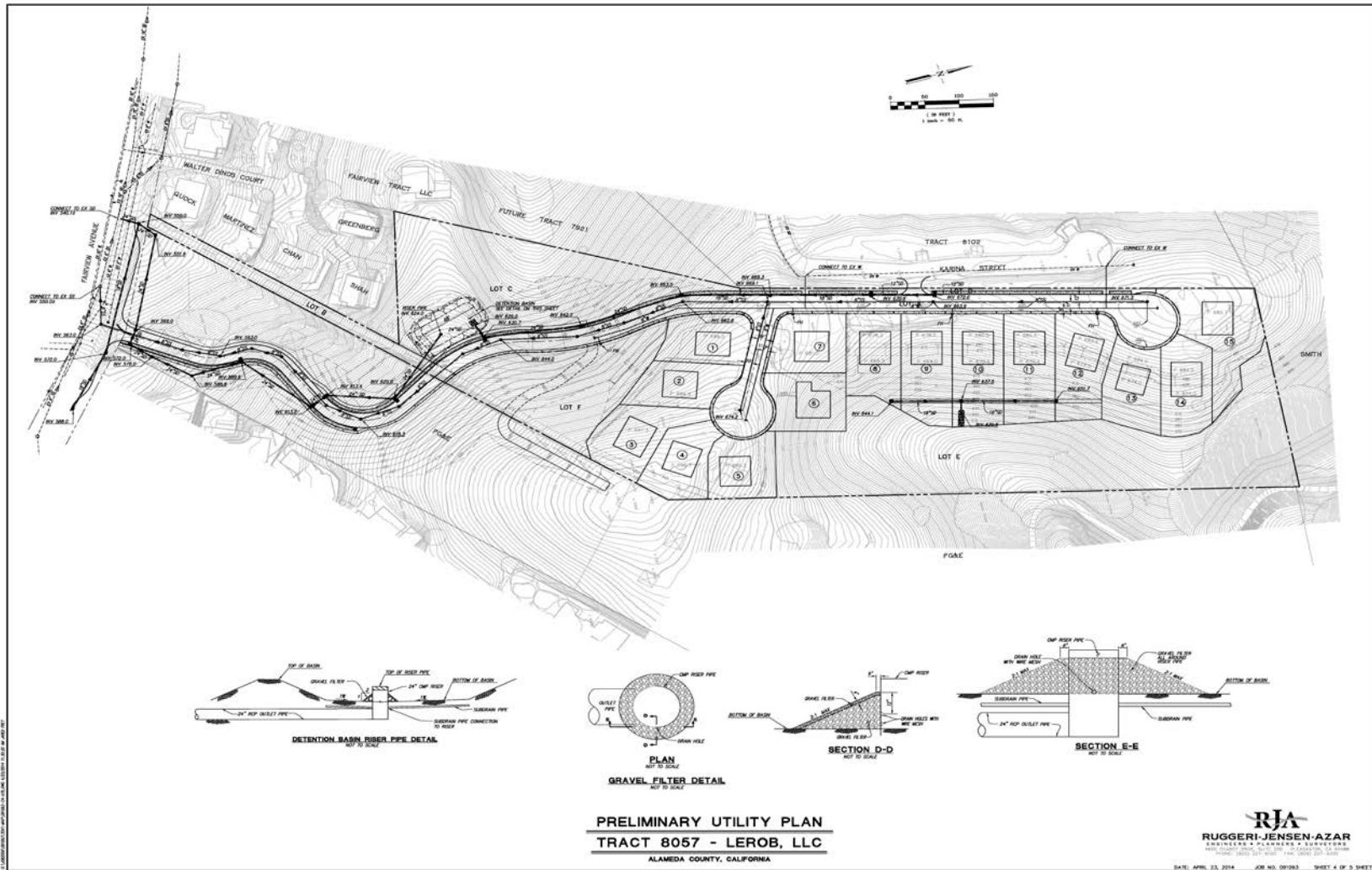


Figure 3.8: Cross Section H-H (through Lot 5)

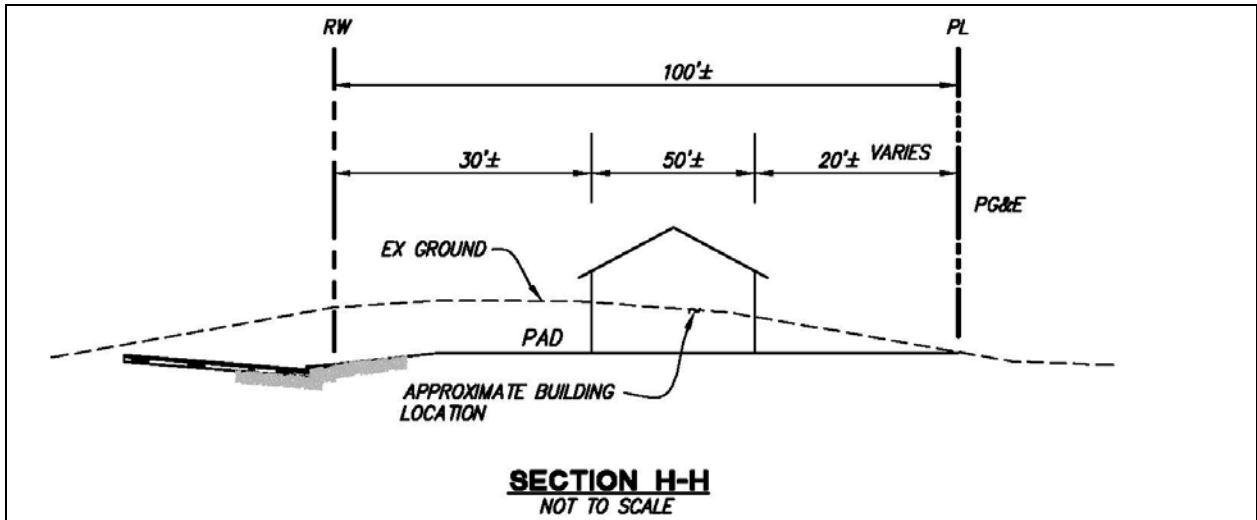


Figure 3.9: Cross Section F-F (through Lot 10)

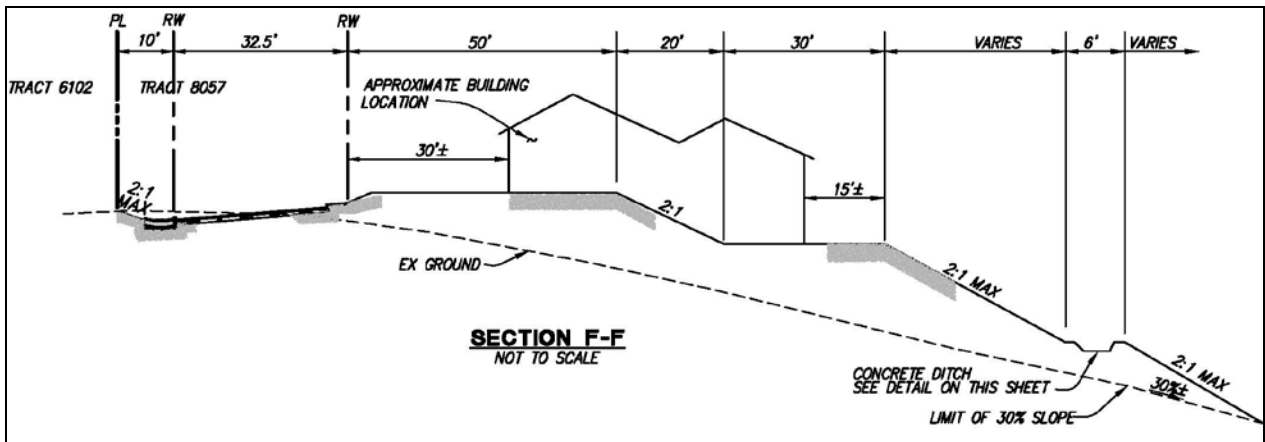


Figure 3.10: Cross Section K-K (Through Lot 6; existing grades are not changed)

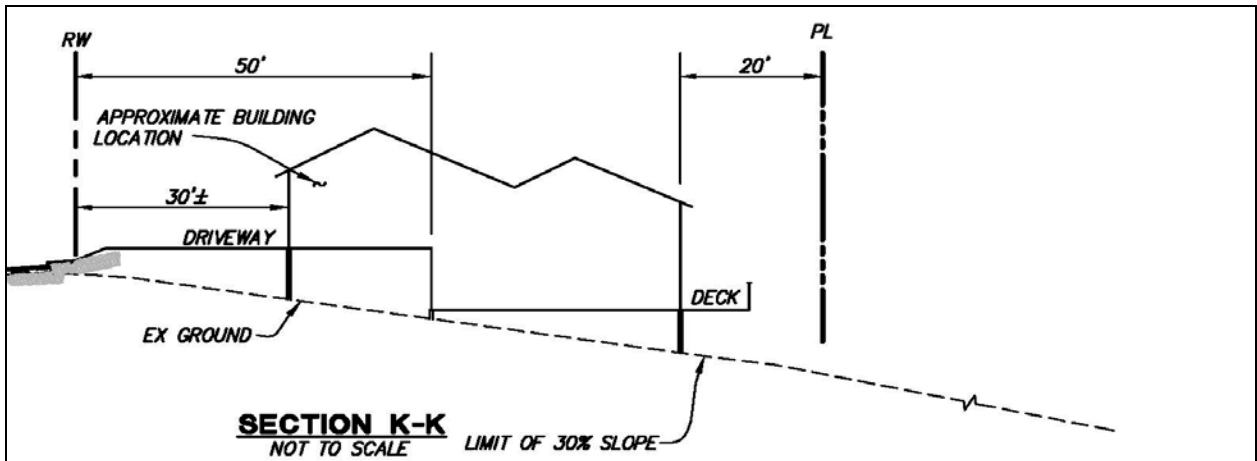




Figure 3.11: Cross Section I-I (through Street A, on the PG&E property)

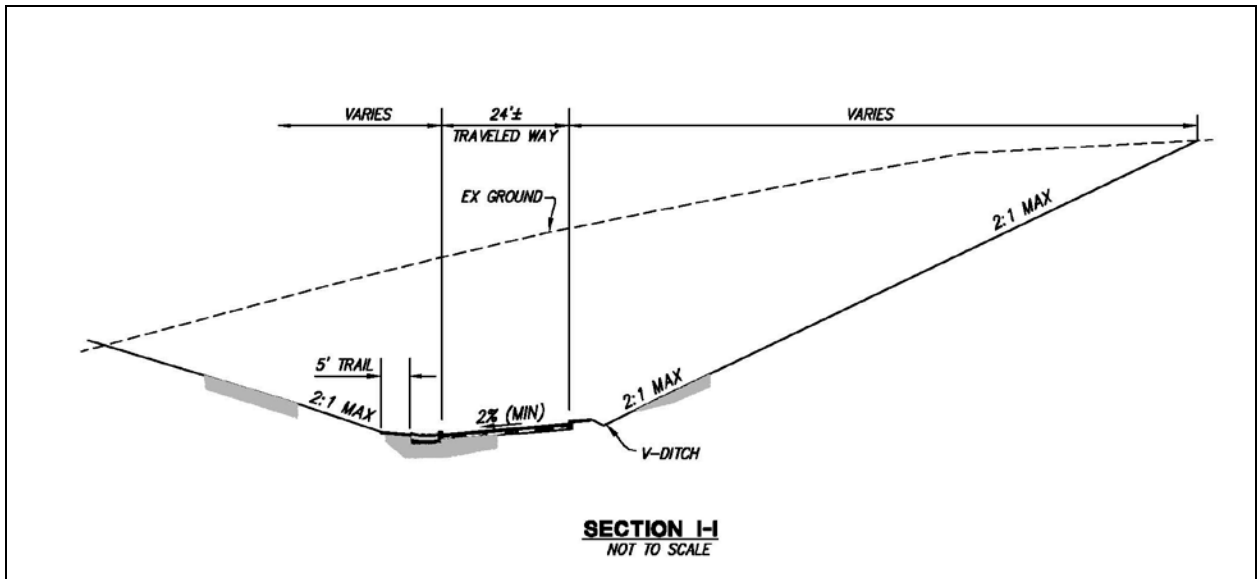
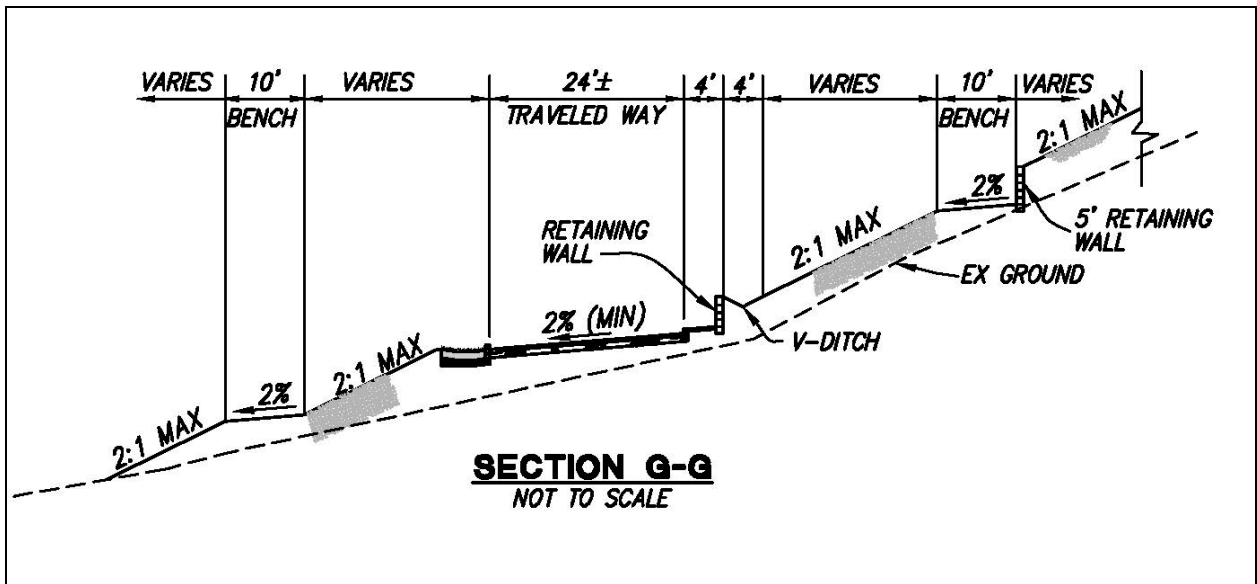


Figure 3.12: Cross Section G-G (Through Street A, below Lots 1 & 2)



**Figure 3.13: Looking east along future alignment of Street B**



**Figure 3.14: Looking Northwest, across alignment of Street A; Karina St. is beyond the fence line.**



**Figure 3.15: Looking North, Showing Existing Slope (Lots 7 - 14)**



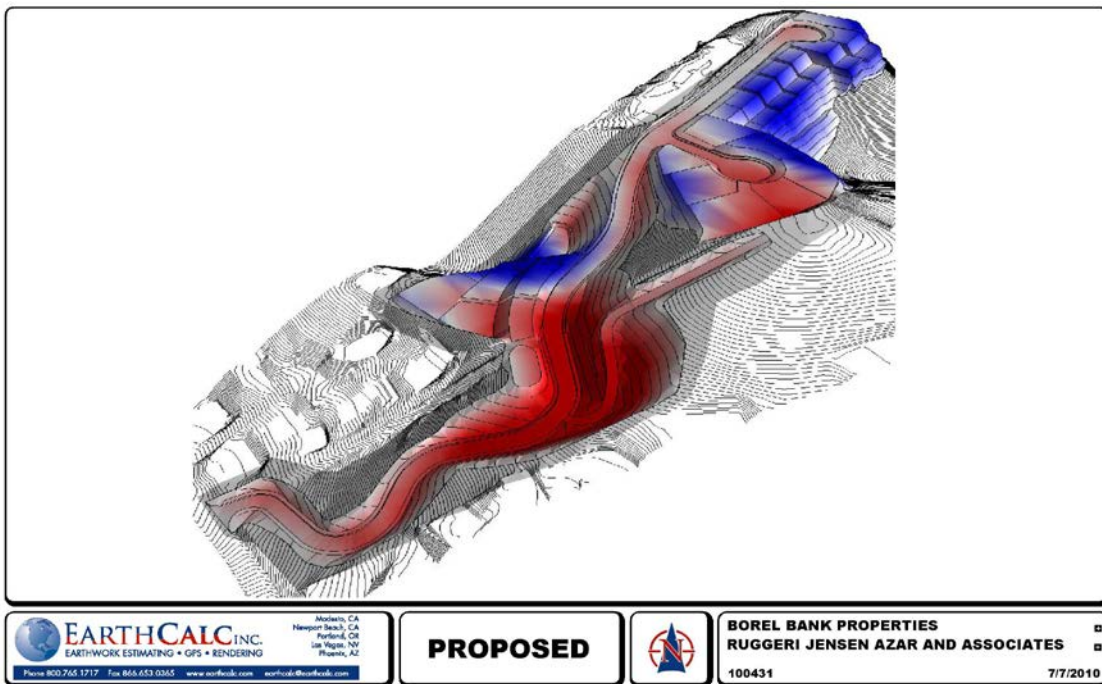
**Figure 3.16: Looking southwest; dirt access road shown at left; drainage basin would be in bowl area at center of photo.**



**Figure 3.17: Looking west, downslope along existing dirt access road; Fairview Avenue is at foot of slope; PG&E parcel is on the left**



**Figure 3.18: General Depiction of Cut (red) and Fill (blue) per Grading Plan**



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## AESTHETICS

### INTRODUCTION

New development can substantially change the visual qualities and characteristics of an urban area. It may also have long term lasting effects on the evolution of the urban area, thereby stimulating growth and increasing its attractiveness for additional residential development or other desired or planned land uses. On the other hand, new development can change the character of an area by disrupting the visual and aesthetic features that establish the identity and value of an area for its existing residents. Loss of such identity and value may discourage new investment and negatively affect continued residency or business activity or other activities that attract visitors to the area.

The visual value of any given feature or geographic area may be subject to personal sensibilities and variations in individual reaction to the features of an urban area, with visual impressions varying from one person to another. Although clearly objective standards are difficult to establish, an extensive body of literature is devoted to the subject of urban design and visual aesthetics, and the County has adopted specific guidelines and standards for the project area in the *Fairview Area Specific Plan* and in its *Scenic Route Element* (adopted respectively by the Alameda County Board of Supervisors, on September 4, 1997 and in May, 1966) that apply to the Project area. In addition, the obstruction of high-value views commonly available to the public, the introduction of large or uncharacteristic uses or structures, or alteration of existing distinctive features are generally considered to represent common aesthetic standards.

### FINDINGS OF THE IS/MND AND SCOPE OF EIR ANALYSIS

The Initial Study determined that the Project would not have a significant environmental impact with respect to scenic resources, including scenic vistas, scenic highways, or visual character, and no mitigation was required for any of these three aesthetic factors, based on an extensive analysis and evaluation as appropriate for an Initial Study. However, as noted below, the visual and aesthetic effects of the Project were a matter of public controversy as reflected in comments submitted on the Notice of Preparation, particularly as the question relates to the Project's consistency or lack of consistency with principles and guidelines of the *Fairview Area Specific Plan* that have aesthetic and visual consequences (e.g., grading, slopes in excess of 30%). In order to provide substantial evidence and a more complete examination of the Project's effects on aesthetic values, further discussion of aesthetic effects, including the production of photo-simulations depicting how the Project would appear in the future from various public vantage points, was determined to be required pursuant to CEQA Guideline 15064 (f)(4).

Separately from these three scenic issues, potentially significant increases in nighttime light and glare (normally considered among potential aesthetic impacts), were identified in the Initial Study as possible results of Project build-out, but that implementation of Mitigation Measure Vis-1 would reduce the impact to a *less than significant* level. (see **Attachment A**).

## AREAS OF CONTROVERSY

A number of comments received during the public review of the Initial Study/MND and in response to the more recent Notice of Preparation and the scoping meeting for the EIR expressed concerns that reflect controversy regarding the visual and aesthetic effects of the proposed grading plan and future home construction on the Project site. Some comments have questioned whether the Project is consistent with applicable provisions of the *Fairview Area Specific Plan*, particularly in regard to grading on slopes greater than 30 percent and placing new homes on a prominent ridgeline, substantially changing in a negative way the visual quality of the site. One specific comment - from the owner of a new home on Karina Street in the adjacent Jelincic subdivision - was concerned about the nighttime glare effects on his house from headlight wash as cars exit driveways on proposed lots 7 - 15 or make U-turns at the end of the Street A cul-de-sac. In response to this concern, and as indicated in the Project Description (Chapter 3 of this Draft EIR), the Project has been modified to include construction of a visual barrier along the edge of Street A across from lots 7 - 15 to shield homes on Karina Street from the effects of nighttime light and glare from vehicle headlamps.

Regarding the broader concerns regarding visual effects of the Project, and to provide a basis for informed discussion of this issue, professional quality photo-simulations have been prepared to illustrate how the Project would appear when fully built out, compared with existing conditions, when viewed from different vantage points around the site. The photo-simulations are presented below along with references to relevant policies, principles and guidelines in the *Fairview Area Specific Plan* that involve visual or aesthetic considerations. An extensive discussion of the Project's compliance with policies of the *Fairview Area Specific Plan* is also provided in Chapter 7, Land Use and Planning.

## ENVIRONMENTAL SETTING

The Fairview area of Alameda County consists of gently rising elevations above downtown Hayward, characterized primarily by a mix of single family residential development and large rural residential or undeveloped parcels, and which is served by several arterial roadways. Historically, Hayward and the hills to the north and east were used for various forms of agriculture, the hilly area primarily being used for cattle and horse grazing and for chicken farms. Over the past 20 to 30 years, more and more of the large formerly agricultural parcels have been developed with suburban-style residential subdivisions. Despite the proliferation of nearby residential subdivisions, the surrounding area still contains rural residential and agricultural or undeveloped properties of between one and ten acres such as the 10.1-acre Project site, which is one of the larger undeveloped sites in the vicinity. The current visual result of this development pattern is one of strong appeal to area residents for retaining many rural qualities of open space, agricultural uses, natural creeks and vegetation, introduced trees and landscaping, and medium to long views downhill toward the Hayward and Castro Valley areas, San Francisco Bay, the San Francisco peninsula and the city of San Francisco and up to Mount Tamalpais in Marin County. Views uphill to the east are also highly valuable where they are available. The hilly topography, mature trees, natural vegetation and introduced landscapes represent the primary visual resources and values of the Project vicinity. The prevailing absence of sidewalks serves to provide a distinctively non-urban character to the Fairview area, including the Project vicinity.

## PROJECT SITE

The nearly rectangular Project site, together with the lower 2-acres of the adjacent PG&E property, results in a Project area of approximately 12 acres having an overall irregular shape that extends north of Fairview Avenue. The visual and aesthetic sensitivity of the site from surrounding streets is a result of its prominent northwestern ridge when viewed from lower elevation vantage points to the south

(through the PG&E property), the west (from lower portions of D Street and some portions of Fairview Avenue), and the northwest (from the upper portion of D Street); ); only when viewed from the east or northeast (along Five Canyons Parkway or from individual streets in the Five Canyons development area) is one looking down or across at the site from a higher or nearly equal elevation. At its highest point, the site is approximately 150 feet above the elevation of Fairview Avenue at the proposed Project entrance. The site is fundamentally shaped by the relatively flat ridge along its northwestern boundary (which also forms the northeastern boundary of the Jelincic subdivision, also known as Tract 6102). This ridge turns southeast and slightly uphill across the Project development site, dividing the northern and southern portions of the site, and then turns downhill and southward along the southeastern site boundary, bordering the PG&E property. In summary, the ridge follows the top edges of two small rounded bowl-shaped valleys facing opposite directions (east, in the southern area, and west, in the northern area).

The north-facing view from Fairview Avenue, upwards over slopes of 20 to 30 percent, is dominated by the single pylon tower and the Monterey cypress trees in the foreground, and on the more distant hilltop, the twin pylon towers on the PG&E parcel. However, almost none of the Project development area is visible through the PG&E site, because the slope of the PG&E easement is steeper in its southern half and notably less so in the northern half, such that the visible horizon is only halfway to the highest ridge on which the two PG&E pylon towers are located. Only the descending ridge that divides the PG&E parcel and the Project development site is visible from Fairview Avenue at a diagonal across the PG&E parcel, marked by a line of fence posts. The site is one of the highest promontories in the immediate vicinity, and its visual character is marked by exceptional long distance views downhill to the northwest, west and southwest, close-in northeasterly views of the heavily wooded northern portion of the PG&E property (mostly eucalyptus trees), and views toward the hills to the east. However, the PG&E pylons and overhead wires are prominent in the eastern views. A more important consideration, though, is that the northwestern ridge of the Project site borders Karina Street in the Jelincic subdivision, along which one two-story house has recently been constructed, and eight more of which are planned, likely also to all be two-story homes, with relatively narrow side yards. The result is that eventually the long-distance views to the west from the Project site will be substantially blocked by development on Karina Street.

The Project site itself is undeveloped, and has been used for horse and cattle grazing but not for any human residential use. There are no structures on the property. The site is dominated by non-native grasses and thistles; a dense copse of eucalyptus trees and large shrubs are located at the foot of the slope in the extreme northeast corner of the site. A pile of rocks and small boulders (mostly under 2 feet in diameter) is located near the ridge where it crosses the middle of the site. A 20-foot wide narrow stem of the larger parcel contains an unpaved gravel road or lane, that follows the southeastern ridge on the west side of the south-facing PG&E property slope, partly adjacent to the rear and side lot lines of homes on Walter-Dinos Court on one side and the PG&E parcel on the other.

## REGULATORY SETTING

### STATE

#### Caltrans Scenic Highway Program

California's Scenic Highway Program is administered by the California Department of Transportation (Caltrans). The Scenic Highway Program was created by the Legislature in 1963. Its purpose is to protect and enhance the natural scenic beauty of California highways and adjacent corridors, through special conservation treatment. A highway may be designated scenic depending upon how much of the natural landscape can be seen by travelers, the scenic quality of the landscape, and the extent to which



development intrudes upon the traveler's enjoyment of the view. The State Scenic Highway System includes a list of highways that are either eligible for designation as scenic highways or have been officially designated.

The closest state highway to the Project site is Interstate 580, approximately one mile to the north. I-580, an east-west freeway through Castro Valley nearest the site, is designated as an "Eligible State Scenic Highway" but it has not been officially designated as such.<sup>1</sup>

## LOCAL

### *Scenic Route Element*

The Alameda County General Plan includes a *Scenic Route Element* adopted in 1966 and which is still in effect. Its intended purpose is to "serve as a guide for establishment of programs and legislation dealing with the development of a system of scenic routes and the preservation and enhancement of scenic qualities and of natural scenic areas adjacent to and visible from scenic routes."<sup>2</sup> The *Scenic Route Element* establishes three types of scenic routes, including freeways and expressways, thoroughfares and rural-recreation routes, and further divides their qualities into scenic "elements" or components: the right-of-way; the adjacent scenic corridor; and the areas beyond the corridor. These refer respectively to the foreground in public ownership, the middle ground of adjacent properties in highly urban areas or up to 1,000 feet distant in rural areas with high scenic quality, and the distant view or remaining portions of the County. The definition of the scenic corridor (or middle-ground) includes those areas "that are of sufficient scenic quality to be acquired by state or local jurisdictions, or areas to which development controls should be applied for purposes of preserving and enhancing relatively nearby views or maintaining unobstructed distant views along the scenic route..."<sup>3</sup> The *Element* also suggests such corridors "should also include slope and utility easements, and in selected areas, public roadside rests, cycling, riding and hiking trails." Lastly, within scenic corridors, "Development controls should be applied to preserve and enhance scenic qualities, restrict unsightly use of land, control height of structures, and provide site design and architectural guidance along the entire scenic corridor."<sup>4</sup> Within developed areas of the County, the areas beyond the corridor are to be preserved primarily through the *Element's* policies to preserve outstanding views, stands of trees, establish new landscaping and control location and types of utility towers and outdoor advertising signs.<sup>5</sup>

The *Scenic Route Element* includes a map of the roadway system, consistent with the major route types delineated in the Circulation Element of the County General Plan as it existed in 1966, with the three roadway classifications (freeways and expressways, major thoroughfares and major rural roads). The map has been interpreted to designate these major roads and highways as the scenic route system at large. Among the major rural roads in the scenic route system is Fairview Avenue (which would have been substantially more rural in character in 1966) *Major Rural Roads* are defined firstly, as "...generally two lane, low traffic volume roads that traverse sparsely populated open agricultural or recreational areas and that often carry traffic to major recreation areas." In contrast, the next more intensive roadways are *Major Thoroughfares*, defined by high traffic volume, two or three travel lanes, parking lanes on each side in urban areas, and a center median strip where practical, characteristics which do not exist in the project vicinity except on Five Canyons Parkway. Furthermore, the *Element*

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<sup>1</sup> California Department of Transportation, State Scenic Highway Mapping System, [http://www.dot.ca.gov/hq/LandArch/scenic\\_highways/index.htm](http://www.dot.ca.gov/hq/LandArch/scenic_highways/index.htm)

<sup>2</sup> Scenic Route Element of the General Plan, Alameda County, May 1966, p. 1.

<sup>3</sup> Ibid., p. 4.

<sup>4</sup> Ibid., p. 4.

<sup>5</sup> Ibid., p. 4

provides the following definition: “*Scenic Rural-Recreation Routes* are those major rural roads that traverse areas of outstanding scenic quality or that carry traffic to major scenic and recreational areas. *Scenic Rural-Recreation Routes* in selected areas may be combined with public recreation areas such as parks, parkways, reservoirs, or hiking, riding and cycling trails.”

On this basis, because Fairview Avenue is no longer a low-traffic roadway serving primarily rural or agricultural areas, does not provide access to major regional parks or recreation areas, its status as a *Scenic Rural-Recreation Route* is limited; however, many views from the roadway may be found to represent outstanding scenic quality, such as the vineyards near the Project site and the wooded hills and narrow valley on the opposite side of Fairview, south and east of the site. The body of the *Element* text provides objectives and principles for the different types of routes and their near, middle ground and distant scenic components. These Principles obligate the County to work toward developing a scenic route system, and as such, they do not apply directly to the Project; however, for the purpose of this EIR Chapter and the identification of scenic vistas that may be adversely affected by the Project as proposed, the following Principles should be considered relevant to the Project:<sup>6</sup>

*Coordinate Scenic Routes and Recreation Areas.* Maximum coordination of scenic routes and adjacent public recreation areas such as parks, scenic overlooks, roadside rests, cycling, hiking and riding trails should be planned. ... Scenic route recreation trails should be coordinated with existing and planned local, regional and state trails.

*Landscape Rights-of-Way of Existing and Proposed Routes.* All existing and proposed scenic route rights-of-way should be landscaped for improvement of scenic qualities and for erosion control where necessary. In general, landscaping should provide a foreground framework for background views; landscape materials should not form a solid visual barrier except to screen existing unsightly views...

*Provide for Normal Uses of Land and Protect Against Unsightly Features.* In both urban and rural areas, normally permitted uses of land should be allowed in scenic corridors, except that panoramic views and vistas should be preserved and enhanced through supplementing normal zoning regulations with special (Scenic Route Corridor Development Standards on p. 18 in the *Element*) height, area, and side yard regulations; through providing architectural and site design review...

*Underground Utility Distribution Lines When Feasible; Make Overhead Lines Inconspicuous.* New, relocated or existing utility distribution lines should be placed underground whenever feasible...

*Establish Architectural and Site Design Review.* Architectural and site design review by the appropriate local jurisdiction should be provided for each site and for all new or altered structures so that particular consideration will be given to appearances that will enhance scenic qualities from the scenic routes. Originality in landscape and construction design should be encouraged. Such designs should be in keeping with cityscape and natural skylines and reflect the density, movement and activities of the population.

*Use Landscaping to Increase Scenic Qualities of Scenic Route Corridors.* Landscaping should be designed and maintained in scenic route corridors to provide added visual interest, to frame scenic views, and to screen unsightly views.

*Landscape all Properties and Streets.* All new building sites, including parking areas and vehicular entrances in business; commercial and industrial areas should be landscaped, and street trees

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<sup>7</sup> Ibid., pp. 18-20.

should be planted along all rights-of-way in the county as a means of improving the scenic quality of the county.

*Design Hill Area Streets and Access Drives to be Compatible with Natural Features.* Hill area street and access drive alignments should be designed to preserve stands of mature trees, and in such a manner as to be compatible with the natural topography. Narrow and one-way streets should be utilized in hill areas where necessary to preserve natural features.

*Preserve and Enhance Natural Scenic Qualities in Areas Beyond the Scenic Corridor.* Views from scenic routes will comprise essentially all of the remainder of the county beyond the limits of the scenic corridor; the corridor is intended to establish a framework for the observation of the views beyond. Therefore, in all areas in the county extending beyond the scenic route corridors, scenic qualities should be preserved through retaining the general character of natural slopes and natural formations, and through preservation and enhancement of water areas, watercourses, vegetation and wildlife habitats. Development of lands adjacent to scenic route corridors should not obstruct views of scenic areas and development should be visually compatible with the natural scenic qualities.

In addition to the above Principles, the *Scenic Route Element* contains Development Standards, of which the following excerpts are considered to apply to the proposed Project:<sup>7</sup>

- *Alteration to natural or artificial land contours should not be permitted without a grading permit issued by the local jurisdiction as a means of preserving and enhancing the natural topography and vegetation in developable areas. Mass grading should not be permitted. The following criteria should be applied in the review of grading permits in developable areas:*
- *As a means of preserving natural "ridge skylines" within the county, no major ridgeline should be altered to the extent that an artificial ridgeline results. Minor grading to allow construction of individual dwellings should be permitted as approved on the site development review.*
- *Access roads should be located and designed to keep grading to a minimum.*
- *Natural ground contours in slope areas over 10 percent should not be altered more than 5 percent overall, except in such slope areas where large stands of mature vegetation, scenic natural formations or natural watercourses exist, where grading should be limited so as to preserve the natural features.*
- *Any contour altered by grading should be restored by means of land sculpturing in such a manner as to minimize run-off and erosion problems, and should be planted with low maintenance, fire resistant plant materials that are compatible with the existing environment.*

#### Fairview Area Specific Plan

The *Fairview Area Specific Plan*, adopted by the County Board of Supervisors in 1997, includes policies addressing a broad range of topic areas, including land use, residential density, open space, traffic and specific environmental considerations (e.g., geology, drainage, public services, etc.). Policies on natural features provide for the retention of the natural topography and characteristics of sites with the Fairview Area, and have been recognized for the purposes of this EIR Chapter as defining what existing visual and natural characteristics of sites should be preserved with new development

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<sup>7</sup> Ibid., pp. 18-20.

proposals. Selected principles and guidelines relevant to visual qualities and aesthetic resources include the following:<sup>8</sup>

#### *Principles*

*D.2.a: All development proposals shall strive for maximum retention of the natural topographic features, landscape features, and qualities of the site. Development should seek to enhance these natural features and qualities.*

*D.2.b: All development proposals shall take into account and be judged by the application of current principles of land use planning, soil mechanics, engineering geology, hydrology, civil engineering, environmental and civic design, architecture, and landscape architecture in hill areas. Such current principles include but are not limited to:*

- 1) Planning of development to fit the topography, soils, geology, hydrology, and other conditions existing on the proposed site;*
- 2) Orienting development to the site so that grading and other; site preparation is kept to a minimum;*
- 3) Shaping of essential grading to complement and blend with natural landforms and improve relationships to other developed areas;*
- 6) Landscaping of areas around structures, and blending them with the natural landscape;*
- 7) Placing, grouping and shaping of man-made structures to complement one another, the natural landscape, and provide visual interest;*
- 8) Locating building pads so that the views of prominent ridgelines are not interrupted or interfered with by buildings;*
- 9) Using a variety of housing types, housing clusters and special house construction techniques in residential areas to permit steep slopes, wooded areas, and areas of special scenic beauty to be preserved;*
- 10) Giving special consideration to the design of public and private streets to minimize grading and other site alteration;*
- 11) Giving special consideration to the design of such visual elements as street lighting, fences, sidewalks, pathways, and street furniture to enable maximum identity and uniqueness of character to be built into each development;*

#### *D.3. Guidelines*

- a. Natural and man-made slopes of 30% gradient or greater should not be developed or altered. Exceptions may be granted for road construction if it is the only feasible access to a site, modifications of minor terrain features, and custom designed homes and lots that otherwise conform to the intent of these policies.*
- b. Only individual lot grading<sup>9</sup> should occur in areas exceeding 20% slope.*
- c. Buildings should be designed with stepped, pier and grade beam, or a custom foundation to reduce grading, to avoid contiguous stair-stepped padded lots, and to retain a more natural*

<sup>8</sup> *Fairview Area Specific Plan*, Adopted by the Alameda County Board of Supervisors, Sept. 4, 1997, pp. 10-12.

<sup>9</sup> The *Specific Plan* provides the following definition: "Individual lot grading is grading which can be wholly contained on a lot and which is necessary to fit the house, its access, and useful yard areas."

*appearance. On sloping lots, tall downhill facades should be avoided by stepping structures with the natural terrain.*

- d. The vertical height of a graded slope or combination retaining wall and slope between single family dwellings should not exceed 10 feet in the rear yards, or 5 feet within a side yard between lots.*
- e. The maximum horizontal distance of graded slope should not exceed 20 feet, at 2:1 (horizontal to vertical) gradient.*
- f. Development near or on a prominent ridgeline should be subordinate to the surrounding environment. Residences should blend into the natural topography creating minimal visual disturbance to the existing ridgeline and views. Rows of residences with similar setbacks and elevations shall be discouraged.*

## **IMPACTS AND MITIGATION MEASURES**

### Questions for Defining Significant Impacts

Based on Appendix G of the State CEQA Guidelines, environmental review of a proposed project should normally provide a response to the following questions:

1. Would the project have a substantial adverse effect on a scenic vista?
2. Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?
3. Would the project substantially degrade the existing visual character or quality of the site and its surroundings?
4. Would the project create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?

The remainder of this chapter addresses each of the above questions in separate sections. For the purposes of the EIR, applicable Principles and Development Standards in the *Scenic Route Element* are considered relevant to the analysis of the Project with regard to impacts on scenic vistas, whereas the *Fairview Area Specific Plan* policies and guidelines are deemed applicable to the consideration of effects on visual character. Although the *Specific Plan* includes many policies regarding preservation and development of visual characteristics and qualities, it does not designate any specific scenic vistas, but aims more towards preservation of existing natural qualities, including topography, woodlands and riparian habitat. The second question will be addressed narrowly as it applies to potential effects on state scenic highways, and the fourth question is addressed generally, as the County has no specific policies or guidelines which address or regulate light or glare during the day or nighttime.

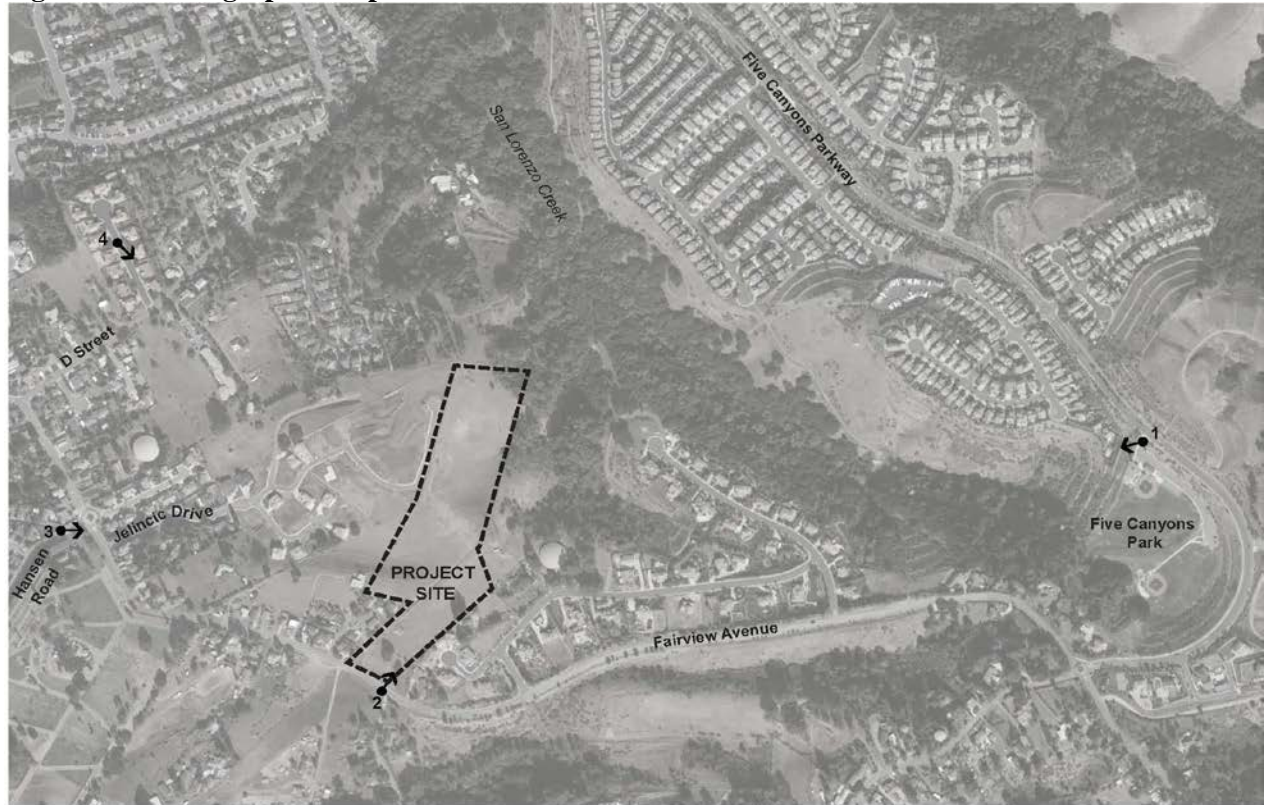
### **SCENIC VISTAS**

The Project would be considered to have a significant impact on a scenic vista if it were to result in the obstruction of a designated public vista, such as one recognized in a general or specific plan, or the placement of an arguably offensive or negative-appearing building or land use within such a vista, i.e., blocking a scenic view of a landscape or feature that is recognized as valued in such a plan. In effect, any clearly evident conflict with the policies or principles of the *Scenic Route Element* related to views from designated scenic routes would be considered a potentially significant impact. For example, based on the Principle of the *Scenic Route Element* regarding preservation of natural “ridge skylines”, development on or near a ridgeline that would obstruct a long distance view, or result in a new, large

structure on a ridgeline, would be recognized as a significant adverse impact. The following discussion begins with a general analysis of the Project’s effects as shown through visual simulations of the Project as built, and is followed by assessment of the Project’s conformity to the Principles and Development Standards of the *Scenic Route Element*.

Photo-simulations of the Project have been prepared for this EIR based on selected viewpoints around the site as shown in **Figure 4.1** below. Vantage points from the west, south and east of the Project site were carefully selected based on the visibility of the Project site from these locations. Existing and simulated depictions of future homes from the viewpoints are shown in **Figures 4.2** through **4.5** below.

