



# City of Santa Barbara California

## STAFF HEARING OFFICER STAFF REPORT

**REPORT DATE:** August 23, 2007  
**AGENDA DATE:** August 29, 2007  
**PROJECT ADDRESS:** 226 & 232 Eucalyptus Hill Drive (MST2004-00349)

**TO:** Staff Hearing Officer  
**FROM:** Planning Division, (805) 564-5470  
 Jan Hubbell, AICP, Senior Planner  
 Irma Unzueta, Project Planner *IU*

### I. PROJECT DESCRIPTION

The proposed project involves a lot line adjustment between two parcels (2.82 and 2.75 acres in size) by realigning the dividing lot line from a north-south direction to an east-west direction, and resulting in two parcels of 2.47 acres (Parcel 1, upper parcel) and 3.10 acres (Parcel 2, lower parcel). Parcel 1 would have an average slope of 21.3% and Parcel 2 would have an average slope of 22.5%, both parcels sloping north to south. An existing single-family residence, greenhouse foundation, and hardscape driveway would be removed and two new single-family residences are proposed on each parcel. Parcel 1 would include a 6,129 square foot residence with an attached 743 square foot garage, and a 1,517 square foot residence with a 320 square foot garage, and a detached 430 square foot garage. Parcel 2 would include a 3,927 square foot residence with a 747 square foot attached garage, and a 1,786 square foot residence with a 352 square foot subterranean garage. The project site is currently accessed from Eucalyptus Hill Drive, a private road, by an existing unimproved driveway which extends to the southern portion of the properties. This driveway would be improved to facilitate access to the proposed lower parcel, via an easement through the upper parcel. An existing driveway on the eastern property is proposed to be expanded to provide for a circular driveway to the upper parcel for a total of three curb cuts. The applicant also proposes two bioswale storm water retention areas totaling 900 square feet for Parcel 1 and 600 square feet for Parcel 2. The total grading quantities proposed for the development of both parcels include 3,090 cubic yards of cut and 2,830 cubic yards of fill. (Exhibits B and C)

### II. REQUIRED APPLICATIONS

The discretionary applications required for this project are:

1. A Lot Line Adjustment to allow adjustment of the property line between two existing parcels (SBMC § 27.40 and Government Code §66412);
2. Street Frontage Modifications to allow less than the required 100 feet of frontage on a public street for each parcel (SBMC § 28.15.080 and 28.92.110); and

3. Performance Standard Permits to allow an additional dwelling unit on each parcel (SBMC § 28.93.030.E).

### III. RECOMMENDATION

The proposed project conforms to the City's Zoning and Building Ordinances and policies of the General Plan. In addition, the size and massing of the project are consistent with the surrounding neighborhood. Therefore, Staff recommends that the Staff Hearing Officer approve the project, making the findings outlined in Section VII of this report, and subject to the conditions of approval in Exhibit A.



**226 & 232 Eucalyptus Hill Drive Vicinity Map**

<b>APPLICATION DEEMED COMPLETE:</b>	November 29, 2006
<b>DATE ACTION REQUIRED PER MAP ACT:</b>	June 18, 2007
<b>DATE ACTION REQUIRED:</b>	September 16, 2007 (90 day extension granted)

**IV. SITE INFORMATION AND PROJECT STATISTICS**

**A. SITE INFORMATION**

Applicant: Brent Daniels, L&P Consultants	Property Owner: Cynthia Howard
Parcel Numbers: 015-050-017 & -018	Lot Area: 5.57 acres
General Plan: Residential, Two Units/Acre	Zoning: A-2, One-Family Residential
Existing Use: Single-Family Residential	Topography: 19% & 20% (Existing) 21.3% & 22.5 % (Proposed)
Adjacent Land Uses:	
North – Single-Family Residential South - Single-Family Residential	East - Single-Family Residential West - Single-Family Residential

**V. ZONING ORDINANCE CONSISTENCY**

Standard	Requirement/ Allowance	Existing	Proposed
Setbacks			
-Front	30'	30'	Parcel 1 = 30' Parcel 2 = N/A
-Interior	10'	30' to 160'	Parcel 1 >10' Parcel 2 >10'
-Rear	10'	>450'	Parcel 1 >10' Parcel 2 >10'
Building Height	30'	<30'	30' or less
Parking	2 spaces/SFR	3 spaces	Parcel 1 = 6 spaces Parcel 2 = 5 spaces
Lot Area Required for Each SFR (Slope Density)	0% up to and including 20% slope = 1.5 times min. lot area or 37,500 sq. ft Over 20% up to and including 30% slope = 2.0 times min. lot area or 50,000 sq. ft. Over 30% slope = 3.0 times min. lot area or 75,000 sq. ft. *for add'l dwelling units the requirement is doubled	<b>Parcel A (19% slope)</b> = 122,839 sq. ft. lot area <b>Parcel B (20% slope)</b> = 119,790 sq. ft. lot area	<b>Parcel 1 (21.3% slope)</b> = 107,593 sq. ft. lot area <b>Parcel 2 (22.5% slope)</b> = 135,036 sq. ft. lot area

The proposed project would meet the requirements of the A-2 Zone, with the exception of two Street Frontage Modifications requested to allow less than the required 100 feet of frontage on a public street. A lot line adjustment to realign the existing lot line between the two parcels from a north-south direction to an east-west direction is proposed. This new lot line configuration would result in two parcels with less than the required street frontage. However, neither parcel has public street frontage as presently configured since Eucalyptus Hill Drive is a private street.

## VI. ISSUES

### A. DESIGN REVIEW

This project was reviewed by the Architectural Board of Review (ABR) on three separate occasions (meeting minutes are attached to the Initial Study, included as part of Exhibit D). The ABR had the following cumulative comments: 1) As to the General Overall Site Design: The Board can support the densities of the development, the size of the buildings, and the number of garage parking spaces and uncovered parking spaces; given the reconfiguration of the lots and that they are not visible by the general public. 2) The lower lot (226 Eucalyptus Hill) is not viewed by the general public and mostly concealed within the natural woodshed of the lower terrain. 3) The Board is comfortable with the walled scheme of the front elevation on the upper house; given the natural material palette with sandstone walls, and copper roofs that mostly slope toward the downhill view of the site. 4) The Board appreciates the reduction in the hardscape of the revised site planning effort, the minimized driveway areas, and the less paving visible from Eucalyptus Hill Drive. 5) The parking for the guest house at 226 Eucalyptus Hill Drive is a clever solution utilizing the sunken lift garage which helps to minimize the circulation and paving area presented on a prior scheme. 6) The architecture of the upper house (232 Eucalyptus Hill) is low in profile and barely visible beyond the wall presenting from Eucalyptus Hill Drive. 7) The use of the hip roof is acceptable to the other elements of the design. 8) The copper roof material is acceptable as presented. 9) As to the Guest House for 232 Eucalyptus Hill Drive: The Board finds it is tucked well into hillside, and the natural sandstone materiality helps it blend into the setting. 10) The Board is comfortable with the adjacent detached garage with the landscaped roof as it tucks into the hillside. 11) As to the Lower House of 226 Eucalyptus Hill Drive: The Board is comfortable with the siting around the central courtyard. 12) Some Board members are concerned with the proposed glazed roof tile, which should be a green tone coloration to blend with the landscape. 13) The Board looks forward to a more detailed landscape plan that expands the plant palette, walking paths, the proposed water features, locates all underground utilities to mitigate and preserve any oak trees, shows all proposed retaining walls including their height and materiality, and addresses the new entry driveway through the oak grove to clearly depict the oak trees to remain and those to be removed and/or replaced.

### B. COMPLIANCE WITH THE GENERAL PLAN

The project site is zoned A-2, Two Family Residential and is designated by the General Plan as Residential, Two Units/Acre. The subject property is located in the Eucalyptus Hill

Neighborhood, which is bordered by the City limits on the north and east, Sycamore Canyon on the west and the bottom of the hill and Highway 101 on the south. The majority of the neighborhood is developed with single-family homes and is characterized by the General Plan as an area of low density development. The project as proposed complies with the General Plan density of two units per acre and also meets the minimum lot area requirements identified by the Zoning Ordinance. Based on this, the project could be found potentially consistent with both the General Plan and Zoning Ordinance.

City Conservation Element policies provide that significant environmental resources of the City be preserved and protected. The Conservation Element requires implementation of resource protection measures for archaeological, cultural and historic resources; protection and enhancement of visual, biological and open space resources; protection of specimen and street trees; maintenance of air and water quality; and minimizing potential drainage, erosion and flooding hazards. The project may be found generally consistent with applicable policies of the Conservation Element through adherence to the identified project design and mitigation measures as detailed in the Proposed Final Mitigated Negative Declaration (MND). This would ensure potential conflicts with Conservation Element policies are avoided or minimized and are in conformance with applicable policies.

With respect to hillside development, there are policies under the Conservation Element that directly apply to the project site, which are discussed below:

- Visual Resources Policy 2.0 – “Development on hillsides shall not significantly modify the natural topography and vegetation.”
- Visual Resources Policy 3.0 – “New development shall not obstruct scenic view corridors, including those of the ocean and lower elevations of the City viewed respectively from the shoreline and upper foothills, and of the upper foothills and mountains viewed respectively from the beach and lower elevations of the City.”
- Visual Resources Policy 4.0 – “Trees enhance the general appearance of the landscape and should be preserved and protected.”
- Biological Resources Policy 5.0 – “The habitats of rare and endangered species shall be preserved.”

The project has been designed to minimize the grading as much as possible; however, it is generally not feasible to entirely eliminate grading on hillsides with slopes greater than 20 to 30 percent. Site grading would include excavation and replacement of artificial fill. The amount of earthwork required for grading for both parcels is estimated at is 3,090 CY of cut and 2,830 CY of fill. The currently proposed grading would result in some alteration of the existing landform but would not substantially change the existing topography of the site. In general, the slopes on the property range from nearly flat to over 30%, and the two main house sites would be located in areas of between 0-20% slopes. The two guest houses would be located in areas of mostly 20-30% slopes, with a small portion of the lower guest house and a portion of the driveway located in areas that exceed 30% slopes.

Artificial fill areas occur throughout much of the upper and middle portions of the project site, with the deepest areas located within and around the 30 percent slopes. According to the project's Engineering Geologist, placement of artificial fill material through the years has contributed to the now existing slope contouring of the site, especially within the steep portions of the property. As recommended in the Geology Report, road grading necessary to provide the fire turnaround and switch back will result in the re-compaction of the existing materials within steeper areas, thereby properly taking care of the existing unconsolidated and uncertified fill materials.

Future construction of four single family residences on the two reconfigured lots is not anticipated to obstruct important public scenic views to the ocean or lower elevations of the City nor would it obstruct upper foothill or mountain views from the beach or lower elevations of the City. The project site is surrounded by existing residential development as well as significant vegetation, some of which is proposed for removal, but replacement is also proposed to maintain screening. Further, the houses have been designed to be tucked into the hillside to maintain a low profile. The project site is only minimally visible from Eucalyptus Hill Road, which is approximately 400 feet west of the project site.

The Conservation Element directs that mature trees be incorporated into the project rather than be removed. Fifty five trees, primarily Eucalyptus and Acacia trees are proposed for removal as part of the project. The site also contains several mature coast live oak trees and seedlings. Although the project has attempted to avoid the removal of oak trees, four coast live oak trees are proposed for removal as part of the project. In addition, three other oak trees have a high potential for damage during construction. To mitigate the removal or impact on the seven trees, 70 young oak saplings will be planted in the northern portion of the property adjacent to the existing oaks and also in the southern portion of the property where several eucalyptus trees will be removed.