**Figure 4.1: Photograph Viewpoint Location and Direction**



0 250 500 feet  
 1 → Photograph Viewpoint Location and Direction

ENVIRONMENTAL VISION

**Simulation Photograph Viewpoint Locations**  
 Tract 8057 Residential Subdivision Project  
 Alameda County, California

**Figure 4.2: Photo-Simulation Comparison from Five Canyons Parkway (Viewpoint 1)**



Existing view from Five Canyons Parkway



Visual simulation of proposed project

**Visual Simulation - Viewpoint 1**  
Tract 8057 Residential Subdivision Project  
Alameda County, California

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**Figure 4.3: Photo-Simulation of the Project Entrance at Fairview Avenue (Viewpoint 2)**



Existing view from Fairview Avenue (wide angle)



Visual simulation of proposed project

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091713

**Visual Simulation - Viewpoint 2**  
Tract 8057 Residential Subdivision Project  
Alameda County, California



**Figure 4.4: Photo-Simulation of the Project from Hansen Road (Viewpoint 3)**



Existing view from Hansen Road



Visual simulation of proposed project

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**Visual Simulation - Viewpoint 3**  
Tract 8057 Residential Subdivision Project  
Alameda County, California

**Figure 4.5: Photo-Simulation of Project from Carlson Court (Viewpoint 4)**



Existing view from Carlson Court



Visual simulation of proposed project with Jelincic development

**Visual Simulation - Viewpoint 4**  
Tract 8057 Residential Subdivision Project  
Alameda County, California

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091713

As shown in **Figures 4.2** through **4.5**, the visual effects or impacts of Project construction would be very limited, primarily due to intervening landforms, mature trees and other homes expected to be constructed along the ridge within the approved Jelincic subdivision (Tract 6102), as highlighted in **Figure 4.5**. In **Figure 4.2**, which is taken from the north and east of the site at a slightly higher elevation but at a distance of about two-thirds of a mile, the Project's ridge is relatively visible in the "existing view" photograph. However, in the simulation, when future homes are added, many would be obscured by intervening trees; those that are visible appear to blend with other homes in the area. None of the homes would substantially obscure or detract from the long-range view of the hills across San Francisco Bay (e.g., Mt. Tamalpais or the Peninsula hills).

As shown in **Figure 4.3**, the construction of Street A within the PG&E parcel would be highly visible from Fairview Avenue, and a substantial change in the view; however because the existing view up the hill, while softened by the Monterey pine trees near the base, is dominated by the high-tension power lines and pylons. The very top of one home on the Project site (Lot 3) is just visible in the simulation, but would almost be indistinguishable without focused attention. More distinctly visible in **Figure 4.4** are recently constructed homes on the adjacent Jelincic subdivision (Tract 6102) which occupies the west-facing portion of the ridge which is shared with the Project site. At full build-out of the 40-lot Jelincic development, homes constructed on the hillside as well as at the top of the ridge on Karina Street will substantially block the homes on the Project site when viewed from any of the vantage points, particularly from Hansen Road and Carlson Court. Even without consideration of the Jelincic homes, **Figure 4.5** illustrates that when viewed from Carlson Court, one will be able to discern only the roofs of the Project homes (on lots 7 - 14) and single-story homes to the right of the PG&E pylon towers (lots 1 - 3). In summary, therefore, from all four of the public vantage points used in the foregoing photographs, future homes on the Project site will be substantially concealed from view and nearly invisible due to trees, existing or anticipated development, or distance. Many individual homes in the close-in vicinity of the site, and in portions of the Five Canyons area around a third of a mile to the northeast of the site, may be expected to have clearer views of proposed Project homes. However, individual scenic views do not represent scenic resources on which there would be a common, public and significant impact on the environment.

#### Scenic Route Element Consistency Analysis:

As indicated above, Fairview Avenue is identified as a "major scenic rural-recreation route" in the *Scenic Route Element*. As such, the policies and guidelines of the *Scenic Route Element* are relevant factors in evaluating the aesthetic and visual effects of the Project. The following analysis considers whether the Project would serve or conflict with the direction or guidance provided in the *Scenic Route Element*.

*Coordinate Scenic Routes and Recreation Areas.* The Project will include a substantial portion of a recreational pathway link through the PG&E site towards the Five Canyons Open Space area from Fairview Avenue, thereby serving this Principle.

*Landscape Rights-of-Way of Existing and Proposed Routes.* A landscape plan for the area of the PG&E parcel around the Street A intersection with Fairview Avenue will be required as a condition of approval. The Preliminary Landscape Plan would serve this Principle, providing a foreground framework rather than a major visual barrier.

*Provide for Normal Uses of Land and Protect Against Unsightly Features.* The project site is out of view from Fairview Avenue, and as shown in the visual simulations (**Figures 4.2** through **4.5**), would not obstruct any panoramic view or vista. The landscaping around Street A at its intersection with Fairview Avenue is subject to a public site design review process, and therefore the Principle would be served by the Project.

*Underground Utility Distribution Lines When Feasible; Make Overhead Lines Inconspicuous.* All electrical and telecommunications utility lines will be required to be placed underground as a condition of approval; however, the existing overhead high-tension PG&E power lines will remain in place.

*Establish Architectural and Site Design Review.* As indicated above, the landscaping nearest to Fairview Avenue will be publicly reviewed. As a condition of approval, it should be evaluated for originality and design quality, and for compatibility with the surrounding visual character. However, as shown in the visual simulations, the Project homes will not be clearly visible from Fairview Avenue (the scenic route).

*Use Landscaping to Increase Scenic Qualities of Scenic Route Corridors.* The Preliminary Landscape Plan for the Street A/Fairview Avenue intersection will be reviewed to ensure it serves this principle, to add visual interest, and frame the view through the PG&E parcel.

*Landscape all Properties and Streets.* The intersection of Street A and Fairview Avenue will be landscaped and thereby serve this Principle.

*Design Hill Area Streets and Access Drives to be Compatible with Natural Features.* Street A has been designed to avoid the healthy stand of Monterey cypress trees; however, not all of these trees can be preserved while also providing an acceptable grade for emergency vehicle access. Street A will have gentle winding curves and be partly obscured by following an excavated route midway up the hill; the proposed excavation is necessary to provide the acceptable grade. As a private street, it would be kept to a minimum width. The Project would serve this Principle.

*Preserve and Enhance Natural Scenic Qualities in Areas Beyond the Scenic Corridor.* As shown in the visual simulations, the homes on the Project site would be largely out of sight from Fairview Avenue. Although Street A requires substantial alteration of the natural slope on the PG&E parcel, the landscaping will effectively frame the remaining hillsides slope. The Project also provides for preservation of a wildlife corridor in the northeast portion of the site, although that area is completely obscured from public view. The Project would serve this Principle.

#### Development Standards:

*Alteration to natural or artificial land contours.* The developer will be required to obtain a grading permit from the County for the proposed grading and alteration of the slopes, which requires mass grading. Such mass grading is an unavoidable conflict with the Standard.

*Preserving natural "ridge skylines".* The ridgeline along the northwest side of the Project site would be altered modestly to provide slightly elevated building pads for the proposed homes (8' to 10' above the slope). However, due to the distance of the site from public viewpoints, there would not be any clearly evident creation of an artificial ridge. The mass grading is necessary to establish a drainage pattern that can be more effectively managed.

*Minimizing grading for access roads.* The only available access to the site is through the PG&E parcel, on which the existing slopes require substantial grading and alteration to provide a road grade that is acceptable to the Fairview Fire Protection District (managed by the Hayward Fire Department). This represents a direct but unavoidable conflict with the Development Standards.

*Preserving natural ground contours over 10 percent.* Existing ground contours of between 20 and 30 percent and in some cases over 30 percent slope will be altered by mass grading to construct Street A and most of the home building pads, which is an unavoidable necessity of the project as proposed. However, there are no large stands of mature vegetation, natural scenic formations or natural watercourses that would be altered by the proposed grading.

*Restoring altered ground contours.* The new contours along Street A are currently proposed with uniform 2:1 (or 50 percent) slopes. The grading plan would be reviewed and engineered to avoid erosion or other stormwater runoff problems, with drainage to proposed bio-retention areas. The slope would be planted with stabilizing, fire-resistant hydro-seed plant materials, and although the grading plan does not currently propose sculpting to establish a natural-appearing contour, the Preliminary Landscape Plan proposes plant materials that are compatible with the surrounding area.

In summary, the visual simulations provide substantial evidence that future homes on the Project site will be substantially concealed from public view due to a combination of distance, trees and existing or anticipated development. With regard to the *Scenic Route Element*, the Project would in all cases serve or conform to its Principles, or as conditioned, provide for design review of the landscaping of the PG&E parcel to meet specified objectives of the Principles. The placement of the homes where they would not be visible or discernible from Fairview Avenue would also make the Development Standards inapplicable to the development portion of the site. However, the mass grading and excavation for Street A on the PG&E easement, clearly visible from Fairview Avenue (a scenic route), conflicts with the Development Standards, which state that “Alteration to natural or artificial land contours should not be permitted without a grading permit issued by the local jurisdiction as a means of preserving and enhancing the natural topography and vegetation in developable areas.” This Standard is understood to mean that alteration of contours *may* be allowed if the grading permit is reviewed and serves to preserve and enhance natural topography and vegetation; in this case a permit is expected to be reviewed by the Planning Director prior to issuance. Although the Preliminary Landscape Plan provides for substantial new tree and plant material on the new graded slopes bordering Street A, the proposed grading is uniformly flat and even, and would not enhance the natural topography.

**Impact Vis-1:**        **Scenic Vistas.** The Project would not result in substantially altered views of the topmost ridge or the hill on the site from identified public streets or areas. Although the grading required for Street A would substantially alter natural slopes and contours on the PG&E easement, and although the landscaping along Street A would substantially soften the view of the PG&E easement and Street A from Fairview Avenue, which represents a scenic vista as part of the scenic route system of Alameda County. The impact would be *potentially significant*.

#### **Mitigation**

**Vis-1**                **Design Review of Fine Grading.** The final Grading Plan for Street A shall be reviewed by the Planning Director prior to permit issuance to ensure that the sculpting of the slopes enhances the topography visible from Fairview Avenue.

#### **RESULTING LEVEL OF SIGNIFICANCE**

Implementation of **Mitigation Measure Vis-1** would reduce the potential impact of conflict with the Development Standards in the *Scenic Route Element* to a *less-than-significant* level.

#### **SCENIC HIGHWAYS**

As indicated above, the closest state highway to the Project site is Interstate 580, located roughly one mile north of the site, on a generally east-west alignment through Castro Valley. When viewed from eastbound lanes on I-580, intervening land forms, trees and urban development, as well as substantial distance, make it nearly impossible to discern the Project site. In addition, when viewed from I-580 or other vantage points closer to the site, no trees, rock outcroppings, or historic buildings are visible.

**Impact Visual-2: Scenic Highways.** The Project site is not distinctly visible from I-580, and I-580 is not currently designated as a state scenic highway or part of a designated scenic corridor. The Project would not substantially obscure, detract from, or negatively affect the quality of the views from I-580. To the very limited extent that the Project site is visible from I-580, it would appear as part of a long-range view but would not substantially alter or interfere with distant views. There would be *no impact* resulting from development visible from a designated state scenic highway.

## VISUAL CHARACTER

The Project is adjacent to residential development to the west and east that is similar in character to the proposed development. Lot sizes are as large as or larger than lots in the immediately adjacent Jelincic subdivision and in other older subdivisions in the area. Home sizes that would range from 2,000 to 2,800 square feet would not be out of character with homes on adjacent subdivisions.

The Project site is currently characterized visually as undeveloped land. As such, any development on the site would constitute changed visual character. The standard of significance is whether the change would constitute a substantial degradation of the existing visual character or quality of the site and its surroundings. The CEQA Guidelines do not provide a threshold of significance, so consistency with applicable policies related to visual character is an appropriate way to assess the significance of the change.

The proposed single-family subdivision would not be considered offensive or negative-appearing, as would a wastewater treatment plant or a landfill or an industrial manufacturing plant. However, the northeastern ridge on the Project site is prominently visible from many nearby vantage points, including from a long segment of D Street west of Fairview Avenue, and to a lesser degree, from Five Canyons Parkway east of the site. The ridge is also highly visible from neighborhoods to the south, east and west of the site.

The discussion below evaluates the Project's consistency with selected Natural Features Policies, Principles and Guidelines in the *Fairview Area Specific Plan*, which have been interpreted for the purpose of this EIR Chapter to constitute guidelines on what changes to visual character are deemed significant. However, an important distinction is that while many of the Natural Features policies have the objective of preserving topographic and landscape features regardless of their public or private visibility to humans, the criterion of significance for the purposes of this Chapter, and more specifically for assessing significant impact on visual character, is whether or not the Project would change or affect that character as experienced by the public at large, not more broadly as an intangible, abstract or out-of-sight alteration to physical conditions. The effect of the Project on topographic and landscape features as such intangible resources irrespective of scenic impacts is addressed in the primary consistency analysis of *Specific Plan* policies presented in Chapter 7 of this Draft EIR.

### Consistency Analysis:

D.2.a. *Maximum retention of natural topographic and landscape features.* The mass grading plan for the Project would alter existing natural land contours on about half of the site, including raising the elevation of portions of the northwest ridge slightly (by 2 to 3 feet) between lots 7 and 15 and widening the width of the ridge to create stepped building pads towards the east in the northern portion of the site. Similar widening of the central cross-site ridge would provide building pads for lots 1 to 4. However, these changes would be substantially away from public off-site views. Under existing conditions, the northwest ridge rises approximately 14 feet, from its lowest elevation of about 675 feet above mean sea level to an elevation of 689 feet near the northwest corner. The proposed grading plan would result in the cul-de-sac being placed at

about 683 feet in elevation, or about 4 to 6 feet below the highest elevation, and the house on lot 15 (the northwest corner) at about 686, resulting in a slight change in the profile of the ridge.

Additionally, the soil excavated for the construction of Street A, the stormwater detention basin and from other areas would be placed along the eastern side of the ridge, effectively widening the ridge where the existing slope drops off towards the east. Filled material deposited in this area would raise existing grades along the edge of the ridge by as much as 10 feet to provide areas for future home construction. Alteration of the existing land contours on the upper slopes would be inconsistent with the policy of the *Fairview Area Specific Plan*, but its aesthetic impact would be **less than significant** because the altered ridge elevation would not appear as “artificial” or be visible from public off-site locations, as illustrated in the photo-simulations presented above in the discussion of scenic vistas (and the *Scenic Route Element*).

D.2.b *Application of current principles of land use planning, soil mechanics, engineering geology, hydrology, etc.* The Project would apply current principles of land use planning and civil engineering to maintain important natural features by creating conservation parcels for the lower elevations on the site, protect water quality, prevent flooding, and promote attractive landscape design as shown in the Preliminary Landscape Plan. The Project would conflict with many of the subsidiary D.2.b principles, such as fitting to the topography, minimizing grading, or blending with natural land forms; however, because the mass grading for the residential building pads would be out of public view, there would be no aesthetic impact due to the home construction. In addition, grading and construction on the development area of the Project site would serve many of the subsidiary D.2.b principles, such as the provision of landscaping, relating well to adjacent development, avoiding construction on some of the steepest slopes on the site, and disrupting views of prominent ridgelines, while also having notable conflicts with other such principles regarding the fit of development to the topography and geology, minimizing grading, or using alternative construction techniques to preserve steep slopes. However, because the Project would not change the visual character of the site as experienced by or familiar to a substantial number of persons, any conflict with *Specific Plan* Principles due to the development of the homes on the site is not considered relevant; these are considerations to be addressed in the *general* review of the conformity of the Project to the *Specific Plan*, which is provided in detail in Chapter 7, Land Use and Planning.

However, the grading of Street A on the PG&E easement would be in public view, and thus represents a conflict with Principle D.2.b and many of its subsidiary principles, such as planning to fit the topography, minimizing grading, blending with natural landforms, and designing private streets to minimize grading and site alteration.

D.3.a *Preserving slopes of 30% or greater.* As with Principle D.2.b, the development of homes on the Project site would have no effect on the visual character of the site, irrespective of its *overall* conformity to Principle D.3.a or lack thereof. However, grading for Street A (the main access road) would require grading on slopes in excess of 20 and 30 percent and substantial excavation (cuts) and construction of 3- to 6-foot high retaining walls in order to provide a road grade that is within the maximum 15% slope limitation of the Fairview Fire Protection District (managed by the Hayward Fire Department). The grading for Street A would be inconsistent with the first portion of Principle D.3.a of the *Specific Plan*; however, the Principle provides an exception for road construction if it is the only feasible access to a site. **Figure 4-3** depicts how the grading for Street A would appear when complete. The Preliminary Landscape Plan, however, proposes substantial tree and bush planting within the graded area, which would greatly ameliorate the physical, visual impact of the Street A grading (see also the discussion above of effects on scenic vistas). If permitted pursuant to the exception clause of the *Specific Plan*, there would be a **less than significant** impact or conflict with the *Specific Plan* Principle.

A more detailed consistency analysis of the policies, principles and guidelines in the *Fairview Area Specific Plan* is presented in Chapter 7 (Land Use and Planning) of this Draft EIR.

**Impact Visual-4: Visual Character of the Area.** The elevated landform that rises above Hayward and that includes the Project site can be seen from many locations throughout the Fairview area. Construction of the proposed Project may be partially visible from lower elevation vantage points to the west of the Project site and partially from near the Five Canyons Park north and east of the site. However, as depicted in the photo-simulations, the Project will have very limited visibility from vantage points around the site. Notably, from the one location that is a public playground where people would congregate, the future houses on the Project site would be barely visible or discernible. The project would not degrade the existing visual character or quality of the site and its surroundings as known to a substantial number of persons. Due to the limited visibility of the proposed Project site and the limited degree of visual change the project's impact on the visual character of the area is *less than significant*.

## LIGHT AND GLARE

Development of the Project site has the potential to create light and glare impacts on nearby residents. These impacts were addressed in the Initial Study and found to be potentially significant and would be reduced to a *less than significant* level with implementation of Mitigation Measure Vis-2 (previously identified in the Initial Study as Vis-1).

As noted during the comment period for the NOP, residents on Karina Street in the adjacent Jelincic subdivision could be particularly affected by the wash of vehicle headlamps driving along Street A between Lots 7-15 on the Project site. In response to this concern, the Project has been modified to include the construction of a visual barrier along the western edge of Street A between lots 7 - 15 to shield homes on Karina Street from the effects of nighttime light and glare from vehicle headlamps.

Implementation of Mitigation Measure Vis-2 and construction of the visual barrier described above would reduce potential effects related to light and glare to level of *less than significant*.

## CUMULATIVE AESTHETIC IMPACTS

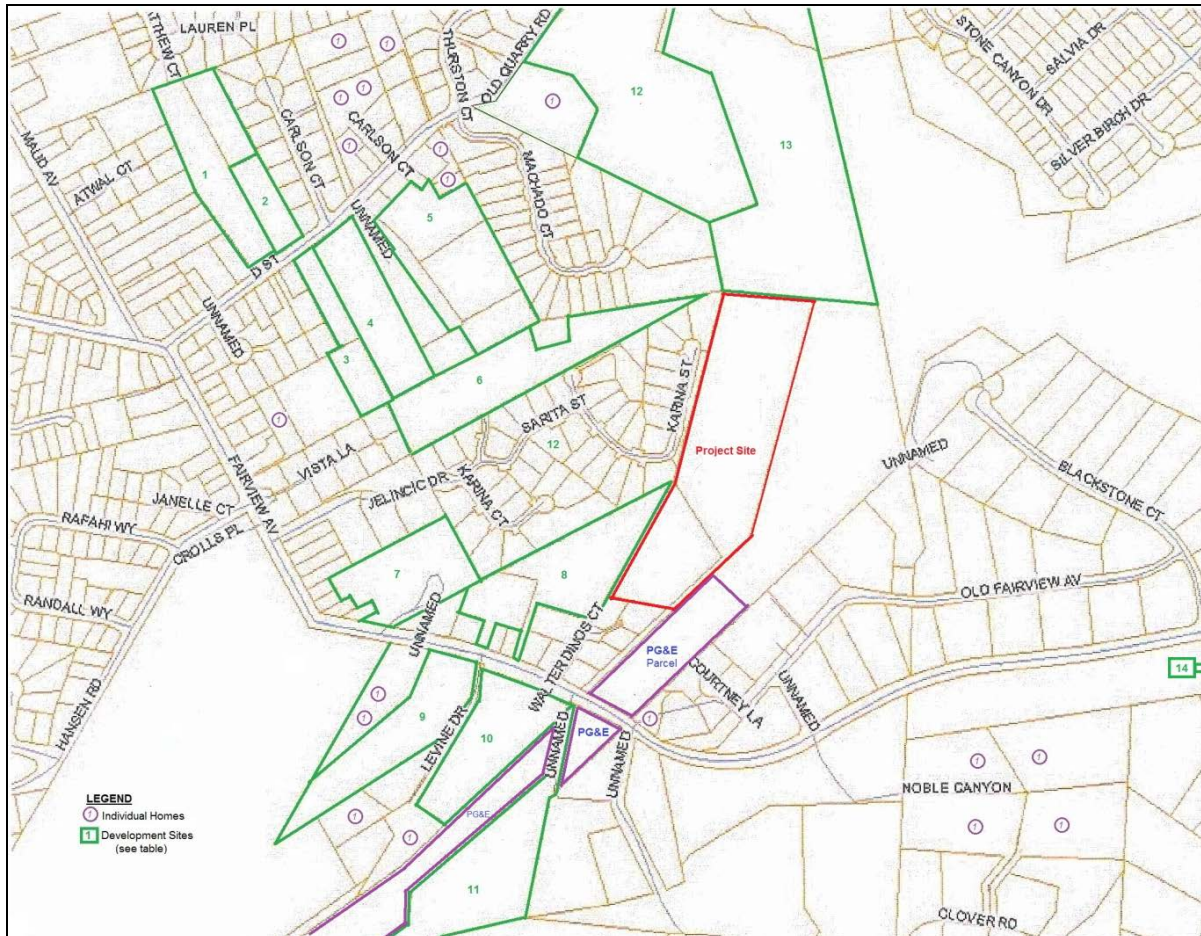
Section 15130 of the CEQA Guidelines requires an EIR to discuss cumulative impacts of a proposed project when the project's incremental effect may be cumulatively considerable. For this EIR, an estimate of potential future development in the Fairview area was prepared by Alameda County Planning Department staff, looking forward over a 20-year time horizon. The geographic area where future development potential is projected involves undeveloped properties in the immediate vicinity of the Project site, as shown in **Figure 4.6** and **Table 4.1** below. Out of the exercise of identifying future potential development came three build-out scenarios:

- a) **Gross Development Potential.** Under this scenario, and as shown in Table 8.5 in Chapter 8 of this Draft EIR, a total of 219 additional single-family residential dwelling units could theoretically be approved and built on currently undeveloped or under-developed residential-designated parcels in the area shown above. The estimate is a result of a simple mathematical calculation of lot sizes and allowable residential densities based on zoning; no constraining environmental or other factors are taken into account. Most of these potential future residential lots (an estimated 65 percent) would be subject to the same 10,000 square foot minimum lot size restriction that applies to the Project site; 14 percent would involve 20,000 square foot minimum lot sizes and 21 percent would be on 1-acre or larger lots.



This quantity of new residential development would not actually be possible due to the necessity of setting aside between 15 and 30 percent of the gross area of each site for roadway access. The actual area available for building sites may also be reduced by physical constraints on the sites and other factors. The figure was only derived as a first step to estimate actual net potential development. In addition, historical growth rates in the Fairview Area, compiled as part of this cumulative analysis and as presented in greater detail in Chapter 7 of this Draft EIR, are relatively low, with an average of only 4 new residential units being built annually over the past 50 years (since 1960).

**Figure 4.6: Developable Parcels in the Project Vicinity.**



Source: Alameda County Planning Department. Numbers shown indicate Assessor's Book and Page numbers.

- b) **Access and Environmentally Constrained Scenario.** Under this estimate, development of the same parcels as described above would potentially yield only 130 additional single-family homes in the area due to reductions in net area for roadway access, slope and other environmental factors. County staff estimate that approximately half of these 130 total new dwelling units could potentially be developed in the next 20 years (between now and 2034), reflecting an average growth of about 3 - 4 units per year.

**Table 4.1: Developable Parcels Table**

Site No.	Site APN	Street Address	Acres (est.)	Gross Potential No. Units
-	417-220 & 240 – var.	D St. & Ohlone Way	1.7	7
-	417-220 & 240 – var.	Fairview Ave.	2.8	6
-	425-0050-022-1 etc.	Noble Canyon <sup>1</sup>	9.8	4
-	417-261-017 to 056	Sarita & Karina St. <sup>1</sup>	7.1	31
1	417-220-11-1 & 12-1	3216 D St.	3.4	15
2	220-11-4	3230 D St.	1.0	4
3	250-001/021	3231 D St.	1.7	7
4	240-001	3247 D St.	3.0	13
5	240-004/5/6/12-4	3291 D St.	5.3	23
6	261-61	3290 Jelincic	4.4	19
7	261-10	24694 Fairview	3.0	13
8	270-003/006	24830 Fairview	4.3	19
9	425-010-002-02	24717 Fairview	3.7	8
10	425-020-001-02	24787 Fairview	3.3	7
11	425-020-003-04	24867 Fairview	5.6	12
12	417-0230-005-01	3664 D St. (Quarry Rd.)	10.0	9
13	417-0230-006-00	3552 D St. (Quarry Rd.)	12.2	12
14	85A-6000-004 to 028	5262 to 5499 Hilltop Rd. <sup>1</sup>	31.0	24
<b>Totals</b>				<b>±233.0<sup>2</sup></b>

<sup>1</sup> Approved subdivision without homes built, except some on Sarita & Karina Streets. (No reductions due to net or environmental factors).

<sup>2</sup> Includes 15 units already on these sites.

- c) **ABAG Growth Scenario.** The annual growth rate estimated by the Association of Bay Area Governments (ABAG), the regional planning agency for the San Francisco Bay Area, is 0.9% per year, a rate consistent with the 20-year projection in (b) above, whereby about half of the 130 ‘theoretical’ new residential units would be built over the next 30 years. This scenario is estimated to result in 57 single-family homes in the project vicinity.

The project would permanently alter the existing visual character of the site due to grading activities, vegetation and the introduction of up to 15 new residential units and associated infrastructure. For residents on the portion of Karina Street bordering the northeastern edge of the Jelincic subdivision, the visual character would be substantially altered; however, only one residence exists in this area, built less than one year ago, and therefore there are no existing neighborhood-wide values for or attachment to the visual character of the site. Project-specific design measures, including landscaping to screen proposed development and the restrictive effects of Mitigation Measure Vis-1 regarding night lights would help minimize visual impacts. As described in the analysis above, the project would not significantly degrade the existing visual character or quality of the site and its surroundings.

Future cumulative developments would be distributed in the Fairview area on undeveloped sites and would be subject to the County’s land use entitlement and environmental review process, including

compliance with policies and guidelines of the *Fairview Area Specific Plan*. Since the majority of future potential single family development would involve properties with the same zoning designations as the Project it is reasonable to assume that future development of these other sites would reflect similar density, house size and other characteristics. Application of the principles and guidelines of the *Fairview Area Specific Plan* to future development proposals would also tend towards greater conformity in overall appearance, from one project site to another. For these reasons, there are not likely to be additional significant cumulative aesthetic impacts. (*Less than Significant*).

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## BIOLOGICAL RESOURCES

### INTRODUCTION

The Initial Study/MND provided substantial information on biological resources on the Project site and included a discussion of federal, state, and local laws, policies, and regulations that influence the protection of such biological resources. The discussion and analysis regarding biological resources is based on the findings and recommendations in the Biological Resources Analysis Report by Olberding Environmental, Inc., a consulting firm specializing in biological resource assessments, which prepared an independent reconnaissance level survey of the Project site, as well as by reports from Zander Associates (another consulting firm with an emphasis on biological resource analyses) regarding the presence of potential wetlands on the Project site. The IS/MND, including the technical biological studies by these consultants, is included as **Attachment A** to this EIR and the information contained therein is not required to be and is not repeated here except to the extent that comments during the review period for the IS/MND or in response to the Notice of Preparation raised concerns or questions regarding potential impacts to biological resources.

The following potentially significant environmental impacts to biological resources have been identified:

- Bio-1: Potential disturbance to protected plant species
- Bio-2: Potential disturbance to nesting birds and bird habitat
- Bio-3: Potential impacts to aquatic life and wildlife habitat
- Bio-4: Potential impacts to wetlands
- Bio-5: Potential interference with migratory wildlife corridors
- Bio-6: Conflict with local conservation regulations.

Mitigation measures designed to reduce these potentially significant impacts to levels of less than significant were included in the IS/MND and remain required mitigation of the project.

### KNOWN CONCERNS

Comments submitted during the public review period of the IS/MND and in response to Notice of Preparation and EIR scoping meeting reflect several concerns regarding wildlife corridors, plant and animal species of special concern, and impacts to wetlands, including a request from the Regional Water Quality Control Board that its role regarding wetlands under the Clean Water Act be clarified. The discussion below focuses on these concerns.

## ENVIRONMENTAL SETTING

The Project site and adjacent PG&E property are both vacant properties that have not previously been developed. The sites are covered with non-native grasses and other vegetation. Cattle and horses use the sites for grazing. Two clusters of Monterey cypress trees occur on the southern portion of the PG&E property, near Fairview Avenue, but otherwise the Project site has no other trees. A dense grove of mature eucalyptus trees occur just outside the property boundary near the northeast corner of the site. The Property is bound by barbed wire fencing. Several existing homes are located to the east, south and west of the Property, but to the north the site abuts undeveloped land and open space.

The Olberding Biological Resources Report (see **Attachment A** to this DEIR) stated that the Project site and PG&E property contain some areas with positive indications of wetland soils, hydrology and vegetation. Some areas of standing water and a drainage ditch were observed on the site at the time of the mid-May (2010) survey that exhibited criteria used by the U.S. Army Corps of Engineers (ACOE) to determine if there are water bodies or wetlands that fall under their jurisdiction as “waters of the United States” (see the following discussion of ACOE regulations and requirements).

In addition, the Olberding Report<sup>1</sup> identified four special-status plant species as having the potential to occur on the property, including Big-Scale Balsam Root, Most Beautiful Jewel Flower, Condon’s tarplant, and Fragrant Fritillary, although the latter two were “presumed absent based on the historic nature of the last occurrence in the vicinity of the Property and the large distance separating the last known observation of these plants from the Property.”<sup>2</sup> The former two species were not observed on the Project site, but at least one additional field survey was recommended before the end of June, which is the last month of blooming period for these two species, to substantiate a negative finding or conclusion that they are not present on site.

Several special-status bird and raptor species were also determined to have a potential to forage and nest near the site, which indicated the necessity of conducting a nesting bird survey no less than 72 hours prior to the commencement of grading or clearing activities to determine if protected bird species are absent or present on the site. If nesting birds are found to be present, specific protocols are required to avoid direct impacts to the species. The potential for burrowing owl to be present on the Project site was specifically dismissed due to the lack of observed small mammal burrows and other secondary evidence.

## IMPACTS AND MITIGATION MEASURES

### CRITERIA OF SIGNIFICANCE

The California Environmental Quality Act (CEQA) and the CEQA Guidelines provide guidance in evaluating project impacts and determining which impacts will be significant. CEQA defines “significant effect on the environment” as “a substantial adverse change in the physical conditions which exist in the area affected by the proposed Project.” Under CEQA Guidelines section 15065(a)(1) and Appendix G, a project’s effects on biotic resources may be significant when the project would:

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<sup>1</sup> Olberding Environmental, Inc., *Biological Resources Analysis Report for the Borel Bank Property, Castro Valley California*, June 2010.

<sup>2</sup> *Ibid.*, p. 1.

- a) 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 or eliminate important examples of the major periods of California history or prehistory;
- b) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service;
- c) Have a substantial adverse effect on any riparian habitat or other sensitive natural community (e.g., oak woodland) identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service;
- d) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act;
- e) 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;
- f) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or
- g) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

## IMPACT ANALYSIS

**ISSUE OR CONCERN:** Criteria 1 and 2: Threatened bird species:

One commenter requested that additional biological surveys be taken to determine whether plant and animal species of concern including the burrowing owl, Cooper's hawk, red-tailed and red-shouldered hawks, white-tailed kite and American Kestrel and also the golden eagle might be present on the Project site.

## DISCUSSION

The Olberding Report mentioned the potential presence of burrowing owls, Cooper's hawk, red-tailed and red-shouldered hawks, white-tailed kite and American Kestrel.<sup>3</sup> Mitigation Measure Bio-2 requires pre-construction surveys for nesting birds prior to the start of construction and identifies the actions to be taken to prevent or minimize impacts if nests or young of the species of concern are located during the surveys. Excluding the PG&E property, the Project site itself has no trees that would be removed or otherwise affected by the Project. For this reason, the likelihood of identifying nesting birds is remote and the risk of the Project having an impact is low. Mitigation Measure Bio-2 would reduce the potential impact to a *less than significant* level.

**ISSUE OR CONCERN:** Criteria 1 and 2: Further consideration should be given to potential impacts to the Alameda Whipsnake and the Red Legged Frog, not only

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<sup>3</sup> Ibid., pp. 17 - 19.

on the project site but also on downstream riparian areas into which the storm water from the Project will drain.

## DISCUSSION

The Olberding report discussed the limited potential for the California Red Legged Frog to be present on the Project site, and for the Project site to provide appropriate habitat for this federally “threatened” and California “Species of Special Concern.” Olberding stated that “...several occurrences of this species have been made within the vicinity of the site within the last ten years...however, despite these recent occurrences, suitable habitat does not occur on the Property to support this species. Permanent, deep breeding ponds or slow moving creeks do not occur on the Property. Other potential breeding habitat was not observed in the vicinity of the Property based on aerial photograph interpretation...”<sup>4</sup>

With regard to the Alameda Whipsnake, a federally and state “threatened” species, Olberding stated: “There are several listed CNDDB occurrences of the Alameda whipsnake within a five-mile radius of the Project Area within the last 10 years, but due to the sensitivity of the data, the exact location is unknown. Critical habitat for the whipsnake is also present within a 5 mile radius of the Project site. Reconnaissance level surveys of the Property revealed the presence of moderate secondary habitat for the Alameda whipsnake. Due to the unsuitable nature of the annual grassland habitat, the lack of adjacent oak woodland or coastal sage habitats, and the developed nature of the surrounding habitats, the Alameda whipsnake is presumed absent from the Project Area.”<sup>5</sup> Consideration of the potential for impacts to these two threatened species was included in the IS/MND and is considered adequate. Further, the on-site surveys required to be conducted under Mitigation Measures Bio-1 and Bio-2 provide additional opportunities for qualified biologists to determine whether these two species are present and to take appropriate action to prevent impacts if any such species are present.

Regarding stormwater effects, the Project includes stormwater treatment features that are designed to prevent pollutants that may be picked up in stormwater flows from leaving the Project site or having adverse effects on streams or water bodies downstream into the northern branch of Sulphur Creek, consistent with current regulatory requirements. As described in greater detail in Chapter 6, Hydrology/Water Quality, stormwater flows will be directed to a linear bio-filtration feature along the westerly edge of the street which would capture and filter out oil, grease and other pollutants from surface flows before percolating into the soil or being conveyed to the on-site detention basin, serving the Sulphur Creek watershed. Drainage from the rear yards of Lots 8 through 14 would flow to the Deer Canyon Creek watershed, and would not pass through any bio-filtration features, but only into groundwater or at peak rainfall periods downhill towards the Deer Canyon Creek watershed. The rear yards of five of these seven lots (Lots 8-12) would drain to a concrete V-ditch with an outfall to a rock rip-rap drainage area in that watershed, while the other lots would drain directly towards the small branch of Deer Canyon Creek. No treatment features are required in this watershed, because the County Clean Water Program and the RWQCB considers these yards to be “self-treating” as they would only contain landscaping, which would normally trap pollutants such as bacteria, fertilizers, small litter and hydrocarbons before flowing downhill and entering the creek.

Flows out of the detention basin in the Sulphur Creek watershed would be controlled to ensure that the rate of flows from the Project site to off-site storm drain infrastructure and downstream creeks and water bodies does not exceed the rate of flows that currently occur during storm conditions. As found

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<sup>4</sup> Ibid., p. 16.

<sup>5</sup> Ibid., p. 17.

in Chapter 6, water quantity or water quality impacts to downstream water bodies and the plant and animal species associated with such downstream water bodies would be *less than significant*.

**ISSUE OR CONCERN:** Criteria 1 and 2: Further consideration should be given to potential impacts to Big-Scale Balsam Root and Most Beautiful Jewell Flower

## DISCUSSION

The IS/MND identified potential impacts to Big Scale Balsam Root and Most Beautiful Jewell Flower. Mitigation Measure **Bio-1** requires additional pre-construction surveys by a qualified biologist to determine whether such species are present or not and if examples are found, to either relocate the plants to the proposed Conservation Parcels, C, E or F or, alternatively, collect seeds from the plants and plant the seeds in the Conservation Parcels. No further site surveys or research is necessary at this time.

**ISSUE OR CONCERN:** Criteria 4: Wetlands. The EIR should provide further information to clarify the role of the Regional Water Quality Control Board (RWQCB) in administering relevant provisions of the Clean Water Act regarding potential impacts to wetlands. The EIR should establish the regulatory status of the “seasonal channel” on the Project site, as described in the biological reports, because it is an area that might come under the jurisdiction of the U.S. Army Corps of Engineers (ACOE) or the RWQCB or the California Department of Fish and Wildlife (CDFW). These agencies should be contacted and if this or any other part of the Project site is determined to be jurisdictional, then appropriate mitigation should be required to assure that potential impacts are adequately mitigated.

## DISCUSSION

Mitigation Measure Bio-4 requires the Project applicant to have a full wetland delineation package prepared and submitted to the ACOE, the RWQCB and to CDFW (formerly the Department of Fish and Game), including information regarding the “seasonal channel.” The mitigation measure stated in the IS/MND defines how on-site mitigation is to be implemented, using Conservation Area (Lot E) as the location where replacement wetlands could be created. Should on-site wetland replacement be required by one or more of the regulatory agencies, an appropriate site or sites within Lot E would be identified as replacement for the loss of jurisdictional wetlands and would be implemented by creating wetland habitat onsite. A seasonal pond would be constructed near the northern segment of the eastern property boundary, at the low point of Lot E, by creating a small reservoir behind a small dam, similar to a stock pond. The pond would cover approximately 2,000 square feet and would be fed by direct rainfall and runoff from both new and undisturbed slopes downhill from the concrete V-ditch. Runoff from the V-ditch and the rear-yard landscapes of the uphill residences would drain to an extension of the proposed rip-rap outfall and then to a combined detention pond and bio-swale for pre-treatment before flowing into the pond. The small reservoir basin would be designed to retain from 6 inches to 1 foot of water and then flow over an earthen spillway and overland down into the adjacent drainage (Deer Canyon Creek).<sup>6</sup> A sketch of the proposed basin is shown in **Figure 5.1**.

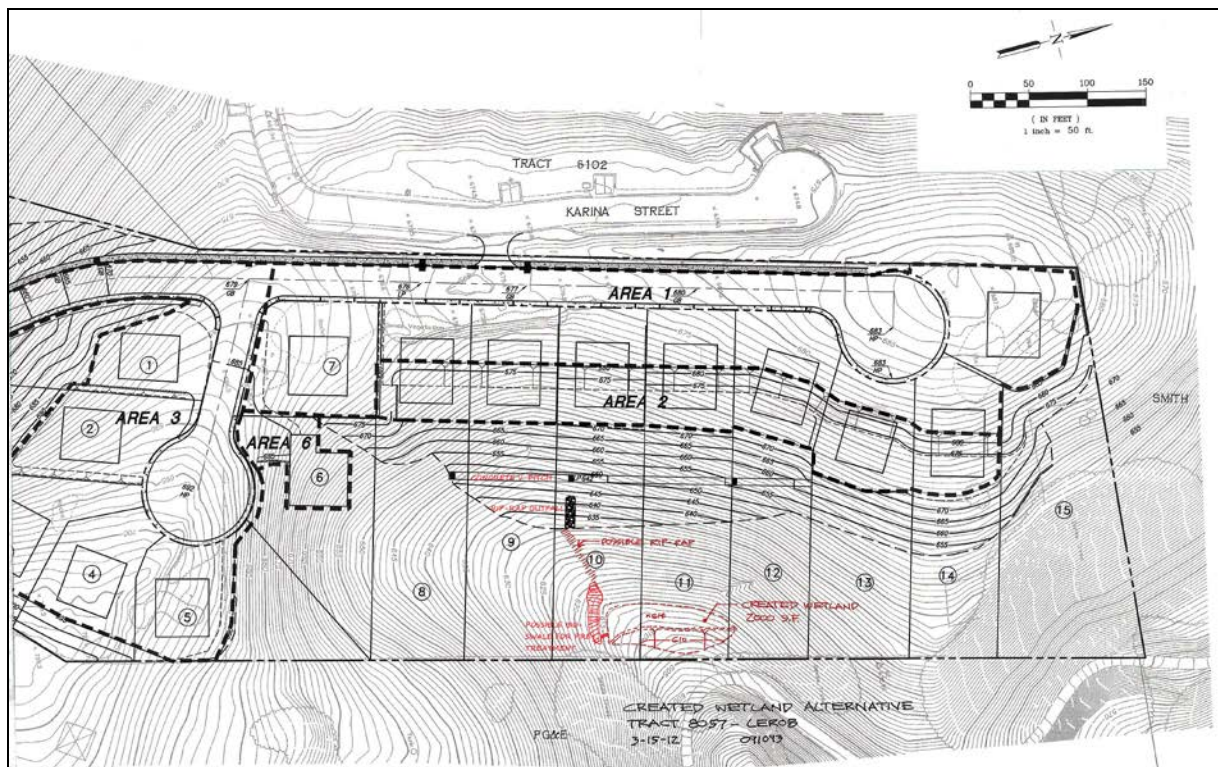
<sup>6</sup> The description of how the replacement wetland pond would be designed and constructed was provided in a letter from Leslie Zander, principal biologist with Zander Associates, dated April 16, 2012.



The perimeter of the pond would be planted with riparian/wetland species such as arroyo willow and California rose. A mixture of seasonal wetland grasses and herbs could also be planted and/or applied as seed inside the perimeter planting. Water is expected to be seasonal, with the pond drying during the summer months. As the willows grow and create a canopy around the pond, saturated conditions could extend in duration allowing for establishment of more emergent wetland plants. The re-created wetland would be monitored for a period of five years following implementation to measure success against criteria defined in consultation with the Corps and/or RWQCB. Contingency measures would also be developed should the on-site mitigation effort not meet the required success criteria.<sup>7</sup>

As stated in the IS/MND, implementation of mitigation measure Bio-4, if required, would reduce the impact to wetlands to a *less than significant* level.

**Figure 5.1: Proposed Replacement Wetland**



Notes: Wetland replacement plan provided by Leslie Zander; based on lot pattern before establishment of Conservation Parcel E, and therefore lot lines near the created wetland should be disregarded.

**ISSUE OR CONCERN:** Criterion 5: Potential impacts to wildlife habitat and corridors

**DISCUSSION**

Wildlife is known to use the non-native annual grassland habitat on both the Project site and the PG&E property for foraging; the designated Conservation Parcels (Lots C, E and F) as shown on the Preliminary Site Plan) would assure that wildlife activity in the area could continue. Although the wildlife corridors on the Project site and the PG&E parcel are not designated as such in any conserva-

<sup>7</sup> Ibid.

tion plan or other adopted County plan, the Project would minimize to a very substantial degree potential adverse effects on wildlife corridors, and the impact would be *less than significant*.

Impact Bio-5 in the IS/MND identified potential impacts to wildlife corridors and indicated that the potentially significant impact would be reduced to level of less than significant by implementation of Mitigation Measures 5a, 5b and 5c.

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## HYDROLOGY AND WATER QUALITY

### INTRODUCTION

The Initial Study included an extensive discussion of hydrology and water quality including a description of the proposed stormwater protection plan that is intended to prevent flooding and other impacts to water quality. Since the time of the Initial Study, refinements to the proposed stormwater plan have been made in close coordination with County of Alameda Public Works Agency staff, supported by updated hydrologic calculations prepared using the Bay Area Hydrologic Model (BAHM). Model results demonstrate compliance with applicable regulations. This chapter describes the revisions to the stormwater protection plan and the expected off-site stormwater flows based on the BAHM modeling results, as set forth in the Hydrologic Report prepared by RJA Engineers.<sup>1</sup>

### FINDINGS OF THE IS/MND AND SCOPE OF EIR ANALYSIS

The evaluation of hydrology and water quality issues in the IS/MND found that the Project would have no effect on groundwater, or potential to expose people or structures to significant risk of loss from flooding, sea level rise, the failure of a levee or dam, or inundation by seiche, tsunami, or mudflow. In light of the prior evaluation in the Initial Study, there is no substantial discussion of these issues in this chapter.

### KNOWN CONCERNS

The main concern raised by several commenters on the Initial Study/MND and at subsequent public hearings and at the EIR Scoping Meeting are that the Project could exacerbate an existing flooding problem that occurs on a section of the North Fork of Sulphur Creek where it crosses under Madeiros Avenue, downstream from the Project site. The concern is that stormwater flows from the Project could make the existing flooding situation worse. Another concern was raised by a commenter who queried whether the water quality of stormwater that flows towards the north and east, into a creek that flows into San Lorenzo Creek and the waters held in Don Castro Reservoir might be adversely affected by silt or other contaminants flowing off of the project site. These concerns are addressed in the discussion below.

### ENVIRONMENTAL SETTING

The Project site is located in the Fairview area of unincorporated Alameda County, in the hills above and east of the city limits of Hayward. The Fairview area has a Mediterranean climate, moderated by the marine conditions associated with San Francisco Bay. The climate is characterized by warm, dry

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<sup>1</sup> Hydrology and Hydraulics Calculations for Tract 8057- Lerob LLC Alameda County, California, prepared by Ruggeri-Jensen-Azar, July 5, 2013. This document is included as **Attachment 3** to this EIR.

summers and cool, wet winters. The mean annual precipitation is 23 inches, most of which falls in the period between October and April with occasional, uncharacteristic rainfall during the other months.

#### *Local Topography and Existing Drainage Patterns*

The Fairview area is characterized by gentle hills and three main ridgelines that extend downward from the upper ridges of the East Bay Hills westward to central Hayward, and which divide the area into watersheds as shown in **Figures 6.1 and 6.2**. Each watershed drains to one of the three main creeks in the area that flow to San Francisco Bay, including San Lorenzo Creek, Sulphur Creek and Ward Creek. Most of the Fairview area flows into San Lorenzo Creek, which begins where Palomares and Eden Canyon Creeks merge in the hills east of Castro Valley about a mile and a half upstream from the Don Castro Reservoir. The Don Castro Reservoir serves to avoid flooding downstream and also provides a regional recreation area with a swimming lagoon. The Five Canyons area of Fairview is within a large watershed of approximately one and a half square miles that contains three unnamed “blue-line” creeks (i.e., mapped by the United States Geological Survey, or USGS) that flow into San Lorenzo Creek almost directly upstream from the Don Castro reservoir, one of which is referred to as Deer Canyon Creek for the purposes of reference in this EIR.<sup>2</sup> The west side of the 5 Canyons watershed, and the east side of the Sulphur Creek and lower San Lorenzo Creek watershed is a ridge that extends from near the intersection of Fairview Avenue and Five Canyons Parkway (about a mile east of the Project site) through the middle of the Project site, and northwesterly towards the Don Castro Reservoir. Fairview Avenue and D Street follow another ridgeline on a mostly east-west axis that forms the northern side of the Sulphur Creek watershed; its southern side is a ridge that East Avenue and Star Ridge Road follow. A small unnamed creek and watershed lies between East Avenue and Second Street. Second Street forms the northern boundary of the Ward Creek watershed. The Sulphur Creek watershed is further divided into northern and southern branches or forks.

In general, surface runoff begins when the soils reach their saturation level and additional rainfall develops into overland flow. Surface water begins as overland flow across landscapes, pavements, compacted earth and other surfaces following existing drainage patterns and makes its way to existing storm drain facilities or open creeks. Other surface waters (streams and creeks) emerge when the water table (groundwater) intersects with steep slopes or where opposite slopes intersect to form valleys and surface flows continue downhill without percolating into the soil (i.e., when the amount of surface water exceeds the ability to be absorbed). The “potential wetland seep” that was described in the Olberding Report<sup>3</sup> as being on the narrow property stem adjacent to the PG&E parcel is an example of a wetland seep or spring that occurs when groundwater intersects with a steep slope. Surface waters in the Fairview area flow through a mixture of natural creeks, open engineered channels, underground conduits (or stormwater drainage pipes) as well as many short conduits under roads and driveways.

#### *Project Site Topography and Existing Drainage Patterns*

The Project site (including the PG&E parcel and the narrow dirt roadway stem) rises approximately 150 feet in elevation from Fairview Avenue to a knoll at its highest elevation (708 feet above mean sea level), which forms one end of a relatively level ridge extending to the northwest and then more northerly along the west side of the Project site. The knoll and the ridge form the uppermost boundaries

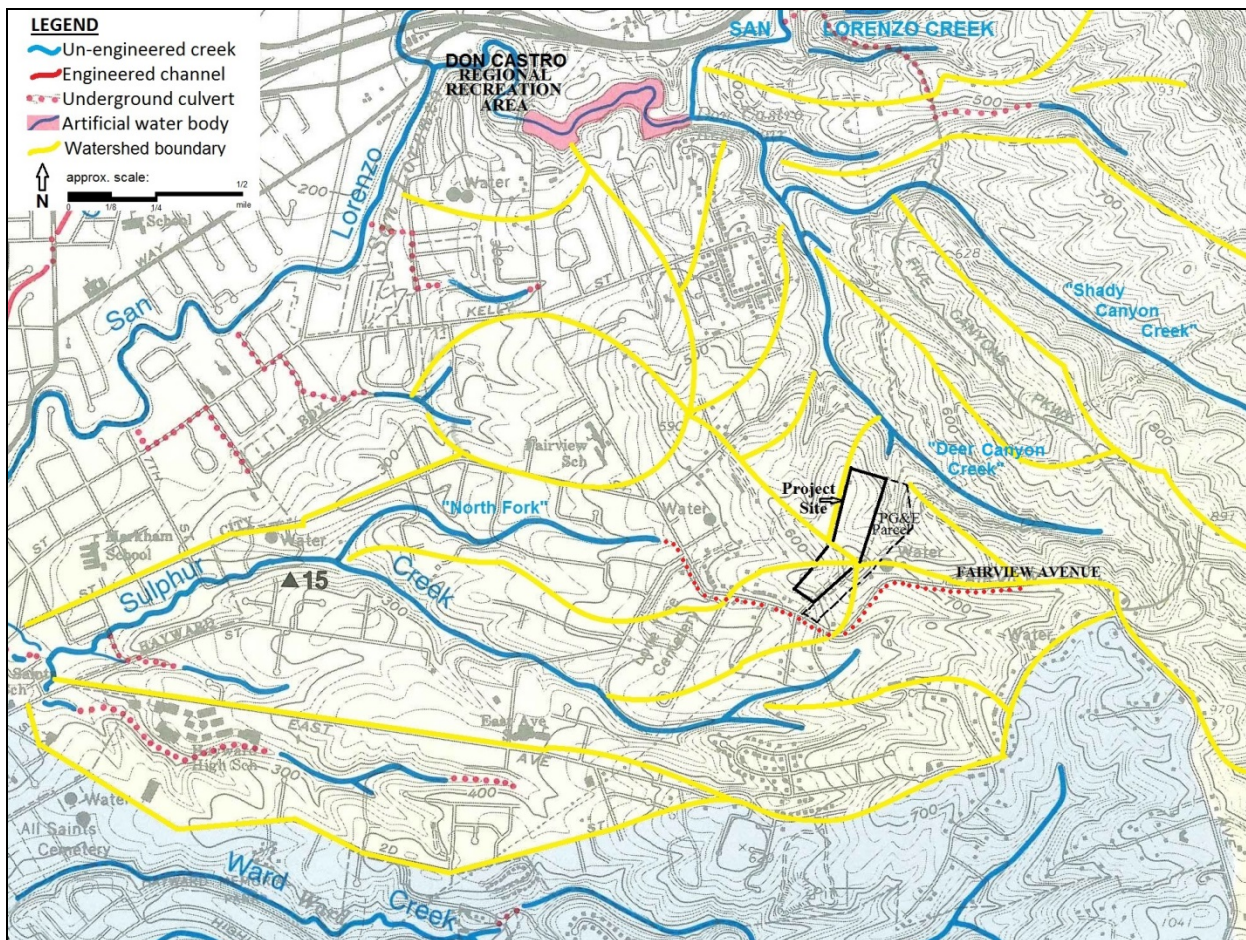
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<sup>2</sup> These creeks do not have any established or well-known names. However, the East Bay Regional Park District, which acquired most of the creeks and their valley sides as part of the Five Canyons development and established the Five Canyons Open Space area, has designated the trail through most of the long valley that extends from Five Canyons Park to San Lorenzo Creek as the Deer Canyon Trail. The parallel creek is therefore referred to as Deer Canyon Creek for reference purposes in this EIR.

<sup>3</sup> Olberding, *Op. Cit.* p. 3.

of four separate watersheds that drain in different directions away from the knoll and the ridge, as shown in **Figures 6.1** and **6.2**: a) to the northeast through the PG&E parcel to “Deer Canyon Creek” in the Five Canyons Open Space area; b) from the knoll to the east towards Old Fairview Avenue (only within the PG&E parcel); c) south towards Fairview Avenue; and d) west towards the site of previously proposed Tract 7921 and the partially developed Jelincic subdivision (Tract 6102). Within Tract 6102 and on the west side of the ridge, there is another watershed that originally flowed to the 5 Canyons watershed, but all drainage from this area within Tract 6102 is collected in a catchment structure and pumped to the west through the southwestern portion of Tract 6102 and conveyed into the County stormwater conduits along Fairview Avenue. A distinct ridge follows most of the property line between the Project site and Tract 6102, such that almost no stormwater from the Project site flows into Tract 6102 except possibly some limited runoff from the knoll across the Tract 7921 property and towards the southwestern portion of Tract 6102.

**Figure 6.1: Watersheds, Creeks and Drainage Facilities in the Fairview Area**

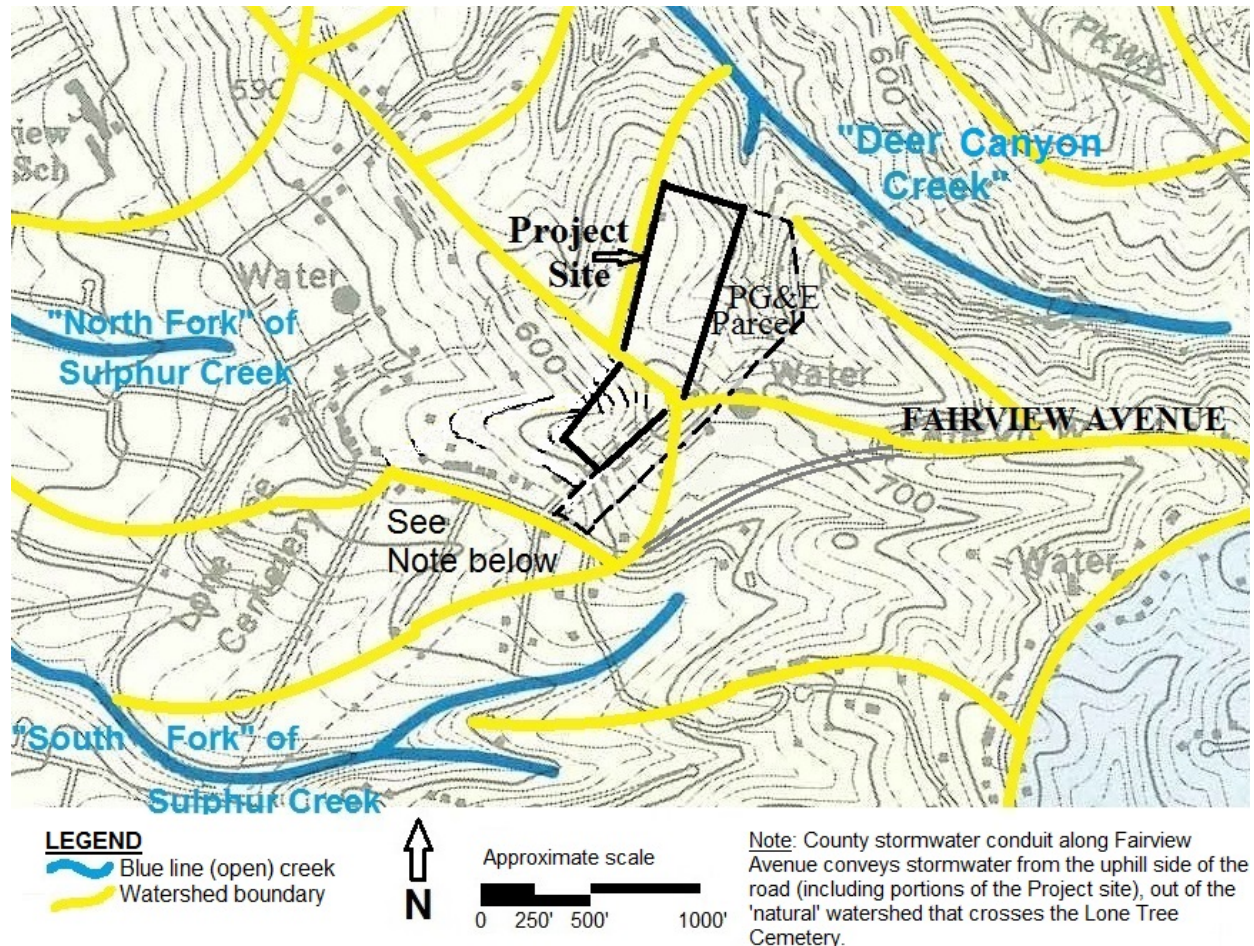


Source: Oakland Museum of California, 1997 – with Alameda County Planning Department annotations

As shown in **Figure 6.3** and tabulated in **Table 6.1** below, stormwater draining from the Project site generally flows into two drainage areas, one to the south and west (Area 1), the other to the north and east (Area 2). Area 1 is comprised of two sub-areas, 1A and 1B. Sub-area 1A consists of the southern 3.5 acres of the development area; stormwater on Sub-area 1A flows southwesterly towards the undeveloped site of a previously proposed subdivision (Tract 7921) before reaching Fairview Avenue. Sub-area 1B consists of the narrow driveway stem (0.4 acres) of the development parcel plus the

sloping face of the PG&E parcel, a combined area of 4.1 acres which drain directly down to Fairview Avenue. Some of this flow is concentrated in a seasonally-emergent channel identified in the Olberding Report, some flows down the dirt road but mostly by sheet flow across the PG&E parcel, unless absorbed into the ground.

**Figure 6.2: Watersheds and Creeks in the Project Vicinity**



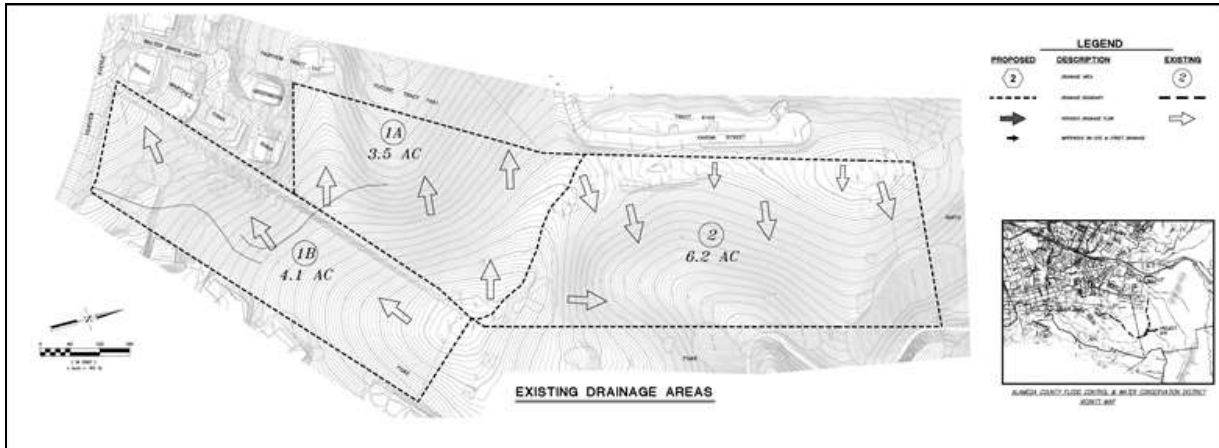
Source: Oakland Museum of California, 1997 – with Alameda County Planning Department annotations.

On the Project side of Fairview Avenue (north side) a concrete V-ditch collects runoff from the driveway stem and the PG&E parcel, and continues downhill along the north side of Fairview Avenue and through two small conduits under the stem driveway and a neighbor's driveway to Walters-Dinos Court, where it connects to an underground County stormwater pipe along the south side of Fairview Avenue. Drainage from Area 1A, both surface and subsurface (groundwater), flows into a detention pond within Tract 6102, and is gradually released downstream to the County stormwater conduits along Fairview Avenue.

Flows from Areas 1A and 1B are conveyed to different points on Fairview Avenue but both join existing flows in the drainage pipes located beneath the street. The public storm drain system is maintained and managed by the Alameda County Flood Control and Water Conservation District (ACFCWCD). The pipes under Fairview Avenue drain to the west and just west of the Hansen Road/Vista Lane/Fairview Avenue traffic circle, the stormwater is discharged into the North Fork of Sulphur Creek. The creek runs generally in a westerly direction along the rear lot lines of residential

lots that front on Sunnybank Lane (on the north), on Rafahi Lane and Randall Way (on the south), and under or along various other streets to the west, including Madeiros Avenue, Fairlands Road and Twin Creek Court, until it merges with the South Fork of Sulphur Creek, near the Sulphur Creek Nature Center.

**Figure 6.3: Existing Drainage Flow Directions**



**Table 6.1: Drainage Areas and Flow Directions - Existing Conditions**

PROJECT SITE		PG&E PROPERTY (ACRES)	TOTAL DRAINAGE AREA	DIRECTION OF FLOW
DRAINAGE AREA	SIZE (ACRES)			
1A	3.5	0.0	3.5	To Fairview LLC (Tract 7921) then Fairview Ave.
1B	0.4	3.7	4.1	To Fairview Ave. Catch Basin
Subtotal Area 1	3.9	3.7	7.6	All flow to N. Fork Sulphur Creek
Area 2	6.2	0.0	6.2	To northeast (PG&E property and Deer Canyon Creek/San Lorenzo Creek/Don Castro Reservoir)
Total	10.1	3.7	13.8	

Source: RJA Engineers; Lamphier-Gregory

Area 2 consists of the upper or northerly 6.2 acres of the Project site which drains to the north and east into a small valley on the northern portion of the PG&E property, beyond which it flows into Deer Canyon Creek and eventually San Lorenzo Creek and Don Castro Reservoir.

## REGULATORY SETTING

The proposed Project must be constructed in accordance with several regulatory programs, laws, and regulations that aim to protect surface water resources. In some cases, Federal laws are administered and enforced by state and local government. In other cases, state and local regulations in California are stricter than those imposed by Federal law. This section summarizes relevant regulatory programs,

laws, and regulations with respect to hydrology and water quality and how they relate to the proposed Project.

### *Federal Laws and Regulations*

#### Clean Water Act

The Clean Water Act (CWA) was enacted by Congress in 1972 and amended several times since inception. It is the primary federal law regulating water quality in the United States, and forms the basis for several state and local laws throughout the country. Its objective is to reduce or eliminate water pollution in the nation's rivers, streams, lakes, and coastal waters. The CWA prescribed the basic federal laws for regulating discharges of pollutants as well as set minimum water quality standards for all waters of the United States. Several mechanisms are employed to control domestic, industrial, and agricultural pollution under the CWA. At the Federal level, the U.S. Environmental Protection Agency (EPA) administers the CWA. At the state and regional level, the CWA is administered and enforced by the State Water Resources Control Board (SWRCB) and the Regional Water Quality Control Boards (RWQCB). The State of California has developed a number of water quality laws, rules, and regulations, in part to assist in the implementation of the CWA and related federally mandated water quality requirements. In many cases, the Federal requirements set minimum standards and policies and the laws, rules, and regulations adopted by the State and Regional Boards exceed them.

#### Federal Emergency Management Agency (FEMA)

FEMA is the federal agency responsible for administration of the National Flood Insurance Program (NFIP). They oversee the hydrologic and hydraulic analysis that determines the magnitude of the flood risk in communities throughout the United States. Those analyses, performed under FEMA guidelines by private engineering firms and Federal, State and local agencies, are based on standard engineering practices and yield the flood risk information shown on the NFIP maps.

The County of Alameda Public Works Agency participates in the NFIP and has adopted floodplain management regulations that are aimed at reducing future flood losses and that meet the minimum standard of the NFIP. FEMA recognizes that NFIP maps require changes from time to time as a result of anticipated development, floodplain and watershed changes, flood control or mitigation efforts, or updated assessments of flood risk. The County of Alameda Public Works Agency (Land Development Section) is the designated local NFIP Administrator and enforces NFIP regulations and requirements. The design requirements of the NFIP are incorporated into the California Building Code, which is enforced by the Building Official; the County has also adopted some more stringent design requirements in its Floodplain Management Ordinance (Chapter 15.40 of the General Ordinance Code).

## **STATE LAWS AND REGULATIONS**

#### Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act established the SWRCB and the RWQCB as the principal state agencies having primary responsibility for coordinating and controlling water quality and water supply in California. The Porter-Cologne Act established the responsibility of the RWQCB for adopting, implementing, and enforcing water quality control plans (Basin Plans), which set forth the water quality standards of the state (i.e. beneficial uses of surface waters and groundwater) and the objectives or criteria necessary to protect those beneficial uses. The NPDES permits that are issued to each local jurisdiction must be consistent with the Basin Plans.



### NPDES Permit Requirements

The CWA has nationally regulated the discharge of pollutants to the waters of the U.S. from any point source since 1972. In 1987, amendments to the CWA added section 402(p), which established a framework for regulating non-point source (NPS) storm water discharges under the National Pollutant Discharge Elimination System (NPDES), which is administered through state agencies such as the California State Water Resource Control Board (SWRCB). Under the program, the Project applicant will be required to comply with two NPDES permit requirements.

The NPDES General Construction Permit Requirements apply to clearing, grading, and disturbances to the ground such as excavation. The Project applicant is required to submit a Notice of Intent (NOI) with the SWRCB's Division of Water Quality. The NOI includes general information on the types of construction activities that will occur on the site. The applicant will also be required to submit a site-specific plan called the Stormwater Pollution Prevention Plan (SWPPP) for construction activities. The SWPPP will include a description of Best Management Practices (BMPs) to minimize the discharge of pollutants from the site during construction as well as appropriate monitoring, sampling and reporting.<sup>4</sup> It is the responsibility of the property owner to obtain coverage under the permit prior to site construction.

Provision C.3 of the County's General Discharge Permit from the SWRCB (now called the Municipal Regional Permit or MRP) requires the quality and flow of stormwater and stormwater pollutants to be controlled from new development sites. This is implemented through local regulations, discussed below.

### **LOCAL REGULATIONS**

#### Alameda Countywide Clean Water Program

To comply with the Clean Water Act, the Alameda Countywide Clean Water Program (ACCWP) is an effort to coordinate and implement local programs throughout the county to minimize and prevent urban runoff pollution. ACCWP holds a joint municipal regional NPDES permit from the San Francisco Bay RWQCB (permit no. CAS612008). The permit includes a comprehensive plan to reduce the discharge of pollutants to creeks, San Francisco Bay, and the ocean to the maximum extent possible.

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

The San Francisco Bay RWQCB is responsible for the development, adoption, and implementation of the Water Quality Control Plan for the San Francisco Bay region. The Basin Plan is the master policy document that contains descriptions of the legal, technical, and programmatic bases of water quality regulation in the San Francisco Bay Region.<sup>5</sup>

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<sup>4</sup> California EPA, State Water Resources Board, Construction General Permit Fact Sheet, September 2009, as modified. [http://www.swrcb.ca.gov/water\\_issues/programs/stormwater/constpermits.shtml](http://www.swrcb.ca.gov/water_issues/programs/stormwater/constpermits.shtml)

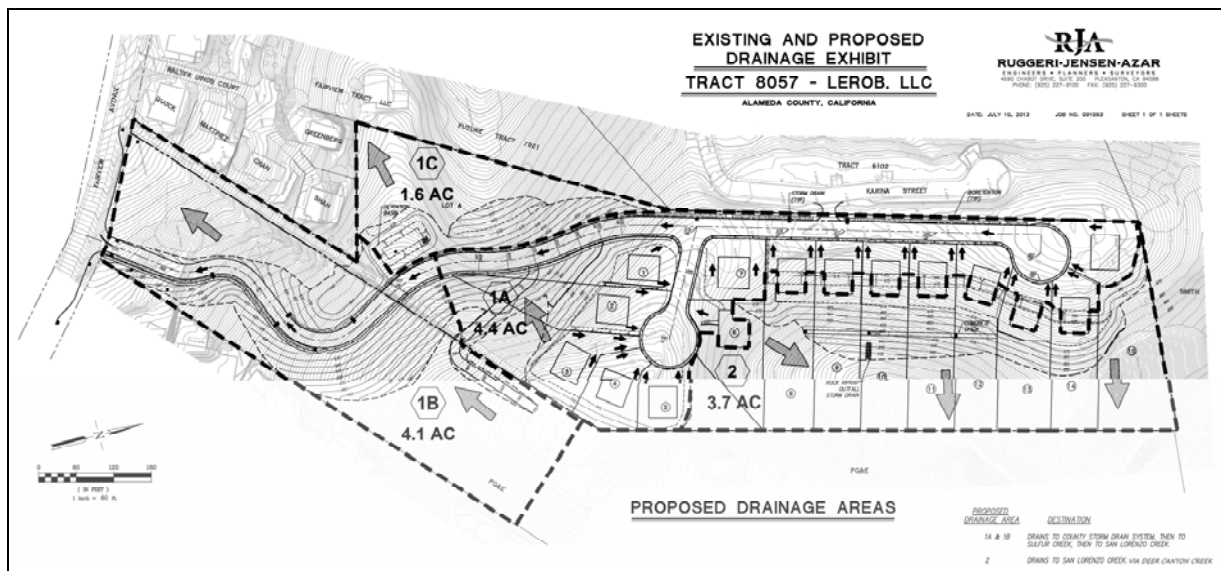
<sup>5</sup> California Regional Water Quality Control Board, San Francisco Bay Region, San Francisco Bay Basin (region 2) Water Quality Control Plan (Basin Plan), as amended through December 31, 2010, Table 2-2.

## PROPOSED STORMWATER PROTECTION PLAN

The proposed Stormwater Protection Plan for the Project has been revised somewhat from what was described in the Initial Study/MND. Like the original design, the system would utilize a variety of means to capture, control, detain and ultimately release stormwater in a manner consistent with applicable Clean Water Act and local regulations.<sup>6</sup> The Plan includes the use of a linear bio-retention area or swale (adjacent to Street A) and a controlled-release detention basin. The primary change to the Stormwater Protection Plan is the elimination of individually-identified bio-swales on the sides of each home, which County Clean Water Program staff determined would be too difficult to maintain.

Together with the proposed Grading Plan, the Stormwater Protection Plan includes components that would be installed on each lot, both those that are level with or slope up from the adjacent roadway (single pad lots) and those that are level with or slope down from the proposed Street A and Street B roadways (down-slope split level pads). **Figure 6.4** illustrates the direction that stormwater would flow in the future after the Project grading and stormwater infrastructure is in place.

**Figure 6.4: Future Directions of Stormwater Flows**



As shown in **Figure 6.4**, the proposed grading for the Project would substantially alter existing grades and elevations on the Project site and change the direction of stormwater flows. Changes include deep excavation on the PG&E property and the southern part of the development site (to construct Street A), and placing most of the excavated material along the eastern side of the ridge for the building pads of future homes on Lots 7-15, as well as Lots 1, 2 and 3. The form of the northern ridge would be elevated slightly (1 - 2 feet) above Street A and widened substantially (25 to 50 feet) in order to provide level front and rear yards for the homes and ensure that drainage from the roofs and yards flow back towards the street instead of into Drainage Area 2. The planned grading along the ridge is necessary so that runoff from the roofs, driveways and walkways on Lots 1 to 3 and 7 through 15 will flow to the linear bio-filtration feature along the western edge of the street (across from the homes) where regular maintenance would be easily accessible as required by the County Clean Water Program and the C.3 provisions of the RWQCB permit. A treatment feature within Drainage Area 2 is considered infeasible

<sup>6</sup> Alameda County Public Works Agency, *Hydrograph Modification Management Plan Part A: General Provisions for Hydromodification Management, Alameda Countywide Clean Water Program*, May 15, 2005

by the Applicant because it would be inaccessible for maintenance, behind and below the homes and where most of slopes are too steep to accommodate such a feature. As described in Chapter 5 of this EIR, drainage from the rear yards of Lots 8 through 14 would flow to the Deer Canyon Creek watershed, and would not pass through any bio-filtration features, but only into groundwater or at peak rainfall periods downhill towards the Deer Canyon Creek watershed. No treatment features are required in this watershed, because the County Clean Water Program and the RWQCB considers these yards to be “self-treating” as they would only contain landscaping, which would normally trap pollutants such as bacteria, fertilizers, small litter and hydrocarbons before flowing downhill and entering the creek.

The result of the Project grading would be to reduce the size of Drainage Area 2 from 6.2 acres to 3.7 acres, effectively reducing the watershed of Deer Canyon Creek by about 2.5 acres and in turn reducing the amount of stormwater that would flow towards Don Castro Reservoir. Conversely, the grading plan would increase the size of Drainage Area 1 by 2.5 acres (from 7.6 acres to 10.1 acres) of which 4.4 acres would drain to the bio-swale or stormwater detention basin. The remaining 5.7 acres of Drainage Area 1 includes the graded 1.6 acres downhill from Street A (Area 1C) that would flow downhill to Tract 7921 and the southeastern portion of Tract 6021. The majority of the PG&E parcel, both graded and undisturbed areas, would drain to the bio-swale along Street A or into existing stormwater conduits on Fairview Avenue.

After Project completion with the proposed Stormwater Protection Plan, rainfall from rooftops of all of the homes would flow into gutters and downspouts and would discharge onto the side or front yards of each home. Roof-top runoff may also be collected in rain barrels and reserved for irrigating private landscaping, which could be required or encouraged as a condition of approval. In normal or light rain storms, water from downspouts and direct rainfall would percolate naturally into the subgrade/groundwater. However, when storm events produce more rain than can be absorbed naturally, the excess or over-flow drainage would gravity flow into 4" drain pipes installed underground on either side of the house. Rainwater would gravity flow into and through these pipes towards the street where it would “bubble up” to the surface at the low point on the lot and flow onto the adjacent street surface. Rain falling on the street itself and flows from the houses would gravity flow across the street surface to a 6" concrete curb on the downslope side of the street which would have openings every 25 feet allowing the sheet flow to enter a 5½-foot wide bio-retention swale (or bio-swale).

Check dams to control the flow would be used wherever the slope of Street A exceeds 4 percent, in order to ensure an appreciable rate of absorption into the subgrade (groundwater) and adequate water quality treatment. Stormwater entering the bio-swale would be absorbed through natural percolation into 18" of sandy loam soil and then percolate down through 12"-18" of ½-inch-sized drain rock. Flows percolating downward past the drain rock layer would infiltrate into the ground or would be picked up in a 6" perforated subdrain and gravity flow into the on-site stormwater detention basin located on Lot C. The Stormwater Protection Plan shows bio-swales continuing along Street A between the detention basin and Fairview Avenue, with one on the same side as the detention basin, terminating about 300' downhill, and the other bio-swale on the opposite side of Street A, extending the remaining distance downhill to Fairview Avenue.

Excess drainage from the bio-swale feature along Street A (i.e., that exceeds its percolation or absorption capacity) would drain to the stormwater detention basin. The function of the basin would be to store excess stormwater and to control its rate of release to the County’s stormwater system in accordance with the County’s C.3 and hydro-modification regulations.

Stormwater held in the basin would be released downstream through a narrow drain hole at the bottom of the basin, sized to control the rate of outflow. Stormwater collected in the basin would flow through a gravel filter element and a wire mesh screen to prevent solid material such as leaves or silt from

entering and potentially clogging the outlet drain hole. The detention basin is not intended to treat stormwater or remove pollutants; the uphill bio-swale would serve that purpose.

The detention basin would be constructed with sidewalls sloping in towards the bottom; along the top it would measure approximately 88 feet by 40 feet (3,520 square feet) and 66 feet by 20 feet at the bottom. These dimensions would provide a holding capacity consistent with Bay Area Hydrologic Model (BAHM) sizing criteria. The BAHM calculations indicate that ponding in the basin would not endure long enough for evaporation from the basin to affect the amount of water ultimately released. Outflow through the drain hole would discharge into a 24" outlet pipe. The outlet pipe would run down-slope, generally following the alignment of Street A as it heads downhill and across the PG&E parcel towards Fairview Avenue. This conduit would discharge to the storm drain in Fairview Avenue which conveys it to the North Fork of Sulphur Creek.

Should the detention basin fill to capacity during a major storm event, excess stormwater would flow into a riser pipe in the middle of the basin and drain directly into the 24" outlet pipe and thence, on down to the catchment basin in Fairview Avenue as described above. This scenario would only occur in a major storm event such as a 100-year storm. Furthermore, in the unlikely event that the riser pipe is clogged, or not functioning as designed, water would flow out from the basin at its southeastern corner and spill into a channel that would direct flows to the southeast (i.e., to the PG&E property and the lower portion of Street A) and away from down-slope residences on the adjacent subdivision. The Homeowners Association for the subdivision would be responsible for maintenance of the detention basin, as well as the bio-swales.

Existing or baseline rainfall and stormwater conditions associated with the Project site have been entered by the project's civil engineers into the BAHM hydrological model as required by the County C.3 permit. The model analyzes the probable performance capability of the proposed Stormwater Protection Plan to meet the County's C.3 hydro-modification standards to determine if post-construction conditions – when the site is fully built-out – would result in a greater amount or rate of stormwater flowing off the site than occurs under existing pre-development conditions. The results of the analysis indicate that the proposed Stormwater Protection Plan would be in compliance with this requirement.<sup>7</sup> The model results show that for every year from 1961 to 2004, the peak flows and annual flow rates, expressed in cubic feet per second (CFS), would be adequately handled by the proposed drainage and hydro-modification design and would result in equal or lesser amounts of stormwater leaving the site than would occur under pre-development conditions.<sup>8</sup> Also, stormwater leaving the Project site would be filtered and cleansed of pollutants by the action of the bio-filtration features included in the Plan and required by the C.3 provisions.

**Figure 6.4** shows the direction of stormwater flows as a result of the proposed Grading and Stormwater Protection Plans. The changes to the runoff characteristics of the site are reflected in **Table 6.2** where Area 1 is broken into three sub-areas, 1A, 1B and 1C. Rainfall on roofs, pavements and landscape areas (except for rear yards), as well as from homes along Street B would flow towards a linear bio-filtration feature on the west side of Street A in which drainage would flow to the west and into a detention basin near the southern edge of the development site.

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<sup>7</sup> Ibid.

<sup>8</sup> Ibid.

**Table 6.2: Drainage Areas and Flow Directions - Post Development (Proposed)**

DRAINAGE AREA	EXISTING SIZE OF DRAINAGE AREA (ACRES) (WITH PG&E)	ALTERED DRAINAGE AREA SIZE (ACRES) (WITH PG&E)	DIRECTION OF FLOW
1A	3.5	4.4	To Fairview Ave. storm drain system
1B	4.1	4.1	To Fairview Ave. storm drain system
1C	(n.a.)	1.6	To Fairview LLC property (Tract 7921), then to Fairview Ave.
Subtotal Area 1	7.6	10.1	All flows lead to No. Fork Sulphur Creek
Area 2	6.2	3.7	To northeast (PG&E property, then Deer Canyon Creek/San Lorenzo Creek/Don Castro Reservoir
Total	13.8	13.8	

Source: RJA Engineers; Lamphier-Gregory

Lot 6 is proposed to be developed only with drilled pier and grade beam construction and to have no graded rear yard, due to its predominantly 30 percent slope, but will have roof, walkway and driveway drainage to Street B (and, in turn, to Street A). All of Lots 7 and 15, with retaining walls around their downhill side lot lines, would drain to Street A or B, but the rear yards of Lots 8 to 14 would drain either to subsurface groundwater or by surface flow towards the Deer Canyon Creek watershed (Drainage Area 2). Surface runoff during peak storms from the rear yards of Lots 9 to 12, and a small portion of Lot 8 (about 20%) would flow to a concrete V-ditch extending laterally along the slope downhill from these lots' rear lot lines, as shown in **Figure 6.4**. Excess surface runoff from Lots 13, 14 and the majority of Lot 8 would flow directly to the branch of Deer Canyon Creek, which may have seasonal surface flows about 200-300 feet downstream from the Project site.

The increase in acreage and impervious surface that would drain to the ACFCWCD drainage system in Fairview Avenue would be de-contaminated by proposed bio-retention swales planned along Street A and by the restrictive sizing of the pipes that release storm water from the detention basin which is designed to meet the Hydrograph Modification requirements of the County's Municipal Regional Permit. The capacity of the on-site detention basin would be sufficient to accommodate flows from a 100-year storm event with approximately one foot of freeboard. Although the acreage of the area that would drain to Fairview Avenue (and hence, the North Fork of Sulphur Creek) is increased from 7.6 acres to 10.1 acres, the BAHM calculations show that the rate of stormwater flows would be reduced from 11.76 cfs to 9.40 cfs in the post-developed condition due to the combined effects of bio-retention and on-site detention/controlled release. BAHM calculations for Drainage Area 2 shows a reduction in flow rate due to reduced drainage area, with flows reduced from 10.27 cfs to 6.82 cfs, also accounting for changed features within Area 2 due to the Project, including new graded slopes and landscaped areas.

## IMPACTS AND MITIGATION MEASURES

### CRITERIA OF SIGNIFICANCE

The CEQA Guidelines provide specific guidelines for identifying what specific hydrology and water quality impacts would normally require determinations. Based on Appendix G of the CEQA Guidelines, and on Alameda County's specific requirements, the EIR should determine with substantial evidence if the project would:

- a) Violate any water quality standards, conflict with water quality objectives, fail to meet waste discharge requirements, significantly degrade any surface water body or groundwater, or adversely affect the beneficial uses of such waters, including public uses and aquatic, wetland and riparian habitat?
- b) 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)?
- c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site (i.e. within a watershed)?
- d) 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 (e.g., due to increased impervious surfaces) in a manner which would result in flooding on- or off-site (i.e. within a watershed)?
- e) Create or contribute runoff water which would exceed the capacity of existing or planned storm-water drainage systems due to changes in runoff flow rates or volumes?
- f) Result in a significant increase in pollutant discharges to receiving waters (marine, fresh, and/or wetlands) during or following construction (considering water quality parameters such as temperature, dissolved oxygen, turbidity, and typical stormwater pollutants such as heavy metals, pathogens, petroleum derivatives, synthetic organics, sediment, nutrients, oxygen-demanding substances, and trash)?
- g) Result in an increase in any pollutant for which a water body is listed as impaired under Section 303(d) of the Clean Water Act?
- h) 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?
- i) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?
- j) 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?
- k) Inundation by seiche, tsunami, or mudflow?

As discussed at the beginning of this Chapter, based on the findings made in the Initial Study/MND that the project would have no impact due to effects on groundwater recharge, housing or structures in 100-year flood zones, exposure of people or structures to flooding risks, seiche, tsunami or mudflow, only minimal discussion of criteria b and h through k are included in this chapter.

## **WATER QUALITY STANDARDS AND REQUIREMENTS (CRITERIA A & F)**

Non-point source pollutants (NPS) are washed by rainwater from roofs, landscape areas, and streets and parking areas into the drainage network. NPS can include sediment, nutrients, bacteria and viruses, oil and grease, organics, pesticides, and gross pollutants (floatables). An increase in NPS pollutants could have adverse effects on wildlife, vegetation, and human health. NPS pollutants could also infiltrate into groundwater and degrade the quality of potential groundwater sources.

In accordance with the ACCWP and the County's municipal regional NPDES permit, engineers for the Project sponsor have prepared a Stormwater Protection Plan consisting of features that accomplish fundamental water quality and flood prevention objectives:

1. Bio-filtration features will filter pollutants and contaminants out of surface stormwater flows before such waters leave the Project site, and
2. An on-site detention basin will store stormwater during major storm events; the design of the basin and the outflow pipe sizes will restrict outflow at a rate lower than what exists currently.

As stated above, the proposed Stormwater Protection Plan and accompanying BAHM calculations have been accepted by the Public Works Agency as complying with current C.3 provisions. However, during the grading and construction activities soil will be disturbed and exposed to wind, rain and other naturally occurring conditions that could result in erosion and siltation of downstream water bodies.

**Impact Hydro-1: Construction-Period Erosion and Siltation.** Construction of the proposed Project would involve grading activities that would disturb soils at the site. Such disturbance would present a threat of soil erosion by subjecting unprotected bare soil areas to runoff during construction, which could result in siltation to receiving waters. This is a *potentially significant* impact.

## Mitigation

**Geo-1 Construction General Permit and SWPPP.** Mitigation Measure Geo-1 requires implementation of a construction-period Stormwater Pollution Prevention Plan (SWPPP) including Best Management Practices for preventing construction-period stormwater pollution through soil stabilization, sediment control, wind erosion control, soil tracking control, non-storm water management, and waste management and materials pollution control:

**Mitigation Geo-1:** The Project sponsor shall obtain coverage under the State Water Resources Control Board (SWRCB) Construction General Permit, including implementation of a Storm Water Pollution Prevention Plan (SWPPP) in accordance with procedures and specifications of the Alameda County Clean Water Program.