According to the Biological Assessment, sensitive species are likely to occur on the project site and may be adversely impacted by short-term construction noise, removal of trees, and increased human presence during construction. However, implementation of the landscape plan, retention of the eucalyptus trees at the south of the of property, and planting grassland and other landscapes is likely to provide foraging habitat, while planting and maintaining 70 one-gallon oak trees, will result in a long term increase of habitat for these and other species.

### **C. LOT FRONTAGE MODIFICATION**

Santa Barbara Municipal Code, Section 28.15.080 (Lot Frontage Requirements) requires that newly created parcels in the A-2 Zone have no less than 100 feet of frontage on a public street. Neither of the existing parcels fronts on a public street. Eucalyptus Hill Drive is a private road. In the proposed project, neither of the newly created lots would have any frontage on a public street. Therefore, a Modification of this requirement for each lot is necessary. While staff has some concerns about changing the lot configuration, the applicant states that the reconfiguration of the two lots is dictated by the desire to create an integrated set of properties that would complement each other in both the flow and functionality of landscape and architectural design. Additionally, it is believed that the proposed lot line adjustment results in

a superior lot configuration compared to the existing "long and thin" lots. Findings for the Lot Frontage Modifications are included in Section VII below.

#### **D. PERFORMANCE STANDARD PERMITS (PSP)**

Santa Barbara Municipal Code Section 28.93.110 allows the construction of an additional one-family dwelling and related accessory buildings in the A-2 zone, provided that the lot has the required lot area necessary for two parcels and adequate provisions for ingress and egress. The proposed lots are reasonably sized and shaped and, as required for Additional Dwelling Unit PSP, double the minimum lot area has been required. The lots comply with setbacks and slope density provisions.

Even though staff recommends approval of the project, the driveway designs are not supported. During the DART process it was explained to the applicant that Transportation Planning staff reviews the location, spacing, width, alignment, number and design of driveways. The practice is to permit one access point per property unless a development or circulation plan is provided that indicates that more than one access is required to handle traffic volumes or to accommodate specific site constraints. Staff indicated that an exception to this policy could be made by supporting the provision of a second driveway to serve Parcel 2 since this parcel would have been permitted to have a separate access under the existing lot configuration. However, staff does not support the proposed third driveway entrance. The center driveway curb cut does not provide access to the garage parking spaces and is therefore not supportable.

#### **E. ENVIRONMENTAL REVIEW**

Environmental review of the proposed project has been conducted pursuant to the California Environmental Quality Act (CEQA) and related Guidelines. An Initial Study and Mitigated Negative Declaration (MND) were prepared to evaluate the project's potential impacts on the physical environment. The analysis identified potentially significant but mitigable environmental effects in the following issue areas: biological resources, geophysical conditions, hazards, and water environment. Also evaluated in the document as less than significant impacts are aesthetics, cultural resources, noise, population and housing, public services, recreation and transportation/circulation. The analysis concludes that no significant environmental impacts would result from the project as mitigated. Below is a brief summary of the Final Mitigated Negative Declaration evaluation (Exhibit D).

##### **Aesthetics**

The project site is located in an area with no significant visual resources and is not located along an existing or proposed scenic highway. The City carefully scrutinizes project sites proposed on parcels with an average slope of 30% or greater, where visual impacts are a general concern. The project site is located within the City's Hillside Design District and has slopes that exceed 20%, with a small portion of the two properties that exceed 30%. The project site is only minimally visible from the closest public street, Eucalyptus Hill Road, which is approximately 400 feet west of the project site. The proposed houses have been designed to be low profile and tucked into the hillside. The Architectural Board of Review (ABR) has reviewed the project and has made generally positive comments.

A total of 55 trees are proposed for removal. From an aesthetic point of view, although these trees do not provide for screening of the site from major public viewpoints, they do provide visual relief from surrounding development. A large amount of trees and vegetation are proposed to remain, and 70 coast live oak saplings are proposed for replacement. The visual change resulting from the proposed project would be nominal from public view vantage points. The proposal would not obstruct any public vantage points and would incorporate development compatible with the surrounding neighborhood. Aesthetic impacts would be less than significant.

### **Air Quality**

This project will not result in long-term air quality impacts. The primary concerns related to air quality impacts are pollutant emissions from vehicle exhaust or other stationary sources, particulates and nuisance dust associated with grading and construction. Long-term emissions are much less than the Santa Barbara County Air Pollution Control District threshold of significance for air quality impacts; therefore, long term project air quality impacts are less than significant. The MND has incorporated mitigation measures to minimize construction dust emissions, which would be less than significant.

### **Biological Resources**

Portions of the project site are designated as southern oak woodland habitat. Vegetation on the project site is characterized predominantly by non-native eucalyptus and acacia trees, with coast live oaks located primarily on the northern portions of the existing parcels. The proposed project would remove approximately 55 existing trees, including four coast live oak trees and 3 may be impacted by construction activities and necessitate removal. A great horned owl was observed roosting in a eucalyptus tree and a dead eucalyptus tree was observed to be an acorn granary used by acorn woodpeckers. Both trees will be retained on-site and protection of the two trees has been incorporated into the tree protection plan. Seventy young oak saplings will be planted in two areas of the northern portion of the property adjacent to the existing oaks and also in the southern portion of the property where several eucalyptus trees will be removed as mitigation.

According to the Biological Assessment, sensitive species that are likely to occur on the project site include the monarch butterfly, Cooper's hawk, and big free-tailed bat. A total of 18 wildlife species were observed on the site or adjacent to the site, including a mule deer, monarch butterfly, Cooper's hawk, red-tailed hawk, great horned owl, and turkey vulture. A total of six monarch butterflies were observed patrolling, and no clusters were found. The Cooper's hawk is listed by the Department of Fish and Game as a Species of Special Concern, and the other three bird species are common species; however, all four are protected by the Federal Migratory Bird Treaty Act of 1918. Implementation of the landscape plan, retention of the eucalyptus trees at the south of the of property, and planting grassland and other landscapes is expected to provide foraging habitat, while planting and maintaining 70 one-gallon oak trees, will result in a long term increase of habitat for these and other species.

### **Cultural Resources**

The project site is not located in any cultural resource sensitivity areas according to the City's MEA, and no archaeological studies were requested. Impacts to cultural resources are not expected occur as a result of the proposed project. Additionally, the existing residence located at 232 Eucalyptus Hill Drive is less than 50 years old and is not considered historically significant. No impacts to historical resources would occur as a result of the proposed demolition of the existing residence. The project would have no impact related to historic, ethnic or religious resources.

### **Geophysical Conditions**

Project impacts related to ground shaking, liquefaction, seiche, tsunami, landslides, subsidence and excessive grading are considered less than significant. Potential impacts due to expansive soils would be minimized to less than significant levels with incorporation of grading and foundation recommendations included in the Engineering Geology and Geotechnical Engineering Report, prepared by Earth Systems Southern California.

### **Hazards**

The project site is not on any lists for known contaminated soils, groundwater, or hazardous materials use, and there would be no impacts from the project related to these hazards. The site is located within a High Fire Hazard Area and would be required to comply with standard mitigation measures such as brush clearance, vegetation management and landscaping to reduce this potential impact to a less than significant level.

### **Noise**

The proposed project is not anticipated to have significant long-term noise impacts. Demolition of the existing house and construction of the four residences and associated driveways are anticipated to result in use of heavy equipment. Noise during construction is generally intermittent and sporadic and, after completion of initial grading and site clearing activities, tends to be quieter. Construction noise is limited by City ordinance to the hours between 7:00 a.m. and 8:00 p.m. daily for noise generating activities that would increase noise levels at the nearest residential property line by 5 decibels. Noise generated during project construction activities would result in a less than significant short-term adverse impact to sensitive receptors in the area. These impacts would be further reduced by limiting construction hours and utilizing equipment mufflers.

### **Population and Housing**

The project would not involve substantial employment growth that would increase population and housing demand. Growth-inducing impacts would not be significant.

### **Public Services**

Public services in the project vicinity are in place. Impacts to fire and police protection, schools, roads and utilities would be less than significant.

### **Recreation**

The project may result in a very small increase in the demand for recreational facilities, but is considered an incremental increase in the number of potential users for existing facilities. There are various recreational facilities in the project area including the Eastside Neighborhood Park, Hale Park and Sunflower Park. Project impacts related to recreational demand would be less than significant.

### **Transportation/Circulation**

The project is expected to generate approximately 3 additional a.m. peak hour trip, 3 p.m. peak hour trip and 30 average daily trips. When these trips are added to the existing street network, they would result in a less than significant traffic impact.

Short term construction traffic would not result in a significant impact to the traffic network because of the temporary nature of the trips generated and the size of the project. Standard mitigations include restrictions on the hours permitted for construction trips and approval of routes for construction traffic.

Project impacts relative to access and circulation are not significant.

### **Water Environment**

Drainage from the site sheet flows to the southern boundary of the parcels, into neighboring properties, and eventually into the public right-of-way. The site is within the Andree Clark Bird Refuge watershed. The two parcels are currently developed with approximately 11,500 square feet of impervious area, including buildings, hardscape, and driveway. The project would result in an increase of approximately 37,500 square feet of impervious surface. The project includes two stormwater retention areas designed to retain the increase in runoff for a 25-year storm event as a result of the proposed project. A 24" storm drain is also proposed, starting at the bottom of the foundation for the upper parcel's retention area, and would be directed through a proposed easement over the private property at 860 Woodland Drive.

The proposed drainage design would prevent an increase of stormwater runoff by retaining increased flows on-site. By implementing adequate drainage facilities to reduce potential runoff to pre-development levels would result in less than significant impacts.

Proposed grading for the project would consist of 3,090 cubic yards of cut and 2,830 cubic yards of fill. Standard erosion and dust control measures have been included in the project conditions to minimize potential short term adverse impacts to water and air quality.

A Draft Mitigated Negative Declaration (MND) was prepared and released for public review. During the public review period from April 6, 2007 to May 7, 2007, public comment on the Draft MND was taken. No Environmental Hearing was held by the Planning Commission because one was not requested by the public. Staff received six letters of concern regarding the project during the public comment period. Environmental concerns related to biological resources, cultural resources, traffic, grading, drainage, and flooding impacts were raised.

These issues are outlined in the Staff response to public comments incorporated into the Final Mitigated Negative Declaration (Exhibit D).

The Final Mitigated Negative Declaration has identified no significant and unavoidable impacts related to the proposed project. Pursuant to CEQA, and prior to approving the project, the Staff Hearing Officer must consider the Mitigated Negative Declaration. For each mitigation measure adopted as part of a Mitigated Negative Declaration, the decision maker is required to make the mitigation measures conditions of project approval and adopt a program for monitoring and reporting on the mitigation measures to ensure their compliance during project implementation [PRC Sec.21081.6]. The mitigation measures described in the proposed Final Mitigated Negative Declaration have been incorporated into the recommended conditions of approval for this project. In addition, a mitigation monitoring and reporting program (MMRP) is included in the Final Mitigated Negative Declaration.

## **VII. FINDINGS**

The Staff Hearing Officer finds the following:

### **A. FINAL MITIGATED NEGATIVE DECLARATION ADOPTION**

- The Staff Hearing Officer has considered the proposed final mitigated negative declaration together with comments received during the public review process.
- The Staff Hearing Officer finds on the basis of the whole record before it (including the initial study and comments received) that there is no substantial evidence that the project will have a significant unmitigated effect on the environment.
- The Staff Hearing Officer finds that the final mitigated negative declaration reflects the Staff Hearing Officer's independent judgment and analysis.
- The Staff Hearing Officer finds that the final mitigated negative declaration has been prepared in compliance with CEQA, and constitutes adequate environmental evaluation for the proposed project. The Planning Commission hereby adopts the Final Mitigated Negative Declaration for the project.
- The Staff Hearing Officer hereby adopts a mitigation monitoring and reporting program for measures required in the project or made a condition of approval to mitigate or avoid significant environmental effects.
- The location and custodian of the documents or other material which constitute the record of proceedings upon which this decision is based is the City of Santa Barbara Community Development Department, 630 Garden Street, Santa Barbara, California.