1. The Project sponsor shall ensure that construction practices for the Project comply with practices to prevent water pollution under the provisions of the Construction General Permit. In order to obtain a permit, the Project Applicant must file a Notice of Intent (NOI) with the Regional Water Resources Control Board (RWQCB) prior to the start of construction.
2. Pursuant to the requirements of the Construction General Permit, the Project sponsor shall prepare and implement a SWPPP. The SWPPP shall be consistent with the terms of the General Permit; the Manual of Standards for Erosion and Sedimentation Control Measures by the Association of Bay Area Governments (ABAG); the Best Management Practices (BMPs) as provided in the California Stormwater Quality Association (CASQA) handbooks; policies and recommendations of the local urban runoff program (County of Alameda); and the Staff Recommendations of the RWQCB. The SWPPP shall incorporate BMPs to reduce the potential for pollutants in runoff waters and to prevent pollutant transport off-site during construction activities. Examples of BMPs include, but are not limited to the following:

- a) Only clear land which will be actively under construction in the near term (e.g., within the next 6-12 months), minimize new land disturbance during the rainy season, and avoid clearing and disturbing sensitive areas (e.g., steep slopes and natural watercourses) and other areas where site improvements will not be constructed.
- b) Provide temporary stabilization of disturbed soils whenever active construction is not occurring on a portion of the site through water spraying or application of dust suppressants, and gravel covering of high-traffic areas. Provide permanent stabilization during finish grade and landscape the Project site.
- c) Safely convey runoff from the top of the slope and stabilize disturbed slopes as quickly as possible.
- d) Delineate the Project site perimeter to prevent disturbing areas outside the project limits. Divert upstream run-on safely around or through the construction. Runoff from the Project site should be free of excessive sediment and other constituents. Control tracking at points of ingress to and egress from the Project site.
- e) Retain sediment-laden waters from disturbed, active areas within the Project site.
- f) Perform activities in a manner to keep potential pollutants from coming into contact with stormwater or being transported off site to eliminate or avoid exposure.
- g) Store construction, building, and waste materials in designated areas, protected from rainfall and contact with stormwater runoff. Dispose of all construction waste in designated areas, and keep stormwater from flowing onto or off these areas. Prevent spills and clean up spilled materials.

#### **RESULTING LEVEL OF SIGNIFICANCE**

Implementation of Mitigation Geo-1 would also mitigate Impact Hydro-1. Therefore, applicable regulations for stormwater treatment would be met through implementation of a Stormwater Pollution Prevention Plan during construction as outlined in Mitigation Measure Geo-1 and the resulting impact related to water quality would be reduced to a *less than significant* level.

#### **GROUNDWATER RECHARGE (CRITERION B)**

Groundwater was not encountered in any of the test pits drilled as part of the preliminary geotechnical investigation conducted by the Project sponsor's geotechnical consultant, Berloger, in 2010.<sup>9</sup> The project would be served by municipal water from the East Bay Municipal Utilities District (EBMUD) and would not utilize groundwater in any respect. Stormwater percolating through the site to groundwater would be decontaminated by the on-site bio-retention features of the Project's Stormwater Protection Plan. The Project site does not represent a major groundwater recharge source and does not substantially change the flow of stormwater from the site. Any adverse impacts to groundwater or groundwater recharge would be *less than significant*.

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<sup>9</sup> Preliminary Geotechnical Investigation - Borel Bank Properties Residential Subdivision Fairview Avenue Hayward, California, Berloger Geotechnical Consultants, July 8, 2010, p. 2.



## DRAINAGE PATTERN AND FLOODING (CRITERIA C & D)

The proposed Stormwater Protection Plan has been subjected to testing and evaluation using the Bay Area Hydrology Model (BAHM). This model is a tool for analyzing the potential hydrograph modification effects of land development projects and sizing structural solutions to mitigate the increased stormwater runoff from such projects. The concept of “Flow Duration” control is relatively new, and designing facilities requires the use of a continuous simulation hydrologic model to characterize the flow frequencies associated with small high frequency rainfall events. The BAHM model was developed for use in Alameda, San Mateo and Santa Clara Counties and is a refinement of a model originally developed in 2001 to support flow duration design requirements in the *Stormwater Management Manual for Western Washington*. The BAHM incorporates local rainfall and climate data as well as calibrated model parameters for an internal modeling engine. The BAHM results for the proposed Stormwater Protection Plan for the Project are included in **Attachment 3**. The conclusions of the report are that pre-project (i.e., current) runoff flows from a 10-year storm event discharging to the Fairview Avenue storm drain system (i.e., from Drainage Areas 1A and 1B) are 11.76 cubic feet per second (cfs), compared to post-project flows expected at 9.40 cfs, a 20 percent reduction in the rate of outflow. Also, pre-Project runoff for the 10-year storm event discharging to the east onto the adjacent PG&E property (i.e., from Drainage Area 2) are 10.27 cfs compared to post-project flows of 6.82 cfs - a 33.6 percent reduction. The results of the hydraulic modeling indicate that with bio-filtration and detention on-site, the stormwater protection facilities will reduce the rate of run-off to less than pre-project levels, thereby relieving downstream flooding conditions, while also reducing the amount of natural run-off that drains to privately-owned neighboring properties (Drainage Area 1A). In addition, the hydraulic calculations show that the pipes are adequately sized to convey the design storm.<sup>10</sup>

The proposed Stormwater Protection Plan would control, de-contaminate through bio-filtration, detain and ultimately discharge stormwater into the two main drainages - the Fairview stormwater conveyance system (and subsequently into the North Fork of Sulphur Creek) and the small tributary headwater creek that flows to Deer Canyon Creek and San Lorenzo Creek. No re-alignment of these creeks is proposed or required and the creeks themselves would not be affected, as the modeling results from the BAHM indicate that the rate of stormwater flows leaving the Project site would be less than what occurs currently. Unlike stormwater runoff from other nearby sites that contribute to flows in the North Fork of Sulphur Creek, the on-site stormwater protection plan for the Project would prevent erosion, siltation and on- or off- site flooding, including the flows in the North Fork of Sulphur Creek. Any effects on existing drainage patterns resulting in erosion or siltation or flooding on or off-site would be *less than significant*.

## CAPACITY OF STORMWATER DRAINAGE SYSTEM (CRITERION E)

Development of the site would result in an increase in the amount of impervious surface. Proposed on-site paved streets, sidewalks, driveways and single-family home rooftops would result in 2.66-acres of impervious surface, or approximately 21 percent of the total site area including the affected portion of the PG&E parcel. In order to comply with applicable site drainage and water quality requirements as described above, the Project’s proposed Stormwater Protection Plan involves bio-filtration and on-site stormwater detention. Stormwater flows from the two drainage areas would leave the site at rates lower than pre-development rates (see above discussion of the drainage pattern, indicating a maximum post-project flow rate of 9.40 cfs during a 10-year design storm, compared to current projected flows of 11.76 cfs from the same storm). The project would thereby prevent flooding on or off-site despite an overall increase in the total quantity of stormwater leaving the site. These hydraulic computations were

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<sup>10</sup> Hydrology and Hydraulics Calculations for Tract 8057- Lerob LLC Alameda County, California, Ruggeri-Jensen-Azar, July 5, 2013, page 5.

prepared using the BAHM model, and establish that there would be a decrease in the rate of stormwater runoff from the site, in compliance with the County's C.3 provisions and Municipal Regional Permit requirements and that existing downstream storm drain pipes and conveyance systems are adequate for the projected flows from the Project. Impacts associated with increases in peak runoff are anticipated to be *less than significant* and no mitigation is necessary.

#### **OTHER DETERMINATIONS**

*The CEQA Guidelines also require an EIR to respond to assess if the project would:*

- h) 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?
- i) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?
- j) 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?
- k) Inundation by seiche, tsunami, or mudflow?

These issues were addressed in the Initial Study (Appendix A to this Draft EIR) and found to involve no impacts. No further discussion of these issues is included in this Draft EIR.

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## LAND USE AND PLANNING

### SETTING

The Project site is located in the Fairview area of unincorporated Alameda County in the lower elevations of the rolling hills east of the city limits of Hayward. Surrounding land uses include residential subdivisions, including the adjacent partly developed Tract 6102, homes on Walter-Dinos Court, subdivisions on “D” street, and homes on Old Fairview Avenue. These nearby residential areas are interspersed with several large undeveloped parcels of one half acre to ten or more acres, all of which are designated for residential use. On the east side of the Project site is the 200-foot wide PG&E power line corridor with twin pylons that support high voltage electrical lines. To the east of the PG&E property there are single-family homes on Old Fairview Avenue and Blackstone Court and an EBMUD water tank. The Five Canyons residential development is located north and east of the Project site across a deep valley, about 1,000 feet distant. The community character is a mixture of suburban and rural residential uses. Development on the south side of Fairview Avenue (from Hansen Road to Five Canyons Parkway) is generally more sparse and rural than properties to the north.

### REGULATORY SETTING

Land use and planning controls, policies and guidelines applicable to the Project site are set forth in the *Fairview Area Specific Plan* together with relevant provisions of the Alameda County Zoning Ordinance. The provisions applicable to the Project site are set forth below along with a consistency assessment that evaluates the degree to which relevant elements of the Project are consistent with or inconsistent with each such provision. As discussed below, the consistency assessment provides a basis on which conflicts with land use and planning policies and guidelines may be considered environmental impacts of the Project.

### IMPACTS AND MITIGATION MEASURES

#### CRITERIA OF SIGNIFICANCE AND KNOWN CONCERNS

Based on Appendix G of the State CEQA Guidelines (the Environmental Checklist Form), Initial Studies and EIRs should normally determine if a project would:

- a) Physically divide an established community;
- b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect; or
- c) Conflict with any applicable habitat conservation plan or natural community conservation plan.

With respect to criterion “a”, the prior Initial Study and Mitigated Negative Declaration (IS/MND) concluded that the Project would have no impact regarding dividing an established community because it does not involve large vertical structures such as a hospital or a school or a freeway that has the potential to divide an established community. In contrast, the Project proposes a single family residential subdivision that would be consistent with the suburban low density character of the surrounding area. No fair argument has been presented during the public review period for the IS/MND or following publication of the Notice of Preparation for this EIR that suggests further evaluation of this question would be necessary.

With regard to criterion “c” the Initial Study indicated that there are no conservation plans either currently in force or proposed for application to the subject property or nearby area and on that basis, concluded that the Project would have no impact on conservation plans. No fair argument has been presented during the public review period for the IS/MND or following publication of the Notice of Preparation for this EIR that suggests further evaluation of this question would be necessary.

### **FAIRVIEW PLAN CONSISTENCY ASSESSMENT**

The discussion below provides a detailed evaluation of whether the Project would conflict with applicable plans, policies or guidelines of the *Fairview Area Specific Plan*, that have been adopted for the purpose of avoiding or mitigating an environmental effect. Concerns regarding compliance with the *Specific Plan* have been raised at prior public hearings and in public comments; these are clearly matters of concern. The following assessment provides substantial evidence related to environmental impacts associated with aspects of the Project that are inconsistent with the Specific Plan.

#### Introduction

The *Fairview Area Specific Plan* is part of the Alameda County Eden Area General Plan and, as such, is the controlling document for land use decisions, with planning policies, principles and guidelines applicable to the Project site. Conflicts with applicable policies, principles or guidelines do not inherently result in a significant effect on the environment within the context of CEQA. As stated in Section 15358(b) of the CEQA Guidelines, “[e]ffects analyzed under CEQA must be related to a physical change.” Further, Appendix G of the Guidelines (Environmental Checklist Form) makes explicit the focus on *environmental* policies and plans, asking if the Project would “conflict with any applicable land use plan, policy, or regulation . . . adopted for the purpose of avoiding or mitigating an environmental effect” (emphasis added). Even a response in the affirmative does not necessarily indicate the Project would have a significant effect unless an adverse physical change would occur. The assessment below forms the basis for determining the existence and level of potentially significant environmental impacts related to land use and planning.

#### Purposes and Intent of the Fairview Area Specific Plan

Given the focus in the CEQA Guidelines referenced above it is important to distinguish which policies and guidelines were included for the purpose of “avoiding or mitigating an environmental effect” and which were included for other purposes (i.e., general neighborhood quality, setbacks, etc.). The *Plan* states its fundamental purpose as follows:

The intent of the Plan is to preserve existing residential areas, *protect and preserve important environmental resources and significant natural features* in the Fairview area, and promote development that is sensitive to variations in topography and the rural residential character of the area.<sup>1</sup> (Emphasis added)

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<sup>1</sup> *Fairview Area Specific Plan*, Adopted by the Alameda County Board of Supervisors, September 4, 1997, p. 1.

The *Specific Plan* identifies a variety of “important environmental resources” or “significant natural features” throughout its policies, principles and guidelines, such as in its Natural Features and subsequent sections (Geology, Erosion and Sedimentation, Flood Hazards, etc.). Some of its policies and guidelines are explicit and clearly directive, such as “The County shall require that roadways and developments be designed to minimize impacts to wildlife corridors and regional trails.” Other policies use words such as “encourage” or “should” (as opposed to “shall”) which require interpretation as to the degree of non-compliance or non-conformity that would be considered to be a conflict. However, in this chapter, each environmental resource or feature referenced in a policy, principle or guideline of the *Specific Plan* is recognized as “important” or “significant” and that preserving or avoiding damage or loss of such resources or features is the intent of the *Specific Plan*. Additionally, its land use limitations on density, setbacks, height, uses and open space are recognized as intended to maintain and enhance the development qualities of the Fairview area, and that conflict with those limitations could result in adverse environmental consequences or significant impacts for the purposes of CEQA and State and County CEQA Guidelines.

Significance Criteria Defined

For the purposes of this Draft EIR and this Chapter, a significant impact is determined to occur when a particular aspect of the Project is clearly evident as *substantially inconsistent with or in direct conflict with* the intent of a particular policy or guideline that is reasonably related to physical, environmental qualities.

**Impact LU-1** Specific features of the Project discussed below are noted as **inconsistent** and have been found to be substantially inconsistent or in conflict with certain policies, principles of guidelines of the *Fairview Area Specific Plan* and which are recognized as having been adopted for the purpose of avoiding or mitigating environmental effects. Such conflicts or inconsistencies are **potentially significant impact** of the Project as proposed. Other features are also discussed which have been found to be **consistent** with the *Specific Plan* and for which there would be **no impact**, or a **less than significant impact**.

1. *III. PLAN POLICIES.*

*A. Extent of Urban Area* **Consistent**

The Project site is within the Urban Area Boundary identified by the *Specific Plan*.

2. *B. Residential Density*

*Conventional Single-Family Development* **Consistent**

The proposed single family lots would range in size from 10,026 square feet to 16,617 square feet, with a median lot size of 11,465 square feet and an average lot size of 12,019 square feet; lot widths range between 75 and 80 feet and all lots exceed the 10,000 square foot minimum lot size requirement of the site’s R-1-B-E zoning classification. When the IS/MND was published, the Project proposed larger average and individual lots (up to 36,460 square feet), with lots 8 to 15 extending fully to the eastern site boundary, because at that time the site plan did not include the proposed Conservation Parcels C, E and F.

With regard to the “prevailing lot” policy, this issue was addressed in the prior MND which compared the size of the proposed Project lots to those in a subdivision to the east (along Old Fairview Avenue) which has minimum lot sizes of 10,060 square feet, a median lot size of 11,100 square feet and median lot width of 80 feet; a second comparison was made to the subdivision to

the west or southwest (Tract 6102) with home sites along Jelincic Drive, Sarita Street and Karina Street where the minimum lot size is 9,656 square feet, the median size is 11,744 square feet and the median lot width is also 80 feet. The Project is consistent with the two “discrete tracts developed at a single time.” The revised Site Plan remains consistent with the “prevailing lot” policy.

The number of residential lots allowed in the R-1-B-E (Single Family, 10,000 square feet minimum lot size) land use category is determined by the density limits provided in the Policy B.1 of the *Specific Plan*. Density is based on a mathematical formula using the definition of “gross developable site area” as set forth in footnote 2 on page 3 of the *Specific Plan* which states: gross developable area means: 1) areas of less than 30% slope; 2) areas outside of private streets, access easements, stems, driveways that serve more than one lot, designated parking spaces and any other unservable or unbuildable portion of the lot; and 3) areas outside of riparian areas. As applied to the Project site, and using the lot and parcel size data shown on the Preliminary Site Plan, the formula would allow 18 residential lots, as shown in the calculation below:

Total Site Area:	438,280 square feet (approximately 10.1 acres)
Less: Area with slopes >30%	142,470 square feet
Less: Area of the Stem (parcel B):	9,599 square feet
Less: Area of potential wetland:	<u>1,080 square feet</u>
Gross Developable Area	232,854 square feet (5.35 acres)
Allowable Density in R-1-B-E:	3.5 lots per gross developable acre
Maximum density for Project site:	3.5 lots/ac X 5.35 ac = 18.7 lots

The currently proposed lot sizes (including area and width) and overall density of fifteen residential lots are therefore consistent with Policy B.1 of the *Specific Plan*.

3. *Building Setbacks – 15' side and 30' front* **Consistent**

The lot dimensions and proposed building setbacks are consistent with (or exceed) applicable requirements of the *Specific Plan*.

4. *Building Lot Coverage – not more than 30 percent* **Consistent**

Proposed building envelopes range from 7 percent to 24 percent of the gross area of each lot and are therefore less than the 30 percent maximum lot coverage.

5. *Usable Open Space – 1,000 sq. ft. of usable open space per lot* **Consistent**

The Preliminary Site Plan shows that each lot would have at least 1,000 square feet of usable open space area, consistent with the dimensional standards of the *Specific Plan* (i.e., minimum of 15 feet in its least dimension).

6. *Building Height – two stories and 25 feet except as provided for by the Zoning Ordinance*

**Consistent**

All homes would be 25 feet or less in average height.

7. *III.C. Traffic and Circulation*

Note: The policies for traffic and circulation are addressed in Chapter 8, Transportation.

*III.D. Natural Features*1. *Policies*

8. *Policy (a): Preserve and protect riparian woodland habitat* **Consistent**

There is no riparian or oak woodland habitat on the Project site. Historic photographs indicate the property had been used in the 1930s and 1940s for an orchard or tree farm but these features appear mostly gone by 1965 and there are no trees on the Project site at present. In photographs taken at several times between 1974 and 2006, clusters of trees are visible on the upper east-west ridge across the site (i.e., where Street B is proposed) and in the lower elevations of the site at the northeast corner; it is not known whether these trees were intentionally planted or were established naturally. Since the time of the 2006 photograph, trees on the upper elevation of the site have been removed. Trees just outside the property line boundary at the northeast corner of the site mark the beginning of Deer Canyon Creek that flows into San Lorenzo Creek through the Five Canyons Open Space area. The area of the site nearest this boundary is proposed to be included within conservation parcel E; no project activities are proposed in this area of the site except for the creation of a replacement wetland, if required pursuant to Mitigation Measure Bio-4, and thus existing conditions would not be disturbed.

9. *Policy (b): Minimize loss of riparian and seasonal wetlands* **Consistent**

If the approximately 1,080 square foot potential wetland on the Project site is determined to be jurisdictional, its loss would be a *significant environmental impact*. However, Mitigation Measure Bio-4 (see Chapter 5, Biology) requires replacing the acreage of lost wetland with newly created wetland within Conservation Parcel E if it is determined to be jurisdictional. Implementation of Mitigation Measure Bio-4 would assure no net loss of seasonal wetlands.

10. *Policy (c): Preserve oak woodland communities* **Consistent**

There are no oak woodland plant communities on the Project site or the PG&E property.

11. *Policy (d): Preserve areas known to support special status species* **Consistent**

Due to the presence of suitable habitat types, soil conditions and recent occurrences in the vicinity of the Project site, two special status plant species were identified as having the potential to occur on the property – Big Scale Balsam Root and Most Beautiful Jewel Flower.<sup>2</sup> Disturbance or adverse effects to special status species would be a *significant impact*. These plant species were not observed during the May 2010 survey and both are presumed absent from the property. Implementation of Mitigation Measure Bio-1 would require additional surveys prior to any grading or site disturbance, to verify the presence (or absence) of such species and require appropriate action to preserve such species within Conservation Parcel E should they be present.

12. *Policy (e): Minimize impacts to wildlife corridors and regional trails* **Consistent**

There are no formally designated wildlife corridors or regional trails on the Project site, including the PG&E parcel. The Deer Canyon trail, which extends from Five Canyons Park to the Don Castro Regional Recreation Area within the Five Canyons Open Space, passes within about 600 feet of the Project site's northeast corner. Trails in this Open Space area also connect to the Bay

<sup>2</sup> Biological Resources Analysis Report for the Borel Bank Property, Castro Valley, California, by Olberding Environmental, Inc., June 2010, p. 22.

Area Ridge Trail about a mile to the northeast of the site. The Five Canyons Open Space, together with the PG&E parcel and other properties along the high-tension power line corridor to the southwest, form a functional wildlife corridor connecting to Ward Creek. Wildlife is known to use the annual grassland habitat on the Project site for foraging; the designated conservation parcels are intended to enable wildlife activity in the area to continue. The Project includes a proposal to construct an equestrian/bicycle/hiking trail through the 2-acre easement portion of the PG&E property which would provide for future access to the trail at the foot of Blackstone Court and thence to existing regional trails in the Five Canyons Open Space area. The Project would not adversely affect wildlife corridors and could potentially expand trail opportunities in the area.

13. *Principle 2(a): Maximize retention of natural topographic and landscape features and qualities of sites and enhance these natural features and qualities.*

**Inconsistent**

The proposed mass grading plan would alter the natural topographic contour of approximately 50 percent of the total site area. The balanced cut and fill strategy of the grading plan would involve earth movement of 63,000 cubic yards (cy) of material, of which approximately 36,000 cy would come from the slope of the PG&E parcel and 17,000 cy from grading around Lots 1 to 5 and for Street B. The proposed grading plan would retain this material on-site, primarily distributing it along the two ridges where it would be shaped and contoured to create flat building pads for lots 1 to 5 and stepped downslope pads for lots 1 to 3 and 7 to 14, as well as for construction of the stormwater detention basin. Grading on the PG&E parcel to create Street A would involve deep cuts at an estimated maximum depth of 30 feet at one location and retaining walls of up to 5 feet in height to achieve a maximum 15 percent roadway grade as required by the Hayward Fire Department. The two ridges on the site (the L-shape along the upper northwest side and leading to the knoll where Street B is proposed) would be widened noticeably, by as much as 100 feet, to provide building pads for the proposed homes. The proposed excavation of material from the PG&E property and the contouring of the ridgeline for home sites would raise the elevation of the two ridges by two to three feet, and raise some existing downhill elevations by up to 15 feet.

With regard to the substantial alteration of the topography of the PG&E easement area required for Street A, Guideline D.3.a in the *Specific Plan* provides a corollary policy stating that natural (and man-made slopes) of 30 percent gradient or greater should not be developed or altered, but that exceptions may be granted for road construction if it is the only feasible means of access to the site. As indicated in Chapter 11, Alternatives, there appears to be no other viable alternative route of access to the Project site that would avoid or reduce alteration of the PG&E parcel's natural topography. The Project appears to represent the best effort possible to retain the natural topography and features of the site (without involving additional switchbacks, sharper curves, and likely greater land disturbance). Therefore the grading plan for Street A is deemed consistent with Principle D.2.a and the exception provided in Guideline D.3.a.

However, the exception for roadway access does not apply to the alteration of topography to create building pads for proposed homes. Although off-hauling the earthen material to an off-site location would be expected to have substantial air quality, GHG, noise, odor and traffic impacts associated with a very large number of diesel-powered truck trips, there are no exceptions in the *Specific Plan* for the purpose of reducing the amount of off-haul required, establishing conventional rear yard open space, or ensuring that stormwater would flow in a preferred direction, which are the main purposes of the proposed grading plan. Therefore, the proposed grading on the ridges for future home construction would be inconsistent with Principle D.2.a.<sup>3</sup>

<sup>3</sup> It is estimated that off-hauling 36,000 cy of material excavated from the PG&E parcel could involve approximately 1,636 outbound truck trips, with each truck carrying 22 cy of material several miles away and returning



14. *Principle 2(b): Application of current principles of land use planning, soil mechanics, engineering geology, hydrology, civil engineering, environmental and civic design, architecture, and landscape architecture in hill areas.* **Inconsistent**

The site planning, grading, engineering, environmental, architectural and landscape design of the Project would utilize current principles and practices to the greatest extent possible. However, the site plan, roadway access and home site grading as proposed would be inconsistent with several specific principles established in the *Specific Plan*, which are identified and addressed below.

15. *Principle 2b (1): Plan development to fit the topography, soils, geology, hydrology, and other conditions existing on the proposed site.* **Inconsistent**

The engineering aspects of the Project, including its geotechnical engineering, hydrology and drainage management and treatment and street and utility design have been reviewed by County Public Works Agency staff and have been found, in principle, consistent with County standards. Additional detail will be required prior to approval of the Tentative Tract Map and prior to filing the Final Tract Map. However, the Project's grading plan would create stepped building pads by replacing existing 25 to 30 percent slopes with a pattern of stepped sites and steeper, 50 percent (2:1) slopes in certain areas. The proposed treatment of the ridge for future house construction alters the natural slope and qualities of the site in order to provide down-slope home sites with primarily level rear yards for open space. The *Specific Plan* Policies, Principles and Guidelines, in contrast, seek a less conventional suburban design, in which development occurs with the least alteration of existing slopes.

15. *Principle 2b (2): Orient development to the site so that grading and other site preparation is kept to a minimum.* **Inconsistent**

The Project would require a very substantial degree of grading and site preparation to accommodate the site development.

16. *Principle 2b (3): Shape essential grading to complement and blend with natural landforms and improve relationships to other developed areas.* **Inconsistent**

The proposed grading plan would create engineered slopes at 2:1 gradient (i.e., a 50% slope) on various parts of the site (e.g., for Street A on the PG&E property and the downhill side of lots 1 to 3 and 7 to 15). The 2:1 slopes would be inconsistent with the natural contour of the site. The proposed 2:1 slopes are also proposed to be uniform and without any sculpting to complement or blend into the natural landform. The grading above and below Street A downhill from Street B has some limited degree of shaping to achieve a natural intersection with remaining slopes, but does not demonstrate a clear intent to serve this Principle. This aspect of the grading plan would not minimize grading or shape the graded portions of the site to blend with natural landforms.

17. *Principle 2b (4): Develop large tracts in workable units on which construction can be completed within one construction season* **Consistent**

The 15-unit Project is itself a "workable" unit that can be completed in one construction season, and would not need to leave earth exposed during the rainy season.

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(an additional 1,636 trips), over about 9 - 10 weeks assuming 6 truck-loads per hour, 6 hours per day and limited to 5 days per week.

18. *Principle 2b (5): Allocating to public or private open space those areas not well suited to development* **Consistent**

Conservation Parcels C, E and F would be dedicated to permanent open space and providing an area for replacing wetlands and/or sensitive plant species if necessary. The conservation areas would remain under the management of the future homeowners' association.

19. *Principle 2b (6): Landscape areas around structures to blend with the natural landscape.* **Consistent**

The Project applicant would employ Bay-friendly landscaping principles to the landscaping around future homes, around the detention basin and within the conservation parcels.

20. *Principle 2b (7): Man-made structures should complement one another, the natural landscape, and provide visual interest* **Consistent**

The houses on Lots 1 - 7 would form a semi-circle around the cul-de-sac and would have a good degree of variability in height and setbacks. Homes along the northern portion of Street A could also vary front yard setbacks to a limited degree (e.g., 3 to 5 feet) and the base floor elevations of Lots 7 - 15. The distinctive feature of most of the homes along Street A is the downslope split-level configuration, for which the building form would follow the slope, without tall, downhill façades. All of these homes are planned as two-story homes; the degree of deviation will be determined upon review of subsequent, more detailed grading and architectural design drawings, and a landscape plan in the later stages of the pre-development process.

21. *Principle 2b (8): Locate building pads so that the views of prominent ridgelines are not interrupted or interfered with by buildings* **Consistent**

The photo-simulations in Chapter 4 show that views of the Project from public viewpoints off-site will be substantially obscured by existing intervening houses, trees and landforms. This would be true whether the new homes were placed on building pads under the mass grading plan as proposed, or were constructed on existing native grades.

22. *Principle 2b (9): Use a variety of housing types, housing clusters and special house construction techniques to permit steep slopes, wooded areas, and areas of special scenic beauty to be preserved* **Inconsistent**

The proposed mass grading plan would create relatively uniform building pads along the northeast face of the ridge (Lots 7 - 13) at elevations approximately 10 to 15 feet higher than existing grades, with similar alterations to the slope at Lots 1 - 5. There are no wooded areas or areas of special scenic beauty that would be affected by the Project, but there are steep slopes that would be substantially altered. Architectural treatment of the houses would employ a variety of exterior materials and details to achieve variety.

23. *Principle 2b (10): Give special consideration to the design of public and private streets to minimize grading and other site alteration* **Potentially Consistent**

Street A would require substantial grading on the PG&E parcel, but would be considered an exception to this Principle (Principle D.3.a) since it is the only viable means of access to the Project site.

24. *Principle 2b (11): Give special consideration to the design of street lighting, fences, sidewalks, pathways, and street furniture to enable maximum identity and uniqueness of character to be built into each development* **Potentially Consistent**

The design and materials for street lighting fixtures, fences, street furniture and project elements have not been proposed at this stage of project development. Following approval of a Tentative Map, details of these elements would be forthcoming and subject to review and approval by the Planning Director.

25. *Principle 2b (12): Minimize disruption of existing plant and animal life* **Consistent**

Based on the on-site plant and wildlife surveys and subject to Mitigation Measures Bio-1 through Bio-5 and creation of Conservation Parcels C, E and F, the Project would not significantly affect plant or animal life.

26. *Principle 2b (13): Design lots so that adequate area is available for yards and landscaping* **Consistent**

The Project would have nearly level rear yards, would limit building lot coverage to less than 30 percent and would provide useable open space as required by the *Specific Plan*.

27. *Principle 2b (14): Design attractive, safe, and convenient walkways for pedestrians with connections to public facilities such as schools, parks, and existing trail systems.* **Consistent**

The Project would have a sidewalk along one side of each of the streets and would develop an equestrian/bicycle/hiking trail adjacent to Street A, from Fairview Avenue to the PG&E access driveway.

*Natural Features, D.3 Guidelines*

28. *Guideline 3(a): Natural and man-made slopes of 30 percent gradient or greater should not be developed or altered. Exceptions may be granted for road construction if it is the only feasible access to a site, modifications of minor terrain features, and custom designed homes and lots that otherwise conform to the intent of these policies.* **Inconsistent**

Portions of the Project site exhibit slopes of 30 percent or greater, and would be substantially altered and developed, including the cut and fill required to construct Street A and to correct the slope stability concerns related to areas of colluvial soils. As noted previously, Guideline D.3 (a) establishes a corollary guideline allowing grading on 30 percent or greater slopes when necessary for roadway access to a site, but it does not exempt mass grading for home site building pads.

29. *Guideline 3(b): Only individual lot grading should occur in areas exceeding 20 percent slope.* **Inconsistent**

All but one of the proposed future home sites (i.e., excluding Lot 6) would be on existing slopes of 20 percent or greater and would be created as a result of mass site grading, not individual lot grading.

30. *Guideline 3(c): Buildings should be designed with stepped, pier and grade beams, or a custom foundation, to reduce grading, to avoid contiguous stair-stepped padded lots, and to retain a*

*more natural appearance. On sloping lots, tall downhill facades should be avoided by stepping structures with the natural terrain.*

**Inconsistent**

Except for Lot 6, the Project proposes a mixture of single and split pad foundations, generally by the use of mass grading, resulting in “stair-stepped padded lots” particularly on Lots 8 - 14 which would have nearly uniform grade elevations. The homes would step down with the slope to avoid tall downhill façades. The Project would employ mass grading instead of custom foundations to create the building pads, but would “stair-step” only on lots 9 - 11 (separated by 2 to 3-foot high retaining walls); lots 8 and 9 and 11 – 15 would be on common, gentle slopes. More generally speaking for the site overall, the proposed grading would not retain a natural appearance.

31. *Guideline 3(d): The vertical height of a graded slope or combination retaining wall and slope between single family dwellings should not exceed 10 feet in the rear yards, or 5 feet within a side yard between lots.*

**Inconsistent**

The grading plan would create building pads with vertical height differences between most lots of about 3 to 5 feet. Lot 7 would have an elevated rear yard directly bordering the side yard of Lot 8, separated by a combined retaining wall and slope that would result in a total difference in height of about 11.5 feet. However, This would occur only on a very limited basis and for a short distance (under 20 feet).

32. *Guideline 3(e): The maximum horizontal distance of graded slope should not exceed 20 feet at 2:1 (horizontal to vertical) gradient.*

**Inconsistent**

Most slopes with a final 2:1 gradient would extend beyond 20 feet, up to a total of 100 feet.

33. *Guideline 3(f): Development near or on a prominent ridgeline should be subordinate to the surrounding environment. Residences should blend into the natural topography creating minimal visual disturbance to the existing ridgeline and views. Rows of residences with similar setbacks and elevations shall be discouraged.*

**Inconsistent**

The Project site’s ridge is substantially obscured from offsite viewpoints and would be obscured even more after homes on the adjacent Jelincic subdivision are fully built out. Although the Project site is a “prominent ridgeline” within the Fairview area, the homes on Karina Street in the adjacent Jelincic subdivision will have the greatest prominence from most public viewpoints. As such, the Project would be consistent with the basic intent of Guideline D.3.f. However, the proposed site plan would create a row of residences adhering to nearly uniform front and side yard setbacks and elevations, and the Project would be inconsistent with the second portion of Guideline D.3.f.

## Mitigation

- LU-1:** To avoid and reduce the Project’s conflicts with the policies, principles and guidelines of the *Fairview Area Specific Plan*, the Project applicant shall revise the Project Grading Plan and Stormwater Protection Plan. The redesigned project may include the following:
- a. To comply with the geotechnical engineer’s recommendations, excavation and grading would be required to correct for the two colluvium areas on the Project site. The colluvium would have to be removed and replaced as engineered fill. This work would need to be completed at one time and could not be accomplished on a lot-by-lot basis. After completion of the corrective work, follow a

revised grading plan that reestablishes existing slopes and slopes to the maximum extent practicable.

- b. If a feasible access alternative to Street A cannot be identified, off-haul the excavated material from the PG&E parcel to off-site locations, rather than balancing cut and fill on site in a manner inconsistent with existing natural topography;
- c. Revise the Stormwater Protection Plan so that stormwater flows continue to flow in their natural direction, downhill towards Deer Canyon, rather than being redirected to Sulphur Creek;
- d. Utilize drilled pier and grade beam foundation systems to place homes on the site's natural topography, rather than grading the site for stepped pad foundations.

### RESULTING LEVEL OF SIGNIFICANCE

Implementation of Mitigation Measure LU-1 would avoid many of the inconsistencies with the *Specific Plan* identified above and would retain much of the site's current natural topography and ridgeline land form. Impacts related to these inconsistencies with the *Specific Plan* would be reduced to a level that is *less than significant*.

### Potential Secondary Effects

Implementation of Mitigation Measure LU-1 would result in potentially significant secondary environmental consequences and different conflicts with *Specific Plan* policies, expected on a preliminary basis to include the following considerations, some of which could represent significant and unavoidable environmental impacts:

1. If the material excavated from the PG&E parcel for Street A is hauled to locations off-site it would likely result in significantly greater air quality, greenhouse gas, health risk (diesel emissions), noise and traffic impacts than the proposed Project design.
2. If untreated post-construction stormwater were to be directed downhill towards Deer Canyon Creek, a bio-filtration mechanism and a detention basin would be needed at the base of the slope, a relatively inaccessible location for which vehicle access is considered necessary. Access to such facilities may require additional grading on the Project site or expanded easement rights from PG&E for an access road for construction and maintenance purposes.
3. Creating bio-filtration and detention facilities and an access road at the foot of the existing slope below Lots 7 to 13 (towards Deer Canyon Creek) would effectively eliminate proposed Conservation Parcels E and F, compromising the ability to mitigate for potential impacts to wetlands and sensitive plant species at this location.
4. More extensive side yard retaining walls would be required to secure slopes on undeveloped lots that are adjacent to lots being developed.
5. Driveways to homes on Lots 8 - 13 would either be steeply down-sloped towards each house (10 - 12 percent) or utilize driveway bridges over the sloping grade below.
6. Large retaining walls could be required on the sides of each driveway on the downhill lots.
7. Rear yards would be too steep for use as private open space; the only usable open space would be created on side yards and on decks.

## Summary

The impact of the Project as proposed on certain policies adopted under the Fairview Area Specific Plan for the purpose of avoiding or mitigating an environmental effect could be reduced to a less than significant level with the implementation of Mitigation Measure LU-1, or one of the Alternatives to the Project that would incorporate Mitigation Measure LU-1. However, in the context of its secondary effects, eliminating Mitigation Measure LU-1 is also possible, although the policy impact would be *significant and unavoidable*.

## CUMULATIVE IMPACTS

In considering the potential cumulative impacts of future residential development in the Fairview area, the analysis below evaluates only the rate of probably future development and not the potential effects on any particular parcel. With respect to long-term growth, the Alameda County Planning Department compiled a record of the number of new residential dwelling units developed in the area surrounding the Project site since 1960 and ending in 2010. The data, shown in **Table 7-1**, shows an overall average growth rate of approximately 3 percent per year. Although not shown in the table, there has been on average about four new residences added to the inventory, per year, during the 50-year period presented in Table 7.1. Residential development peaked during the 1980s and has slowed since then to a rate of approximately 1.9 percent per year during the last decade.

**Table 7.1: Historical Residential Growth, Project Vicinity, 1960 - 2010**

TIME PERIOD	TOTAL NEW RESIDENCES	AVERAGE ANNUAL % INCREASE	ANNUAL AVERAGE NO. NEW HOUSES
Pre-1960	73	N/A	N/A
1960 - 1969	18	2.5%	2
1970 - 1979	17	1.9%	2
1980 - 1989	71	6.6%	7
1990 - 1999	52	2.9%	5
2000 - 2009	43	1.9%	4
Total Since 1960	201	3.1%	4

Source: Alameda County Planning Department

As described in the cumulative analysis presented in Chapter 4, Aesthetics and in Chapter 8, Transportation, growth trends are predicted to be lower than historical averages primarily because the easier, more accessible and less challenging sites have been already been developed; sites that remain for future development are more environmentally constrained and difficult to develop, yielding a slower rate of growth. Undeveloped parcels in the vicinity of the Project site are identified in **Tables 4.1** and **8.5**, and on **Figures 4.6** and **8.2**. Gross development potential of each site is shown, using only the mathematical result of multiplying the size of the parcel against the allowable residential density, and ignoring the effect of slopes, soils or other environmental constraints. That calculation results in a total estimate of potential new residential development of 219 new residential units.<sup>4</sup> However, taking a

<sup>4</sup> It should be noted that 31 of the estimated 219 potential new residential units in the Fairview area are the approved but unbuilt lots in the Jelincic subdivision (T6102) adjacent to the Project site. This fact indicates that future residential development in the Fairview area is a combination of houses being built on existing legal

more judicious assessment of these sites, Alameda County Planning Department believes that a more realistic estimate would be 130 new residences being developed over a 50-year period, with about half of the growth occurring in the next 20 years.<sup>5</sup> This low rate of growth in additional residential development in the vicinity of the Project is expected to result in cumulative land use impacts that are *less than significant*, particularly in light of the restrictive policies embodied in the *Fairview Area Specific Plan*.

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parcels as well as the creation of new lots on undeveloped, unentitled larger parcels.

<sup>5</sup> Andrew Young, Alameda County Planning Department, January 2014.

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# TRANSPORTATION

## INTRODUCTION

This chapter of the Draft EIR analyzes the potential impacts on transportation and circulation resulting from construction of the Tract 8057 Residential Subdivision Project. Transportation-related issues of concern that are addressed include local traffic on roadways, bicycles, pedestrians, and parking. Transportation impacts are assessed for the proposed Project during weekday AM peak-hour during the commute period and the PM peak-hour, derived from a four-hour count to incorporate school-related traffic.

This chapter was prepared by TJKM Transportation Consultants and is based on the traffic analysis included in this EIR as **Attachment 4**, Final Report, Traffic Impact Study for the Fairview Tract # 8057 Residential Development dated December 2012, also prepared by TJKM Transportation Consultants.

## KNOWN CONCERNS

In the scoping meeting and in comments submitted in response to the IS/MND and at prior public hearings, neighbors expressed concerns regarding the speed of traffic travelling on Fairview Avenue and the potential hazard posed for cars attempting to exit or enter the Project site due to inadequate sight distance. Additional concerns were expressed regarding the effects of Project-generated trips on local intersections, both in the context of existing conditions and on a long-term cumulative basis. These concerns are addressed in this analysis.

In addition, as a further elaborated in Chapter 11, Alternatives, this Chapter includes an evaluation of alternative means of access to the site and evaluation of traffic safety conditions along Fairview Avenue for each potential Project access alternative.

## SETTING

### Roadway Network

The majority of the unincorporated Fairview area is characterized by a mixture of many small older subdivisions, interspersed with new subdivisions, remaining large lots ranging from one to ten acres in active or passive agricultural use, and a few large institutional properties (churches, schools, various parks and open spaces, and the Lone Tree Cemetery). The easternmost area is dominated by a single very large subdivision – Five Canyons – built mostly by a single developer in the 1980s. The roadway network in the area is dominated by a few east-west aligned major collector roads and relatively few north-south roads. Five Canyons Parkway, which provides primary access to the Five Canyons residential areas, provides a major arterial-type roadway in a north-south direction, and connects to the western, older areas of Fairview at its southern terminus, at its intersection with Fairview Avenue.

The main roadways that provide access to the Project site and a large proportion of the Fairview area overall include Fairview Avenue, D Street and Maud Avenue, the last of which connects to Kelly Street and by way of Center Street connects to the nearest interstate highway, I-580, about a mile and a half north of the Project site. The posted speed limit on these roads is 30 mph. Fairview Avenue is a major collector street that extends from D Street a little north of the Lone Tree Cemetery, through the



Fairview area in a mostly east-west direction to its intersection with Five Canyons Parkway and Star Ridge Road, south of which it changes to a more south-southeasterly direction (or north-northwesterly direction) until it terminates at Hayward Boulevard inside the eastern Hayward hills, adjacent to the Stonebrae project in the Hayward city limits. Fairview Avenue is a two-lane, two-way roadway striped to prohibit passing in both directions (i.e., double-yellow lines), with only one center left-turn pocket in the Project site vicinity, about a quarter mile east of the PG&E site, for access to Old Fairview Avenue (a private street with no through connections).

Fairview Avenue is also highly unique among the vast majority of roads anywhere in the County in having three ‘roundabouts’ at its intersections with Hansen Road (also serving Vista Lane, a cul-de-sac), Five Canyons Parkway (which also serves Star Ridge Road), and at Hayward Boulevard (serving the Stonebrae development). Another important feature of Fairview Avenue is that it does not have wide lanes, shoulders or sidewalks except in a few isolated locations. The south side of the roadway near the PG&E parcel has a worn footpath and a curb (installed with stormwater drainage improvements in the past decade) between Five Canyons Parkway and Lone Tree Cemetery. A radar-based, electronic speed feedback sign indicating passing motorists’ speeds is located at near the Walters-Dinos Court intersection, combined with a speed limit sign (30 mph). As an added safety measure due to speed and obstructed sight lines along Fairview Avenue, the centerline incorporates raised ‘Botts’ dots’ (small metal bumps) from about the middle of the PG&E parcel frontage to the east for a distance of approximately half a mile. A variety of warning signs (yellow diamond advisories) are located along Fairview Avenue in the Project vicinity, including speed limit signs noting “speed checked by radar” and curve warning signs.

D Street is an east-west arterial that extends eastward from Winton Avenue, through Hayward, and into the unincorporated Fairview area. West of Fairview Avenue, D Street is a two-lane two-way street also with a center double-yellow line with centerline reflectors through all of the unincorporated Fairview area. D Street also extends east of its intersection with Fairview Avenue for about a quarter mile, but has no through-connections except to other cul-de-sacs and Old Quarry Road, which serves the three large properties north of the Project site.

Maud Avenue is a two-lane two-way collector street that extends from Kelly Street to D Street about 200 feet west of the D Street/Fairview Avenue intersection, and as indicated above, provides a main link between D Street and I-580. The intersection of Maud and Kelly is signalized and is the nearest such intersection to the Project site. However, it is not included among the Project study intersections because based on traffic volumes collected at adjacent intersections, the intersection is estimated to currently operate at LOS C or better. Because the contribution of peak-hour trips by Project-related traffic to the whole network is proportionally very small, this intersection is not expected to be adversely affected by the Project.

Hansen Road is a two-lane collector street that connects between Fairview Avenue to East Avenue just west of the Lone Tree Cemetery.

Five Canyons Parkway is an arterial two-lane parkway with a raised center median along the majority of its length, a wide bike lane, and a sidewalk that is mostly separated from the roadway by a landscape strip. It connects on the north to Castro Valley Boulevard and in turn to I-580, and terminates on the south at Fairview Avenue.

Numerous other streets connect to Fairview Avenue in the Project vicinity, including three minor cul-de-sac roads extending to the south, including Rose-Rossow Road and Levine Road at the southwest and southeast corners of the PG&E parcel, respectively, and an unnamed driveway, all of which provides access to large-lot rural residential properties. On the north side, a number of streets connect to a series of small to large residential subdivisions, including Vista Lane, Jelincic Drive, Walters-Dinos Court and Old Fairview Avenue.

## Intersection Level of Service

### Analysis Methodology

Transportation engineers and planners commonly use a grading system called level of service (LOS) to measure and describe the operational status of the local roadway network. LOS is a description of the quality of a roadway facility's operation, ranging from LOS A (indicating free-flow traffic conditions with little or no delay) to LOS F (representing oversaturated conditions where traffic flows exceed design capacity, resulting in long queues and delays). Intersections, rather than roadway segments between intersections, are almost always the capacity controlling locations for any circulation system.

### Signalized Intersection Methodology

**Table 8.1** below describes intersection LOS criteria for signalized intersections. This is provided for informational purposes only as none of the Project study intersections are controlled by traffic signals.

**Table 8.1: Signalized Intersection LOS Criteria**

Level of Service	Average Delay (seconds/vehicle)	Description
A	$\leq 10$	Very Low Delay: This level of service occurs when progression is extremely favorable and most vehicles arrive during a green phase. Most vehicles do not stop at all. Short cycle lengths may also contribute to low delay.
B	$> 10$ and $\leq 20$	Minimal Delays: This level of service generally occurs with good progression, short cycle lengths, or both. More vehicles stop than at LOS A, causing higher levels of average delay.
C	$> 20$ and $\leq 35$	Acceptable Delay: Delay increases due to fair progression, longer cycle lengths, or both. Individual cycle failures may begin to appear at this level of service. The number of vehicles stopping is significant, though many still pass through the intersection without stopping.
D	$> 35$ and $\leq 55$	Approaching Unstable Operation/Significant Delays: The influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, or high volume / capacity ratios. Many vehicles stop, and the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.
E	$> 55$ and $\leq 80$	Unstable Operation/Substantial Delays: These high delay values generally indicate poor progression, long cycle lengths, and high volume / capacity ratios. Individual cycle failures are frequent occurrences.
F	$> 80$	Excessive Delays: This level, considered unacceptable to most drivers, often occurs with oversaturation (that is, when arrival traffic volumes exceed the capacity of the intersection). It may also occur at high volume / capacity ratios below 1.0 with many individual cycle failures. Poor progression and long cycle lengths may also be major contributing causes to such delay levels.
Source: <i>Highway Capacity Manual</i> (HCM), Transportation Research Board, Washington, DC, 2000, Chapter 16 (Signalized Intersections)		

### Unsignalized Intersection Methodology

Operations for unsignalized intersections, which include conventional all-way, stop-controlled intersections as well as all-way, yield-controlled roundabouts, are also graded using the LOS A through

F scale. LOS ratings for all-way, stop-controlled intersections and all-way, yield-controlled roundabouts are determined using the HCM2000 methodology. Under this methodology for these intersection types, operations are based on average control delay for the entire intersection. Side-street stop-controlled intersections are also evaluated using average control delay scales and LOS; however, unlike all-way stop-controlled intersections or roundabouts, side-street stop- or yield-controlled intersection delay is determined based on the worst operating controlled turning or through movement. **Table 8.2** presents the correlation between LOS and average control delay for unsignalized intersections.

The County of Alameda has no set standard for LOS at unsignalized intersections. However, standards used for this analysis are discussed in more detail under the Significance Criteria subsection later in this chapter.

**Table 8.2: Unsignalized Intersection LOS Criteria**

Level of Service	Average Delay (seconds/vehicle)	Description
A	$\leq 10$	Very Low Delay
B	$> 10$ and $\leq 15$	Minimal Delays
C	$> 15$ and $\leq 25$	Acceptable Delay
D	$> 25$ and $\leq 35$	Approaching Unstable Operation and/or Significant Delays
E	$> 35$ and $\leq 50$	Unstable Operation and/or Substantial Delays
F	$> 50$	Excessive Delays

LOS for all-way stop-controlled intersections is based on the weighted average, while LOS at side-street stop-controlled intersections is based on the approach with the highest delay.

Source: *Highway Capacity Manual* (HCM), Transportation Research Board, Washington, DC, 2000, Chapter 17 (Unsignalized Intersections)

## BASELINE CONDITIONS

### Existing Intersection Lane Geometry and Traffic Control

The intersection of D Street and Maud Avenue is an unsignalized intersection with three approaches. All of the intersection movements are stop controlled except for the westbound right-turn movement from D Street, which is controlled by a yield sign. The westbound approach on D Street and the southbound approach on Maud Avenue have two lanes entering the intersection, while the eastbound approach on D Street has one lane entering the intersection.

The intersection of Fairview Avenue and D Street is an unsignalized intersection with three approaches. The minor street approach, which is the westbound approach on D Street, is stop controlled. A left-turn pocket and a continuing through lane are provided for eastbound traffic on D Street, while one lane in each direction is provided on the other approaches.

The intersection of Fairview Avenue and Levine Drive is an unsignalized intersection with three approaches. The minor approach, the northbound approach on Levine Drive, yields to the major approaches. All approaches consist of one lane.

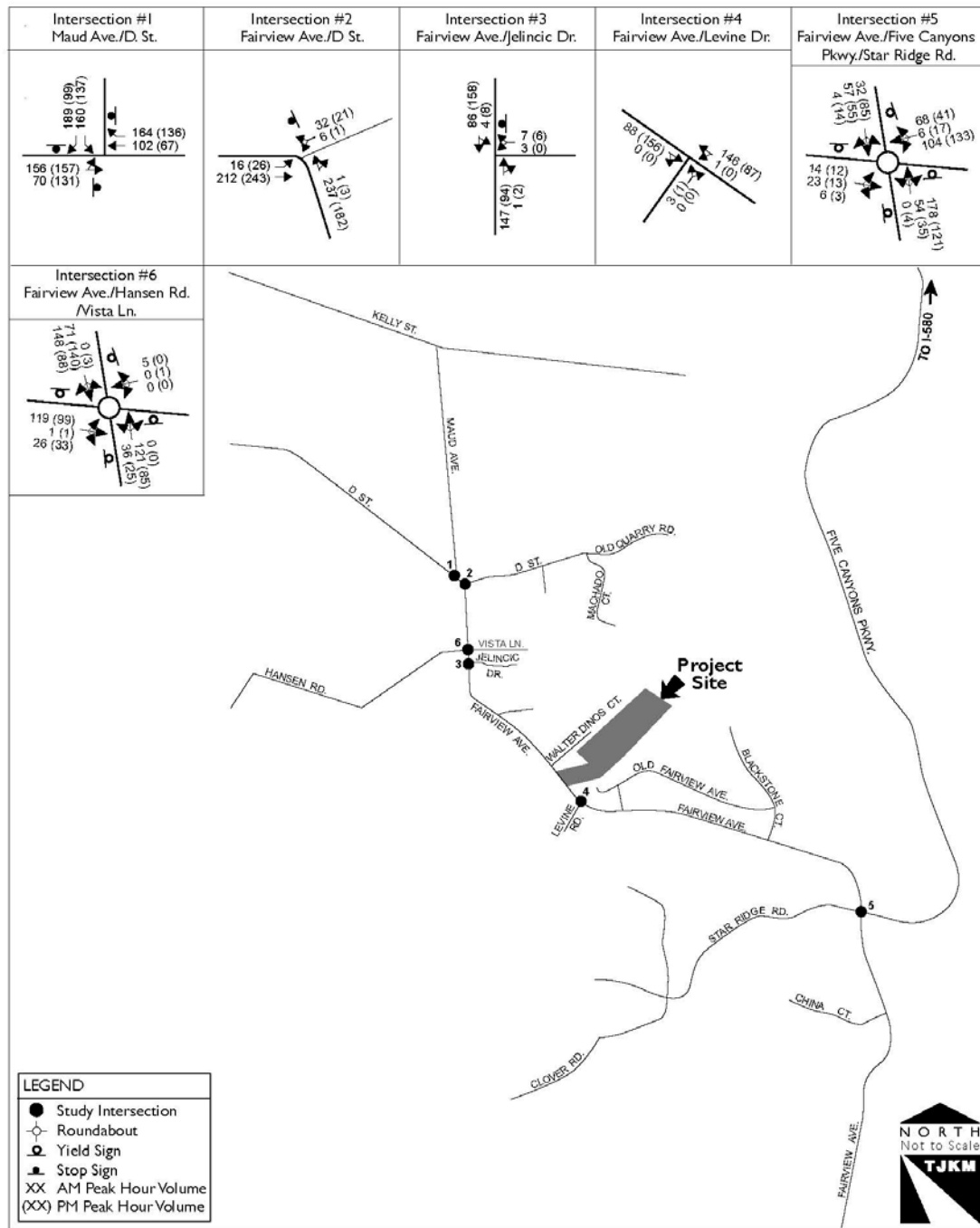
The intersection of Fairview Avenue, Five Canyons Parkway, and Star Ridge Road is a roundabout with one-lane approaches under yield control in all directions.

The intersection of Fairview Avenue and Hansen Road is a roundabout with one-lane approaches under yield control in all directions.

### **Existing Traffic Volumes**

Existing vehicle, bicycle, and pedestrian counts were collected at the study intersections in September 2012, approximately four weeks after local public schools had returned to full session. The turning movement volumes for the study intersections were taken during the typical a.m. peak period, between 7:00 a.m. and 9:00 a.m., and during the typical p.m. peak period, between 4:00 p.m. and 6:00 p.m. Existing traffic volumes, lane geometry, and traffic controls for each study intersection are shown in **Figure 8-1**.

**Figure 8.1: Existing Traffic Volumes, Lane Geometry, and Traffic Controls**



**Intersection Level of Service Analysis – Existing Conditions**

**Table 8.3** presents a summary of the peak hour level of service analysis for each of the study intersections under Existing Conditions. Under Existing Conditions, all study intersections currently operate at acceptable service levels of LOS B or better.

**Table 8.3: Peak Hour Intersection Levels of Service – Existing Conditions**

ID	Intersection	Control	A.M. Peak Hour		P.M. Peak Hour	
			Delay	LOS	Delay	LOS
1	D Street / Maud Avenue	All-Way Stop	9.0	A	9.1	A
2	Fairview Avenue / D Street	Minor Street Approach Stop	10.9	B	9.7	A
3	Fairview Avenue / Jelincic Drive	Minor Street Approach Stop	9.7	A	8.8	A
4	Fairview Avenue / Levine Drive	Minor Approach Yields	10.4	B	10.1	B
5	Fairview Avenue / Five Canyons Parkway / Star Ridge Road	Roundabout	5.0	A	5.4	A
6	Fairview Avenue / Vista Lane / Hansen Road	Roundabout	4.9	A	5.0	A

Notes: Delay = Average Delay in seconds per vehicle  
LOS = Level of Service  
The delay and LOS at the all-way stop controlled intersection are for the overall intersection performance.  
The delay and LOS at intersections with stop or yield control on the minor approach are for the worst-case minor approach.  
The delay and LOS at the roundabout intersection are for the overall intersection performance.

## ROADWAY COLLISION HISTORY

TJKM assessed the most recent ten-year collision history (2003-2012) contained in the California Statewide Integrated Traffic Records System (SWITRS) collision database within the Project study area to determine whether there are any current collision patterns that might suggest an existing safety concern. The analysis focused on locations within 500 feet of all study intersections, including the Project intersection on Fairview Avenue, adjacent to the Levine Drive intersection. The entire segment evaluated, between Maud Avenue and Five Canyons Parkway, was 1.25 miles in length (when including 500-foot radius of Maud Avenue and Five Canyons Parkway intersections with Fairview Avenue).

In the ten-year period from 2003 to 2012, 18 collisions were reported (fewer than two per year) for the study segment. Of the 18 reported collisions, half (9) were hit object type (solo vehicle), while the remainder included four broadside, two sideswipe, and one each of head-on, rear end, and other (unspecified) type. None of the reported collisions involved pedestrians, one involved a bicyclist, and there were no reported fatalities.

The collision data at the study intersections were compared with the statewide mean collision rate for a roadway segment with similar characteristics (i.e. local roadway segments elsewhere statewide). This comparative analysis was undertaken using the Rate Quality Control Method. The method identifies a location as hazardous if it satisfies the following inequality:

$$\text{Accident Rate} > \beta$$

This method assists in identifying “accident-prone” locations where collision rates are significantly higher than the mean collision rate for a comparable traffic volume.  $\beta$  was set at the 95th percentile confidence level, meaning that the observed collision rate would only occur by chance five times out of one hundred. **Table 8.4** shows the results of the collision rate analysis for the study roadway segment.

**Table 8.4: Fairview Avenue Collision Analysis Rate Calculation**

Fairview Ave Road Segment (Roadway Type)	Dir / # of Lanes	Posted Speed Limit (mph) / ADT (veh)	# of Collisions (Jan 03 - Dec 12)	Length (miles)	Segment Collision Rate (R <sub>SE</sub> )	Statewide Average Collision Rate	Segment Collision Rate Diff. [B-C]	Accident Rate Determination (at 95% confidence interval)	
								95% Rate	Hazard if RSP > 95% Rate
Maud Ave to Five Canyons Pkwy (Local Street)	NB-SB / 2 lanes	30 mph / 2,405 veh	18	1.25	1.64	1.3	0.34	1.99	Non Hazardous location

Notes:  $R_{SE} = \text{Observed collision rate; \# of acc./mil. vehicle miles} = 1,000,000 * A / (365 * T * ADT * L)$

$$95\% \text{ Rate} = C + 1.64 * (C/m)^{(0.5)} + 1 / (2 * m)$$

A = Number of collisions over study period

T = Total number of years over which intersection accidents were collected; Jan 03 - Dec 12 = 10 years

ADT = Average Daily Traffic (estimated as 5 x AM+PM traffic volumes, i.e. AM+PM represents 20% of ADT)

L = Length of the study corridor (in miles)

According to the table, the segment collision rate over the ten-year period was 1.64 collisions per million vehicle miles (MVM), which is 0.34 above the average rate of 1.34 collisions per MVM statewide for similar roadways of this type (suburban, local streets). However, the average segment collision rate of 1.64 on Fairview Avenue is less than the calculated 95th percentile rate of 1.99 collisions per MVM (*beta*) for similar roadways statewide. Based on this comparison to the 95th percentile rate, the Fairview Avenue segment that includes the Project site is considered to be a non-hazardous location with respect to collisions.

Furthermore, due to the overall infrequency of collisions over the 10-year period and the variety of reported collision types, there are no apparent collision trends that would suggest an existing, atypical or exceptional safety concern at any of the study intersections or the proposed intersection location.

## ROADWAY SPEEDS

In response to County staff and community concerns, TJKM conducted an assessment of vehicle speed on Fairview Avenue to determine the roadway's prevailing speed.

Since recent County speed survey information was not available, TJKM conducted a spot speed survey in June 2013 on Fairview Avenue. This speed survey was conducted in a manner consistent with the recommended procedures and intent of Section 2B.13 of the California Manual on Uniform Traffic Control Devices (MUTCD). Speeds were measured at the proposed Project intersection location on a weekday during free-flow, midday off-peak hours using certified and calibrated radar guns operated by a certified technician. Data were collected on a day with fair weather, dry pavement, and clear visibility. An effort was made to ensure that the presence of radar survey equipment did not affect the speed of the traffic being surveyed.

In standard traffic engineering practice, the 85th-percentile speed, also known as the critical speed, is the primary indicator of the appropriate speed limit for a given section of roadway. The critical speed is the speed at or below which 85 percent of the spot sample speeds were observed. During the survey, the critical speed observed was 36 miles per hour (mph), which is six mph over the speed limit (30 mph). Traffic engineers typically consider this observed critical speed to represent the prevailing speed of vehicles on the roadway, because 85 percent of the observed driver population travel at that speed or lower. More specifically, the majority of speeds collected ranged from 32 to 35 mph. The results

suggest a need exists for additional speed enforcement or traffic calming devices to promote compliance with the 30 mph posted regulatory speed limit on Fairview Avenue through the study area.

### **FREEWAY OPERATIONS**

I-580 is located approximately 2.5 miles from the Project site and provides the closest access point to regional roadway facilities. Based on the most recently published Caltrans traffic data (2012), peak hour traffic on Interstate 580 at Redwood Road in the Project vicinity averages 15,500 vehicles. By comparison, the Project is expected to generate an approximate maximum of 15 peak hour trips, or 0.1 percent of total peak hour traffic on I-580. Such contribution to total traffic would not constitute a significant impact.

### **PEDESTRIAN CONDITIONS**

Existing sidewalks are provided along random, isolated segments of Fairview Avenue, somewhat more concentrated west of the Fairview/Hansen roundabout. Current pedestrian activity as counted at the study intersections amounts to no more than two pedestrians per peak hour. Pedestrian activity in the vicinity is clearly constrained by the fragmented sidewalk network and lack of other walking pathways, and although the existing low-density development pattern in the study area makes it necessary for a vast majority of trips, or nearly every general purpose trip, to be made by car. A substantial proportion of people, including children before they acquire driving skills or personal vehicles, active adults and senior citizens desire the ability to walk in their neighborhoods as a recreational or passive activity, including dog-walking. It is possible that the little evidence of pedestrian usage along Fairview Avenue is an indication that walkers in the area stay on their local streets and small courts away from the comparatively busy Fairview Avenue, or may be more active during non-peak hours (i.e., leisure time or weekends). As infill development occurs and the area matures, the need and expectations for safe pedestrian routes along more of the area roadways can be anticipated, and walking is strongly encouraged by public health policies.

### **BICYCLE CONDITIONS**

There are three classification of bicycle facilities in North America: Class I – Multi-Use Trails (off-street), Class II – Bike Lanes (on-street, striped lanes), and Class III – Bike Routes (on-street, signed only). In the Project study area, currently there are no classified Class I, II, or III facilities, although Fairview Avenue is identified in the Alameda County Bicycle Master Plan for Unincorporated Areas as one of the roadways designated to become a Class IIIa bike route between D Street and the Hayward city limits.

TJKM collected AM and PM peak hour bicycle counts at all study intersections in September 2012. **Attachment 4** includes all data collection sheets detailing these bicycle counts. At most, two bicycles were counted during the AM and PM peak hours, indicating generally very low bicycle activity within the study area. The evident low number of bicycle trips is also most likely due to the hilly terrain of the vicinity, limited and variable shoulders on Fairview Avenue, limited sight distance related to its various turns and curves, and speeds often above the posted speed limit, as noted above.

### **TRANSIT CONDITIONS**

The proposed Project is located approximately 1/2-mile from the nearest existing bus stops at Maud and D Streets served by AC Transit Route 95, with service to Hayward BART Station. Currently, AC Transit Route 95 operates at a peak load factor below 1.0, indicating available capacity for additional riders during peak hours. Also, the proposed Project is about three miles from the Castro Valley BART station.



## FUTURE BASELINE CONDITIONS

### Future Baseline Development Scenarios

In consultation with County staff, a future year cumulative baseline with a 20-year horizon was established to assess potential impacts from the proposed Project. Three potential build-out scenarios in the Fairview Area Project vicinity were considered:

- a) Gross Development Potential – based on a tabulation of 18 specific sites or small areas in the Project vicinity (within about half a mile radius, based on Assessor’s parcel book map pages, roughly between Fairview Elementary School on the west to Five Canyons Parkway on the east, Lone Tree Cemetery and Star Ridge Road on the south and the Five Canyons Open Space on the north and east) that are currently undeveloped or under-developed and which have a total hypothetical capacity for 219 additional single-family residential dwelling units. This estimate of future residential development over a possible 20-year period is considered an extreme “worst case” scenario because it is a result of a mathematical calculation of lot sizes and allowable residential densities based on zoning without consideration of constraining access requirements, slope, environmental or other factors. Planning Staff notes that such development is not physically possible, because an average of 30% of every site must be subtracted to provide access and because it is almost impossible to create lots that are exactly the minimum lot size (e.g., 5,000 square feet where that lot size is the minimum required). However, it may serve to represent development trends not presently anticipated, such as more development in unforeseen locations, greater traffic loads from the Stonebrae project in the Hayward city limits, or possible changes to zoning that would allow secondary units or slightly to moderately higher densities.
- b) Physically Constrained – in which development of the same parcels as in Scenario A would potentially yield only 130 single-family homes, due to on-site access requirements, slope and other environmental factors, based on the same Planning Department staff review. Although these could also be built within a 20-year period, they would more likely be developed more gradually, with perhaps 50% in ten years, another 20% to 30% in the next ten years, and then tapering to 5% to 10% per decade thereafter.
- c) ABAG Growth Scenario – assumes an annual growth rate of 0.9 percent, consistent with current ABAG projections for the San Francisco Bay Area. Based on a County staff estimate of about 350 existing dwelling units in the Project vicinity as of 2010, this would result in 72 new single-family homes in the Project vicinity over a 20-year period ending in 2030, or between three and four new homes per year on average. This development scenario is reasonably realistic and compatible with Scenario B, and consistent with the improbability of rapid or complete buildout of the 130 potential homes described in Scenario B.

However, for conservative traffic analysis purposes, TJKM has analyzed the worst case (219-unit) Scenario A for the Future Baseline. A qualitative analysis of the other two potential build out scenarios (Scenarios B and C) is provided later in this study report.

### Trip Generation - Future Baseline Development

Trip generation for the potential future development under Scenario A was determined using trip rates contained from ITE *Trip Generation*. Under Scenario A, the additional development of 219 net new single-family homes could be expected to generate a cumulative total of 164 trips during the a.m. peak hour, 237 trips during the p.m. peak hour, and 2,096 average weekday daily trips. The locations and trip generation for the additional development during the peak hours are summarized in **Table 8.5**.

The average daily weekday trip generation from Scenario A is summarized in **Table 8.6**. **Figure 8.2** shows the locations of all individual future baseline developments.

### **Future Baseline Trip Distribution and Assignment**

TJKM used the same trip distribution and assignment for the potential future cumulative development under Scenario A as for the proposed Project based on consultation with County staff, expected future area traffic volumes, and TJKM's knowledge of the study area.

The combined trip distribution and assignment for the future cumulative developments in the study area are shown in **Figure 8.2**. The assigned trips for the future cumulative developments were added to Existing Conditions traffic volumes to generate Future Baseline traffic volumes, which are shown in **Figure 8.3**. **Figure 8.3** also shows expected lane geometry and traffic controls at the study intersections under Future Baseline Conditions, which are expected to be identical to Existing Conditions.

**Table 8.5: Expected Peak Hour Trip Generation for Future Baseline Development**

Figure 8-2 Symbol	Parcel Location	Size	A.M. Peak Hour					P.M. Peak Hour				
			Rate	In: Out	In	Out	Total	Rate	In: Out	In	Out	Total
A	3216 D St.	14 units	0.75	25:75	3	8	11	1.01	63:37	9	6	15
B	3230 D St.	2 units	0.75	25:75	0	1	2	1.01	63:37	2	1	3
C	3231 D St.	6 units	0.75	25:75	1	3	5	1.01	63:37	4	3	7
D	3247 D St.	12 units	0.75	25:75	2	7	9	1.01	63:37	8	5	13
E	3291 D St.	21 units	0.75	25:75	4	12	16	1.01	63:37	14	8	22
F	3290 Jelincic Dr.	19 units	0.75	25:75	4	11	14	1.01	63:37	13	7	20
G	24694 Fairview Ave.	12 units	0.75	25:75	2	7	9	1.01	63:37	8	5	13
H	24830 Fairview Ave.	18 units	0.75	25:75	3	10	14	1.01	63:37	12	7	19
I	24717 Fairview Ave.	7 units	0.75	25:75	1	4	5	1.01	63:37	5	3	8
J	24787 Fairview Ave.	6 units	0.75	25:75	1	3	5	1.01	63:37	4	3	7
K	24867 Fairview Ave.	11 units	0.75	25:75	2	6	8	1.01	63:37	8	4	12
L	3664 D St./Quarry Rd.	8 units	0.75	25:75	2	5	6	1.01	63:37	6	3	9
M	3552 D St./Quarry Rd.	11 units	0.75	25:75	2	6	8	1.01	63:37	8	4	12
N	5262 to 5499 Hilltop Rd.	24 units	0.75	25:75	5	14	18	1.01	63:37	16	9	25
O	D St./Ohlone Way	7 units	0.75	25:75	1	4	5	1.01	63:37	5	3	8
P	D St./Ohlone Way	6 units	0.75	25:75	1	3	5	1.01	63:37	4	3	7
Q	Noble Canyon, Fairview Ave east of D St.	4 units	0.75	25:75	1	2	3	1.01	63:37	3	2	5
R	Sarita St./Karina St.	31 units	0.75	25:75	6	17	23	1.01	63:37	20	12	32
<b>Other Development Total</b>		<b>219 units</b>			<b>41</b>	<b>123</b>	<b>164</b>			<b>149</b>	<b>88</b>	<b>237</b>

Note: Single-Family Detached Housing Land Use (ITE Code 210) was assumed for all developments.

**Table 8.6: Expected Weekday Daily Trip Generation for Future Baseline Development**

<i>Figure 8-2 Symbol</i>	<i>Parcel Location</i>	<i>Size</i>	<i>Weekday Daily</i>				
			<i>Rate</i>	<i>In: Out</i>	<i>In</i>	<i>Out</i>	<i>Total</i>
A	3216 D St.	14 units	9.57	50:50	67	67	134
B	3230 D St.	2 units	9.57	50:50	10	10	19
C	3231 D St.	6 units	9.57	50:50	29	29	57
D	3247 D St.	12 units	9.57	50:50	57	57	115
E	3291 D St.	21 units	9.57	50:50	100	100	201
F	3290 Jelincic Dr.	19 units	9.57	50:50	91	91	182
G	24694 Fairview Ave.	12 units	9.57	50:50	57	57	115
H	24830 Fairview Ave.	18 units	9.57	50:50	86	86	172
I	24717 Fairview Ave.	7 units	9.57	50:50	33	33	67
J	24787 Fairview Ave.	6 units	9.57	50:50	29	29	57
K	24867 Fairview Ave.	11 units	9.57	50:50	53	53	105
L	3664 D St./Quarry Rd.	8 units	9.57	50:50	38	38	77
M	3552 D St./Quarry Rd.	11 units	9.57	50:50	53	53	105
N	5262 to 5499 Hilltop Rd.	24 units	9.57	50:50	115	115	230
O	D St./Ohlone Way	7 units	9.57	50:50	33	33	67
P	D St./Ohlone Way	6 units	9.57	50:50	29	29	57
Q	Noble Canyon, Fairview Ave east of D St.	4 units	9.57	50:50	19	19	38
R	Sarita St./Karina St.	31 units	9.57	50:50	148	148	297
<b>Other Development Total</b>		<b>219 units</b>			<b>1,048</b>	<b>1,048</b>	<b>2,096</b>

Note: Single-Family Detached Housing Land Use (ITE Code 210) was assumed for all developments.

**Figure 8.2: Future Area Buildout Development Trip Distribution and Assignment**

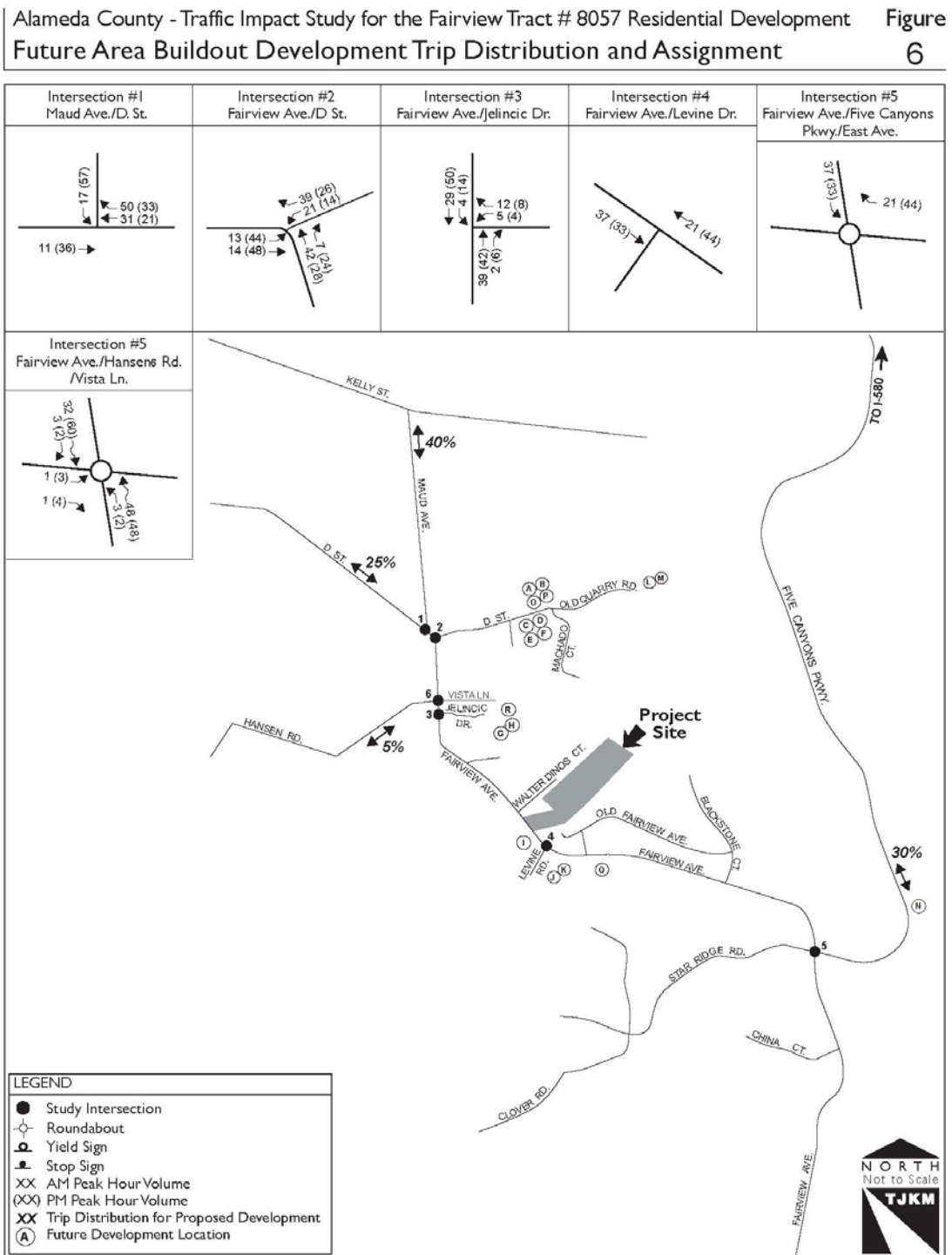
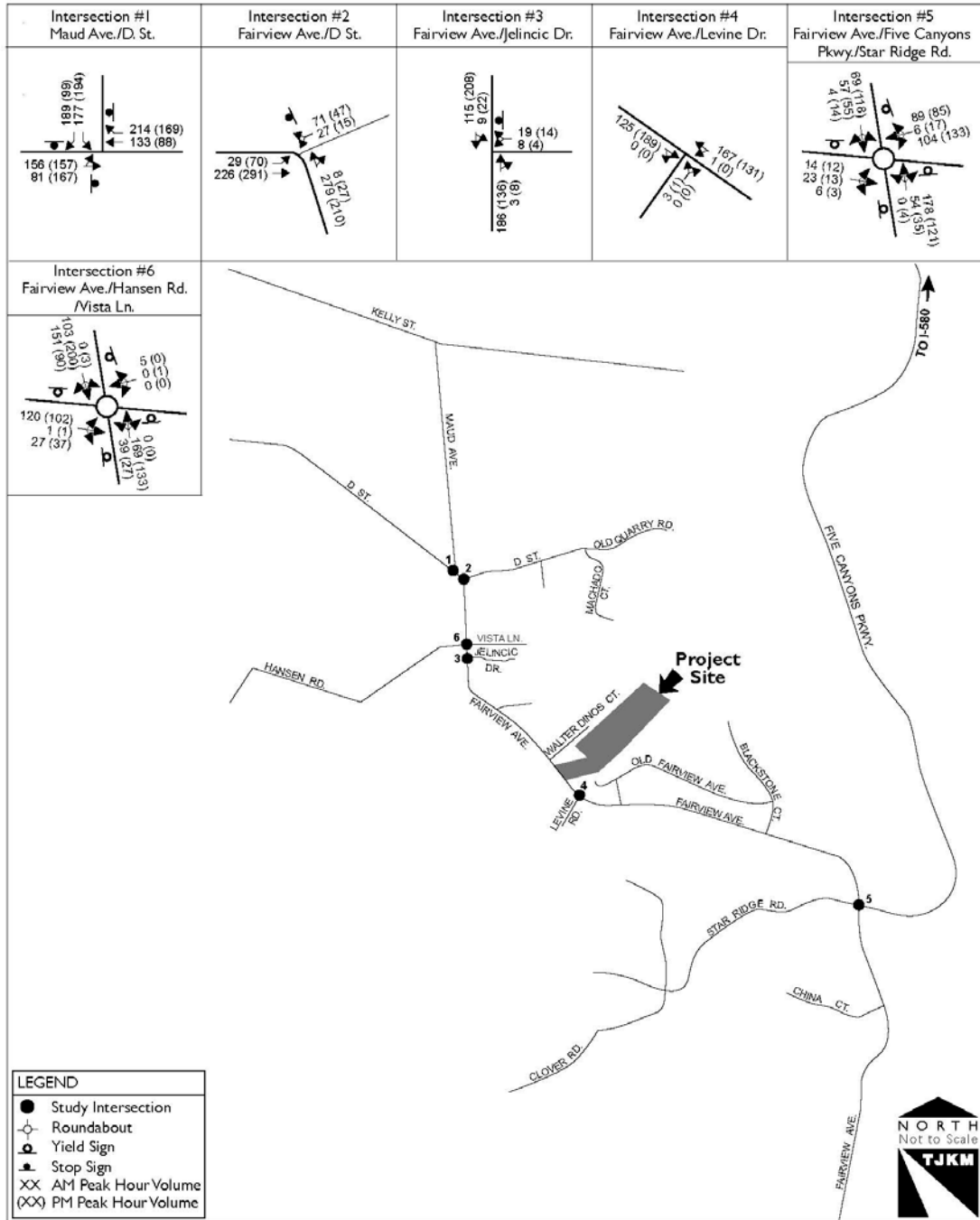


Figure 8.3: Future Traffic Volumes, Lane Geometry, and Traffic Controls



## Intersection Level of Service Analysis – Future Baseline Conditions

**Table 8.7** presents a summary of the peak hour level of service analysis for all study intersections under Future Baseline Conditions. Level of service worksheets are provided in Attachment 4. For Future Baseline Conditions, all study intersections are expected to remain operating at acceptable service levels of LOS B or better.

**Table 8.7: Peak Hour Intersection Level of Service – Future Baseline Conditions**

ID	Intersection	Control	Existing Conditions				Future Baseline Conditions			
			A.M. Peak Hour		P.M. Peak Hour		A.M. Peak Hour		P.M. Peak Hour	
			Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
1	D Street / Maud Avenue	All-Way Stop	9.0	A	9.1	A	9.4	A	10.3	B
2	Fairview Avenue / D Street	Minor Street Approach Stop	10.9	B	9.7	A	13.5	B	12.2	B
3	Fairview Avenue / Jelincic Drive	Minor Street Approach Stop	9.7	A	8.8	A	10.4	B	9.8	A
4	Fairview Avenue / Levine Drive	Minor Approaches Stop or Yield	10.4	B	10.1	B	11.1	B	10.7	B
5	Fairview Avenue / Five Canyons Parkway / Star Ridge Road	Roundabout	5.0	A	5.4	A	5.3	A	5.8	A
6	Fairview Avenue / Hansen Road	Roundabout	4.9	A	5.0	A	5.3	A	5.5	A

Notes: Delay = Average Delay in seconds per vehicle

LOS = Level of Service

The delay and LOS at the all-way stop controlled intersection are for the overall intersection performance.

The delay and LOS at intersections with stop or yield control on the minor approaches are for the worst-case minor approach.

The delay and LOS at the roundabout intersection are for the overall intersection performance.

## REGULATORY SETTING

This section provides a summary of the plans and policies of the County, and regional, state, and federal agencies that have policy and regulatory control over the Project study area. These plans and policies include the Fairview Area Specific Plan, Caltrans' *Guide for the Preparation of Traffic Impact Studies*, and the California Manual on Uniform Traffic Control Devices (MUTCD).

### Federal Regulations

There are no federal transportation regulations applicable to the proposed Project.

### State Regulations

Caltrans is responsible for planning, designing, constructing, and maintaining all interstate freeways and state routes. I-580 is the nearest roadway that is under Caltrans' jurisdiction. Caltrans requirements are described in their 2002 *Guide for the Preparation of Traffic Impact Studies*, which covers the information needed for Caltrans to review the impacts on state highway facilities; including freeway segments, on- and off-ramps, and signalized intersections. Since I-580 operates at sub-standard levels of service, the Project must be analyzed for the number of trips it adds to the freeway and its impact on the freeway operations.

### Regional / Alameda County Regulations

The mission of the Alameda County Transportation Commission (ACTC) is to plan, fund and deliver a broad spectrum of transportation projects and programs to enhance mobility throughout Alameda County. Many projects and programs are at least partially funded by a Countywide transportation sales tax levied by the County. ACTC issued the Alameda Countywide Transportation Plan (CWTP) in 2012, which establishes performance measures for transportation projects. Such measures address traffic congestion, alternative (non-auto) mode use, accessibility to activity centers, accessibility to public transit, public transit usage, transit efficiency, travel time and system reliability for autos and transit, maintenance for roadways and transit, system safety, level of physical activity, and clean environment (greenhouse gas and particulate emissions). ACTC has also established land-use based measures that address the important coordination between land use and transportation.

The CWTP is a long-range policy document that guides future transportation investments, programs, policies and advocacy for all of Alameda County through 2040. The CWTP addresses all aspects of the Countywide transportation system, including capital, operation and maintenance of freeways, buses, rail, ferries and other modes. It also addresses transportation programs that serve varying needs throughout the County, such as paratransit services for seniors and people with disabilities and safe access to schools. This document establishes a vision for Alameda County's transportation system, inventories needs and available funding and identifies gaps where funding and needs do not match and where additional funding sources need to be secured.

It should be noted that the proposed Fairview Project is expected to generate fewer than 100 PM peak hour trips (15 only), and is therefore not subject to analysis under Alameda County's Congestion Management Program.

### Fairview Area Specific Plan

Set forth below are the policies and principles in the *Fairview Area Specific Plan* related to traffic and circulation.

#### 1. Public Streets

It is the policy of the County to maintain a level of service C in the internal street system except at the intersection of Kelly, B, and Center which is to maintain a level of service D. Because improvements are required in both the internal street system and these key intersections in the City of Hayward in order to adequately accommodate existing and future vehicular traffic the following specific policies are adopted:

- a. The County is committed to improving the traffic system immediately affecting the Fairview Area, while preserving the quality of life of surrounding existing residences. Improvements to the internal street system must take into consideration the needs of the existing residents, and pedestrians as well as motorists. The need for such improvements must be balanced against the desirability of preserving existing neighborhoods. It is the policy and preference of the community to avoid traffic signals in the Fairview area where possible.
- b. The County and City must continue to carefully analyze major deficiencies in the internal street system as well as critical external intersections. They must also continue to evaluate street needs given projected automobile, bus, bicycle, and pedestrian traffic; estimate improvement costs to rectify problems; establish a priority and improvement schedule; and study alternative sources of funding. Critical intersections that have been identified include: 1) B Street/Center Street/Kelly Street; 2) Kelly Street/Maud Avenue; 3) Center Street/Grove Way; 4) Hansen Road/Fairview Avenue; 5) D Street/Maud Avenue; 6) D Street/Second Street; 7) E Street/Second Street; and 8) D Street/Seventh Street. .



- c. Since four of the critical intersections affecting the area are within the City of Hayward, and since a significant amount of traffic is and will be contributed by Hayward development, the City's participation, both technically and financially, in solutions to the traffic problems is essential.
  - d. Costs of improvements shall be borne, in large part, by new development, with the County and City providing additional funds if available.
  - e. The County and City shall maintain information on traffic in the area in order to fully and quickly evaluate effects of new developments and timing of improvements.
  - f. The street design of new developments shall be complementary to the character of the existing neighborhood and proposed development. In many areas of Hillview, an asphalt curb or berm and graveled walkway are in keeping with the area's character, rather than P.C.C. curb, gutter and sidewalk.
  - g. All new approved developments which include off-site street improvements shall include an improvement schedule at the Final Map. This schedule shall tie street improvements to a specific completion date such as prior to first occupancy or a specific phase of the development.
2. Private Streets
- a. Private street design in new townhouse-condominium developments shall conform to adopted Planned Development District design standards.
  - b. Private streets may serve conventional single family residential development and shall conform to County design standards. County standards shall include different standards for different sized projects and a requirement for a public street if the project is large enough or the road will serve other property.
  - c. The private street design shall be complementary and consistent with the character of the existing neighborhood and proposed development. In most areas of Fairview, an asphalt curb or berm and graveled walkway are in keeping with the area's character.
  - d. A maintenance agreement shall be executed or a homeowners association formed to maintain private street improvements. The County may study the possibility of establishing an areawide County Service Area (CSA) for the purpose of maintaining existing and future private streets. New subdivisions with private streets would be required through the conditions of approval to join the CSA Existing private streets would have the option of being added to the CSA with the consent of property owners.
  - e. Existing private streets in the Fairview Area which are through roads or provide access to other streets should be considered for acceptance into the County road system.
  - f. Future development along existing private streets (such as Fairlands Road and Speed Lane) shall be permitted only upon demonstration to the County that:
    - 1) Street improvements are or will be upgraded to County private street standards.
    - 2) Existing satisfactory street maintenance arrangements will not be disrupted.
    - 3) Existing unsatisfactory street maintenance and maintenance arrangements will be improved.