### **B. LOT FRONTAGE MODIFICATIONS (SBMC §28.15.080 AND §28.92.110.B)**

The modifications are consistent with the purposes and intent of the Zoning Ordinance and are necessary to secure an appropriate improvement on the lots. The existing lots do not currently meet the 100 foot street frontage requirement. There are adjacent

parcels in the neighborhood that have less than 100 feet of street frontage or no street frontage at all.

**C. LOT LINE ADJUSTMENT (GOV. CODE §66412 AND SBMC §27.04.030)**

The proposed lot line adjustment is appropriate for the area and is consistent with the City's General Plan and Building and Zoning Ordinances. The lot line adjustment would adjust the lot line between the two parcels which are currently 2.82 acres (Parcel A) and 2.75 acres (Parcel B) in size by realigning the dividing lot line from a north-south direction to an east-west direction, resulting in two parcels of 2.47 acres (Parcel 1) and 3.10 acres (Parcel 2). The proposed parcels exceed the minimum lot area requirement which is 50,000 square feet when slope density requirements are applied in recognition of steep topography. The intent of the lot line adjustment is to create an integrated set of properties that would complement each other in both the flow and functionality of landscape and architectural design.

**D. PERFORMANCE STANDARD PERMITS (SBMC §28.93.020.A & 28.93.030.E)**

The lot areas of the two parcels have the minimum lot area per unit required in the A-2 zone and the additional dwelling units comply with all other applicable ordinance requirements.

**E. DEPARTMENT OF FISH AND GAME FEE FINDING**

An Initial Study has been conducted by the lead agency, which has evaluated the potential for the proposed project to result in adverse effects, either individually or cumulatively, on wildlife resources or the habitat on which the wildlife depends. For this purpose, "wildlife" is defined as "all wild animals, birds, plants, fish, amphibians, and related ecological communities, including the habitat upon which the wildlife depends for its continued viability" (Section 711.2 Fish and Game Code). This project has the potential to affect wildlife resources or the habitat on which wildlife depend, and is subject to the Department of Fish and Game fee.

Exhibits:

- A. Conditions of Approval
- B. Site Plans
- C. Applicant's letter, dated August 17, 2007
- D. Final Mitigated Negative Declaration

## STAFF HEARING OFFICER CONDITIONS OF APPROVAL

226 & 232 EUCALYPTUS HILL DRIVE

LOT LINE ADJUSTMENT, STREET FRONTAGE MODIFICATIONS, PERFORMANCE STANDARD PERMITS

AUGUST 29, 2007

- I. In consideration of the project approval granted by the Staff Hearing Officer for the benefit of the owner(s) and occupant(s) of the Real Property, the owners and occupants of adjacent real property and the public generally, the following terms and conditions are imposed on the use, possession and enjoyment of the Real Property:
- A. **Recorded Agreement.** Prior to the issuance of any Public Works permit or Building permit for the project on the Real Property, the Owner shall execute a "*Written Instrument*", which shall be reviewed as to form and content by the City Attorney, Community Development Director and Public Works Director, recorded in the Office of the County Recorder, and shall include the following:
1. **Uninterrupted Water Flow.** The Owner shall provide for the uninterrupted flow of water through the Real Property including, but not limited to, swales, natural water courses, conduits and any access road, as appropriate. The Owner is responsible for the adequacy of any project-related drainage facilities and for the continued maintenance thereof in a manner that will preclude any hazard to life, health or damage to the Real Property or any adjoining property.
  2. **Recreational Vehicle Storage Limitation.** No recreational vehicles, boats or trailers shall be stored on the Real Property unless enclosed or concealed from view as approved by the Architectural Board of Review (ABR).
  3. **Landscape Plan Compliance.** The Owner shall comply with the Landscape Plan approved by the Architectural Board of Review (ABR) and the Fire Department. Such plan shall not be modified unless prior written approval is obtained from the ABR and Fire Department. The landscaping on the Real Property shall be provided and maintained in accordance with said landscape plan.
  4. **Maintenance of Drainage System.** Owner shall be responsible for maintaining the drainage system in a functioning state. Should any of the project's surface or subsurface drainage structures fail or result in increased erosion, the Owner shall be responsible for any necessary repairs to the system and restoration of the eroded area. Should repairs or restoration become necessary, prior to the commencement of such repair or restoration work, the applicant shall submit a repair and restoration plan to the Community Development Director to determine if an amendment or a new Building permit is required to authorize such work.
  5. **Approved Development.** The development of the Real Property approved by the Staff Hearing Officer on August 29, 2007 is limited to a lot line adjustment, performance standard permits and the improvements shown on the Development Plans, including landscaping and hardscape work associated with the existing residences and associated garages and the drainage facilities, including the two bioswale storm water retention areas, signed by the Staff Hearing Officer on said date and on file at the City of Santa Barbara.

6. **Lighting.** Exterior lighting, where provided, shall be consistent with the City's Lighting Ordinance and most currently adopted Energy Code. No floodlights shall be allowed. Exterior lighting shall be shielded and directed toward the ground.
7. **Oak Tree Protection.** Tree protection measures for oaks, as recommended in the Oak Tree Protection Plan dated September 21, 2006, shall be followed for the duration of all grading and construction activities associated with the project. (B-1)
8. **Oak Tree Replacement.** A replacement of the seven oaks proposed for removal or impacted by construction shall include the planting, management, and long-term maintenance of 70 one-gallon young saplings per the recommendations of the Oak Tree Protection Plan. (B-2)
9. **Habitat Protection.** The two eucalyptus trees identified as a great horned owl roost and an acorn granary, shall be retained and protected per the recommendations of the Biological Assessment dated October 26, 2006, and as noted on the Tree Preservation Plan. (B-3)
10. **High Fire Vegetation Management.** Residences located in the High Fire Hazard area are required to maintain vegetation to create an effective fuel break by thinning dense vegetation (mosaic style) and removing dry brush, flammable vegetation and combustible growth from areas within 100 feet of all buildings or structures. The owner(s) shall perform the following maintenance annually for the life of the project:
  - a. Cut and remove hazardous brush, shrubs, and flammable vegetation such as dry grass and weeds within 100 feet of any structure and within 2 inches of the ground.
  - b. Thin brush from streets and driveways both horizontally and vertically along the property. Flammable vegetation must be cleared on each side of the street or driveway for a distance of 10 feet and a vertical distance of 13 feet, 6 inches. Vegetation must be cut to within 2 inches of the ground. This applies to the public or private driveway and any public or private streets that border the property.
  - c. Remove dead wood, trim the lower branches, and limb all live trees to 6 feet above the ground (or as much as possible with younger, smaller trees), especially trees adjacent to buildings.
  - d. Trim tree limbs back a minimum distance of 10 feet from any chimney opening.
  - e. Remove all dead trees from the property.
  - f. Maintain the roof of all structures free of leaves, needles or other vegetative debris.
  - g. Legally dispose of all cut vegetation, including any debris left from previous tree trimming and brush removal. Cut vegetation may be chipped

and spread throughout the property as a ground cover, up to 12 inches in depth, and at least 30 feet from any structure. (H-1)

11. **Drainage and Water Quality.** Any increase in runoff above existing conditions shall be retained on site, consistent with the City's NPDES Guidelines. Project plans for grading, drainage, stormwater facilities, and project development, shall be subject to review and approval by City Building Division and Public Works Department per City regulations. Sufficient engineered design and adequate measures shall be employed to ensure that no significant construction-related or long-term effects from increased runoff, erosion and sedimentation, urban water quality pollutants, or groundwater pollutants would result from the project. The Owner shall maintain the storm drain and retention areas consistent with an approved maintenance plan. This plan shall be provided with the building plan submittal for review and approval by Community Development prior to approval of building permits. (W-1)
  12. **Storm Water Pollution Control Systems Maintenance.** The Owner(s) shall maintain the drainage system, storm drain and other storm water pollution control devices in accordance with the Operations and Maintenance Procedure Plan approved by the Building Official and/or Public Works Director.
  13. **Required Private Covenants.** The Declaration executed by the Owners and recorded in the official records of Santa Barbara County shall establish private covenants, a reciprocal easement agreement, or a similar agreement which, among other things, shall provide for all of the following:
    - a. **Common Area Maintenance.** An express method for the appropriate and regular maintenance of the common access way, which methodology shall also provide for an appropriate cost-sharing of such regular maintenance among the various owners of the lots.
    - b. **Trash and Recycling.** Trash and recycling containers shall contain equal volume, and trash/recycling areas shall be easily accessed by the consumer and the trash hauler. Green waste shall either have containers adequate for the landscaping, or include an item in the private CC&Rs stating that the green waste will be hauled offsite by a landscaping maintenance company.
  14. **Participation in the Eucalyptus Hill Vegetation Management Unit.** Participation in the Eucalyptus Hill Vegetation Management Unit to reduce fire hazards in the area. If a community project is underway, the Owner would be encouraged to participate in cooperative vegetation management, public education, or other community solutions to reduce hazard and risk.
- B. **California Department of Fish and Game Fees Required.** Pursuant to Section 21089(b) of the California Public Resources Code and Section 711.4 et. seq. of the California Fish and Game Code, the approval of this permit/project shall not be considered final unless the specified Department of Fish and Game fees are paid and filed with the California Department of Fish and Game within five days of the project approval. The fee required is

\$1,800 for projects with Mitigated Negative Declarations. Without the appropriate fee, the Notice of Determination (which the City is required to file within five days of project approval) cannot be filed and the project approval is not operative, vested or final. The fee shall be delivered to the Planning Division immediately upon project approval in the form of a check payable to the California Department of Fish and Game.

- C. **Design Review.** The following is subject to the review and approval of the Architectural Board of Review (ABR):
1. **Landscape Plan.** The landscape plan shall adhere to the Fire Department Landscape Guidelines for properties in the high fire hazard area. These plans shall be reviewed and approved by the Architectural Board of Review, Transportation Planning Division, and the Fire Department. (H-2)
  2. **Oak Tree Replacement.** A replacement plan for the four Coast Live Oaks to be removed shall be included in the landscape plans for Parcel 1 and/or Parcel 2, to be reviewed and approved by the Architectural Board of Review. Replacement oaks shall be 70 one-gallon young saplings per the recommendations of the Oak Tree Protection Plan.
  3. **Tree Protection Measures.** The landscape plan and grading plan shall include the following tree protection measures:
    - a. **Fencing.** Fencing or protective barriers around the tree(s) during construction.
    - b. **Landscaping Under Trees.** Landscaping under the tree(s) that is compatible with the preservation of the tree(s).
    - c. **Oak Tree Protection Measures.** The following provisions shall apply to existing oak trees on site:
      - (1) During construction, fencing or protective barriers shall be placed around the dripline of all oak trees located within 25 feet of development.
      - (2) No grading shall occur under any oak tree dripline, except as indicated on the drainage and grading plan. Grading within the dripline of any oak shall be minimized and shall be done with light (one ton or less) rubber-tired equipment or by hand. If use of larger equipment is necessary within the dripline of any oak, it shall only be operated under the supervision and direction of a qualified Arborist.
      - (3) A qualified Arborist shall be present during any grading or excavation adjacent to or beneath the dripline of any oak tree. Any roots encountered shall be cleanly cut and sealed with a tree-seal compound. Any thinning or root pruning and trimming shall be done under the direction of a qualified Arborist.