It is recognized that this policy might preclude future development along some private streets.

### County Bicycle Plan

The *Alameda County Bicycle Master Plan for Unincorporated Areas* (2006 Update) reports that between 0.1 and 0.5 percent of residents in most of the County's unincorporated communities commute regularly by bicycle, with the Fairview area at the low end of 0.1 percent.<sup>1</sup> On a Bay Area-wide basis, 1.3 percent of home-based shopping trips are by bicycle, as are 3.8 percent of school-related trips. Because of the hilly terrain in the Fairview area and the lack of bicycle lanes and wide shoulders on Fairview Avenue and most other area roads, bicycle use in the Fairview area is on the low end of the range for commute trips, and perhaps half or less of the Bay Area rate for shopping, school trips and recreational bicycling.

Five Canyons Parkway provides a Class II bike lane between Castro Valley Boulevard and Fairview Avenue as designated in the *Bicycle Master Plan*. Fairview Avenue, along with D Street, Maud Avenue, Kelly Street, Hansen Road and East Avenue in the unincorporated Fairview area are all designated as proposed Class IIIA "Rideways," one of four subclasses of Class III bike routes. Class III routes typically provide "Bike Route" signage but no designated roadway lane or path separate from the street. Rideways on arterial roads, with slower traffic, are recommended in the *Bicycle Master Plan* to have wide curb lanes, traffic calming and signage indicating that it is a bike route. The Alameda County Neighborhood Traffic Calming Program is identified as having a key role in introducing traffic calming to specific routes. It is reasonable to anticipate some increase in bicycle activity on Fairview Avenue in the next 20 years, regardless of the extent to which the County implements recommended traffic calming or other measures established in the *Bicycle Master Plan*.

### County Pedestrian Plan

In October 2012 the County adopted the Alameda County Pedestrian Plan, an update to the County's 2006 Pedestrian Plan.<sup>2</sup> Because the policy context surrounding non-motorized transportation has changed substantially since 2006, the updated Plan gives special attention to relevant policy areas that have emerged or advanced in importance in the past six years. These areas include complete streets, climate action, smart growth and active transportation. Thus, the primary intent of the 2012 Pedestrian Plan is to identify and prioritize pedestrian projects, programs and planning efforts of countywide significance. The plan provides the background, direction and tools needed to increase the number of pedestrians and walking trips in Alameda County while improving pedestrian safety. The Pedestrian Plan acknowledges that the hilly and low-density Fairview Area experiences limited pedestrian activity; the focus of the Plan is on higher density urban areas where the investment in additional pedestrian safety features would have the most public benefit. In this context, however, the Project would enhance existing area pedestrian facilities by providing a multi-use, off-street trail along the PG&E easement adjacent to the Project site, and accommodating a future link to the regional trails east of the site.

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<sup>1</sup> Bicycle Master Plan: <http://www.acgov.org/pwa/BMP%20Draft%20Report%2011-27-06.pdf>

<sup>2</sup> Pedestrian Plan: [http://www.alamedactc.org/files/managed/Document/10093/ACTC\\_Ped\\_Plan\\_Final\\_10-25-12\\_011013.pdf](http://www.alamedactc.org/files/managed/Document/10093/ACTC_Ped_Plan_Final_10-25-12_011013.pdf)

## PROJECT CONDITIONS

### EXISTING PLUS PROJECT CONDITIONS

#### Project Description

The proposed residential development at Tract #8057 would consist of 15 single-family homes on a site to be accessed by a new private street connecting to Fairview Avenue at an intersection located almost opposite Levine Road, near the southeast corner of the PG&E parcel.

#### Trip Generation – Proposed Project

Trip generation for the proposed development was determined using trip rates contained in the standard reference book *Trip Generation*, 8th Edition, published by the Institute of Transportation Engineers (ITE). The proposed development at Tract #8057 is expected to generate approximately 11 trips during the a.m. peak hour, 15 trips during the p.m. peak hour, and 144 average weekday daily trips. Trip generation for the proposed development during the peak hours and the average weekday is summarized in **Table 8.8** and **Table 8.9**, respectively.

**Table 8.8: Peak Hour Trip Generation for Proposed Development**

Project	Land Use (ITE Code)	Size	A.M. Peak Hour					P.M. Peak Hour				
			Rate	In: Out	In	Out	Total	Rate	In: Out	In	Out	Total
Tract #8057	Single-Family Detached Housing (210)	15 Units	0.75	25:75	3	8	11	1.01	63:37	9	6	15

**Table 8.9: Weekday Daily Trip Generation for Proposed Development**

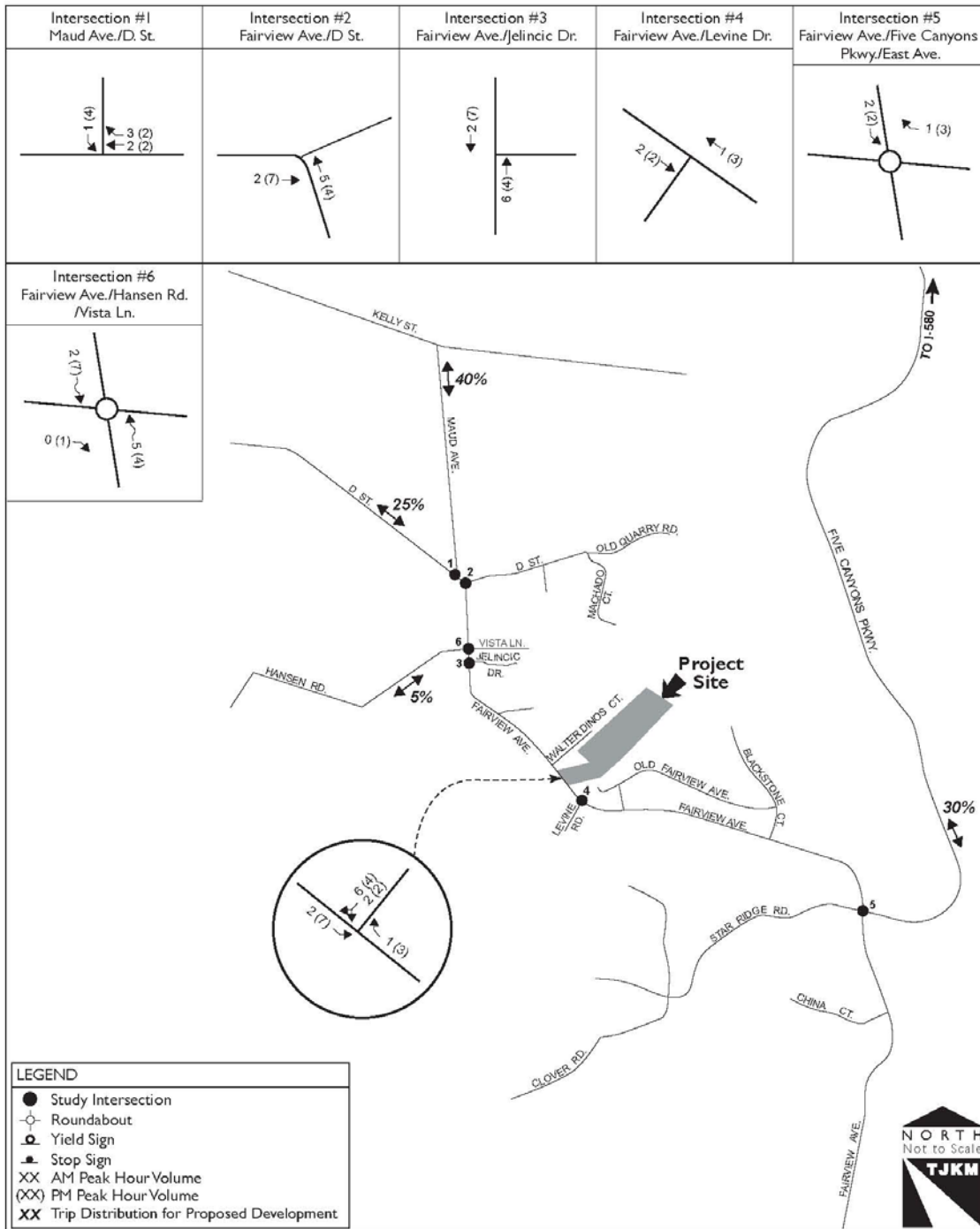
Project	Land Use (ITE Code)	Size	Weekday Daily				
			Rate	In: Out	In	Out	Total
Tract #8057	Single-Family Detached Housing (210)	15 Units	9.57	50:50	72	72	144

#### Trip Distribution and Trip Assignment

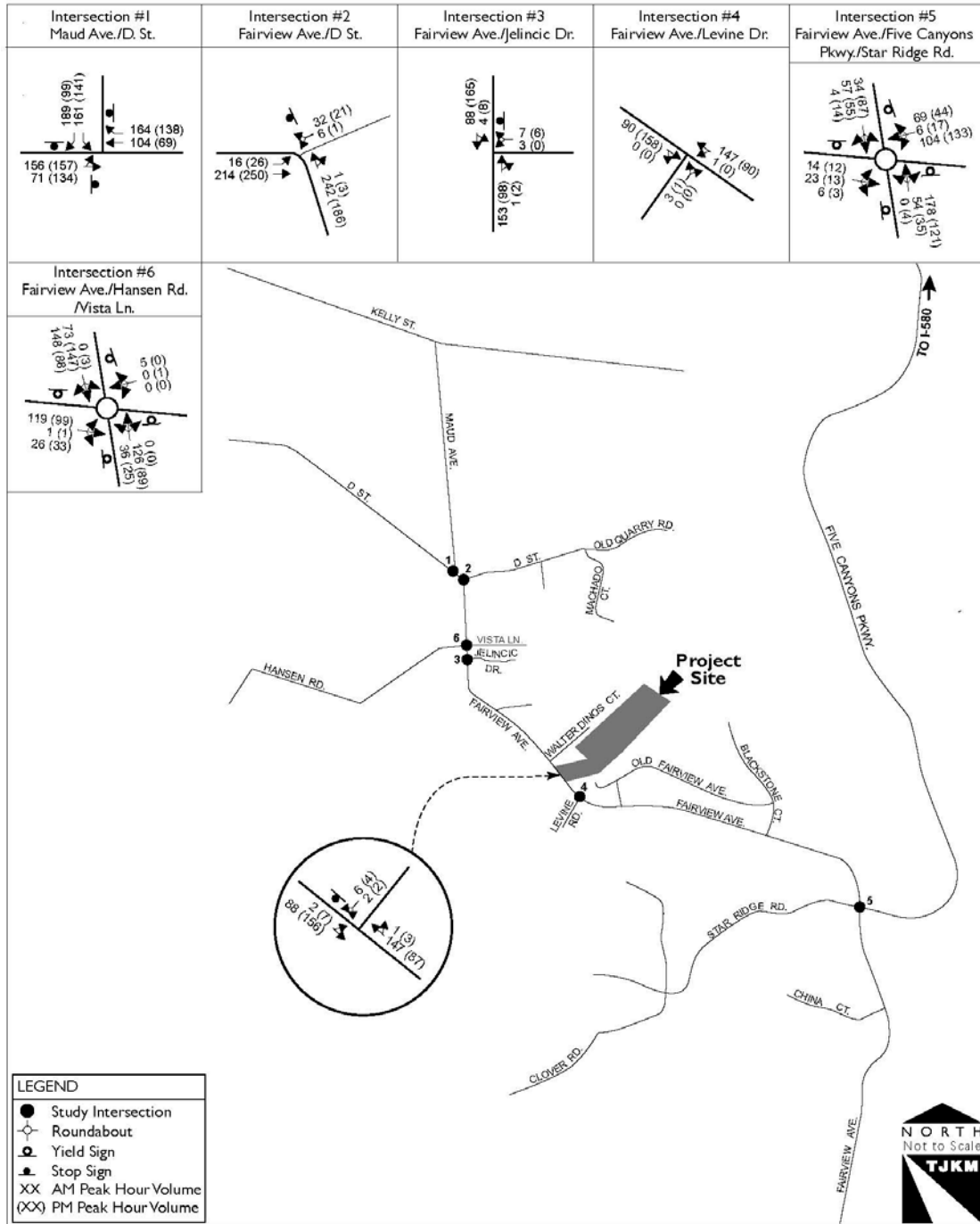
Trip distribution determines the proportions of the total vehicles generated by a project that are expected to travel between the project site and various destinations outside the project area. Trip assignment determines the various routes that vehicles are expected to take while travelling between the project site and each destination. For the proposed development, the trip distribution and assignment were determined based on existing turning movements and TJKM's knowledge of the study area in consultation with County staff. The trip distribution and assignment for the proposed development is shown in **Figure 8.4**.

The assigned Project trips were added to Existing Conditions traffic volumes to generate Existing plus Project Conditions traffic volumes. The resulting Existing plus Project traffic volumes, as well as lane geometry and traffic controls, are shown in **Figure 8.5**.

**Figure 8.4: Proposed Development Trip Distribution and Assignment**



**Figure 8.5: Existing plus Project Traffic Volumes, Lane Geometry, and Traffic Controls**



### Intersection Level of Service Analysis – Existing plus Project Conditions

**Table 8.10** presents a summary of the peak hour level of service analysis for each of the study intersections under Existing plus Project Conditions. Level of service worksheets are provided in Appendix E. Under Existing plus Project Conditions, all study intersections are expected to continue operating at acceptable service levels of LOS B or better.

**Table 8.10: Peak Hour Intersection Level of Service – Existing plus Project Conditions**

ID	Intersection	Control	Existing Conditions				Existing plus Project Conditions			
			A.M. Peak Hour		P.M. Peak Hour		A.M. Peak Hour		P.M. Peak Hour	
			Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
1	D Street / Maud Avenue	All-Way Stop	9.0	A	9.1	A	9.1	A	9.2	A
2	Fairview Avenue / D Street	Minor Street Approach Stop	10.9	B	9.7	A	10.9	B	9.7	A
3	Fairview Avenue / Jelincic Drive	Minor Street Approach Stop	9.7	A	8.8	A	9.7	A	8.9	A
4	Fairview Avenue / Levine Drive	Minor Approaches Stop or Yield	10.4	B	10.1	B	10.5	B	10.1	B
5	Fairview Avenue / Five Canyons Parkway / Star Ridge Road	Roundabout	5.0	A	5.4	A	5.0	A	5.5	A
6	Fairview Avenue / Hansen Road	Roundabout	4.9	A	5.0	A	4.9	A	5.1	A

Notes: Delay = Average Delay in seconds per vehicle

LOS = Level of Service

The delay and LOS at the all-way stop controlled intersection are for the overall intersection performance.

The delay and LOS at intersections with stop or yield control on the minor approaches are for the worst-case minor approach.

The delay and LOS at the roundabout intersection are for the overall intersection performance.

### Site Circulation and External Access

TJKM reviewed the latest Project site plan to determine adequacy of internal site circulation and external access. The site plan incorporates TJKM's previously recommended measures to enhance safety for vehicle turns at the Project's intersection of Street A and Fairview Avenue. These measures consist of a deceleration lane for inbound right turns and acceleration lane for outbound right turns along westbound Fairview Avenue. The measures are intended to address a limited sight distance condition that TJKM had identified based on an earlier field evaluation.

In terms of internal site circulation, the site plan shows a standard 24-foot roadway cross section adequate for two-way traffic on Street A (private road) entering the site, as well as a sidewalk connecting Fairview Avenue to the proposed homes. Further uphill, this cross section expands to 28 feet, consisting of one eight-foot parking lane and two 10-foot travel lanes on both Street A and Street B onsite. Both streets end in cul-de-sacs with standard 44-foot turning radii. The cross sections and cul-de-sacs are expected to be adequate in accommodating general vehicle circulation, including emergency vehicles.

It should also be noted that the site plan identifies 29 parking spaces that can be accommodated on street within the parking lanes located along Streets A and B on site. This parking supply is expected to be adequate in serving residents and visitors on site. The on-street parking total excludes parking capacity located off-street within the individual home sites, including driveways and garages.

TJKM recommends that a stop sign be installed on the southbound Street A approach to Fairview Avenue. This measure would provide a clearly defined assignment of right-of-way to Fairview Avenue traffic at the new intersection.

### **Sight Distance Evaluation**

TJKM reviewed the latest Project site plan and conducted a field visit to determine adequacy of stopping sight distance entering and exiting the Project site's Street A intersection with Fairview Avenue. The minimum stopping sight distance is defined as the distance required by the driver of a vehicle, traveling at a given speed, to bring the vehicle to a stop after an object on a roadway becomes visible (e.g. a car exiting a driveway).

Fairview Avenue is a two-lane roadway with approximately east-west orientation at the proposed Project intersection of Street A and Fairview Avenue. The westbound direction (towards Hayward) includes a downgrade of approximately six to ten percent. The roadway width varies from about 24 to 28 feet with curb and gutter along the road edge opposite the Project frontage. The shoulder along the Project frontage currently consists of a dirt shoulder. The existing posted regulatory speed limit is 30 miles per hour (mph) in the Project vicinity. An electronic speed radar sign (and a speed limit sign) is installed at the intersection of Fairview and Walters-Dinos Court, about 300 feet west of the proposed Project/Street A intersection to advise motorists traveling westbound on the downgrade slope of about 10 percent of excess speed. The display of speed is intended to slow traffic on Fairview Avenue, because it is accessed by several driveways on both sides to the east and to the west of the proposed Street A intersection.

The minimum stopping sight distance required at 30 mph speed is 200 feet based on the Caltrans Highway Design Manual (HDM). This distance is increased by 20 percent for downgrades of greater than three percent. For the Project entry location, the minimum required stopping sight distance based on the HDM is therefore 240 feet for the westbound down grade approach. The proposed Project entry location provides more than 450 feet of stopping sight distance for eastbound (uphill) traffic approaching the intersection, which is adequate for the design speed. However, approximately 140 feet of stopping sight distance is available for westbound (downhill) approaching vehicles, which is less than the 240-foot minimum required for the design speed. Therefore, safety measures are necessary to address this sight distance deficiency.

With acceleration and deceleration lanes in place to address westbound in- and out-bound vehicles, the primary safety concern remaining from the deficient westbound stopping sight distance is outbound left turning vehicles from the Project's Street A intersection with Fairview Avenue. These vehicles must look for gaps in traffic in both the eastbound and westbound directions in order to complete a left turn onto eastbound Fairview Avenue. Other turns are expected to be accommodated safely. Inbound left turns, which look for gaps to cross opposing westbound traffic, are expected to be adequate since they will enter a very low-volume residential street that is expected to be free of inbound queued vehicles. Inbound right turns will have an available right turn pocket that will allow vehicles to decelerate and turn while out of the westbound traffic stream. Lastly, outbound right turns will have an available acceleration lane which will provide additional merging and acceleration area for such vehicles entering the westbound traffic stream.

To address the outbound left turn safety concern, TJKM recommends that outbound access to Fairview Avenue be restricted to right turns only. This can be accomplished by constructing a physical island that will obstruct outbound vehicles from turning left, while still allowing for all inbound turns. TJKM also recommends that a R3-2 (No Left Turn) sign be installed to reinforce this feature. TJKM notes that few Project vehicles would be affected by this restriction during commute peak hours (worst case of two outbound vehicles during either a.m. or p.m. peak hour). These vehicles can divert to the Fairview Avenue / Hansen Road roundabout approximately 1,800 feet to the west to reverse direction and travel

towards Five Canyons Parkway and points east. The outbound left-turn prohibition is expected to mitigate this safety concern.

Alternatively, one or more measures to potentially slow traffic on westbound Fairview Avenue east of the Street A intersection and also alert westbound vehicles of left-turning vehicles, (i.e., “Traffic Calming Measures”) includes (but is not limited to) precautionary signage near or ahead of the curve warning of cross-traffic ahead, advising motorists to slow to 20 (or 25) mph, or installing an additional speed detection and display device. Installation of such devices is subject to an evaluation via an engineering study and must be reviewed and approved by the County Director of Public Works.

### Future Plus Project Conditions

This scenario is identical to Future Baseline Conditions, but with the addition of expected vehicle trips from the proposed Project. The same trip distribution and assignment for the proposed project is assumed under Future plus Project Conditions as under Existing plus Project Conditions. The assigned Project trips were added to Future Baseline Conditions traffic volumes to generate Future plus Project Conditions traffic volumes. The resulting traffic volumes at the study intersections under Future plus Project Conditions are shown in **Figure 8.6**.

### Intersection Level of Service Analysis – Future Plus Project Conditions

**Table 8.11** presents a summary of the peak hour level of service analysis for all study intersections under Future plus Project Conditions. Level of service worksheets are provided in Appendix G. For Future plus Project Conditions, all study intersections are expected to continue operating at acceptable service levels of LOS B or better.

**Table 8.11: Peak Hour Intersection Level of Service – Future plus Project Conditions**

ID	Intersection	Control	Future Baseline Conditions				Future plus Project Conditions			
			A.M. Peak Hour		P.M. Peak Hour		A.M. Peak Hour		P.M. Peak Hour	
			Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
1	D Street / Maud Avenue	All-Way Stop	9.4	A	10.3	B	9.4	A	10.4	B
2	Fairview Avenue / D Street	Minor Street Approach Stop	13.5	B	12.2	B	13.7	B	12.3	B
3	Fairview Avenue / Jelincic Drive	Minor Street Approach Stop	10.4	B	9.8	A	10.4	B	9.9	A
4	Fairview Avenue / Levine Drive	Minor Approaches Stop or Yield	11.1	B	10.7	B	11.1	B	10.7	B
5	Fairview Avenue / Five Canyons Parkway / Star Ridge Road	Roundabout	5.3	A	5.8	A	5.3	A	5.9	A
6	Fairview Avenue / Hansen Road	Roundabout	5.3	A	5.5	A	5.3	A	5.6	A

Notes: Delay = Average Delay in seconds per vehicle

LOS = Level of Service

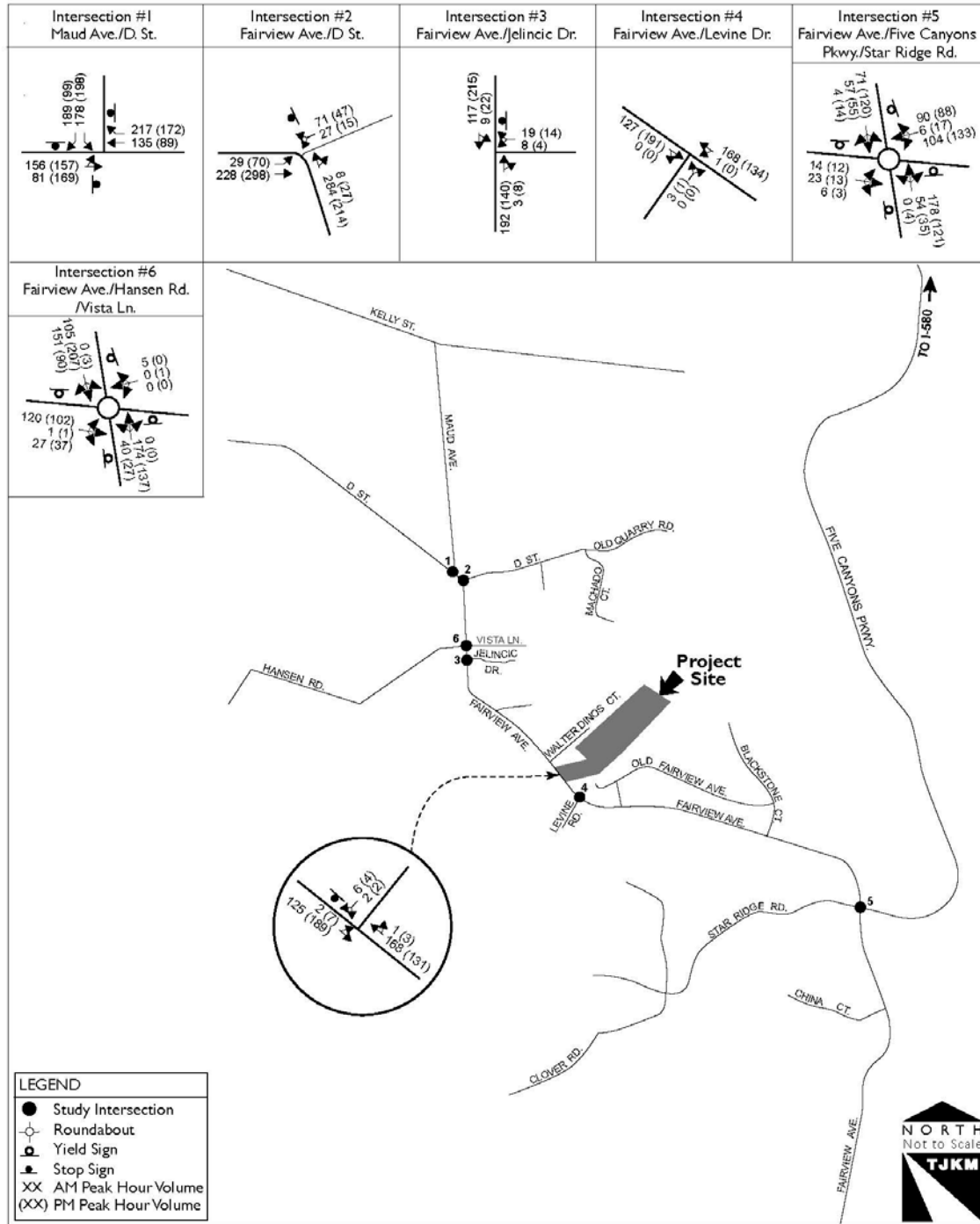
The delay and LOS at the all-way stop controlled intersection are for the overall intersection performance.

The delay and LOS at intersections with stop or yield control on the minor approaches are for the worst-case minor approach.

The delay and LOS at the roundabout intersection are for the overall intersection performance.



**Figure 8.6: Future plus Project Traffic Volumes, Lane Geometry, and Traffic Controls**



### Other Potential Development Scenarios and Impacts

TJKM evaluated two other potential future development build out scenarios as they relate to potential future traffic impacts. These two scenarios are as follows:

- Physically Constrained Scenario (Scenario B) - development of the same parcels as in Scenario A would potentially yield only 130 single-family homes due to access, slope and other environmental factors, based on County Planning Department staff review.
- ABAG Growth Scenario (Scenario C) - assumes annual growth rate of 0.9 percent, consistent with current ABAG projections for the San Francisco Bay Area. Based on County staff estimation, this would result in 57 single-family homes in the Project vicinity.

Under the Physically Constrained Scenario, it is expected that a future baseline development of 130 single-family homes would generate approximately 1,244 vehicle trips on a typical weekday, including 98 trips during the a.m. commute peak hour and 131 trips during the p.m. commute peak hour. Similarly, under the ABAG Growth Scenario, 57 single-family homes are expected to generate approximately 545 vehicle trips during a typical weekday, including 43 a.m. peak hour trips and 58 p.m. peak hour trips.

It should be noted that the estimated vehicle trips under both the Physically Constrained and ABAG Growth Scenarios are fewer than those estimated under the Gross Development Scenario that was assumed in the preceding future baseline traffic analysis. With 219 single-family homes under the Gross Development Scenario, approximately 2,096 vehicle trips are expected to be generated on a typical weekday, including 164 a.m. peak hour trips and 237 p.m. peak hour trips. Given that no significant traffic impacts were found under the Gross Development Scenario for either Future Baseline or Future plus Project Conditions, it is reasonable to conclude that the Physically Constrained and ABAG Growth Scenarios would also cause no significant impacts under Future Baseline or Future plus Project Conditions, since both development scenarios would generate fewer trips than the Gross Development Scenario.

### Analysis of Alternate Project Access Points

To provide a basis for the evaluation of access alternatives as presented in Chapter 11 of this Draft EIR, TJKM reviewed three potential access alternatives for the Project that have been suggested because they are not anticipated to have the same sight distance deficiency as discussed above, and thus would not require the outbound left-turn restriction as recommended above. The three access alternatives are described as follows:

1. Connection to the existing roadway, Jelincic Drive and the internal streets of the Jelincic development leading up to Karina Street
2. New road access located approximately 300 feet west of Walters-Dinos Court at 24830 Fairview Avenue, an undeveloped 4.27-acre parcel, the site of a previously proposed 18-lot residential subdivision known as “Fairview Terrace” also known as Subdivision Tract #7921; or
3. Connection over private property to existing roadways – from Old Fairview Avenue north of Courtney Lane.

Based on Caltrans Highway Design Manual (HDM) sight distance standards of 240 feet based on 30 mph posted speed and given the downgrades on Fairview Avenue, Access 1 was observed to have a minimum available sight distance of 285 feet in either direction of Fairview Avenue. Similarly, Access 2 was found to have a minimum 340 feet sight distance available in either direction, and Access 3 was found to have a minimum 320 feet available sight distance in both directions. Based on these field evaluations, each Project access alternative is expected to meet sight distance requirements based on Caltrans standards, and therefore each is expected to be adequate in terms of traffic safety and not create a new hazard or exacerbate any existing roadway hazards on Fairview Avenue. Outbound left

turns are expected to be made safely where each of these three alternatives meets Fairview Avenue, without the need for a traffic island to prevent such turns. Additional analysis of the three access alternatives is presented in the Chapter 11 of this Draft EIR.

## IMPACTS AND MITIGATION MEASURES

This section identifies Project-related impacts to the transportation network, and recommends mitigation measures to reduce significant impacts where possible.

### STANDARDS OF SIGNIFICANCE

For the purposes of this Draft EIR, development of the Project site would present a significant impact related to transportation if the 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; 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.

Significance criteria for applicable plans and policies relevant to the Project are discussed below.

#### Alameda Countywide Transportation Plan (CWTP)

The Alameda Countywide Transportation Plan identifies what constitutes a significant impact due to the Project. The standards used for this report are presented below.

#### *Signalized Intersections*

Impacts at signalized intersections would be significant if the Project is expected to:

- Degrade the AM or PM peak hour from an acceptable LOS D or better under No Project Conditions to an unacceptable LOS E or worse under Project Conditions.
- Degrade the AM or PM peak hour at identified intersections near freeways from an acceptable LOS E (80 seconds/vehicle) or better under No Project Conditions to an unacceptable LOS F under Project Conditions.
- Degrade the AM or PM peak hour operating at substandard LOS under No Project Conditions by increasing the average intersection delay by more than 5 seconds per vehicle.

An intersection can be mitigated to a *less-than-significant* level if an infrastructure improvement or traffic volume reduction results in the intersection operating at its minimum threshold or better. If an intersection is currently operating at substandard LOS, the improvement must, at a minimum, ensure the intersection LOS is restored to its No Project LOS operating conditions in order for the impact to be avoided or reduced to a *less-than-significant* impact.

*Unsignalized Intersections*

For the purposes of this analysis, unsignalized intersection impact criteria were developed to be similar to those at signalized intersections. Impacts at unsignalized intersections would be significant if the Project is expected to:

- Degrade the AM or PM peak hour at a study intersection from an acceptable LOS E (50 seconds/vehicle) or better under No Project Conditions to an unacceptable LOS F (> 50 seconds/vehicle) under Project Conditions.
- Degrade the AM or PM peak hour at an all-way stop-controlled study intersection that is operating at a substandard LOS under No Project Conditions by increasing the average intersection delay by more than 5 seconds per vehicle.
- Degrade the AM or PM peak hour at a side-street stop-controlled study intersection operating at substandard LOS under No Project Conditions by increasing the vehicle delay of the leg with the worst LOS by more than 5 seconds per vehicle.

The same mitigation criteria explained above for signalized intersections applies to unsignalized intersections.

Transit, Pedestrian, and Bicycle Operations

CEQA states that an impact to bicycle, pedestrian, and transit circulation would be significant if it conflicts with adopted policies, plans, or programs supporting these forms of transportation. Impacts specific to bicycle, pedestrian, and transit circulation would be significant if the Project causes one or more of the following:

*Bicycle*

- Conflicts with existing or planned bikeways and trails.
- Creates a safety issue for bicyclists.
- Exacerbates a current substandard bicycle condition in the project area.

*Pedestrian*

- Results in substantial conflicts for pedestrians or would adversely affect nearby pedestrian facilities.
- Creates a safety issue for pedestrians.
- Exacerbates a current unsafe pedestrian condition in the project area.

*Transit*

- Conflicts with existing or future transit routes.
- Causes a transit demand above the levels able to be adequately provided by local transit operators or agencies, or has other adverse impacts on transit operations.

Fairview Area Specific Plan

In addition to Alameda CWTP LOS significance criteria, the Fairview Specific Plan contains LOS significance criteria specific to the Fairview area. County policy is to maintain LOS C for the Fairview internal street system except at the Kelly/B/Center intersection, which is to maintain LOS D.

Freeway and Ramp Operations

As stated in the Caltrans *Guide for the Preparation of Traffic Impact Studies* (Caltrans 2001), “Caltrans endeavors to maintain a target LOS at the transition between LOS ‘C’ and LOS D on State highway

facilities. However, Caltrans acknowledges that this may not always be feasible. If an existing State highway facility is operating at less than the appropriate target LOS, the existing [measure of effectiveness] should be maintained.”

However, the Alameda County *Congestion Management Plan* identifies LOS no worse than E ( $v/c < 1.00$ ) on freeways and ramps during peak hours. For the purposes of this study, significant traffic impacts on I-580 in the study area are identified if the proposed Project causes:

- the operations of a freeway segment or ramp to deteriorate from LOS E or better to LOS F; or
- an increased  $v/c$  ratio on a freeway segment already operating at LOS F by more than 3%.

#### Site Access and Circulation

Impacts to site access and on-site circulation would be significant if the following criteria were met:

- The Project’s on-site circulation system would be inadequate for the volumes and types of traffic expected.
- Vehicular access points would not be designed to appropriate design standards.

#### Additional Considerations

The Project would result in a significant impact if it met one or more of the following criteria:

- Resulted 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);
- Resulted in inadequate emergency access;
- Resulted in construction-related impacts; or
- Diverted traffic onto a local, residential street such that its total daily volumes resulted in more than 5,000 vehicles.

### **PROJECT-SPECIFIC INTERSECTION IMPACTS**

**Impact Traf-1: Project-Generated Traffic.** Traffic generated by the proposed Project would increase traffic levels at vicinity intersections. However, these increases would still result in acceptable service levels of LOS B or better. This is a *less than significant* impact.

Project traffic was added to both Existing and Future year traffic volumes at six study intersections to form the basis for the Project conditions analysis. The report evaluates AM and PM peak hour operations at each study intersection and assumes no roadway improvements would be included. **Attachment 4** contains the detailed peak hour intersection LOS calculations.

### **BICYCLE IMPACTS**

**Impact Traf-2: Project-Generated Bicycle Demand.** The Project may increase levels of bicycle use in the vicinity. However, the Project is not expected to conflict with adopted policies, plans, or programs regarding bicycle facilities, or otherwise decrease the performance or safety of such facilities within the study area. This is a *less than significant* impact.

There are no existing Class I off-street or Class II on-street bicycle facilities within the immediate study area. Under existing conditions and the proposed Fairview Avenue Rideway, bicyclists would continue

to share the road with other vehicles. However, current bicycle use as counted at the study intersections amounts to no more than two bicycles per peak hour, AM or PM. There is limited potential for increased bicycle usage given the low-density development pattern in the study area, hilly terrain and other factors, and the Project is expected to generate minimal additional bicycle trips. As such, the Project is not expected to conflict with adopted policies, plans, or programs regarding bicycle facilities, or otherwise decrease the performance or safety of such facilities within the study area. Therefore, the Project's impact on such facilities would be *less than significant*.

### PEDESTRIAN IMPACTS

**Impact Traf-3: Project-Generated Pedestrian Demand.** The Project may result in a small increment of pedestrian activity in the vicinity. However, the Project is not expected to conflict with adopted policies, plans, or programs regarding pedestrian facilities, or otherwise decrease the performance or safety of such facilities within the study area. This is a *less than significant* impact.

The Project would provide internal sidewalks circulating between each proposed residence and also connect to Fairview Avenue. The Project would also create a multi-use trail on the easement portion of the PG&E parcel, the beginning segment of a trail that could ultimately connect Fairview Avenue with the existing trail at the foot of Blackstone Court. The proposed trail would accommodate equestrian, bicycle as well as foot traffic and would serve primarily recreational use. Once constructed, the trail would eliminate the need for equestrians and others to use the unimproved shoulder of Fairview Avenue, thereby reducing pedestrian safety concerns in that location and enhancing overall pedestrian access in the immediate area.

Current pedestrian activity as counted at the study intersections amounts to no more than two pedestrians per peak hour. There is limited potential for increased pedestrian activity given the low-density development pattern in the study area, and the Project is expected to generate minimal additional pedestrian trips. As such, the Project is not expected to conflict with adopted policies, plans, or programs regarding pedestrian facilities, or otherwise decrease the performance or safety of such facilities within the study area. Therefore, the Project's impact on such facilities would be *less than significant*.

### TRANSIT IMPACTS

**Impact Traf-4: Project-Generated Transit Demand.** The Project may increase levels of transit usage in the vicinity. However, the Project has adequate access to existing transit services with available capacity and would not impede or interfere with existing services. This is a *less than significant* impact.

The proposed Project would include residential uses within approximately 1/2-mile of existing bus stops at Maud and D Streets served by AC Transit Route 95, with service to Hayward BART Station. Also, the proposed uses are about three miles from the Castro Valley BART station. Current weekday commute load factors on AC Transit Route 95 average less than 1.0, meaning seats would be available on buses for potential Project transit riders (typical for Bay Area suburban bus routes). Weekday commute loads on BART, particularly San Francisco-bound trains, often exceed load factors of 1.0 (meaning standing passenger loads). Assuming very conservatively that 5% of trips from the Project use transit, this would translate to roughly 3 trips in the weekday morning peak hour and 4 trips in the weekday evening peak hour that would use AC Transit, BART, or both services. Considering these small numbers of potential transit riders represent a very small fraction of available bus and rail capacity, there are no impacts expected to existing area transit service due to the Project.

Because the proposed Project would not impede or interfere with existing transit services, its impact on alternative modes of travel would be *less-than-significant*.

## PARKING CONDITIONS

The Project will provide 29 on-street parking spaces that can be accommodated within the parking lanes located along Streets A and B on the Project site. This parking supply is expected to be more than adequate in serving residents and visitors, with a ratio of almost two guest parking spaces per dwelling unit, where the County Subdivision Ordinance only requires one such space per unit. The on-street parking total excludes parking capacity located off-street within the individual home sites, as well as driveways and garages. Each single family residence in the Project will have at least two off-street parking spaces, as required by Chapter 17 of the Alameda County General Ordinance Code.

It should be noted that parking deficits are considered to be social effects, rather than impacts on the physical environment as currently defined by CEQA. Under CEQA, a project's social impacts need not be treated as significant impacts on the environment. The social inconvenience of parking deficits, such as having to hunt for scarce parking spaces, is not an environmental impact. But there may be secondary physical environmental impacts, such as increased traffic congestion at intersections, air quality impacts, safety impacts, or noise impacts caused by congestion. However, as noted above, the Project will meet local parking requirements and provide adequate parking for the Project.

## ADDITIONAL CONSIDERATIONS

### *Alter Air Traffic Patterns*

The Project would not alter any air traffic patterns, because it does not represent the level of population or housing growth in the region that would require any change to existing air transportation services, and therefore it would have *no impact* on air traffic patterns, including the location of airports or flight paths as they relate to air traffic safety.

### *Hazards Due to Design Features or Incompatible Uses*

**Impact Traf-5: Hazards Due to Design Features.** The proposed Project includes installation of a new roadway intersecting Fairview Avenue that could result in hazards due to an insufficient sight distance for outbound left turns from the Project entrance or for merging with westbound traffic at peak periods. This is a *potentially significant* impact.

### **Mitigation Measure**

**Traf-5: Project Driveway Design Modification.** The Project applicant will:

- a) Construct an acceleration lane for outbound traffic turning right and heading westbound on Fairview Avenue, and a deceleration lane for inbound traffic turning right from westbound Fairview Avenue onto Street A. The westbound acceleration lane will allow outbound vehicles greater sight distance for the right turn movement, allowing motorists to better find gaps in westbound traffic. The deceleration lane will allow turning vehicles to exit westbound Fairview Avenue through-traffic and more safely slow for the right turns.
- b) Design the Project intersection to prohibit outbound left turns for Project vehicles, for which there is inadequate sight distance. Outbound turning vehicles destined for eastbound Fairview Avenue will instead turn right onto westbound Fairview Avenue and reverse direction at the Fairview/Hansen roundabout approximately 1,800 feet west of the Project intersection. Elimination of the outbound left turn is expected to improve safety for such vehicles.
- c) In coordination and consultation with Alameda County Traffic Engineering division, the Project applicant shall arrange for the installation of traffic

calming devices including but not limited to precautionary signage near to or ahead of the curve east of the proposed intersection, warning westbound vehicles of cross-traffic ahead, advising motorists to slow to 20 (or 25) mph, or installing an additional radar speed detection and display device. Design and implementation of such devices are subject to engineering study and to the review and approval of the County Director of Public Works.

## RESULTING LEVEL OF SIGNIFICANCE

Implementation of mitigation measures Traf-5a, b, and c would reduce the Project's hazards due to inadequate sight distance to *less-than-significant* levels through the imposition of a physical restriction allowing only right turns out of the proposed intersection and the construction of the acceleration lane along the frontage of the PG&E property, the combined effect of which would allow vehicles to safely enter the westbound through traffic stream on Fairview Avenue. The requirement for traffic calming devices provides an additional level of mitigation to assure that the hazard impact would be reduced to a *less than significant* level.

### *Emergency Access*

**Impact Traf-6: Emergency Access.** The proposed Project includes a new internal roadway system with only one connection to existing roadways, resulting in inadequate emergency access absent a second means of access to and from the site. This is a *potentially significant* impact.

The proposed site plan provides for an Emergency Vehicle Access (EVA) at the point where Street A is closely parallel to Karina Street on the adjacent Tract 6102 subdivision (which has access from Fairview Avenue via Jelincic Drive). This proposed point of contact between the two adjacent subdivisions would allow emergency vehicles to access each of the communities in the event of an emergency situation in the other, and allow residents in each of the communities a second means of access out from the area to reach the public roadway network.

Additionally, the Hayward Fire Department requires that the Project-provided emergency vehicle access between Tract 6102 and the Project tract include the following:

- Minimum turning radii of 19 feet 8 inches for the inside radius and an outside radius of minimum 45 feet.
- Clear height of 13 feet 6 inches, which shall be maintained at all times
- If applicable, for gates across a fire apparatus access road, a fire department pad lock is required for the installation of a manual gate or to install a lock box with a gate key placed inside. If such gates are electronic, then a fire department key switch is required. A separate permit will be required for the gates.

## Mitigation Measure

**Traf-6: Emergency Access Design.** The emergency vehicle access between the Project tract and Tract 6012 shall be designed to meet City of Hayward Fire Department requirements as noted above and other applicable regulations, with final approval of the design by the City of Hayward Fire Marshal. Implementation of mitigation measure Traf-6 as approved by County design review and the City Fire Marshal would reduce the Project's emergency access issues to *less-than-significant* levels.

### *Construction-Period Traffic Disruption*

**Impact Traf-7: Construction.** Construction-related impacts resulting from daily trips involving construction workers, delivery of supplies and materials and the movement of



construction equipment to and from the site generally would not be considered significant due to their temporary and limited duration. However, depending on the construction phasing and truck activity, this is a *potentially significant* impact.

### Mitigation Measure

**Traf-7:** **County Review of Construction Plan.** The Project applicant shall prepare a Construction Operations Plan detailing the anticipated schedule of trips involving construction workers and equipment and delivery of materials and supplies, to and from the Project site during the various stages of construction activity, including phases for earth movement (grading), roadway construction, installation of backbone utilities (water, sewer, drainage, electricity, gas, CATV, etc.), and construction of houses. The Plan will be reviewed by the County of Alameda for compliance with applicable regulations.

### RESULTING LEVEL OF SIGNIFICANCE

Implementation of mitigation measure Traf-7 would reduce the Project's impacts due to construction to *less-than-significant* levels.

### CUMULATIVE IMPACTS

**Impact Traf-8: Project-Generated Traffic Contribution to Cumulative Levels.** Traffic generated by the proposed Project would contribute to cumulative increases in traffic levels at vicinity intersections. However, other than those listed in separate impacts, these increases would either still be within acceptable service levels or the Project would not contribute a cumulatively considerable level to delays or speed reductions. This is a *less than significant* impact.

The Project is expected to be fully constructed and occupied for the cumulative analysis. The addition of Project trips to the Cumulative No Project volumes would not cause any study intersections to go from acceptable operating conditions to unacceptable conditions.

#### Freeway Operation

**Impact Traf-9: Cumulative Project-Generated Traffic Contribution to Freeway.** Traffic generated by the proposed Project would increase the number of additional vehicles on I-580 during peak hours. This is a *less than significant* impact.

While the Project would contribute vehicle volumes cumulatively to the I-580 freeway, based on the trip generation and trip distribution identified above, the numbers are relatively small. Based on the most recently published Caltrans traffic data (2012), peak hour traffic on Interstate 580 at Redwood Road in the Project vicinity averages 15,500 vehicles. Therefore, the Project is expected to generate approximately 0.1 percent of peak hour traffic on I-580.

Therefore, based on the small amount of Project traffic, the Project is not expected to increase the v/c ratio over the No Project condition by more than 3% and therefore the freeway segments are not considered impacted.

### SECONDARY IMPACTS

**Impact Traf-10: Secondary Impacts due to Forced Right Turns at Proposed Project Access on Fairview Avenue.** The Project intersection design as mitigated by Traf-5b would direct outbound left turns to eastbound Fairview Avenue to instead turn right onto westbound Fairview Avenue towards the Fairview/Hansen roundabout, approximately 1,800 feet to the west, to effect a legal U-turn and proceed eastbound.

Because some drivers may be expected to disregard the prohibition on left turns or attempt to reverse direction at other intersections between Street A and the Fairview/Hansen roundabout, such maneuvers would result in *potentially significant* secondary hazards due to design features.

There is the potential that a number of Project vehicles may choose to make U-turns on Fairview Avenue at cross-streets or driveway locations between the Project intersection and the Fairview/Hansen roundabout to reverse direction and proceed eastbound on Fairview Avenue. TJKM conducted a field investigation of the potential for such turns. Currently, Fairview Avenue along this 1,800-foot segment has a variety of turnoff opportunities at several cross streets and driveways. Although there are shoulders with drop-offs and a raised curb along the south side of the roadway, it is conservatively estimated that about half of the Project-generated vehicles (one of two total Project peak hour vehicles) intending to travel east on Fairview Avenue would attempt a U-turn or other maneuver to reverse direction between Street A and the roundabout. Driveway locations where motorists would attempt to turn in and back out directly on Fairview Avenue are numerous. The likeliest potential U-turn locations include side streets such as Jelincic Drive or Walters-Dinos Court. Based on the field conditions, such U-turn movements are most likely to consist of pulling into the side street, then using the side street cul-de-sac or internal private driveways to reverse direction and then turn left onto eastbound Fairview Avenue. Some drivers would turn left off Fairview Avenue into Rose-Rossow Road or the unnamed private driveway, and then back into Fairview Avenue. Making these maneuvers may occasionally be hazardous or disturbing to the owners of properties on which these U-turns would occur. In addition, it is not unlikely that motorists would conduct U-turns directly on Fairview Avenue, partly because the provision of an acceleration lane would provide an adequate turning radius for the majority of passenger vehicles, so the impacts of such maneuvers are expected to be substantial, if prevailing speeds in the westbound direction – 36 mph as indicated previously – are not decreased. Therefore, the secondary impact of the proposed prohibition on left turns is *potentially significant*.

#### **Mitigation Measure**

**Traf-8:**           **Traffic Calming Measures.** As indicated before, greater enforcement of the speed limit on Fairview Avenue and reduction in the prevailing travel speed is highly desirable, which could be served in part by **Mitigation Measure Traf-5c**, which requires the installation of traffic calming devices east of where the Project's Street A would meet Fairview Avenue. Installation of such devices is subject to engineering study and the review and approval of the County Director of Public Works.

Implementation of Traf-8 would reduce the potential impact of a design hazard to a *less-than-significant* level.

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## AGRICULTURE AND FORESTRY RESOURCES

### INTRODUCTION

This chapter describes the existing animal grazing activities that have historically occurred on the Project site and discusses the effects on such activities that would result from implementation of the Project.

### FINDINGS OF THE IS/MND AND SCOPE OF EIR ANALYSIS

The Project site is not considered “Farmland” as defined by CEQA (i.e., is not Prime Farmland, Unique Farmland or Farmland of Statewide Importance), and the Project would not conflict with existing zoning for agricultural use or a Williamson Act contract. Further, the Project site is not used or zoned as forest land, timberland or zoned Timberland Production and the Project would not result in the loss of forest land or conversion of forest land to non-forest use. Based on the foregoing facts, the IS/MND concluded that the Project would have **no impact** regarding agriculture or forestry resources.

During the public review period for the IS/MND and at the June 2012 hearing before the County Planning Commission, one of the commenters described his leasehold use of the Project site and the adjacent PG&E parcel for grazing cattle and horses, an activity that has been on-going for some period of years. The commenter indicated that approval and implementation of the Project would have an impact on his grazing operation. The focus of this chapter of the EIR, therefore, is to evaluate the project’s effect on the current grazing operation that was not described in the IS/MND.

### IMPACTS AND MITIGATION MEASURES

#### CRITERIA OF SIGNIFICANCE

Would the project:

- a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?
- b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?
- c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production(as defined by Government Code section 51104(g))?
- d) Result in the loss of forest land or conversion of forest land to non-forest use?
- e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?

In this case the focus is limited to considerations of potential impacts to agriculture (criteria a, b, and e) and not to forestry resources (criteria c and d) because the Project site is not used for forestry resources or timberland, and the County has no zoning designation for forest land.

## IMPACT ANALYSIS

With regard to agriculture, and for the purposes of compliance with CEQA, impacts involving agricultural lands and agricultural activities are limited to the thresholds of significance stated above. Agricultural lands of concern to CEQA are those that fit the definition of “Prime” or “Unique” farmland, or “Farmland of Statewide Importance” *as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency. [Italics added]*. The California Resources Agency’s map of the Project site and surround area shows that no part of the site is considered “Prime” or “Unique” or of “Statewide Importance.”<sup>1</sup> The map shows the Project site as “grazing land,” a category where changes of land use (i.e., the loss of grazing lands to residential development) would not be considered as having an environmental impact, pursuant to CEQA. Therefore, the Project’s impact with regard to agricultural resources would be *less than significant*, including conversion of designated farmlands (criterion a), conflict with zoning or a Williamson Act contract (criterion b), or other changes in the environment that would contribute to conversion of designated farmlands or forest land (criterion e).

It is acknowledged that the grazing operation that currently occurs on the Project site (including the PG&E property) would be affected by the Project because the area currently available for grazing would be reduced from roughly 38 acres (the total combined area of the 10.1-acre Project site and the 28-acre PG&E property) by about 12 acres (i.e., the Project site itself plus 2-acres of the PG&E parcel that would be used for Street A, including graded areas). Thus, the repositioning of fences would reduce the area available for grazing to about 26 acres, or approximately 68 percent.<sup>2</sup> Although a substantial proportion of the PG&E property remaining available for grazing is steep and wooded (and not suited for grazing), the operator intends to continue with his small herd of horses and cattle as it will remain adequate for his purposes until he can find a more desirable grazing site elsewhere.<sup>3</sup> In light of the foregoing facts and despite the reduction in the area available for grazing, impacts on agricultural resources would be *less than significant*.

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<sup>1</sup> <http://maps.conservation.ca.gov/ciff/ciff.html>, accessed 8/14/2013.

<sup>2</sup> Personal conversation with M. Tuttle, grazing operator/lessee March 6, 2014.

<sup>3</sup> *Ibid.*

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## OTHER CEQA CONSIDERATIONS

### INTRODUCTION

An EIR must identify any significant irreversible environmental changes that could be caused by a project. These may include current or future uses of non-renewable resources, and secondary or growth-inducing impacts that commit future generations to similar uses. Irretrievable commitments of resources should be evaluated to assure that such current consumption is justified.

Section 15126 of the CEQA Guidelines requires an EIR to include discussion of the following CEQA considerations:

- Significant Unavoidable Impacts
- Significant Irreversible Modifications in the Environment
- Growth Inducing Impacts
- Cumulative Impacts
- Mandatory Findings of Significance

### SIGNIFICANT UNAVOIDABLE IMPACTS

The proposed Project would result in significant impacts in the following categories, as described in Chapters 4 - 9 of this Draft EIR: aesthetics, air quality, biological resources, geology, hydrology, land use, noise, and traffic. With implementation of recommended mitigation measures in this Draft EIR, all potentially significant impacts can be reduced to a less-than-significant level. However, implementation of Mitigation Measure LU-1 would result in several secondary environmental impacts that, taken together, may be determined to outweigh (i.e., be more environmentally damaging) than the effects of Impact LU-1, in which case Mitigation Measure LU-1 would not be required and the impact of LU-1 would be Significant and Unavoidable (SU). All other potentially significant impacts would be reduced to less than significant levels through mitigation.

### SIGNIFICANT IRREVERSIBLE MODIFICATIONS IN THE ENVIRONMENT

Section 15126(c) of the State CEQA Guidelines requires EIRs to include a discussion of significant, irreversible environmental changes that would result from project implementation. CEQA Section 15126.2(c) identifies irreversible environmental changes as those involving a large commitment of nonrenewable resources or irreversible damage resulting from environmental accidents. The Project would develop residential uses on a portion of the project site. The environmental changes resulting from the Project would occur mainly as a result of the alteration of the physical environment from conversion of an undeveloped 10.1 acre site to residential uses. This would result in long-term commitment of the developed portions of the site to urban uses. The Project would also result in a permanent alteration of the site's topography from proposed grading activities.

The *CEQA Guidelines* describe three distinct categories of significant irreversible changes: 1) changes in land use which would commit future generations to specific uses; 2) irreversible changes from environmental actions; and 3) consumption of non-renewable resources.

### Changes in Land Use Which Would Commit Future Generations to Specific Uses

The Project is generally consistent with the pattern of existing residential land use in the vicinity. The Project would not constitute a change in land use which would commit future generations to a pattern of development in the immediate project vicinity that would substantially alter the character of the vicinity.

### Irreversible Changes from Environmental Actions

This Project would contribute to regional emissions of air pollutants and greenhouse gasses, largely from vehicle emission of residents traveling to and from the site. However, the level of impact was determined to be less than significant.

### Consumption of Nonrenewable Resources

Consumption of nonrenewable resources can include increased energy consumption, conversion of agricultural or forested lands, and lost access to mining reserves. The Project would not result in the loss of forested lands or mining reserves. Development of the Project area as proposed could result in the commitment of nonrenewable resources (e.g., gravel and petroleum products) and slowly renewable resources used in construction (e.g., wood products). The operation of the Project would also require commitment of water and energy resources (e.g., petroleum products for vehicle operations, natural gas and electricity for lighting, heating, and cooling). However, the relative amount of resource use is low and would comply with applicable regulations.

## **CUMULATIVE IMPACTS**

Section 15130 of the CEQA Guidelines requires an EIR to discuss cumulative impacts of a proposed project when the project's incremental effect is cumulatively considerable. Cumulative impacts refer to two or more individual effects that, when combined, are considerable or that compound or increase other environmental impacts. The purpose of the cumulative impact analysis is to identify and summarize the environmental impacts of the proposed project in conjunction with existing, approved, and anticipated development in the project area. Cumulative impacts associated with the Project are addressed within the respective sections of this Draft EIR.

The cumulative context for analysis in this Draft EIR includes the existing development in the Fairview area as well as the cumulative buildout under the *Fairview Area Specific Plan*. Estimates of cumulative future growth are presented in Chapters 4, 7 and 8 of the Draft EIR and the discussion continues here.

The 2010 US Census found a total of 3,642 dwelling units in the Fairview Area. In Chapter 8 the discussion of cumulative traffic impacts is based on the estimate of residential development in the Fairview Area of 130 future single family homes on the remaining undeveloped or underdeveloped parcels in the vicinity, taking into account certain environmental constraints. The discussion in Chapter 8 also indicates that remaining potential for residential development in the vicinity is estimated at 130 new single family homes that would happen slowly over perhaps 50 years, with approximately half of the total (57) occurring between now and 2030 and the rest over the remaining decades. The annual increase might average over a 20-year time period of 3 - 4 new homes, representing a growth rate of less than 1 percent.

The cumulative analysis also relies on a list approach, encompassing pending relevant developments in the Fairview area of Alameda County. This list was compiled from data provided by County staff. These projects are identified in **Table 10.1** below.

**Table 10.1: Cumulative Residential Development in the Fairview Area**

<b>Applicant</b>	<b>Project Name</b>	<b>Location</b>	<b>No. Residential Units</b>
Northbrook Homes	Tract 8053	24900 Fairview Ave.	15 Single Family Dwellings
Shaw Group	Tract 8143	2492 D Street,	12 Single Family Dwellings
Genidy	Tract No. __ (tbd)	3216 D Street	8 Single Family Dwellings
Lee/Phone-Savanh	Parcel Map __ (tbd)	2729 Kelly Street	3 Single Family Dwellings
<u>Tsukakoshi</u>	<u>Parcel Map 10008</u>	<u>23110 Henry Lane</u>	<u>3 Single Family Dwellings</u>
Total	5 projects		41 Single Family Dwellings

Source: A. Young, Alameda County Planning Department 1/9/2014.

As discussed in the preceding sections of this EIR, implementation of the Project would not cumulatively impact the environment provided all policies, rules and regulations of all relevant governing bodies are adhered to, and the mitigation measures contained within this document are implemented.

## GROWTH INDUCING IMPACTS

CEQA Guidelines Section 15126.2(d) requires that an EIR discuss the ways in which the proposed project could foster economic or population growth or the construction of additional housing, either directly or indirectly, in the surrounding environment. Recognizing the inherent difficulties involved in forecasting the extent and type of development that might be fostered by a particular project, CEQA calls for a general assessment of possible growth-inducing impacts rather than a detailed analysis of a project's specific impacts on growth. Growth inducement may be considered detrimental, beneficial, or insignificant under CEQA. Typically, induced growth is considered a significant adverse impact if it:

- Provides infrastructure or capacity to accommodate growth beyond the levels currently permitted in applicable local and regional plans and policies.
- Encourages growth or a concentration of population in excess of what is planned for in the applicable general plan or other land use plan, or in projections made by regional planning agencies such as the Association of Bay Area Governments (ABAG).
- Adversely affects the ability of agencies to provide needed public services or infrastructure.
- In some other way significantly affects the environment, such as through a substantial increase in traffic congestion or deterioration of air quality.

### Potential Growth Related to the Project

The Fairview area of Alameda County's current population is approximately 10,003.<sup>1</sup> The Project would result in the ultimate development of 15 single family residential units. This housing would generate approximately 43 persons, based on the 2010 average household size of 2.85 persons.<sup>2</sup> Increases in population can create additional demand for services and infrastructure, requiring construction of new facilities that may, in turn, induce growth or otherwise cause significant environmental effects. The Project would result in a 0.4 percent increase in the population of the Fairview area. While the project would increase the number of persons occupying the site, this small increase does not constitute substantial population growth.

<sup>1</sup> United States Census Bureau, Census 2010, <http://quickfacts.census.gov/qfd/states/06/0623350.html>. The Fairview area is identified as Census Designated Place (CDP) 23350.

<sup>2</sup> Ibid.

The project would not generate any new employment, except possibly during the construction phase. The project site is located within the unincorporated Fairview area of Alameda County and would not result in an expansion of urban services or the pressure to expand beyond the area already designated for residential land use. It would not open additional undeveloped land to future growth or provide expanded utility capacity to serve future development that was not already contemplated. The Project site is in the current service area for EBMUD and the Oro Loma Sanitary District and growth associated with development of the project site was anticipated within the agencies' long-term service plans. The Project would facilitate the proposed suburban development in a setting that is provided with urban services.

The Project site is located on one of the remaining undeveloped parcels within the Fairview area of Alameda County, south of Castro Valley and I-580 and east of the Hayward city limits. The Project site is designated for single family residential development. Many areas to the west, east and north are substantially developed and the remaining undeveloped sites in the area are estimated to generate potentially 130 additional single family homes.

The scale of population growth would not constitute significant or adverse growth inducement. The Project would extend new infrastructure, including water, storm drain and sanitary sewer lines only onto the Project site. The stormwater protection plan would establish a controlled release system from the Project's stormwater detention basin, preventing adverse effects or exacerbating downstream flooding problems on the North Fork of Sulphur Creek. The proposed utilities and related infrastructure would be planned and sized to accommodate the Project's needs, and would not include oversized components designed to facilitate other development or further extensions of utilities or services. Adequate infrastructure and public services are available to meet the increased demands of the project.

No significant additional impacts on services (such as water, wastewater, storm drainage, flood control, police, fire, parks and recreation) are expected beyond what has been planned for by the proposed Project. The additional infrastructure for the project does not exceed what is necessary to serve and/or mitigate impacts of the project, and will not provide additional capacity to accommodate significant growth. Finally, the project does not allow for development that creates population or other growth beyond what is currently permitted under the *Fairview Area Specific Plan* or the *Eden Area Plan*. Based upon the above discussion, the growth-inducing impacts of the Project are considered *less than significant*.

## MANDATORY FINDINGS OF SIGNIFICANCE

Appendix G of the CEQA Guidelines (Environmental Checklist) contains a list of mandatory findings of significance that may be considered significant impacts if any of the following occur:

- 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 or eliminate important examples of California history or prehistory?
- Does the project have impacts that are individually limited, but cumulatively considerable?
- Does the project have environmental effects which will cause substantial adverse effects on human beings either directly or indirectly?

## QUALITY OF THE ENVIRONMENT

Project implementation could lead to development that adversely affects the environment in terms of impacts to various CEQA issue topics, as discussed in this Draft EIR. However, and aside from Impact LU-1 regarding inconsistencies with the *Specific Plan*, all other potentially significant impacts of the Project are considered to be less than significant with mitigation. Implementation of the Project would not degrade the quality and extent of the environment provided all policies, rules, and regulations of all



relevant governing bodies are adhered to, and the mitigation measures contained within this document are implemented.

**ADVERSE EFFECTS ON HUMAN BEINGS**

The Project would not have environmental effects that would cause substantial adverse effects on human beings, either directly or indirectly. Light and glare, air emissions, seismic activity, drainage and downstream flooding, soil instability and potential vehicle hazards are *less than significant with mitigation*. The Project would not expose people to significant new hazards. There would be no other adverse effects on human beings.

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## ALTERNATIVES

### INTRODUCTION

The California Environmental Quality Act Guidelines (CEQA Guidelines, 1970, as amended, Section 15126.6) require an EIR to include a discussion of a reasonable range of alternatives to the proposed project in design, configuration or location that would attain most of the basic objectives of the project, and avoid or substantially lessen the significant effects of the project. The CEQA Guidelines, while not requiring consideration of every conceivable alternative, also requires that the EIR explain why specific project alternatives considered at one time were rejected in favor of the proposed project. The selection of alternatives is to be guided by feasibility, the provision of reasonable choices and the promotion of informed decision-making and public participation. An EIR need not evaluate alternatives that would have effects that cannot be determined, or for which implementation would be remote and speculative.

The Guidelines also require that the EIR specifically evaluate a “no project” alternative for the purpose of comparing or contrasting the effects of project approval with project denial. Analysis of the “no project” alternative must consider conditions as they were at the time of the notice of preparation, as well as conditions that would reasonably be expected to occur in the future without project approval, based on existing plans and available infrastructure. The analysis also requires that an “environmentally superior” alternative be identified in the EIR (Section 15126.6 [e]), which may be the “no project” alternative. However, if the “no project” alternative is the environmentally superior alternative, one other alternative must be identified among the other alternatives.

The alternatives addressed in this EIR were selected based on the following factors:

1. The extent to which the alternative would accomplish most of the basic project objectives.
2. The extent to which the alternative would avoid or lessen any of the identified significant environmental effects of the project (discussed in Chapters 4 through 9).
3. The potential feasibility of the alternative (as discussed in this Chapter).
4. The extent to which the alternative contributes to a “reasonable range” of alternatives necessary to permit a reasoned choice.

The proposed Project is fully described in Chapter 3 of this EIR (Project Description). The environmental consequences are addressed in Chapters 4 through 9 of this EIR.

### PROJECT OBJECTIVES

CEQA requires the analysis of alternatives that 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.”<sup>1</sup> CEQA requires the discussion to focus on alternatives that are capable of avoiding or substantially lessening

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<sup>1</sup> *CEQA Guidelines*, Section 15126.6 (a)

significant effects of the project, even if these alternatives would impede to some degree the attainment of project objectives, or would be more costly.<sup>2</sup> Additionally, CEQA requires the evaluation of a proposed project to address only impacts to the physical environment; economic and social effects can be analyzed only as one link in a chain of cause and effect from a proposed decision (e.g., physical changes caused, in turn, by economic and social changes).<sup>3</sup>

CEQA Guidelines 15126.6(f) states:

(f) Rule of reason. The range of alternatives required in an EIR is governed by a “rule of reason” that requires the EIR to set forth only those alternatives necessary to permit a reasoned choice. The alternatives shall be limited to ones that would avoid or substantially lessen any of the significant effects of the project. Of those alternatives, the EIR need examine in detail only the ones that the lead agency determines could feasibly attain most of the basic objectives of the project. The range of feasible alternatives shall be selected and discussed in a manner to foster meaningful public participation and informed decision making.

(1) Feasibility. Among the factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries (projects with a regionally significant impact should consider the regional context), and whether the proponent can reasonably acquire, control or otherwise have access to the alternative site (or the site is already owned by the proponent). No one of these factors establishes a fixed limit on the scope of reasonable alternatives.<sup>4</sup>

The following are the objectives that would be fulfilled by the proposed Project. Alternatives will be evaluated in part based on their ability to meet these objectives.

The Project applicant’s main objective in undertaking this project is to:

Develop high quality market-rate single-family homes on a desirable site compatible with surrounding residential development.

The secondary objectives of the Project are:

1. Create an on-site stormwater control and detention system that meets legal requirements, provides relief to chronic flooding problems downstream on the North Fork of Sulphur Creek and avoids exacerbation of future flooding problems;
2. Create an emergency vehicular access (EVA) for mutual access to/from the adjacent Subdivision Tract 6102.
3. Provide a public equestrian, bicycle and hiking trail on the Applicant’s easement portion of the PG&E property.
4. Avoid or minimize the off-haul of excavated earth by using cut and fill material on-site.
5. Grade and develop the site so as to direct all impervious surface drainage through bio-filtration facilities and thence to a single detention basin that is easily accessible.

The Project would result in potentially significant impacts associated with the following topics, which would be significant without the implementation of mitigation measures, but would be reduced to a less than significant level if the mitigation measures recommended in this document are implemented.

- *Aesthetics*: Light from inside future homes on the Project site, as well as street lighting and the movement of vehicles could adversely affect nighttime starlight views by nearby neighbors including incrementally increased loss of starlight visibility.

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<sup>2</sup> *Ibid.*

<sup>3</sup> *CEQA Guidelines*, Section 15131.

<sup>4</sup> *Ibid.*, Section 15126.6(f)(1).

- *Air Quality*: temporary increases of dust emissions during construction.
- *Biological Resources*: potential loss of habitat of special status plant species (Big-Scale Balsamroot and Most Beautiful Jewel Flower); adverse impacts to on-site or nearby nesting birds; indirect effects on aquatic habitat from potential erosion or release of urban runoff contaminants; potential loss of wetlands; interference with the movement of native wildlife or wildlife nursery sites; and conflict with tree preservation policies in the *Fairview Area Specific Plan*.
- *Geology and Soils*: potential erosion of soils during construction.
- *Hydrology & Water Quality*: potential erosion and downstream sedimentation during construction.
- *Land Use & Planning*: conflict with policies regarding alteration of natural grades
- *Noise*: temporary construction-related noise impacts.
- *Transportation*: potential traffic hazard due to a design feature (limited sight distance for left turn from proposed Street A).

Only if the County were to not require implementation of Mitigation Measure LU-1 out of a concern with the secondary impacts would the Project result in a Significant and Unavoidable Impact (SU). Except for that determination, the analysis in Chapters 4 - 10 of this Draft EIR has found that the Project would have no impact or less than significant impacts only.

## ALTERNATIVES ANALYSIS

The alternatives analysis is presented as a comparative analysis to the proposed Project. A project may result in significant impacts, but changes to certain features of the project may also afford the opportunity to avoid or reduce such impacts. The following alternatives analysis compares the potential significant environmental impacts of the alternatives with those of the proposed Project for each of the environmental topics analyzed in detail in Chapters 4 through 9 of this EIR and discusses feasibility of implementation, and ability to meet objectives.

There are five alternatives presented below. Aside from the required “no project” alternative, each of the others is a discrete alternative to a specific element of the Project: a reduced density alternative, alternative routes of access (of which three are discussed), and an alternative (i.e., reduced) grading plan. Aside from the No Project alternative and the access alternatives, the others are not mutually exclusive; that is, the reduced density alternative can be combined with a reduced grading alternative. Each of the alternatives is presented as a ‘stand-alone’ alternative and each is compared to the Project in terms of how it would avoid or lessen impacts of the Project. The intent is to allow the reader and decision-makers to compare the alternatives to the Project as proposed, and to identify the environmentally superior alternative.

## SELECTION OF ALTERNATIVES

- A. **No Project, No Development Alternative.** Alternative A assumes the proposed Project is not approved and the site would remain in an undeveloped state, with no development of roadways or residences. Although the site is designated for residential use at the same density as currently proposed, the No Project Alternative assumes that development would not occur on this site for the foreseeable future.
- B. **Reduced Density Alternative.** Alternative B assumes the Project site is developed with fewer residential lots than as proposed. Specifically, this alternative would delete Lot 6, (because it requires building on slopes greater than 30 percent, contrary to the *Fairview Area Specific Plan*), and removes one or more additional lots from among the lots that face to the east from Street A,

(i.e., between lots 7 and 14). The result would be a 12 or 13-lot project on the 10.1-acre site, representing 80 - 87 percent of the units proposed under the Project. Alternative B would result in wider lots, greater distance between future houses but, unless combined with elements of Alternative D, would result in similar amounts of grading and site disturbance, a generally similar site plan and aesthetics as under the Project.

**C. Access Alternatives.** Other routes of access to the Project site would:

- avoid the sight distance safety hazard where Street A meets Fairview Avenue;
- substantially reduce the amount of grading required for the Project;
- avoid the loss of the Monterey cypress tree cluster; and
- achieve greater internal roadway connectivity among and between subdivisions in the area.

This alternative evaluates three different means of access: Alternative C-1, C-2 and C-3:

1. C-1 would provide access through the Jelincic subdivision via Jelincic Drive/Sarita Street/Karina Street;
2. C-2 would provide access via a new road to be built on a 4.27-acre undeveloped property located at 24830 Fairview Avenue (property that abuts the Project site below the proposed stormwater detention basin) and the site of a previously proposed 18-lot residential subdivision known as “Fairview Terrace” or Tract 7921; and
3. C-3 would provide access via a new road to be built across a private residential lot located at 25111 Old Fairview Avenue.

**D. Reduced Grading Alternative.** Alternative D would utilize a more restrictive grading plan - i.e., one that grades the site only as necessary to construct the access road (based on either the route proposed for the Project or one of the alternative routes) and the stormwater detention basin but eliminates or substantially reduces the degree of grading for the residential lots.

Alternatives Rejected as Infeasible

As described above, Section 15126.6(c) of the CEQA Guidelines requires an EIR to 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.

The Project site is one of nineteen undeveloped and residentially designated properties in the Fairview area of unincorporated Alameda County. Two other larger properties have a greater development potential (in terms of number of residential lots) than does the Project site, whereas the other seventeen undeveloped properties do not have the potential to create as many lots as does the Project site. The median development potential of the other seventeen undeveloped properties is 4.5 lots. It would not be possible to develop a 15-lot subdivision at any of these other undeveloped sites. The Project site is adjacent to already developed areas and is identified in the *Fairview Area Specific Plan* as a site on which residential development is anticipated. Furthermore, the Project site is within the control of the Project applicant and the applicant does not own or control any of these other undeveloped properties. Therefore, any off-site alternative would be a different project, with a different applicant, and is not considered a feasible alternative for purposes of this environmental review.

Every possible alternative to the Project cannot be fully evaluated. The selected alternatives satisfy the requirement to consider and discuss “a range of reasonable alternatives to the project” pursuant to CEQA Guidelines section 15126.6. As discussed above, these alternatives were chosen as reasonable

alternatives at this site and no additional alternatives were identified that would substantially contribute to a meaningful evaluation, analysis, and comparison of the Project.

## **ALTERNATIVE A: NO PROJECT, NO DEVELOPMENT ALTERNATIVE**

### Description

Under a “no development” alternative, the Project site would remain in an undeveloped state and no new development would occur for the foreseeable future. It is assumed the existing grazing of horses and cattle would remain on site.

This alternative represents the possibility that no project is approved on this site. However, there is no current proposal for the County or other agency to purchase this site or otherwise preserve it in an undeveloped state. This site is zoned for residential development. Therefore, while this alternative analyzes a no-development scenario, it is not reasonable to assume the site would remain undeveloped in the long term.

### Impact Analysis

#### *Impact Summary*

There would be no environmental impacts associated with this alternative because no new development would occur and the site would remain in its current natural state.

### Ability to Accomplish Project Objectives and Feasibility

A No Project/No Development alternative would not meet any of the project objectives. With no development, this alternative would not expand housing availability, would not help resolve chronic flooding problems downstream on the North Fork of Sulphur Creek, would not create an EVA for residents of the adjacent Jelincic development and would not create a multi-use public trail on the easement portion of the PG&E parcel.

## **ALTERNATIVE B: REDUCED DENSITY ALTERNATIVE**

### Description

Alternative B assumes that two and possibly three of the 15 proposed lots would be removed. The most likely configuration of a reduced density alternative would be to remove lot 6 because it involves building on slopes greater than 30 percent, which is discouraged by policies in the *Specific Plan* and possibly one or two additional lots along the straight stretch of Street A between Lots 7 and 14. Removal of these lots would result in greater distance between homes, wider side yards and the potential for more usable open space, per lot. Whereas the Project as proposed would have lot widths of 75 - 80 feet and 15 foot side yards, or 30 feet between houses, removal of one of the lots between proposed Lots 7 - 14 under this Alternative B would allow the average side yards to increase to 22.5 feet or 45 feet between houses; removing one additional residence would provide for an average lot width of 100 feet for Lots 7 to 15, and average side yards of 30 feet. The primary objective of this alternative would be to reposition most of the required open space to the side of each residence, and allow more variability in siting each residence. Taken by itself, however, reducing the number of units is the only differentiating feature of this Alternative; all other aspects of the Project would remain the same.

## Impact Analysis

### *Impact Summary*

Alternative B would involve a similar amount of site preparation as proposed under the Project, with a reduced amount of construction, possibly resulting in a slightly shorter construction timeframe. Because it is assumed that the grading plan would remain substantially the same as the Project for both internal roadways and grading for home construction, the physical re-shaping of the site would be substantially the same as the Project. Therefore, aesthetic effects and consistency with the *Specific Plan's* principles and guidelines regarding grading would be substantially unchanged except for the greater separation between homes on the adjusted lots. Construction-period impacts related to noise, air and GHG emissions as well as biological impacts related to disturbance of nesting birds or damage to habitat would be similar to those impacts already determined to be less than significant for the Project. With a reduction in traffic generation, Alternative B would also reduce operational impacts related to traffic and air emissions, reducing the Project's contribution to cumulative air quality impacts but otherwise requiring the same mitigation as under the Project to reduce impacts to less than significant levels.

### *Air Quality and Greenhouse Gas Emissions*

Assuming the lot count is reduced by two to result in a 13-lot project, this Alternative would result in approximately 86% of the daily vehicle trips assumed under the proposed Project (124 vs. 144) as well as fewer homes resulting in less use of water and energy. Operational air quality impacts and greenhouse gas emissions would be less than those identified under the Project. However, air quality and GHG emissions are anticipated to be below the threshold of significance for both the Project and Alternative B. Thus, Alternative B would lessen already less than significant impacts related to air quality and GHG emissions.

While Alternative B would reduce construction activities and emissions, mitigation for construction-period emissions would still be required, consistent with the recommendations of the Bay Area Air Quality Management District for reducing emissions even for projects that fall below screening levels for mandatory mitigation, as is the case with the Project.

### *Biological Resources*

Because it can be assumed the site would still require grading, and the area of the site that would be disturbed would be essentially the same as with the Project, impacts related to biological resources would be similar under as under the Project. Like the Project, Alternative B would result in removal of non-native annual grassland that could potentially provide habitat for a number of special-status species, though no such species have been found on the property during prior biological surveys. Pre-construction surveys would be required, as with the Project pursuant to Mitigation Measures Bio-1 and Bio-2; and if special status plant species are determined to be present, impacts would be avoided by either relocating the plants physically to a protected location within the proposed conservation parcels where they would not be disturbed, or by collecting seeds for replanting in the conservation areas. This alternative would also require a pre-construction survey for nesting birds as recommended under Bio-2. If nesting birds are present, a no-disturbance buffer would be established with setbacks of 150 - 200 feet from the edge of any construction activity area.

Because the footprint of development under Alternative B would be essentially the same as under the Project, potential impacts to downstream water bodies resulting from silt or other contaminants conveyed by stormwater runoff during construction would be the same as for the Project. As with the Project, this impact would be mitigated by implementation of Mitigation Measure Bio-3.

The one small area suspected as being wetlands and potentially within the jurisdiction of the Army Corps of Engineers or the Regional Water Quality Control Board would be disturbed to the same extent under Alternative B as with the Project; mitigation measure Bio-4 would continue to apply.

Because the footprint of development under Alternative B would be essentially the same as under the Project, potential impacts to native resident wildlife species or established migratory wildlife corridors would be the same as with the Project and therefore Mitigation Measure Bio-5 would continue to apply.

Access to the site under this alternative would be the same as under the Project, and would result in the loss of the Monterey cypress tree cluster on the PG&E property. Mitigation Measure Bio-6 would remain applicable to Alternative B.

### *Hydrology/Water Quality*

The reduction in the number of future homes from 15 to 12 or 13 would reduce the total amount of impervious surface and thereby reduce the amount of future stormwater run-off. However, the amount of the reduction would be small and would not result in any change to the design of the bio-filtration and retention elements of the Stormwater Protection Plan or the capacity of the proposed stormwater detention basin. The net result would be a slight reduction in the total quantity of stormwater run-off, both towards Fairview Avenue and towards the northeast.

### *Land Use*

The primary purpose for considering a reduced density alternative is to achieve greater consistency with certain principles and guidelines of the *Fairview Area Specific Plan*. The principles and guidelines most directly related to the issue of density and land use intensity are set forth below:

#### *D. Natural Features*

##### *1. Policies*

- a. The County shall encourage that existing riparian woodland habitat be protected.*
- b. The County shall encourage no net loss of riparian and seasonal wetlands.*
- c. The County shall encourage the preservation of oak woodland plant communities.*
- d. The County shall encourage preservation of areas known to support special status species.*
- e. The County shall require that roadways and developments be designed to minimize impacts to wildlife corridors and regional trails.*

#### *Comment:*

Alternative B would be more or less consistent with the foregoing policies than the Project because:

- a. No riparian woodland exists on the Project Site or would be affected;
- b. Alternative B would not avoid or lessen impacts to the small area of potential wetland and Mitigation Measure Bio-4 would apply in either case;
- c. There are no oak woodland plant communities on the Project site that would be affected;
- d. Special status species, if determined to be present, would be preserved or replaced pursuant to Mitigation Measure Bio-2 and Alternative B would have the same level of impact as the Project;



- e. There are no designated wildlife corridors on the Project site; to the extent that wildlife use the Project site as habitat or a corridor connecting with other open spaces in the general vicinity, the PG&E powerline corridor would remain available for such activity as would Conservation Parcel E on the Project site. Further, the construction of a multi-purpose trail for equestrian, bicycle and pedestrian use on the easement portion of the PG&E parcel would advance the use of regional trails and would occur under the Project or under Alternative B.

2. *Principles*

- a. *All development proposals shall strive for maximum retention of the natural topographic features, landscape features, and qualities of the site. Development should seek to enhance these natural features and qualities.*
- b. *All development proposals shall take into account and be judged by the application of current principles of land use planning, soil mechanics, engineering, geology, hydrology, civil engineering, environmental and civic design, architecture, and landscape architecture in hill areas. Such current principles include but are not limited to:*
  - 1) *Planning of development to fit the topography, soils, geology, hydrology, and other conditions existing on the proposed site;*
  - 2) *Orienting development to the site so that grading and other site preparation is kept to a minimum;*
  - 3) *Shaping of essential grading to complement and blend with natural landforms and improve relationships to other developed areas;*
  - 4) *Developing large tracts in workable units on which construction be completed within one construction season so that large areas are not left bare and exposed during the winter-spring runoff period;*
  - 5) *Allocating to public or private open space, those areas not well suited to development;*
  - 6) *Landscaping of areas around structures, and blending them with the natural landscape;*
  - 7) *Placing, grouping and shaping of man-made structures to complement one another, the natural landscape, and provide visual interest;*
  - 8) *Locating building pads so that the views of prominent ridgelines are not interrupted or interfered with by buildings;*
  - 9) *Using a variety of housing types, housing clusters and special house construction techniques in residential areas to permit steep slopes, wooded areas, and areas of special scenic beauty to be preserved;*
  - 10) *Giving special consideration to the design of public and private streets to minimize grading and other site alteration;*
  - 11) *Giving special consideration to the design of such visual elements as street lighting, fences, sidewalks, pathways, and street furniture to enable maximum identity and uniqueness of character to be built into each development; and*
  - 12) *Minimizing destruction of existing plant and animal life.*
  - 13) *Designing lots so that adequate area is available surrounding buildings to accommodate area for yards and landscaping.*

- 14) *Designing an attractive, safe, and convenient network of walkways for pedestrians throughout a development (with connections to public facilities such as schools, parks, and existing trail systems).*

Comment:

Taken alone, Alternative B would not result in a different approach to the proposed mass grading plan. Only if elements of Alternative B were combined with elements of Alternative D (reduced grading plan) would there be any materially greater adherence to Principles (a) and (b) above.

### 3. *Guidelines*

- a. *Natural and man-made slopes of 30% gradient or greater should not be developed or altered. Exceptions may be granted for road construction if it is the only feasible access to a site, modifications of minor terrain features, and custom designed homes and lots that otherwise conform to the intent of these policies.*
- b. *Only individual lot grading should occur in areas exceeding 20% slope.(with footnote: Individual lot grading is grading which can be wholly contained on a lot and which is necessary to fit the house, its access, and useful yard areas.)*
- c. *Buildings should be designed with stepped, pier and grade beam, or a custom foundation to reduce grading, to avoid contiguous stair-stepped padded lots, and to retain a more natural appearance. On sloping lots, tall downhill facades should be avoided by stepping structures with the natural terrain.*
- d. *The vertical height of a graded slope or combination retaining wall and slope between single family dwellings should not exceed 10 feet in the rear yards, or 5 feet within a side yard between lots.*
- e. *The maximum horizontal distance of graded slope should not exceed 20 feet, at 2: 1 (horizontal to vertical) gradient.*
- f. *Development near or on a prominent ridgeline should be subordinate to the surrounding environment. Residences should blend into the natural topography creating minimal visual disturbance to the existing ridgeline and views. Rows of residences with similar setbacks and elevations shall be discouraged.*

Comment:

Reducing the number of lots as called for in Alternative B would not materially change the level of consistency with *Specific Plan* guidelines relating to 30% slopes and the grading guidelines cited above. If Street A remains on the PG&E parcel as the only feasible means of access, the alteration of slopes required for its construction is a permitted exception, the same as with the Project. With regard to Lot 6, which has slopes greater than 30%, it could remain as part of the Project because, consistent with Guideline D.3 a - c, the Project proposes to exclude Lot 6 from the mass grading plan and to require the use of a drilled pier and grade beam foundation system.

Inconsistencies between the proposed mass grading plan and *Specific Plan* Guidelines were identified and discussed extensively in Chapter 7 (Land Use). Under Alternative B, the mass grading plan would not be materially modified to accommodate 2 or 3 fewer lots. Therefore, the inconsistencies previously identified would remain inconsistent and Mitigation Measure LU-1 would be required if consistency with applicable *Specific Plan* guidelines is determined

to outweigh adverse secondary impacts. Further consideration of grading issues is the focus of Alternative D, the reduced grading alternative, below.

4. *Trees*

*Large, mature, natural and introduced trees are to be preserved unless:*

- a. *Alternative designs that would preserve the trees are found by the County to be infeasible or undesirable.*
- b. *A certified arborist, as determined acceptable by the County Planning Director, recommends that the trees be pruned or removed because they are:*

Comment:

The only trees that would be affected by the Project are the cluster of two Monterey cypress trees on the easement portion of the PG&E parcel. The loss of one these trees results from construction of Street A; only if an alternative access is selected would it be possible to avoid removal of these trees. Alternative B would not lessen the impact to the Monterey cypress trees.