- (4) No storage of heavy equipment or materials, or parking shall take place within five (5) feet of the dripline of any oak tree.
      - (5) Landscaping provided under the oak tree(s) shall be compatible with preservation of the trees as determined by the Architectural Board of Review (ABR). No irrigation system shall be installed under the dripline of any oak tree.
  4. **Existing Tree Preservation.** The existing tree(s) shown on the approved Tree Preservation and Removal Plan to be retained shall be preserved and protected and fenced during construction.
  5. **Irrigation System.** The irrigation system shall be designed and maintained with the most current technology to prevent a system failure and shall be kept to the minimum necessary for plant survival.
  6. **Permeable Paving.** Permeable/porous paving materials shall be utilized where possible to reduce the impermeability of hardscape surfaces. (W-3)
  7. **Lighting.** Exterior lighting, where provided, shall be consistent with the City's Lighting Ordinance. No floodlights shall be allowed. Exterior lighting shall be shielded and directed toward the ground.
- D. **Public Works Requirements Prior to Building Permit Issuance.** The Owner shall submit the following, or evidence of completion of the following to the Public Works Department for review and approval, prior to the issuance of a Building Permit for the project:
  1. **Lot Line Adjustment.** The Owner shall submit an executed Agreement Relating to Lot Line Adjustment, Quitclaim Deed and Acceptance Thereof/Dedication of Lot Line Adjustment to the Public Works Department, including the legal description of the subject properties prior to and following the lot line adjustment. A licensed surveyor shall prepare legal descriptions and said Agreement/Declaration shall be recorded in the Office of the County Recorder
  2. **Easement(s).** "Irrevocable Offer of Covenant of Easement Deed(s):
    - a. A variable width Easement for Ingress, Egress, Drainage, Public and Private Utilities and Other Incidental Purposes, as shown on Lot Line Adjustment Map, and recorded by separate instrument at any time either of the adjusted lots are conveyed by the Owner into separate ownerships.
    - b. A variable width Reciprocal Access Easement, for vehicle and pedestrian ingress and egress through Adjusted Lot 1 (Upper Lot) adjacent to private road Eucalyptus Hill Drive, for the benefit of Adjusted Lot 2 (Lower Lot) as shown on Lot Line Adjustment Map and recorded by separate Instrument at any time either of the adjusted lots are conveyed by the Owner into separate ownerships.

- c. A ten-foot wide sewer easement for the benefit of Adjusted Lot 1 as shown on the Lot Line Adjustment Map and recorded by separate instrument, an any time either of the adjusted lots are conveyed by the Owner into separate ownerships.
- d. A ten-foot wide sewer and drainage easement for the benefit of Adjusted Lot 1 and Adjusted Lot 2 through the adjacent property known as 890 Woodland Drive, and recorded by separate instrument, an any time either of the adjusted lots are conveyed by the Owner into separate ownerships.
3. **Water Rights Assignment Agreement.** The Owner shall assign to the City of Santa Barbara the exclusive right to extract ground water from under the Real Property for each parcel. This assignment of rights does not include a right of surface entry on or from the Real Property. Said agreement will be prepared by Engineering Division Staff for the Owner's signature.
4. **Required Private Covenants.** The Owner shall submit a copy of the recorded private covenants, reciprocal easement agreement, or similar private agreements required for the project.
5. **Street Improvement Plans for Eucalyptus Hill Drive.** The Owner shall submit building plans for construction of improvements along the subject property road frontage on Eucalyptus Hill Drive and Woodland Drive. As determined by the Public Works Department, the improvements shall include connection to City water main on Eucalyptus Hill Drive and connection to City sewer main and City storm drain system on Woodland Drive, construct on-site drainage system including detention and erosion protection and provide adequate positive drainage from the site. The building plans shall be prepared by a registered civil engineer or licensed architect and reviewed by the City Engineer.
6. **Removal or Relocation of Public Facilities.** Removal or relocation of any public utilities or structures must be performed by the Owner or by the person or persons having ownership or control thereof.
7. **Maintenance Agreement Required.** The Owner shall submit an Executed Agreement for Maintenance of the proposed private driveway, subject to the review and approval of the Public Works Director and City Attorney.
8. **Approved Public Improvement Plans and Concurrent Issuance of Public Works Permit.** Upon acceptance of the approved public improvement plans, a Public Works permit shall be issued concurrently with a Building permit.
9. **Storm Drain Operation and Maintenance Plan Required.** The Owner shall provide an Operations and Maintenance Procedure Plan (describing replacement schedules for pollution absorbing filters, etc.) for the operation and use of the storm drain system. The Plan shall be approved by the Building and Safety Division and Public Works Department.

10. **Landscape Plan Approval Required.** The landscape plan shall be reviewed and approved by the Transportation Planning Division to ensure compliance with sight visibility requirements.

E. **Community Development Requirements Prior to Building or Public Works Permit Application/Issuance.** The following shall be finalized prior to, and/or submitted with, the application for any Building or Public Works permit:

1. **Nesting Native Birds.** Construction activities including tree and vegetation removal shall occur outside the breeding bird season (February 1 – August 15). If project activities cannot be feasibly avoided during the bird nesting season the owner shall conduct a minimum of four weekly bird surveys, using a qualified biologist with experience in conducting breeding bird surveys, approved by the City Environmental Analyst, to detect protected nesting native birds in the vegetation and trees to be removed and within 300 feet of the construction work area. The surveys shall begin 30 days prior to the disturbance of suitable nesting habitat and conducted on a weekly basis with the last survey conducted no more than three days before construction is initiated. If an active nest is located, construction within 500 feet of a raptor nest and 300 feet of any other nesting bird, vegetation clearing and tree removal shall be postponed until the nest is vacated and juveniles have fledged and there is no evidence of a second attempt at nesting. This shall be confirmed by the qualified biologist. Nesting areas to be avoided during construction shall be marked and protected with flagging and stakes or construction fencing at least 300 feet or 500 feet (if applicable) from the nest.

2. **Project Environmental Coordinator Required.** Submit to the Planning Division a contract with a qualified representative for the Owner, approved by the Planning Division, to act as the Project Environmental Coordinator (PEC). The PEC shall be responsible for assuring full compliance with the provisions of the Mitigation Monitoring and Reporting Program (MMRP) to the City. The contract shall include the following, at a minimum:

- a. The frequency and/or schedule of the monitoring of the mitigation measures.
- b. A method for monitoring the mitigation measures.
- c. A list of reporting procedures, including the responsible party, and frequency.
- d. A list of other monitors to be hired, if applicable, and their qualifications.

The PEC shall have authority over all other monitors/specialists, the contractor, and all construction personnel for those actions that relate to the items listed in the MMRP, including the authority to stop work, if necessary, to achieve compliance with mitigation measures.

3. **Neighborhood Notification Prior to Construction.** At least twenty (20) days prior to commencement of construction, the contractor shall provide written notice

to all property owners, businesses and residents within 450 feet of the project area. The notice shall contain a description of the project, the construction schedule, including days and hours of construction, the name and phone number of the Project Environmental Coordinator (PEC) and Contractor(s), site rules and Conditions of Approval pertaining to construction activities and any additional information that will assist the Building Inspectors, Police Officers and the public in addressing problems that may arise during construction. The language of the notice and the mailing list shall be reviewed and approved by the Planning Division prior to being distributed. An affidavit signed by the person(s) who compiled the mailing list shall be submitted to the Planning Division.

4. **Contractor and Subcontractor Notification.** The Owner shall notify in writing all contractors and subcontractors of the site rules, restrictions and Conditions of Approval. Submit a copy of the notice to the Planning Division.
  5. **Arborist's Monitoring.** Submit to the Planning Division a contract with a qualified arborist for monitoring of all work within the dripline of all oak trees during construction. The contract shall include a schedule for the arborist's presence during grading and construction activities, and is subject to the review and approval of the Planning Division.
  6. **Letter of Commitment for Pre-Construction Conference.** The Owner shall submit to the Planning Division a letter of commitment that states that, prior to disturbing any part of the project site for any reason and after the Building permit has been issued, the General Contractor shall schedule a conference to review site conditions, construction schedule, construction conditions, and environmental monitoring requirements. The conference shall be held within twenty days of the commencement of construction and shall include representatives from the Public Works Department Engineering and Transportation Divisions, the assigned Building Inspector, the Planning Division, the Property Owner, the Landscape Architect, the Biologist, the Project Engineer, the Project Environmental Coordinator, the Contractor and each subcontractor.
  7. **Final Planning Commission Resolution Submittal.** The final Planning Commission Resolution shall be submitted, indicating how each condition is met with drawing sheet and/or note references to verify condition compliance. If the condition relates to a document submittal, describe the status of the submittal (e.g., Final Map submitted to Public Works Department for review), and attach documents as appropriate.
- F. **Building Permit Plan Requirements.** The following requirements/notes shall be incorporated into the construction plans submitted to the Building and Safety Division for Building permits.
1. **Design Review Requirements.** Plans shall show all design, landscape and tree protection elements, as approved by the Architectural Board of Review, outlined in Section C above.

2. **Pre-Construction Conference.** No more than twenty days prior to commencement of construction, a conference to review site conditions, construction schedule, construction conditions, and environmental monitoring requirements, shall be held by the General Contractor. The conference shall include representatives from the Public Works Department Engineering and Transportation Divisions, Building Division, Planning Division, the Property Owner, Landscape Architect, Biologist, Project Engineer, Project Environmental Coordinator, Mitigation Monitors, Contractor and each Subcontractor.
3. **Mitigation Monitoring and Reporting Requirement.** Note on the plans that the Owner shall implement the Mitigation Monitoring and Reporting Program (MMRP) for the project's mitigation measures, as stated in the Mitigated Negative Declaration for the project.
4. **Drainage and Water Quality.** Any increase in runoff above existing conditions shall be retained on site, consistent with the City's NPDES Guidelines. Runoff shall be directed into a bioswale-type area or landscape features such as planter beds and/or lawns to increase soil infiltration. Project plans for grading, drainage, stormwater facilities, and project development, shall be subject to review and approval by City Building Division and Public Works Department per City regulations. Sufficient engineered design and adequate measures shall be employed to ensure that no significant construction-related or long-term effects from increased runoff, erosion and sedimentation, urban water quality pollutants, or groundwater pollutants would result from the project. The Owner shall maintain the storm drain energy dissipater consistent with an approved maintenance plan. This plan shall be provided with the building plan submittal for review and approval by Community Development prior to approval of building permits. (W-1)
5. **Grading and Foundation Recommendations.** Site preparation, grading and project construction related to soil conditions shall be in accordance with the recommendations contained in the Engineering Geology and Geotechnical Engineering Report, prepared by Earth Systems Southern California, and dated July 14, 2006. Compliance shall be demonstrated on plans submitted for grading and/or building permits. (G-1)
6. **Mechanical Parking System.** The upper platform of the mechanical parking system shall be equipped with a barrier or a guide designed to ensure that vehicles parked on the upper deck will not interfere with the access to the garage parking spaces. The lift system shall include a pressure sensitive electric safety edge. The location of the Key-operated control switch for security and safety shall be reviewed and approved by staff prior to issuance of a Building Permit for this residence. All components of the mechanical parking system must be maintained in good operating condition
7. **Conditions on Plans/Signatures.** The final Planning Commission Resolution shall be provided on a full size drawing sheet as part of the drawing sets. Each condition shall have a sheet and/or note reference to verify condition compliance.

If the condition relates to a document submittal, indicate the status of the submittal (e.g., Final Map submitted to Public Works Department for review). A statement shall also be placed on the above sheet as follows: The undersigned have read and understand the above conditions, and agree to abide by any and all conditions which is their usual and customary responsibility to perform, and which are within their authority to perform.