5. *Riparian Areas*

*Natural riparian areas shall be preserved, except where life or property is endangered. In such areas, flood control improvements shall be as compatible with, and shall preserve the natural riparian character of the channel. Natural riparian corridors (as defined in the Alameda County Specific Plan for Areas of Environmental Significance) are to be designated and protected through subdivision, planned development, building permit review, and the Alameda County Water Course Ordinance.*

Comment:

There are no riparian areas on the Project site and none would be affected by the Project or any of the Alternatives. Conservation Parcel E is located above the natural drainage which becomes Deer Canyon Creek and is the part of the Project site most closely related to a riparian area, but because it would remain in its natural state, it would not be affected by the Project, consistent with Natural Feature 4.

6. *Landscape Plans*

*A landscape plan prepared by a registered landscape architect shall be submitted for all development projects. The plan shall include landscaping of slopes especially around the development's perimeter, to mitigate the effects of grading and man-made structures. The landscaping shall be installed and inspected (or guaranteed through a bond) as a part of the grading improvements or subdivision improvements. The Planning Director may waive this requirement for projects which retain significant natural vegetation.*

Comment:

A preliminary landscape plan is in the process of being prepared, consistent with Bay Friendly landscape principles. The landscape plan will need to be submitted prior to final action on the proposed tentative map. The landscape plan would not be significantly different if the 15-lot subdivision were reduced to a 12- or 13- lot subdivision.

*Transportation and Circulation*

Lowering the unit count under Alternative B to 12 or 13 lots would result in fewer daily vehicle trips compared with the Project. Peak hour trips in the AM would drop from 11 to 9 or 10 and in the PM from 15 to 12 or 13. Weekday daily trips would decrease to 115 or 124 compared with 144 for the Project. Aside from the sight distance safety hazard, traffic impacts of the Project related to local roadways and intersection levels of service are less than significant and no mitigation is required; reducing the density of the Project to 12 or 13 lots would generate fewer trips but would not reduce or avoid significant effects because even at 15 lots, impacts are less than significant and would reduce but not eliminate the safety hazard related to inadequate sight distance.

*Other Environmental Topic Areas*

Other than those issues discussed above, all impacts under Alternative B would be similar to those under the Project. Because Alternative B does not reduce the size of the Project site, but only the intensity of development on it, impacts related to site disturbance would be generally the same as under the Project, such as potential disturbance of undiscovered cultural resources and the potential for construction period runoff and erosion. All these impacts were less than significant or reduced to that level through mitigation measures that would apply similarly to Alternative B as to the Project.

Ability to Accomplish Project Objectives

**Table 11.1** below summarizes how Alternative B would compare against the Project in terms of (a) its ability to meet Project Objectives, (b) its feasibility, and (c) whether it represents the “environmentally superior” alternative..

**Table 11.1 Evaluation of Alternative B**

<b>EVALUATION CRITERIA</b>	<b>EVALUATION OF ALTERNATIVE B</b>	<b>COMPARISON WITH THE PROJECT</b>
<p><u>Project Objectives:</u></p> <p>1. Provide high quality single family homes in a new subdivision on a desirable site and which is compatible with surrounding residential development.</p>	<p>Alternative B would provide high quality single family homes on the same site, but with two or three fewer such homes, and would be compatible with surrounding residential development.</p> <p>The elimination of Lot 6 to avoid building on a 30% slope would be more consistent with the Natural Resources policies of the <i>Fairview Area Specific Plan</i> (Guideline D.3.a, especially), although custom-designed homes may be exempted from the applicable limitations.</p> <p>Removal of one or more other lots from among Lots 7-15 would not serve any particular policy or guideline of the <i>Specific Plan</i>; however, it would enable the open space requirements of the <i>Plan</i> to be met on the side yards (as opposed to the rear yards), and if combined with Alternative D (the Reduced Grading Alternative), would reduce grading and be more consistent with the intent of the <i>Plan</i> to minimize changes to existing topography.</p>	<p>Alternative B would provide fewer new single family homes compared with the Project. Alternative B would be compatible with surrounding residential development, but could be noticeably less consistent with the moderately narrower lots on the immediately adjacent Jelincic subdivision.</p> <p>As to the policies and guidelines of the <i>Specific Plan</i>, Alternative B would have substantially the same potential conflicts and related environmental effects as the Project.</p>

EVALUATION CRITERIA	EVALUATION OF ALTERNATIVE B	COMPARISON WITH THE PROJECT
2. Comply with legal requirements for stormwater management and reduce downstream flooding on Sulphur Creek	Alternative B would include a stormwater protection plan that would be the same as under the proposed Project.	The proposed stormwater protection plan would be the same under Alternative B as under the Project.
<u>Secondary Project Objectives:</u> Create an EVA to the Jelincic subdivision (Tract Map 6102)	Alternative B would include an EVA to the Jelincic subdivision.	No difference as compared with the Project.
Create a multi-purpose trail on the easement portion of the PG&E property	Alternative B would include development of a multi-purpose trail on the easement portion of the PG&E property to the same extent as under the Project;	No difference as compared with the Project.
Avoid off-haul of grading material	Assuming that Alternative B would utilize a substantially similar grading plan as proposed under the Project (i.e., one that balances cut and fill on site), there would be no difference compared with the Project.	Substantially similar to the Project.
Create stormwater protection plan that provides bio-filtration and drains to a single basin with easy access for maintenance	Assuming that Alternative B would utilize a substantially similar grading plan and stormwater protection plan as proposed for the Project, there would be no difference between Alternative B and the Project.	Substantially similar to the Project.
Feasibility		Alternative B would be feasible.

**ALTERNATIVE C: DIFFERENT ROUTES OF ACCESS**

Description

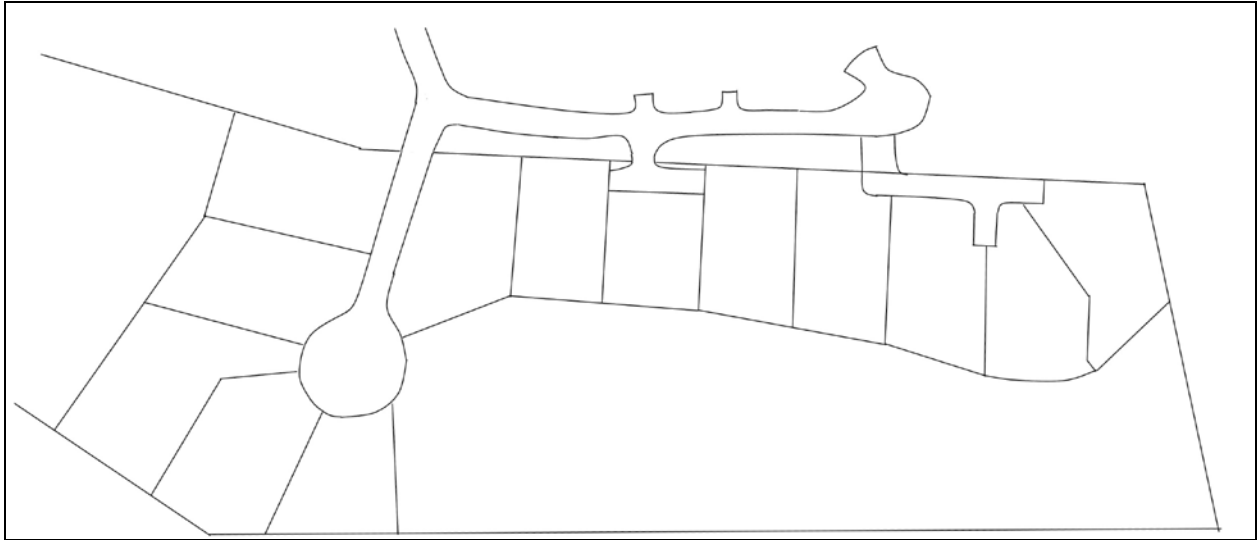
Presented below and illustrated in **Figure 11.1** below are three alternative ways of providing access the Project site from Fairview Avenue that would not require constructing Street A on the PG&E property. These are identified as Alternatives C-1, C-2 and C-3. Each would require an easement or other legal agreement with the affected property owner or owners to assure unrestricted access by future homeowners and the public. In Alternative C-1, roads from Fairview Avenue to the Project site are already in place within the Jelincic development; in Alternative C-2 and C-3, the Project would need to construct a road over undeveloped land. The details of each are described below.

**Figure 11.1: Access Alternatives C-1, C-2 and C-3**

**Alternative C-1: Access through the Jelincic development (Tract 6102).** In this alternative, access to the Project would be via Jelincic Drive, Sarita Street and Karina Street. Once at the top of Karina Street, vehicles accessing the Project would cross over to Street A where both streets touch (i.e., at the proposed EVA). Alternative C-1 would require the applicant to obtain approval from each of the 40 lot-owners in the Jelincic development to allow future residents of the Project site and the public legal use of the existing streets within their subdivision.

Another possibility under this alternative is that the straight stretch of Street A serving Lots 7 - 15 could be eliminated by using Karina Street. This concept is illustrated in **Figure 11.2** below. This aspect of Alternative C-1 would require substantial revision to the design of the Project's stormwater protection plan which, as planned, uses Street A as the means for conveying stormwater run-off to the detention basin. An important benefit of eliminating Street A would be a substantial reduction in the amount grading and fill required to establish the building pads along the ridge, because most of the homes could be placed closer to Karina Street and further from the slope to the east. However, managing drainage to provide for stormwater treatment and detention would be a greater challenge.

**Figure 11.2: Illustrative Sketch of Alternative C-1, with Street A Eliminated (combined with Alternative B, Reduced Density)**



#### Advantages

- Alternative C-1 would eliminate the need for Street A on the lower slope of the PG&E property, would avoid having to make deep cuts, build retaining walls and excavate substantial material to achieve a road gradient below 15%;
- It would avoid the loss of the Monterey cypress tree cluster;
- It would avoid the sight distance safety hazard where Street A meets Fairview Avenue and the “right turn out” restriction for exiting vehicles;
- It could also potentially eliminate the need for Street A altogether if Karina Street were to become the main point of access to proposed Lots 7 - 15, as indicated in Figure 11-2, above.

#### Other Factors

- Under Alternative C-1, stormdrain pipes that connect the detention basin with the County’s storm drain pipes in Fairview Avenue would be placed within the 20’ wide stem of the larger Project parcel. (Water and sewer service would be provided by connecting to existing infrastructure in the Jelincic development).
- All other aspects of the Project would remain the same

#### Disadvantages

- If the grading plan for the residential lots were to remain unchanged under Alternative C-1, the Project would need to import approximately 55,000 cubic yards of earthen material, causing attendant air quality, greenhouse gas, noise and traffic impacts associated with the transport of material by truck from off-site locations to the Project site.
- Alternative C-1 would require approval of all 40 owners of lots in the Jelincic subdivision.
- Alternative C-1 would not be expected to result in the development of a public trail on the PG&E parcel because the Project would no longer need an easement from PG&E.

- Alternative C would have potential emergency access impacts because the existing “dead end” nature of the Jelincic road system would be extended to include additional residential lots on the Project site with only one way in and one way out of the site.

Alternative C-1 is considered infeasible in light of the Project applicant’s inability to obtain approval of all 40 owners of the Jelincic development.

**Alternative C-2: Access through Fairview Terrace** (also known as proposed Subdivision Tract7921, located at 24830 Fairview Avenue). This is a 4.27-acre undeveloped site that has 50 feet of frontage on Fairview Avenue and that extends upslope between the westerly lot lines of properties on Walter-Dinos Court and the easterly lot lines of properties in the Jelincic development. The northeasterly extent of the parcel abuts the Project site as shown in **Figure 11.1**.

A subdivision application for this property was filed with the County in 2006<sup>5</sup> but was never approved and has been withdrawn. Consequently, the site has no land use entitlements and no improvements. Providing an alternative route of access to the Project site through this parcel would require, at a minimum, acquisition of an easement from the owners of the property and approval by the County of a public roadway through the property connecting Fairview Avenue with the Project site. The Project applicant has indicated that owners of the property would only consider purchase of the entire property, not an easement, and at a cost that would make the Project economically infeasible.

Advantages:

- Alternative C-2 would eliminate the need for Street A on the lower slope of the PG&E property, would substantially reduce deep grading cuts, building retaining walls and excavating material to achieve a road gradient below 15%;
- It would avoid the loss of the Monterey cypress tree cluster on the PG&E parcel;
- It would avoid the sight distance safety hazard where Street A meets Fairview Avenue and the “right turn out” restriction for exiting vehicles;
- It could also potentially eliminate the need for Street A altogether if Karina Street were to become the main point of access to proposed Lots 7 - 15, as indicated in Figure 11-2;
- It would reduce the amount of grading required for the Project.

Other Factors

- As with Alternative C-1, stormdrain pipes that connect the detention basin with the County’s stormdrain pipes in Fairview Avenue would be placed within the 20' wide stem of the Project site. (Water and sewer service would be provided by connecting to existing infrastructure in the Jelincic development).
- All other aspects of the Project would remain the same, including the EVA connection to the Jelincic subdivision.

Disadvantages

- Alternative C-2 would add substantial cost for acquisition of the property and potential delays to obtain local approval of the roadway alignment, grading and construction permits and conduct environmental review.

<sup>5</sup> It was originally identified as proposed Tract 7332; subsequently it was re-numbered to Tract 7921. Neither tentative map was approved.

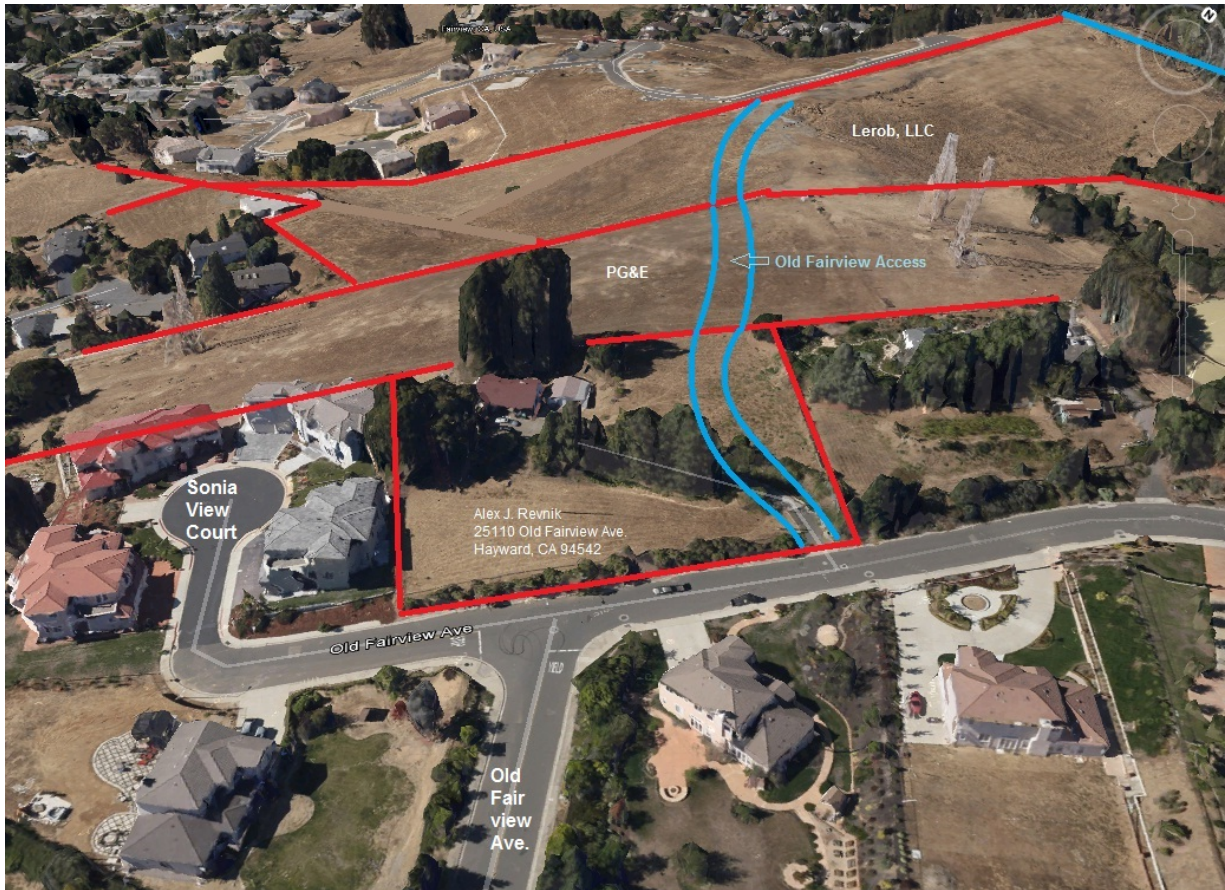


- Alternative C-2 could adversely affect the ability to create a public trail on the PG&E parcel because the Project would no longer need an easement from PG&E.

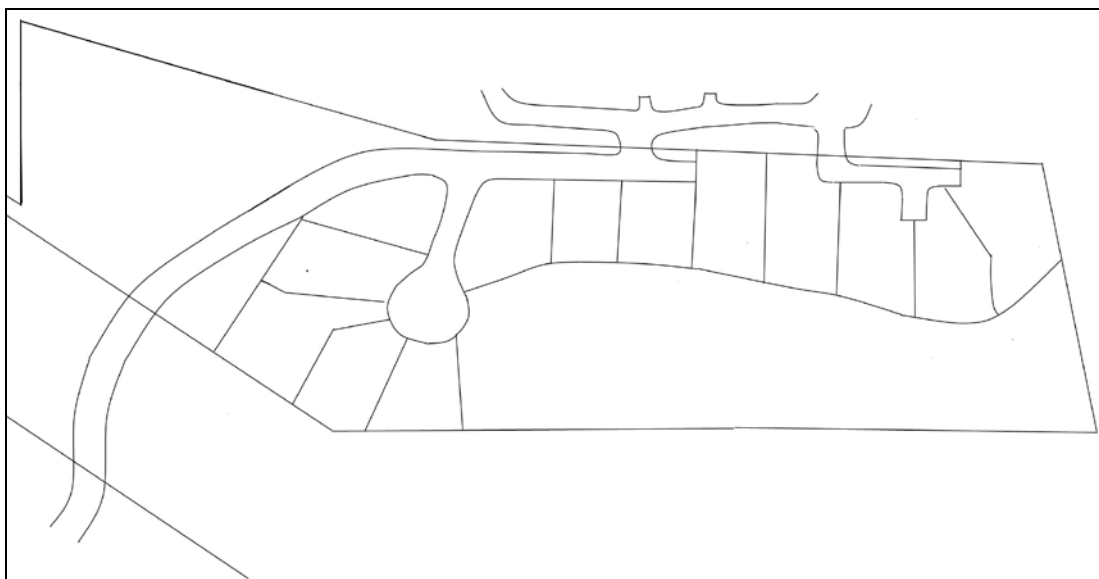
The Project applicant has advised that based on discussions with agents representing the owners of the property, access rights could only be obtained by purchasing the entire 4.27-acre site at a cost the Project applicant believes would make the Project economically infeasible, and on that basis, Alternative C-2 is not considered to be a viable alternative. However, such a purchase would provide the Applicant with the opportunity to subdivide the remainder of the property and develop the lots bordering the new road.

**Access C-3: Old Fairview Avenue Alternative.** Under this alternative, an access road would originate on private residential property located at 25110 Old Fairview Avenue (APN 427-02700-1100). The access road would cross near the eastern edge of the private residential lot, cross the upper portion of the PG&E property below the double pylons and enter the Project site at the head of the cul-de-sac of proposed Street B (**Figure 11.3**). Access to Fairview Avenue would be via Old Fairview Avenue, which is a private street in the Blackstone subdivision.

**Figure 11.3: Access Alternative C-3, Aerial Perspective**



**Figure 11.4: Access Alternative C-3, Plan View, Combined with Alternative B**



### Advantages

Alternative C-3 has a number of advantages compared with the Project:

- It would eliminate the need for Street A on the lower slope of the PG&E property (although an easement over the upper slope would still be required);
- It would preserve the Monterey cypress tree cluster;
- It would eliminate the sight distance problem and the “right turn out” restriction for exiting vehicles since Old Fairview Avenue is an existing street with a left turn pocket for left turns into Old Fairview Avenue from eastbound Fairview Avenue, and adequate sight distance for left turns from Old Fairview Avenue;
- It would substantially reduce the amount of grading required for the Project. Although construction of an access roadway would require substantial grading through the subject private property to achieve an access road of less than 15% slope, due to substantial elevation gain between the edge of Old Fairview Avenue and the elevation of the PG&E property near the twin pylons, the difference in overall grading magnitude would be very considerable;
- It could eliminate the need for the redundant section of Street A if Karina Street were to be utilized for access to proposed Lots 11 - 15, as indicated in **Figure 11.4**, above.

### Other Factors

- Stormdrain pipes, proposed to be placed beneath Street A, would instead be placed within the 20' wide stem of the larger Project parcel. (Water and sewer service is proposed to be provided by connecting to existing infrastructure in Karina Street in the Jelincic development).
- All other aspects of the Project would remain the same, including the EVA connection to the Jelincic subdivision

### Disadvantages

- Alternative C-3 could adversely affect the ability to create a public trail on the PG&E parcel because the Project would need a much more limited easement from PG&E;
- Like Alternatives C-1 and C-2, Alternative C-3 would require the approval of the affected property as well as of all the residents on Old Fairview Avenue and Blackstone Court.

The Project applicant has met with the owner of the Old Fairview property to discuss the conditions under which Alternative C-3 might be feasible. The owner has indicated he would not be willing to allow an easement on his property. Consequently, this alternative appears to be infeasible.

### Ability to Accomplish Project Objectives

**Table 11.2** below summarizes how Alternatives C-1, C-2 and C-3 would compare against the Project in terms of (a) each one's ability to meet Project Objectives, (b) the feasibility of each, and (c) whether any of the three access alternatives represent the “environmentally superior” alternative.

**Table 11.2: Comparison of Alternative C and Project Objectives**

<b>PROJECT OBJECTIVES</b>	<b>Would Alternatives C-1, C-2 or C-3:</b>	<b>COMPARISON WITH THE PROJECT</b>
Provide high quality single family homes in a new subdivision on a desirable site and is compatible with surrounding residential development	Comply with legal requirements and reduce downstream flooding on Sulphur Creek	Any of the 3 access alternatives would allow the primary project objective to be met to an extent similar to the Project.
Create an EVA to the Jelincic subdivision (T6102)	Create a multi-purpose trail on the easement portion of the PG&E property	The proposed stormwater protection plan would be similar under each of the Alternative C access alternatives as under the Project. Under C-1, an on-site detention basin could be provided either between lot 1 and the Jelincic boundary or downhill from lot 1, with access by an easement alongside lot 1. For Alternative C-2, the detention basin could be either on-site or on the Tract 7921 property, and for C-3, the detention basin would likely be best placed in the same location as for the Project.
Avoid off-haul of grading material	Create an EVA to the Jelincic subdivision (T6102)	Alternative C-1 would, in effect, integrate the Project site with the Jelincic subdivision, exacerbating the ‘dead-end’ aspect by increasing the number of lots having only one means of egress in case of an emergency. Alternatives C-2 and C-3 would retain the ability to have an EVA with the Jelincic development, similar to the Project.
Create a multi-purpose trail on the easement portion of the PG&E property	Avoid off-haul of grading material	By eliminating Street A on the lower portion of the PG&E property, each of the access alternatives under Alternative C would make developing a trail on the PG&E property highly unlikely.
Avoid off-haul of grading material	Avoid off-haul of grading material	Without substantial modification of the Project’s proposed grading plan, and because the excavation on the PG&E parcel would be avoided, all three of the access alternatives would require approximately 55,000 cubic yards of material to be brought to the site from other locations. Importing that much material would require approximately 2,500 truck trips, each hauling 22 cubic yards of material, with attendant air quality, greenhouse gas, noise and traffic impacts. Unless the grading plan is modified to reduce the need for fill material, in combination with one of the access alternatives, or the northern segment of Street A is eliminated, alternatives C-1, C-2 or C-3 would result in greater adverse environmental effects compared with the Project due to the need for imported material.

PROJECT OBJECTIVES	Would Alternatives C-1, C-2 or C-3:	COMPARISON WITH THE PROJECT
Is the Alternative Feasible?	Create stormwater protection plan that provides bio-filtration and drains to a single basin with easy access for maintenance	Assuming that the three access alternatives would utilize a substantially similar grading plan and stormwater protection plan as proposed for the Project, there would be no difference between Alternatives C-1, C-2 or C-3 compared with the Project.  As indicated above, all three access alternatives appear to be infeasible. Of the three, C-2 seems to be the most possible and has environmental benefits, yet is economically undesirable since it requires purchase of an entire adjacent parcel as opposed to an easement.

*Impact Summary*

In general, not having to construct Street A on the PG&E property would result in less site preparation and grading under all of the Alternative C possibilities, compared with the Project. Alternative C-1 would result in the greatest reduction in site work, and the amount of site work for Alternative C-2 and C-3 would be less than the Project and about equal to each other. Reductions in site work would result in a shorter construction timeframe. Grading for future home sites would remain substantially the same as for the Project since the physical re-shaping of the site would be substantially the same. Therefore, aesthetic effects and policy inconsistencies with the *Specific Plan* would be substantially unchanged except for not needing to grade for Street A on the lower slope of the PG&E parcel. Construction-period impacts related to noise, air and GHG emissions as well as biological impacts related to disturbance of nesting birds or damage to habitat would be marginally reduced from levels already determined to be less than significant. Any of the access choices described in Alternative C would not, by itself, result in a reduction in the number of lots or a related reduction in traffic generation or operational impacts related to traffic and air emissions.

*Air Quality and Greenhouse Gas Emissions*

Changing the means of access to the Project site would not change operational air quality impacts or greenhouse gas emissions compared with the Project. Construction period air emissions and GHG emissions would be reduced due to not needing to excavate the PG&E parcel but would increase if fill material is required to be imported from off-site sources.

*Biological Resources*

Under any of the Alternative C access routes, grading of the PG&E slope to accommodate Street A would be avoided, (or greatly reduced in the case of Alternative C-3), but grading for Alternatives C-1 and C-2 access roads and to create the building pads and detention basin would still be necessary. Thus, aside from the PG&E parcel, the area of the site that would be disturbed would be essentially the same as under the Project and impacts related to biological resources would be similar. Therefore, as with the Project, any of the three access alternatives would involve removal of non-native annual grassland that could serve as habitat for a number of special-status species. Mitigation Measures Bio-1 and Bio-2 as recommended for the Project would also apply to any of the three access alternatives.

If the PG&E property is left undisturbed because one of the access alternatives is selected and turns out to be feasible, there would be less area disturbed by grading and construction activities and impacts to

downstream water bodies resulting from silt or other contaminants conveyed by stormwater runoff during construction would be reduced, but this impact would be less than significant in any case by following implementation of Mitigation Measure Bio-3.

The one small area suspected as being wetlands and potentially within the jurisdiction of the Army Corps of Engineers and the Regional Water Quality Control Board would be disturbed to the same extent under each of the access alternatives as with the Project; mitigation measure Bio-4 would continue to apply in each case.

Because the slope of the PG&E property would not be disturbed under any of the Alternative C access routes, potential impacts to native resident wildlife species or established migratory wildlife corridors would be reduced but would still be considered potentially significant and therefore Mitigation Measure Bio-5 would continue to apply.

The loss of the Monterey cypress tree cluster on the PG&E property would be avoided under all of the Alternative C possibilities and therefore Mitigation Measure Bio-6 would not be necessary under Alternative C.

#### *Hydrology/Water Quality*

Depending upon which of the three access alternatives is ultimately selected (assuming it overcomes the feasibility requirement), the amount of impervious surface area could be reduced compared with the Project, thereby resulting in less future stormwater run-off. In all other respects, the potential construction impacts and post-construction stormwater treatment and detention requirements would be the same as for the Project.

#### *Transportation and Circulation*

All three access alternatives would remove the potential safety hazard of inadequate sight distance associated with the Street A/Fairview Avenue intersection and would improve internal connectivity among neighboring residential subdivisions. However, without changing the number of lots, none of the access alternatives under Alternative C would change the projected average daily or peak period trips. Traffic impacts would be the same as with the Project, which are less than significant and for which no mitigation is required.

#### *Other Environmental Topic Areas*

Other than those discussed above, all impacts under any of the Alternative C possibilities would be similar to those under the Project. Any of the Alternative C possibilities would reduce the size of the area requiring grading and site disturbance by removing the 2-acre PG&E property and therefore disturbance would be less than under the Project which would reduce the area where undiscovered cultural resources or human remains might be encountered and reduce the area susceptible to construction period runoff and erosion. All these impacts were less than significant or reduced to that level through mitigation that would be required under the Project or any of the Alternative C possibilities.

#### *Feasibility of the Alternative*

Each of the alternative access routes identified above requires the approval and willing participation of other private property owners over whom the Project applicant has no control. The real estate agent for the owners of property required for Alternative C-2 has indicated that his clients would be willing to sell but at a price the Project applicant believes would make Alternative C-2 economically infeasible

The other two parties have not expressed an interest in or willingness to allow use of their property for access to the Project site. Therefore, implementation of any of these alternatives is uncertain and it is assumed that none of the three alternatives is feasible.

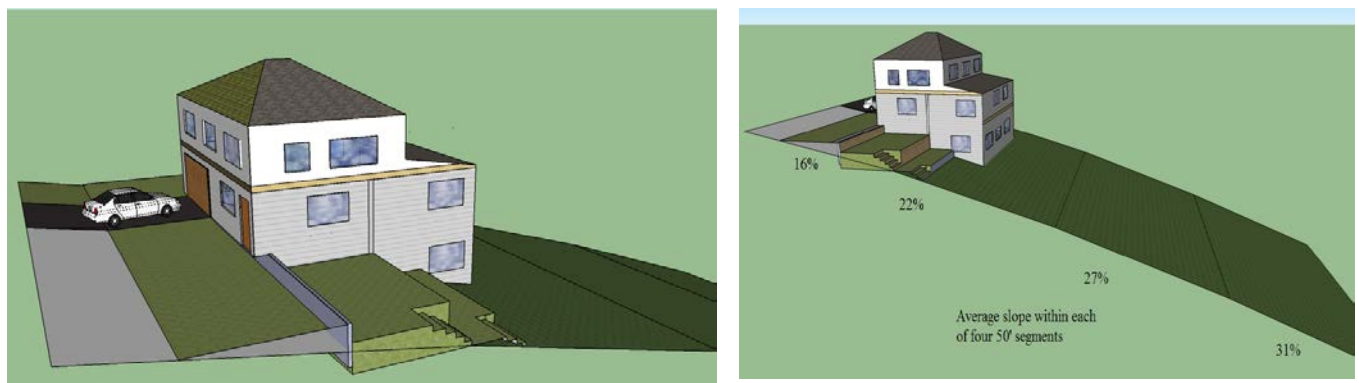
## ALTERNATIVE D: REDUCED GRADING ALTERNATIVE

### Description

As discussed in the Land Use chapter of this Draft EIR, the proposed mass grading plan is inconsistent with several principles and guidelines of the *Fairview Area Specific Plan*. The main area of policy conflict is the proposed mass grading plan which would alter the grades and contours of the developed portion of the site, particularly along the eastern side of the ridge. The grading plan proposes to retain the material excavated from the PG&E parcel and the ridge (Street B) and reapply it on-site to raise the elevation of the ridge, canting Street A towards the west as part of the storm drainage plan and expanding upward and outward the area along the ridge to create stepped foundation pads for the future homes. Accordingly, Alternative D presents a scenario in which the grading plan for the site would be limited to that which is needed to construct Street A (as proposed - i.e., on the PG&E parcel) and the on-site stormwater detention basin. The intent of Alternative D is to present a scenario in which the Project would be in greater conformity with the *Specific Plan* in terms of reducing the degree of physical alteration to the natural contours of the site.

Perspective and plan view illustrations of the reduced grading plan are shown in **Figures 11.5** and **11.6**, respectively, below. Under Alternative D, existing contours of the site along the straight stretch of Street A would be kept largely unchanged, resulting in a 12% downward slope of driveways from the street to the face of the garage where a retaining wall at the edge of the house would be required to hold the slope. Usable open space would be created in the side yard, as opposed to the rear yard, where the existing 22% grade would remain unchanged as the lot extends downhill towards the foot of the slope. Space on the downhill side of the house would be too steep for usable open space and, instead, elevated decks would be common. The illustrations in Figure 11.5 depict a resulting ‘theoretical’ home consistent with Alternative D. Note that the wider side-yard would be achieved by also deleting 2-3 lots per Alternative B and creating greater separation between lots.

**Figure 11.5: Illustrations of a House on Reduced Grading Plan (and reduced density).**



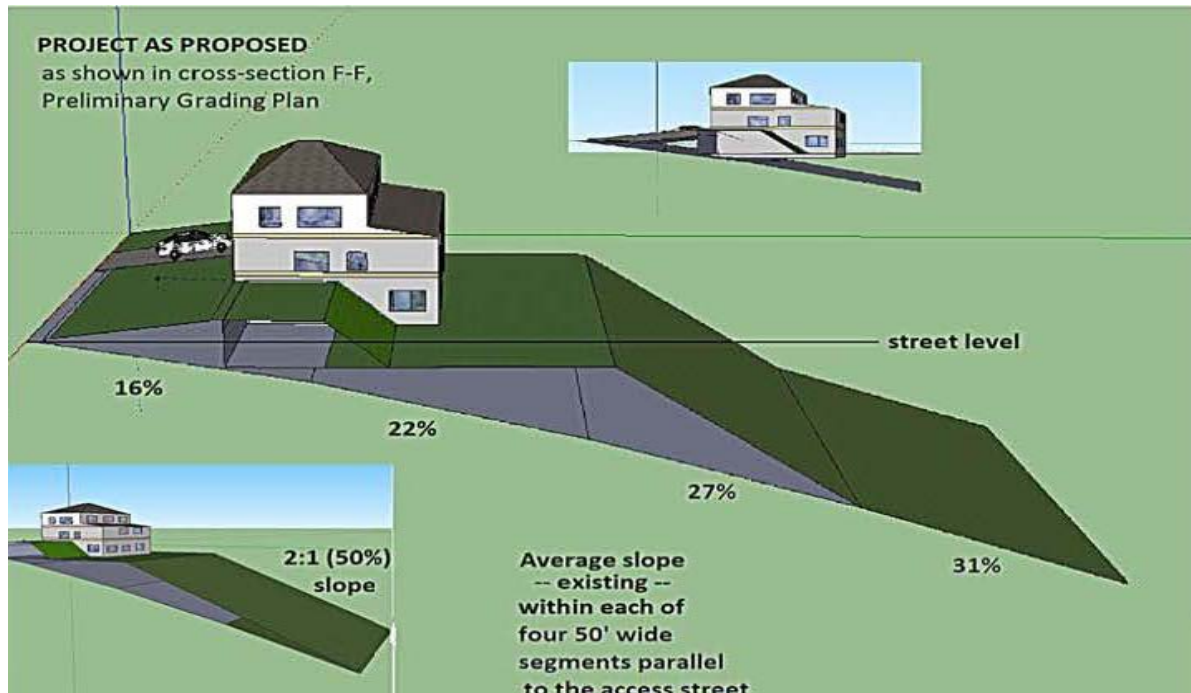
**Figure 11.6** below is a plan view of the grading plan for Alternative D - note the absence of altered contour lines anywhere around the lots or around Street B or for the stretch of Street A along the top of the ridge.

**Figure 11.6: Plan View of Reduced Grading Plan (no reduction in density)**



For comparison purposes, **Figure 11.7** below depicts how a house would sit on the site pursuant to the mass grading plan, as proposed by the Project. In this illustration, the driveway would slant up slightly towards the garage, allowing stormwater to flow from roof drains and the driveway back to the street where it would enter the proposed stormwater collection and filtration system; the expanded 'width' of the ridge and the stepped grading plan would create usable open space in the rear yard.

**Figure 11.7: Illustration of a House on the Proposed Grading Plan (and proposed density)**





## Impact Analysis

### *Impact Summary*

Alternative D would require approximately the same amount of material to be moved (cut) from the PG&E parcel to create Street A and the detention basin (approximately 36,000 cy) and would reduce substantially the 17,000 cy of material proposed to be cut for Lots 1-5 and Street B. The surplus material - not used to prepare pads for the houses - would be off-hauled and disposed of elsewhere, as discussed in Chapter 7, Land Use. While the amount of initial site preparation would be less than under the Project, the off-haul of surplus material would have secondary traffic, noise and air quality impacts. Further, as each lot is purchased and made ready for the construction of a house, retaining walls would be needed both to retain the down-sloped driveway and to retain soil on adjacent undeveloped lots, as illustrated in the cross-section sketches shown in **Figure 11-5**. Existing grades on each lot would not be substantially altered but the resulting structural and architectural requirements to support homes on down-slope lots with 20 percent grades or greater would be quite different from what is proposed under the Project. As noted in the preliminary geotechnical report, substantial areas of depths of colluvium have been identified in two areas of the Project site. Removal and replacement of the unstable colluvial material is recommended to achieve slope stability. The work to excavate the colluvial material would need to be done at one time, as an integrated piece of work; it could not be done on a lot-by-lot basis as Alternative D and the *Specific Plan* suggest would be preferable.

Construction-period impacts related to noise, air and GHG emissions as well as biological impacts related to disturbance of nesting birds or damage to habitat would be reduced from levels already determined to be less than significant. Benefits associated with Alternative D would be a greater adherence to the principles of the *Fairview Area Specific Plan*, but would not be environmentally superior to the Project in terms of significant environmental impacts or required mitigation. While there may be a small environmental aesthetic benefit from reducing grading, the off-haul of excavated material and the secondary environmental impacts associated with reduced grading may not translate into overall project benefits.

### *Air Quality and Greenhouse Gas Emissions*

Alternative D would result in the same number of daily vehicle trips as under the Project and the same amount of building space that would require water and use energy. Operational air quality impacts and greenhouse gas emissions would be the same as those identified under the Project which are estimated to be below the threshold of significance for the Project and thus Alternative D would not provide any benefits in terms of impacts related to air and GHG emissions.

### *Biological Resources*

Because less of the site would be disturbed under Alternative D, impacts related to biological resources would be less compared with the Project. However, the difference would not be so great as to eliminate the removal of non-native annual grassland, the loss of a potential jurisdictional wetland, disturbance of nesting birds and loss of wildlife corridors. Therefore, Mitigation Measures Bio-1 through Bio-6 would still be required under Alternative D.

Because the footprint of the grading plan under Alternative D would be smaller than under the Project, potential impacts to downstream water bodies resulting from silt or other contaminants conveyed by stormwater runoff during construction would be less than for the Project but would still need to be mitigated by implementation of Mitigation Measure Bio-3.

Finally, the loss of the Monterey cypress tree cluster on the PG&E property would not be avoided under Alternative D; accordingly, Mitigation Measure Bio-6 would remain applicable to Alternative D.

### *Hydrology/Water Quality*

The reduced grading plan under Alternative D would not reduce the total amount of impervious surface or the amount of future stormwater runoff. Under Alternative D, the lots along Street A (Lots 7 - 14) would sit downhill from the street and would naturally drain downhill towards the foot of the slope, requiring a second means of removing pollutants for this part of the Project site and a second detention basin to store flows in major storm events. Stormwater would either need to be pumped back up the slope to Street A, or would be released to the Deer Canyon Creek drainage. Establishing feasible access to a storm water detention facility at the foot of the slope for proper maintenance would be difficult and potentially infeasible, given the slopes below the homes on these lots. Use of this part of the Project site for such facilities would also potentially compromise or undermine the intent of the proposed Conservation Parcel E.

### *Transportation and Circulation*

Alternative D would not reduce the number of lots and therefore would have the same daily and peak vehicle trips as the Project. Traffic impacts associated with the Project are less than significant and no mitigation is required; reducing the extent of the grading plan would not generate fewer trips.

### *Other Environmental Topic Areas*

Other than those discussed above, all impacts under Alternative D would be similar to those under the Project. Although Alternative D does not reduce the size of the Project, the number of future homes or how vehicles would access the site, it would leave more of the natural contours of the site undisturbed compared with the proposed mass grading plan. Alternative D would be less likely to disturb undiscovered cultural resources or human remains and would generate less construction period stormwater runoff and erosion. The Draft EIR has found that, under the Project, all these impacts would be less than significant or reduced to that level through mitigation and the mitigation measures would still be required under the Project or Alternative D.

### Ability to Accomplish Project Objectives and Feasibility

The two major constraints to Alternative D are the need to correct for the colluvial soil problem and the need to remove pollutants and create a storage facility for stormwater flows below Lots 7 - 14. If these two concerns can be adequately resolved, the reduced grading plan under Alternative D would be feasible and would meet the basic Project Objectives, though to a lesser degree than with the Project.

## **ENVIRONMENTALLY SUPERIOR ALTERNATIVE**

In addition to the discussion and comparison of impacts of the proposed Project and the alternatives, Section 15126.6 of the CEQA Guidelines requires that an “environmentally superior” alternative be selected and the reasons for such a selection disclosed. In general, the environmentally superior alternative is the alternative that would be expected to generate the least amount of significant impacts. Identification of the environmentally superior alternative is an informational procedure and the alternative selected may not be the alternative that best meets the goals or needs of the applicant or the County.

Only one significant and unavoidable impact has been identified under the proposed Project - i.e., substantial inconsistencies with grading-related policies and guidelines of the *Specific Plan*. Mitigation for this significant impact would result in substantial secondary effects. All other Project impacts are either less than significant or can be reduced to that level through implementation of the mitigation measures recommended in this Draft EIR. Differences between the Project and the alternatives are confined to design choices that are able to avoid impacts that otherwise require mitigation, or to reductions in already less than significant impacts.

The CEQA Guidelines also require that “if the environmentally superior alternative is the ‘no project’ alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives” (CEQA Guidelines Section 15126.6(e)(2)). In general, the environmentally superior alternative minimizes adverse impacts to the environment, while still achieving the basic project objectives.

Alternative A, the No Project, No Development Alternative, has no impacts as it does not propose any change to the site. Alternative A would be the environmentally superior alternative.

Alternative D, the reduced grading plan, would be the next most environmentally superior alternative. Alternative D would involve fewer conflicts with the policies and guidelines of the *Specific Plan*, but, like the Project with the implementation of Mitigation Measure LU-1, would likely involve significant adverse secondary environmental effects.

However, even with greater adherence to the policies and guidelines of the *Specific Plan*, particularly as to the issue of mass site grading versus custom home designs placed on drilled pier and grade beam foundations, Alternative D would not materially reduce or avoid any of the direct environmental effects on the physical environment. Although Alternative D would have an overall smaller site disturbance, it would still convert the majority of the site from non-native annual grassland to a fully improved subdivision, it would still result in the fill of a potential jurisdictional wetland, would still result in increased runoff from the site and would result in the loss of the Monterey cypress tree cluster on the PG&E property. Alternative D would not be capable of fully avoiding these environmental effects and the same mitigation measures as recommended for the Project would be required under Alternative D as well.

If Alternative D were to be combined with one of the alternative access routes identified under Alternative C, then this combined alternative would be capable of an even greater consistency with the *Specific Plan* policies regarding reduced grading, and would avoid removal of the Monterey cypress tree cluster on the PG&E property. However, because all of the alternative access routes are dependent on the approval and willing participation of other private parties who have not consented to allow the use of their property for such access (or require full purchase as opposed to granting an easement), the feasibility of these alternative access routes is uncertain and potentially infeasible.

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