Signed:

Property Owner	Date	
Contractor	Date	License No.
Architect	Date	License No.
Engineer	Date	License No.

**G. Construction Implementation Requirements.** All of these construction requirements shall be carried out in the field for the duration of the project construction.

1. **Construction-Related Truck Trips.** Construction-related truck trips shall not be scheduled during peak hours (7:00 a.m. to 9:00 a.m. and 4:00 p.m. to 6:00 p.m.). The purpose of this condition is to help reduce truck traffic and noise on adjacent streets and roadways. (T-1)
2. **Construction Related Traffic Routes.** The route of construction-related traffic shall be established to minimize trips through surrounding residential neighborhoods, subject to approval by the Public Works Director. (T-1)
3. **Haul Routes.** The haul route(s) for all construction-related trucks, three tons or more, entering or exiting the site, shall be approved by the Transportation Engineer. (T-1)
4. **Construction Hours.** Construction (including preparation for construction work) is prohibited Monday through Friday before 8:00 a.m. and after 5:00 p.m., and all day on Saturdays, Sundays and holidays observed by the City of Santa Barbara, as shown below:

New Year's Day.....	January 1st*
Martin Luther King's Birthday .....	3rd Monday in January
Presidents' Day .....	3rd Monday in February
Memorial Day .....	Last Monday in May
Independence Day.....	July 4th*
Labor Day .....	1st Monday in September
Thanksgiving Day.....	4th Thursday in November

Following Thanksgiving Day .....Friday following Thanksgiving Day  
Christmas Day.....December 25th\*

\*When a holiday falls on a Saturday or Sunday, the preceding Friday or following Monday, respectively, shall be observed as a legal holiday.

When, based on required construction type or other appropriate reasons, it is necessary to do work outside the allowed construction hours, contractor shall contact the Chief of Building and Safety to request a waiver from the above construction hours, using the procedure outlined in Santa Barbara Municipal Code §9.16.015 Construction Work at Night. Contractor shall notify all residents within 300 feet of the parcel of intent to carry out night construction a minimum of 48 hours prior to said construction. Said notification shall include what the work includes, the reason for the work, the duration of the proposed work and a contact number. (N-1)

5. **Construction Parking/Storage.** Construction parking and storage shall be provided as follows:
  - a. During construction, free parking spaces for construction workers shall be provided on-site, site or off-site in a location subject to the approval of the Public Works Director. Construction workers are prohibited from parking within the public right-of-way, except as outlined in subparagraph b. below.
  - b. Parking in the public right of way is permitted as posted by Municipal Code, as reasonably allowed for in the 2006 Greenbook (or latest reference), and with a Public Works permit in restricted parking zones. No more than three (3) individual parking permits *without extensions* may be issued for the life of the project
  - c. On-site or off-site storage shall be provided for construction materials, equipment, and vehicles. Storage of construction materials within the public right-of-way is prohibited. (T-2)
6. **Construction Dust Control.** Minimize amount of disturbed area and reduce on site vehicle speeds to 15 miles per hour or less. (AQ-1)
7. **Water Sprinkling During Grading.** During site grading and transportation of fill materials, regular water sprinkling shall occur using reclaimed water whenever the Public Works Director determines that it is reasonably available. During clearing, grading, earth moving or excavation, sufficient quantities of water, through use of either water trucks or sprinkler systems, shall be applied to prevent dust from leaving the site. Each day, after construction activities cease, the entire area of disturbed soil shall be sufficiently moistened to create a crust.

Throughout construction, water trucks or sprinkler systems shall also be used to keep all areas of vehicle movement damp enough to prevent dust raised from leaving the site. At a minimum, this will include wetting down such areas in the

- late morning and after work is completed for the day. Increased watering frequency will be required whenever the wind speed exceeds 15 mph. (AQ-2)
8. **Covered Truck Loads.** Trucks transporting fill material to and from the site shall be covered from the point of origin. (AQ-3)
  9. **Gravel Pads.** Gravel pads shall be installed at all access points to the project site to prevent tracking of mud on to public roads. (AQ-4)
  10. **Disturbed Area Treatment.** After clearing, grading, earth moving or excavation is complete, the entire area of disturbed soil shall be treated to prevent wind pickup of soil. This may be accomplished by:
    - a. Seeding and watering until grass cover is grown.
    - b. Spreading soil binders.
    - c. Sufficiently wetting the area down to form a crust on the surface with repeated soakings as necessary to maintain the crust and prevent dust pickup by the wind.
    - d. Other methods approved in advance by the Air Pollution Control District. (AQ-5)
  13. **Construction Equipment Requirements.** The following shall be adhered to during project grading and construction to reduce NOx and particulate emissions from construction equipment:
    - a. Heavy-duty diesel-powered construction equipment manufactured after 1996 (with federally mandated "clean" diesel engines) shall be utilized wherever feasible.
    - b. The engine size of construction equipment shall be the minimum practical size.
    - c. The number of construction equipment operating simultaneously shall be minimized through efficient management practices to ensure that the smallest practical number is operating at any one time.
    - d. Construction equipment shall be maintained in tune per the manufacturer specifications.
    - e. Catalytic converters shall be installed on gasoline-powered equipment, if feasible.
    - f. Diesel powered equipment shall be replaced by electric equipment whenever feasible. (AQ-6)
  11. **Construction Best Management Practices (BMPs).** Construction activities shall address water quality through the use of BMPs, as approved by the Building and Safety Division.

12. **Construction Contact Sign.** Immediately after Building permit issuance, signage shall be posted at the points of entry to the site that list the contractor(s) and Project Environmental Coordinator's (PEC's) name, contractor(s) and PEC's telephone number, work hours, site rules, and construction-related conditions, to assist Building Inspectors and Police Officers in the enforcement of the conditions of approval.
13. **Tree Protection.** All trees not indicated for removal on the site plan shall be preserved, protected and maintained.
14. **Tree Protection.** Notes on the grading plan that specify the following:
  - a. No grading shall occur under the driplines of the existing tree(s).
  - b. A qualified Arborist shall be present during any excavation adjacent to or beneath the dripline of the tree(s) which are required to be protected.
  - c. All excavation within the dripline of the tree(s) shall be done with hand tools.
  - d. Any roots encountered shall be cleanly cut and sealed with a tree-seal compound.
  - e. No heavy equipment, storage of materials or parking shall take place under the dripline of the tree(s).
  - f. Any root pruning and trimming shall be done under the direction of a qualified Arborist.
15. **Construction Equipment Sound Control.** All construction equipment, including trucks, shall be professionally maintained and fitted with standard manufacturers' muffler and silencing devices. (N-2)
16. **Graffiti Abatement Required.** Owner and Contractor shall be responsible for removal of all graffiti as quickly as possible. Graffiti not removed within 24 hours of notice by the Building and Safety Division may result in a Stop Work order being issued, or may be removed by the City, at the Owner's expense, as provided in SBMC Chapter 9.66.
17. **Unanticipated Archaeological Resources Contractor Notification.** Prior to the start of any vegetation or paving removal, demolition, trenching or grading, contractors and construction personnel shall be alerted to the possibility of uncovering unanticipated subsurface archaeological features or artifacts associated with past human occupation of the parcel. If such archaeological resources are encountered or suspected, work shall be halted immediately, the City Environmental Analyst shall be notified and an archaeologist from the most current City Qualified Archaeologists List shall be retained by the applicant. The latter shall be employed to assess the nature, extent and significance of any discoveries and to develop appropriate management recommendations for archaeological resource treatment, which may include, but are not limited to, redirection of

grading and/or excavation activities, consultation and/or monitoring with a Barbareño Chumash representative from the most current City qualified Barbareño Chumash Site Monitors List, etc.

If the discovery consists of possible human remains, the Santa Barbara County Coroner shall be contacted immediately. If the Coroner determines that the remains are Native American, the Coroner shall contact the California Native American Heritage Commission. A Barbareño Chumash representative from the most current City Qualified Barbareño Chumash Site Monitors List shall be retained to monitor all further subsurface disturbance in the area of the find. Work in the area may only proceed after the Environmental Analyst grants authorization.

If the discovery consists of possible prehistoric or Native American artifacts or materials, a Barbareño Chumash representative from the most current City Qualified Barbareño Chumash Site Monitors List shall be retained to monitor all further subsurface disturbance in the area of the find. Work in the area may only proceed after the Environmental Analyst grants authorization.

- H. **Prior to Certificate of Occupancy.** Prior to issuance of the Certificate of Occupancy, the Owner of the Real Property shall complete the following:
1. **Complete Public Improvements.** Public improvements, as shown in the improvement plans connecting new private sewer system to existing public 8 inch sewer main on Woodland Drive and storm drain system from the site to the public sewer system on Woodland Drive.
  2. **Mitigation Monitoring Report.** Submit a final construction report for mitigation monitoring.
- I. **Litigation Indemnification Agreement.** In the event the Planning Commission approval of the Project is appealed to the City Council, Applicant/Owner hereby agrees to defend the City, its officers, employees, agents, consultants and independent contractors ("City's Agents") from any third party legal challenge to the City Council's denial of the appeal and approval of the Project, including, but not limited to, challenges filed pursuant to the California Environmental Quality Act (collectively "Claims"). Applicant/Owner further agrees to indemnify and hold harmless the City and the City's Agents from any award of attorney fees or court costs made in connection with any Claim.

Applicant/Owner shall execute a written agreement, in a form approved by the City Attorney, evidencing the foregoing commitments of defense and indemnification within thirty (30) days of the City Council denial of the appeal and approval of the Project. These commitments of defense and indemnification are material conditions of the approval of the Project. If Applicant/Owner fails to execute the required defense and indemnification agreement within the time allotted, the Project approval shall become null and void absent subsequent acceptance of the agreement by the City, which acceptance shall be within the City's sole and absolute discretion. Nothing contained in this condition shall prevent the City or the City's Agents from independently defending any Claim. If the City or the

City's Agents decide to independently defend a Claim, the City and the City's Agents shall bear their own attorney fees, expenses and costs of that independent defense.

**NOTICE OF APPROVAL TIME LIMITS:**

The Staff Hearing Officer's action approving the Modifications, shall terminate two (2) year from the date of the approval, per Santa Barbara Municipal Code §28.87.360, unless:

1. A Building permit for the use authorized by the approval is issued within twenty-four (24) months of granting the approval. An extension may be granted by the Community Development Director, if the construction authorized by the permit is being diligently pursued to completion and issuance of a Certificate of Occupancy.
2. The approval has not been discontinued, abandoned or unused for a period of six months following the earlier of (a) an Issuance of a Certificate of Occupancy for the use, or (b) two (2) years from granting the approval.
3. The project also includes approval of a Development Plan, Tentative Subdivision Map or a Coastal Development Permit, in which case the longer approval period shall prevail.









3 West Carrillo Street, Suite 205 Santa Barbara, CA 93101  
ph: 805.962.4611 fax: 805.962.4161

[L&P P.N.: 03-027.01]

August 17 , 2007

City of Santa Barbara  
Planning Division  
Attn: Bettie Weiss, Staff Hearing Officer  
630 Garden Street  
Santa Barbara, CA 93101

Subject: DART Application Submittal  
APN 015-050-017, & 018; Howard Property  
226 & 232 Eucalyptus Hill Drive, Santa Barbara  
MST 2004-00349

Dear Ms. Weiss:

Enclosed herewith please find the following items pertaining to application for a proposed Lot Line Adjustment and Performance Standards Permits for Additional Dwelling Units of the subject properties:

- One (1) completed Master Application Form (previously submitted);
- One (1) completed Owner/Agent Authorization Form (previously submitted);
- Four (4) copies of a revised Proposed Lot Line Adjustment, Architectural and Landscape Plans;
- Two (2) copies of a Preliminary Title Report, prepared by Chicago Title Company, dated September 27, 2005 (previously submitted);
- Two (2) copies of a Preliminary Stormwater Study, prepared by Triad/Holmes Associates, dated October 5, 2005 (previously submitted);
- Two (2) copies of a Preliminary Stormwater Study, prepared by Triad/Holmes Associates, dated July 2006;
- Two (2) copies of a Engineering Geology and Geotechnical Engineering Report, prepared by Earth Systems, dated July 14, 2006;
- Two (2) copies of a Biological Survey, prepared by Condor Environmental, dated November 8, 2005 (previously submitted);
- One (1) copy of a Draft Declaration of CC&Rs regarding Proposed Easements;
- One (1) set of revised Residential Project Statistics;

**EXHIBIT C**

City of Santa Barbara, Planning Division  
DART - 226 & 232 Eucalyptus Hill Drive  
MST 2004-00349  
August 17, 2007  
Page 2 of 11

- One (1) copy of Assessor Page 015-05;
- One (1) copy of ABR Minutes, dated September 20, 2004 (previously submitted) and May 8, 2006;
- Check payable to City of Santa Barbara for application fee of \$11,635 (LLA = \$3030, CUP = \$2600 each x 2 = \$5200, Environmental Review = \$600, 1st Mod = \$1065, Each Add'n Mod = \$540 x 3 = \$1620, Mailing = \$120) (Previously Submitted)

### **I. Purpose of Request**

The purpose of the application request is to seek a Lot Line Adjustment of two existing parcels of 2.82 acres and 2.75 acres, which would result in parcels of 2.47 acres and 3.10 acres respectively. Additionally, it is proposed that each of the adjusted parcels will construct one (1) main residence each, and one (1) Additional Dwelling Unit each, as allowed by the Zoning Ordinance with a Performance Standard Permit.

### **II. Project Setting**

The project site consists of two (2) legal properties of 2.82 acres (226 Eucalyptus Hill Drive) and 2.75 acres (232 Eucalyptus Hill Drive) located in the General Plan Neighborhood of Eucalyptus Hills in Santa Barbara, on the private road portion of Eucalyptus Hill Drive. The property landform consists mostly of a gently rolling slope of 12 to 20 percent which heads to the south toward existing developed neighborhoods of Woodland Drive and Norman Lane. The property is improved with an existing single family residence located somewhat in the upper middle of the property, and a two-car garage. Numerous eucalyptus trees and oak trees are scattered over the property. Surrounding land uses include residential lots on all sides. No rare, threatened or endangered species are known to inhabit the site.

#### **Title Interests Affecting Project Site**

The existing Eucalyptus Hill Drive properties are affected by a number of title interests including easements for road access and utilities such as Southern California Edison, General Telephone Company, and to the City of Santa Barbara which has a sanitary sewer line which bisects the properties. (See Preliminary Title Report for details.)

#### **Project Site Land Use And Zoning**

The current General Plan designation on the property is Residential 2 units per acre. Zoning on the property is an A-2, Single Family Residence zone.

#### **Surrounding Land Use And Zoning**

Surrounding land uses include single family homes and some larger estate developments, all within the A-2 zone district. To the south lots sizes are mostly half-acres with some

quarter-acres sites. One, two and three-plus acre sites surround the subject properties to the north, east and west.

### **Project Site Access**

The property is currently accessed from Eucalyptus Hill Drive on the western side by an existing unimproved road which extends to the southern portion of the properties. This road would be improved to facilitate access to the proposed lower parcel, via an easement through the upper parcel. An improved driveway is located on the east side of the frontage and provides garage access for the existing house. This driveway would be further improved to provide for a circular driveway to the proposed new home.

### **III. Project Description**

The project is a proposal to adjust the existing lot line between the two subject parcels which will result in two parcels of 2.47 acres (upper parcel, 226 Eucalyptus Hill Drive), and 3.10 acres (lower parcel, 232 Eucalyptus Hill Drive). The applicant is also seeking to demolish the existing home and garage and construct a new house, garage and additional dwelling unit on each of the adjusted parcels (please see architectural drawing for details). Applications associated with these proposals include the following:

1. Lot Line Adjustment Between Two Existing Parcels Of Approximately 2.82 And 2.75 Acres, Resulting In Two Parcels Of Approximately 2.47 And 3.10 Acres, Pursuant To Subdivision Map Act Section 66412(D);

For The Reconfigured Upper Lot, 226 - 228 Eucalyptus Hills Drive:

2. A Performance Standard Permit To Allow An Additional Dwelling Unit At 228 Eucalyptus Hill Drive (SBMC §28.93.030.E);
3. Modification To Allow A Lot To Have Less Than 100 Feet Of Frontage On A Public Street At 226 Eucalyptus Hill Drive, An Existing Private Road (SBMC §28.92.026.A.2);
4. Neighborhood Preservation Ordinance Findings Must Be Made By The Planning Commission For The Property Located In The Hillside Design District And The Development Would Exceed 6,500 Square Feet And Grading In Excess Of 500 Cubic Yards Outside The Main Building Footprint (SBMC §22.68.070).

For The Reconfigured Lower Lot, 232 - 234 Eucalyptus Hills Drive:

5. A Performance Standard Permit To Allow An Additional Dwelling Unit At 234 Eucalyptus Hill Drive (SBMC §28.93.030.E);
6. Modification To Allow A Lot To Have Less Than 100 Feet Of Frontage On A Public Street At 232 Eucalyptus Hill Drive, An Existing Private Road (SBMC §28.92.026.A.2);

City of Santa Barbara, Planning Division  
DART - 226 & 232 Eucalyptus Hill Drive  
MST 2004-00349  
August 17, 2007  
Page 4 of 11

7. Neighborhood Preservation Ordinance Findings Must Be Made By The Planning Commission For The Property Located In The Hillside Design District And The Development Would Exceed 6,500 Square Feet And Grading In Excess Of 500 Cubic Yards Outside The Main Building Footprint (SBMC §22.68.070).

The property has a General Plan designation of Residential, Two Units per Acre, and is within the A-2 zone district. The project site is accessed from Eucalyptus Hill Road, a public City street to Eucalyptus Hill Drive, a private road, and the adjusted parcel to the south is proposed to be accessed by a combination of shared and individual driveway. The property is served by utilities and infrastructure for water, sewer, electrical, gas, telephone and CATV.

Currently, the slope of 226 Eucalyptus Hill Drive is 20 percent, and 232 Eucalyptus Hill Drive is 19 percent. The reconfiguration of the parcels would result in slopes of 21.3 percent at the upper property (226 Eucalyptus Hill) and 22.5 percent on the lower parcel (232 Eucalyptus Hill). Given the lot area and slope density requirements necessary to allow additional dwelling units on each parcel, a minimum lot size of 2.3 acres is required. Both existing and adjusted parcels meet the minimum lot area requirements for the proposed developments.

Improvements associated with the upper lot include a new 6129 square foot (sf) single family residence and attached three-car 743 sf garage, to replace an existing 3946 sf single family home and attached 649 sf garage. Additionally, a guest house of 1517 sf and attached one-car 320 sf garage with 335 sf storage area, and a detached two-car 430 sf garage and 210 sf workshop structure is proposed.

The lower lot includes a new 3927 sf single family residence with an attached three-car 747 sf garage. Additionally, a guest house of 1786 sf and underground two-car 399 sf garage is proposed.

### **Architectural Design Statement**

This project is comprised of two pie shaped lots with rolling slopes that provide two very different experiences. Expansive panoramic ocean views are offered from the narrow northern part of the site and a quiet Eucalyptus Grove is nestled into the wider southern part of the site. A single family residence located at the northern portion of the properties is the only habitable structure that currently exists on both properties. The northern street boundary is the narrow portion of the site and is further constrained by existing native oak trees. To avoid crowding two homes along the street side of the lots, the overall site strategy reorganizes the properties to splitting in a North / South axis rather than East/ West. In this proposed configuration, the two main dwellings would be located at opposite ends of the site where they would have privacy from each other and relate better to the existing fabric of Eucalyptus Hill Drive.

There is a main house and a guest house proposed for each property. The overall design theme consistent in the homes is to provide a strong connection between the indoor and outdoor spaces. These spaces step along the rolling hillside following the natural landscape. The site transforms as it slopes from the north to south, with each of the structures having a unique character and style as they are designed as private retreats respecting the given site features. The use of natural materials in an earthy palette on all of the homes relates them to each other and again back to the landscape.

The proposed design of the upper main residence is located near the street front in the narrow part of the site. It slides across the existing boundary line of the two properties to reside towards the center avoiding existing oak trees and allowing open space on both sides. From the street, the house is modest with a low profile and a very few openings. The southern side of the house is organized as a sweeping arc with an open plan of living spaces that flow together on the interior and extend seamlessly outside to a deep covered patio. This soaring gesture allows the house to take full advantage of the views to the gardens on the property and the ocean view beyond. An art studio and 2 additional bedrooms are nestled into the hillside below the main living space and open directly to the gardens. The arc of the main house is echoed in the front elevation of the detached garage to the south. The garage is completely subterranean on three sides and a usable deck on the roof is accessed from the north side.

The main residence on the lower lot is conceived of as the Gallery house. As it is at a lower elevation surrounded by Eucalyptus Trees, the house has an inward focus centered about the gallery and interior courtyard. The details reflect an Asian modern influence with deep overhangs, exposed beams, and a ceramic tile roof.

One guest house would be located on each site. They are both stepped into the hillside on the east side of the site separated by existing trees. They are both conceived as modest two bedroom retreats with open plans continuing the theme of connection to outdoor areas. The lower guest house also benefits from a unique subsurface two-car garage elevator that presents itself as an at-grade patio when closed. A driveway meanders through the site to connect the main houses, the detached garage and the guest houses. Please refer to the attached Residential Project Statistics for proposed square footage details.

### **Landscape Design Intent**

The landscape design for both parcels is meant to complement the architecture, embody the native landscape character of the Santa Barbara region, and harness runoff from impervious surfaces to be artfully displayed and treated on site. The bold details of the architecture are echoed in the landscape with broad plantings of distinctive species and visually dynamic hardscape features. Careful consideration has been given throughout the property to provide a durable and drought tolerant landscape that protects the structures from fire while providing visual and environmental benefits.

The design maximizes the amount of permeable surfaces for storm water quality purposes. Wherever feasible, permeable paving systems such as crushed stone and unit pavers are to

City of Santa Barbara, Planning Division  
DART – 226 & 232 Eucalyptus Hill Drive  
MST 2004-00349  
August 17, 2007  
Page 6 of 11

be used. All impermeable surfaces on the site will be conveyed into a system of retention swales and formal retention gardens planted with native grasses and hedges.

Careful attention has also been given to provide shade to west-facing building elevations to limit the amount of solar heat gain. Deciduous trees and vines on east and south facing elevations will provide the same effect in summer and provide passive heating in the winter months.

### **Lot Configuration**

The reconfiguration of these two lots has been dictated by the desire of the property owner to create an integrated set of properties that would complement each other in both the flow and functionality of landscape and architectural design. The resultant lot lines have been placed to form reasonably sized and shaped lots, comply with structural setbacks, and slope density calculations.

These lots are not land-locked nor do they diverge from established patterns of development in the neighborhood. The existing Eucalyptus Hills Drive is a private road. Being a private road, all property owners who are served by this road have appurtenant easement rights which allow for ingress and egress to their respective homes. The proposed lot configuration utilized this same access by appurtenant easement concept to facilitate ingress and egress for the lower lot, through the upper lot to the private road.

Further, the subdivision which created these lots back in 1978 (seven lots total) was only a portion of a neighborhood on one side of the road. A review of the Assessor's Page (015-050, attached) will conclude that of the seven lots created, perhaps five (5) of the lots could be considered "similar" in shape, and this application consists of two (2) of these similar lots. We are of the opinion that the resultant lots are a superior configuration as compared to the existing "long and thin" lots. It is interesting to note that in the A-1 Zone District there exists a minimum width standard for newly created lots over an acre in size, which would be met by these reconfigured lots, however would not be met by the lots which exist today.

### **IV. Previous City Reviews**

An earlier project concept was submitted to the City Pre-Application Review Team in May 2004. In June 2004, City Staff responded to the proposal with their Team Comments letter. The ABR reviewed the proposed project in September 2004. At that meeting the Board was generally supportive of the densities of the development, the size of the buildings and the amount of garage spaces proposed given the size and configuration of the lots. With respect to the upper lot, the Board liked the stepping nature of the house the way it descends into the hillside, and the contemporary style of the house. The Board also commented that the guesthouse was acceptable. Comments on the lower project indicated that the lot is not viewed by the general public in such a way that the amount of development is adverse to the public view of the hillside.

City of Santa Barbara, Planning Division  
DART – 226 & 232 Eucalyptus Hill Drive  
MST 2004-00349  
August 17, 2007  
Page 7 of 11

In the June 2004 PRT Comment Letter, City staff indicates that the proposed lot configuration would create a land-locked parcel and would not be consistent with the surrounding neighborhood. At the September 2004 ABR meeting, the Board commented that the overall site design was supportable given the size and reconfigured lots.

In December 2005 the applicant submitted a formal DART application for City staff review. In the January 2006 DART letter staff comments focused on the excessive amount of garage space, extensive grading and lot configuration associated with the proposal.

In May 2006, a substantially revised project (the current project) returned to the ABR for consideration and review of the new site plan and architectural revisions. Regarding the overall site design, the Board commented that they can support the densities of the development, the size of the buildings, and the number of garage parking spaces, given the reconfiguration of the lots and that they are not visible by the general public. The Board appreciated the reduction in the hardscape of the revised site planning effort, and the minimized driveway areas.

With respect to the lower lot the Board commented that this area is not viewed by the general public and mostly concealed within the natural woodshed of the lower terrain. The Board is comfortable with the lower house and its siting around a central courtyard. The parking for the guest house is a clever solution utilizing the sunken lift garage which helps to minimize the circulation and paving area presented on a prior scheme.

On the upper lot the Board commented that the architecture of the upper house is low in profile and barely visible beyond the wall presenting from Eucalyptus Hill Drive. The Board was comfortable with the walled scheme of the front elevation on the upper house, given the natural material palette with sandstone walls, and copper roofs that mostly slope toward the downhill view of the site. The Board finds that the upper guest house is tucked well into the hillside, and the natural sandstone materiality helps it blend into the setting. The Board was also comfortable with the adjacent detached garage with the landscaped roof as it tucks into the hillside.

#### **V. Additional Information Requested**

Pursuant to staff letters of June 16, 2004 and January 19, 2006, the following additional studies and reports have been included with this submittal for your consideration:

Visual Study has been included within the map sets in order to demonstrate the project site in relationship to the neighborhood. Photographs of the Eucalyptus Hill Drive existing setting, neighboring frontages and driveways, the frontage of the project site and views from the neighborhood to the south are submitted for your reference. The proposed upper house would be viewed similar to the existing house (See Sheet T.02, Views 9, 10, 11 and 12), while the remaining development would be hidden from view from Eucalyptus Hill Drive. Views of the proposed development from the southern Woodland Drive neighborhood (Sheet T.02, Views 13, 14 and 15) are challenging given the gentle slope of

the subject property and the existing eucalyptus trees which function as a large vegetative screen. The project as designed will be substantially hidden from view.

A Driveway Study is also included on Sheet T.02 which demonstrates that the proposed circle driveway is consistent with the neighborhood. A combination of auto-courts, circular driveways and next to street parking dominate Eucalyptus Hill Drive. The proposed driveway is in keeping with the parking theme of the neighborhood which is to keep cars off the street while having the ability to accommodate vehicles near the street on these 2-plus acres lots.

A Preliminary Stormwater Study (July 2006) has been completed for the project. The study included the analysis of existing conditions and proposed development on the project site. Storm event calculations are included for Q<sub>25</sub> and Q<sub>100</sub> scenarios. The analysis has concluded that the future development of the upper property (226 & 228 Eucalyptus Hill Drive) would increase the 25-year storm event by 0.8 CFS, and the lower property would increase by 0.6 CFS. The Study recommends that with the incorporation of bioswales and check structures, a retention area of approximately 900 square feet for the upper project and 600 square feet for the lower project would be needed to retard the increase in drainage flow of the 25-year storm. These features have been included in the Landscape Plan to satisfy the combined 1,500 square foot retention requirement. The Study also identifies a total increase for both projects of 1.8 CFS for a 100-year storm. This overland runoff is proposed to be directed to a drainage swale which would be provided over the property located to the south of the project site, at 860 Woodland Drive. The applicant owns the property on Woodland Drive and will covenant to a ten (10) foot easement over that property for drainage and sewer purposes.

A Biological Survey has also been complete for the project and includes field surveys and analysis of the property's general setting, tree inventory, on-site biotic resources, assessment of special status species, and project impacts.

With respect to native vegetation, the site is nearly void of native vegetation with the exception of several mature coast live oak trees and seedlings, and a number of native shrubs and forbs that are beneath the canopy of the Eucalyptus trees. The building footprints of the four structures would avoid native coast live oaks, but would remove a number of non-native trees including *Eucalyptus* and *Acacia*. In addition to the building footprints, the City of Santa Barbara's High Fire Hazard Area Brush Clearance Standards require removal of hazardous brush, shrubs, and flammable vegetation within 100 feet of any structure and additional cleared area on slopes (City of Santa Barbara 2003a). In the case of Eucalyptus trees, the City does not require removal of all trees, but rather thinning of the trees within 100 feet of structures resulting in a density of 6 to 8 trees per 1,000 square feet. Given the slope on the property, City Fire Department staff estimates that an additional 20 feet of brush clearance and thinning of the trees would be required. Previous eucalyptus tree removal estimates approximated 100 to 150 trees that are either Eucalyptus or Acacia. Most of these are Eucalyptus. However, given the May 2006 redesign of the lower portion of the project to relocate the structures further to the north, it is now estimated that approximately 50-55 trees would require removal. The tree removal plan

included within the Landscape drawings depicts the trees to be removed. This would leave an estimated 250 to 300 trees remaining on the property.

Eucalyptus forests are not native to California and, in general, have relatively low value to wildlife, as compared to native oak forests and other native communities. Nevertheless, they do provide some functions and values for native animals. A great horned owl roost and an acorn granary were identified on site. These two particular trees are outside of the building footprints, the trees can be selectively thinned, and these trees could be among those that are retained. In addition, a large number of trees in the southeastern corner of the property are outside of the required thinning zone and could also be retained.

Wildlife corridors were also studied. The site is surrounded on all sides by a developed, low-density residential neighborhood; and it is more than  $\frac{3}{4}$  of a mile to Sycamore Creek and about 1 mile to Montecito Creek. Although there is a band of Eucalyptus forest that stretches from east to west across the lower section of the property for 500 feet or more in both directions, the property is fenced with chain link fencing on its westerly boundary, and it is unlikely that most wildlife, other than common animals such as coyote, raccoon, and striped skunk, would use this as a movement corridor given the lack of water, minimal cover close to the ground, minimal if any food, and lack of connectivity to native habitats such as a stream corridor that stretches from the mountains to the coast. On one site visit, a mule deer buck was observed, and suggests that the canyon to the west (off the property) may be used by deer as habitat. Based upon site visits and review of a recent aerial photograph of the region, it does not appear that a wildlife corridor exists on the property.

The Biological Study concludes that sensitive habitat (a plant community identified by the Department of Fish and Game as rare) does not exist on the property and would not be impacted by the proposed development. No sensitive species were observed, and none are likely to occur on the site.

Short-term impacts to wildlife during construction would include noise and dust. Neither of these elements is expected to significantly impact native animals on or near the project site. Removal of the 50 to 55 trees would remove some habitat for birds and other wildlife species, but these animals are expected to use the 250 to 300 trees that will remain. The removal of a large number of Eucalyptus and Acacia trees is not expected to add significantly to a cumulative loss of habitat, given the relatively low habitat value of these trees and the presence of many more both on the property and in the neighborhood. Landscaping with native trees and shrubs is likely to produce greater benefit for wildlife in the long run.

The Study recommends that the mature coast live oak trees on the site be protected and that the coast live oak seedlings be protected or transplant on site. Additionally, use landscaping materials native to Santa Barbara as much as possible, consistent with the City's High Fire Hazard Area Landscape Guidelines (City of Santa Barbara 2003b). And lastly, retain the trees used as a roost by great horned owl and as an acorn granary by acorn woodpeckers.

An Engineering Geology Report has been produced for this project pursuant to the request of city staff. Excavations, logging and lab sampling of seven backhoe test pits were conducted to study bedrock, soil and groundwater conditions. The development site is composed of a mixture of trash, debris, artificial fill, colluviums and Monterey Formation. The report concludes that the proposed development is suitable for the project site provided that report recommendations are successfully implements. Please refer to this report for further details and lab results.

Slope Mapping A new sheet has been included in this map set which addresses staff's request for slope mapping. In general, the slopes on the property range from nearly flat to over 30 percent. The two main house sites are located in areas of between 0-20 percent slopes, essentially the flatter portions of the project site. The two guest homes are both located in areas of mostly 20-30 percent. As demonstrated on the slope map, a ribbon of over 30 percent slope somewhat bisects the project site. The main improvement within this 30 percent area is the road bend or "switch-back" which facilities access to the proposed lower lot. In consultation with the Engineering Geologist, areas of a combination of artificial fill/trash/debris have also been depicted on the slope map. These artificial fill areas are located throughout much of the upper and middle portions of the properties, with the deepest areas located in and around the 30 percent slopes. It appears that the placement of artificial fill material throughout the years (decades) has contributed to the now existing slope contouring of the site, especially within the steeper portions of the property. To provide for the fire turnaround and switch-back, the proposed road grading within this steeper area will recompact the existing materials per the Geology Report recommendations, thereby properly taking care of the existing unconsolidated and uncertified fill materials.

The Grading Design has been substantially revised to reduce overall quantities by nearly two-thirds. In doing so, there has been a significant reduction in hardscape and turnaround area on the lower lot which contributed to the reduction of the amount of proposed earthwork. Some minor retaining walls in and around the building footprints and some patio areas are needed with this design, and walls associated with the road system at the fire hammerhead and switchback are also necessary to meet fire department standards.

Grading quantities, expressed in cubic yards, associated with the project include the following:

	<u>House</u>	<u>Guest House</u>	<u>Driveway</u>	<u>Yard</u>
Lot 1 (226) -	538 cut/300 fill,	(228) 140 cut/180 fill,	50 cut/600 fill,	200 cut/500 fill
Detached Garage -	62 cut/0 fill			
Subtotal for Lot 1 =	990 c.y. cut and 1580 c.y. fill			
Lot 2 (232) -	200 cut/400 fill,	(234) 300 cut/0 fill,	1000 cut/250 fill,	600 cut/600 fill
Subtotal for Lot 2 =	2100 c.y. cut and 1250 c.y. fill			
Total for both lots =	3090 c.y. cut and 2830 c.y. of fill			

City of Santa Barbara, Planning Division  
DART - 226 & 232 Eucalyptus Hill Drive  
MST 2004-00349  
August 17, 2007  
Page 11 of 11

We believe that the revised project has rendered a grading design which respects the Design Guidelines for Hillside Development, as the plan significantly reduced both cut and fill slopes by nearly 10,000 cubic yards. Further these cumulative grading quantities are modest given the resultant development of all four homes, garages and site improvements.

### **Summary**

We have revised this project to address City staff comments and suggestions and have rendered a much improved application. The revised project retains each of the dwelling units and the lot reconfiguration, while reducing the amount of garages, complying with Fire Department suggestions, and significantly reduced the amount of grading. The proposed project is consistent with density and lot size requirements of the General Plan and Zoning Ordinance. The reconfiguration of the two lots provides for a superior property configuration, while protecting existing oak trees. The proposed design themes are supported by ABR, including the relatively modest sized guest houses. As an in-fill project we believe that we are fully consistent and compatible with the surrounding uses, and that little if any environmental impacts would result from this project. We believe that an objective analysis and review will confirm this perspective. It should also be mentioned that the property owner has contacted neighbors within the vicinity of the property, regarding the project, and further has held a open house meeting at the architect's offices to review and explain the project to those interested parties.

Thank you for your consideration. If you have any questions or wish to discuss this project further, please do not hesitate to contact me.

Very truly yours,  
L & P CONSULTANTS



Brent Daniels  
Project Manager

cc: Howard w/o enc.  
Architect  
File



**CITY OF SANTA BARBARA  
COMMUNITY DEVELOPMENT DEPARTMENT  
FINAL MITIGATED NEGATIVE DECLARATION – MST2004-00349**

Pursuant to the State of California Public Resources Code and the "Guidelines for Implementation of the California Environmental Quality Act of 1970," as amended to date, this Draft Mitigated Negative Declaration has been prepared for the following project:

**PROJECT LOCATION: 226 & 232 Eucalyptus Hill Drive**

**PROJECT PROPONENT: L&P Consultants**

**PROJECT DESCRIPTION:** The applicant proposes a lot line adjustment between two parcels (2.82 and 2.75 acres in size) by realigning the dividing lot line from a north-south direction to an east-west direction, and resulting in two parcels of 2.47 acres (Parcel 1, upper parcel) and 3.10 acres (Parcel 2, lower parcel). Parcel 1 would have an average slope of 21.3% and Parcel 2 would have an average slope of 22.5%, both parcels sloping north to south. An existing single family residence, greenhouse foundation, and hardscape driveway would be removed and two new single-family residences are proposed on each parcel. Parcel 1 would include a 6,129 square foot residence with an attached 743 square foot garage, a 1,517 square foot residence with a 320 square foot garage, and a detached 430 square foot garage. Parcel 2 would include a 3,927 square foot residence with an a 747 square foot attached garage, and a 1,786 square foot residence with a 352 square foot subterranean garage. The project site is currently accessed from Eucalyptus Hill Drive by an existing unimproved road which extends to the southern portion of the properties. This road would be improved to facilitate access to the proposed lower parcel, via an easement though the upper parcel. An existing driveway on the eastern property is proposed to be expanded to provide for a circular driveway to the upper parcel for a total of three curb cuts. The applicant also proposes two bioswale storm water retention areas totaling 900 square feet for Parcel 1 and 600 square feet for Parcel 2. The total grading quantities proposed for the development of both parcels include 3,090 cubic yards of cut and 2,830 cubic yards of fill.

**Required Permits:** In order for the project to proceed, the following discretionary approvals are required by the Planning Commission:

1. Lot Line Adjustment between two existing lots per SBMC §27.40 and Government Code §66412;
2. Two Street Frontage Modifications to allow less than the required 100 feet of frontage on a public street;
3. Two Performance Standard Permits to allow an additional dwelling unit on each parcel; and
4. Neighborhood Preservation Ordinance Findings for the greater than 6,500 square feet of development on each parcel and more than 500 cubic yards of grading on each parcel.

**MITIGATED NEGATIVE DECLARATION FINDING:**

Based on the attached Initial Study prepared for the proposed project, it has been determined that, with implementation of identified required mitigation measures, the proposed project will not have a significant effect on the environment.

  
\_\_\_\_\_  
Environmental Analyst

8/22/2007  
Date

CITY OF SANTA BARBARA  
COMMUNITY DEVELOPMENT DEPARTMENT, PLANNING DIVISION

**INITIAL STUDY/ ENVIRONMENTAL CHECKLIST MST2004-00349**

**PROJECT: 226 & 232 Eucalyptus Hill Road Drive**

**Lot Line Adjustment, Performance Standard Permits, and Street Frontage Modifications**

This Initial Study has been completed for the project described below because the project is subject to review under the California Environmental Quality Act (CEQA) and was determined not to be exempt from the requirement for the preparation of an environmental document. The information, analysis and conclusions contained in this Initial Study are the basis for deciding whether a Negative Declaration (ND) is to be prepared or if preparation of an Environmental Impact Report (EIR) is required to further analyze impacts. Additionally, if preparation of an EIR is required, the Initial Study is used to focus the EIR on the effects determined to be potentially significant.

**APPLICANT/ PROPERTY OWNER**

Applicant: L & P Consultants

Owner: Cynthia Howard

**PROJECT ADDRESS/LOCATION**

The project site is 5.57 gross and net acres in size and is located on two separate parcels at 226 & 232 Eucalyptus Hill Road Drive. The site is located in the Eucalyptus Hill neighborhood, within the City of Santa Barbara.



**PROJECT DESCRIPTION** (See *Exhibit A-Project Plans*)

**Project Components:** The applicant proposes a lot line adjustment between two parcels (2.82 and 2.75 acres in size) by realigning the dividing lot line from a north-south direction to an east-west direction, and resulting in two parcels of 2.47 acres (Parcel 1, upper parcel) and 3.10 acres (Parcel 2, lower parcel). Parcel 1 would have an average slope of 21.3% and Parcel 2 would have an average slope of 22.5%, both parcels sloping north to south. An existing single family residence,

greenhouse foundation, and hardscape driveway would be removed and two new single-family residences are proposed on each parcel. Parcel 1 would include a 6,129 square foot residence with an attached 743 square foot garage, a 1,517 square foot residence with a 320 square foot garage, and a detached 430 square foot garage. Parcel 2 would include a 3,927 square foot residence with an a 747 square foot attached garage, and a 1,786 square foot residence with a 352 square foot subterranean garage. The project site is currently accessed from Eucalyptus Hill Drive by an existing unimproved road which extends to the southern portion of the properties. This road would be improved to facilitate access to the proposed lower parcel, via an easement through the upper parcel. An existing driveway on the eastern property is proposed to be expanded to provide for a circular driveway to the upper parcel for a total of three curb cuts. The applicant also proposes two bioswale storm water retention areas totaling 900 square feet for Parcel 1 and 600 square feet for Parcel 2. The total grading quantities proposed for the development of both parcels include 3,090 cubic yards of cut and 2,830 cubic yards of fill.

**Construction:** The applicant estimates that the first phase of construction (demolishing the existing residence, and site grading, including utilities trenching) would require 90 days to complete. The second phase, which would include construction of new residence, guest house, and detached garage on the upper parcel would take approximately 18 months. Finally, the third phase of project, which includes construction of the new residence and guest house on the lower parcel, would take approximately 12 months. Project staging would occur on-site.

**Required Permits:** In order for the project to proceed, the following discretionary approvals are required by the Planning Commission:

1. Lot Line Adjustment between two existing lots per SBMC §27.40 and Government Code §66412;
2. Two Street Frontage Modifications to allow less than the required 100 feet of frontage on a public street;
3. Two Performance Standard Permits to allow an additional dwelling unit on each parcel; and
4. Neighborhood Preservation Ordinance Findings for the greater than 6,500 square feet of development on each parcel and more than 500 cubic yards of grading on each parcel.

## ENVIRONMENTAL SETTING

### **Existing Site Characteristics**

**Topography:** Topography of the both existing parcels slope from north to south with existing average slopes of 19% and 20%.

**Seismic/Geologic Conditions:** Geologic conditions onsite are characterized by approximately 1-5 feet of artificial fill, including clayey silts to silty clays and construction debris, underlain by topsoil/colluvium and Monterey Formation bedrock shale. The City's Master Environmental Assessment (MEA) and the geotechnical report prepared for the project identify the potential for liquefaction to occur as a result of earthshaking is minimal. The potential for expansive soils is moderately high. The potential for seismic hazards is low.

**Fire:** The project site is located in a high fire zone.

**Flooding/Drainage:** The project site is not located within the 100 year flood plain as shown on the Flood Insurance Rate maps. Drainage from the site sheet flows to the south. A natural drainage course runs in a north-south direction through the southern corner of the adjacent parcel to the west, but not through the project site.

**Biological Resources:** The project site is located within an urban area and is identified on the City's MEA map as containing southern oak woodland. The site is composed predominantly of Eucalyptus and Acacia trees, and some coast live oaks.

**Archaeological Resources:** The project site is not located in any cultural resource sensitivity areas according to the City's MEA, and no archaeological studies were requested.

**Noise:** The project site is currently subject to noise levels of less than 60 Ldn dBA, which is acceptable for residential uses.

**PROPERTY CHARACTERISTICS**

<b>Assessor's Parcel Number:</b>	015-050-017 & -018	<b>General Plan Designation:</b>	Residential – 2 units per acre
<b>Existing Land Use:</b>	Single-family residential	<b>Existing Parcel Sizes:</b>	2.82 acres (Parcel A) 2.75 acres (Parcel B)
		<b>Proposed Parcel Sizes:</b>	2.47 acres (Parcel 1) 3.10 acres (Parcel 2)
<b>Zoning:</b>	A-2, One-Family Residential	<b>Proposed Land Use:</b>	Single-family residential
<b>Slope:</b>	19% & 20% (Existing Lot Configurations) 21.3% & 22.5 % (Proposed Lot Configurations)		
<b>SURROUNDING LAND USES:</b>			
<b>North:</b>	Single-Family Residential		
<b>South:</b>	Single-Family Residential		
<b>East:</b>	Single-Family Residential		
<b>West:</b>	Single-Family Residential		

**PLANS AND POLICY DISCUSSION**

**Land Use and Zoning Designations:**

The project site is designated Residential – 2 units per acre by the General Plan Land Use Element. The project is located in the Eucalyptus Hill neighborhood, which is bordered by the City limits on the north and east, Sycamore Canyon on the west and the bottom of the hill and Highway 101 on the south. The majority of this neighborhood is developed with single-family homes. The area is characterized by low density residential development.

The project site is zoned A-2, One-Family Residential. In the A-2 zone, the minimum lot size requirement is 25,000 square feet. Slope density requirements are applied to the site in recognition of the steep topography, which increases the required minimum lot size by the following factors when the average slope of the parcel falls within the following parameters:

Percent of Average Slope	Factor
0% up to and including 20%	1.5 times minimum lot area
over 20% up to & including 30%	2.0 times minimum lot area
over 30%	3.0 times minimum lot area

The project would subdivide the lot into two lots with the following lot sizes:

Lot #	Average Slope	Required Lot Size per A-2 Zone with Slope Density (Net sq. ft.)	Proposed Lot Size (Net sq. ft.)	Complies with Minimum Lot Area Required?
1	21.3%	50,000 sq.ft.	107,510 sq.ft.	Yes
2	22.5%	50,000 sq.ft.	134,843 sq.ft.	Yes

**General Plan Policies:**

Initial analysis of project consistency with adopted City plans and policies indicates that the project could be found consistent with the existing General Plan Land Use Element designation of Residential, for the lot line adjustment and future development of two single family residences on each of the two lots. Various sections of this Initial Study make reference to applicable General Plan policies and ordinance provisions. The Planning Commission Staff Report will provide a further analysis of potential project consistency or inconsistency with the City General Plan elements, including the Land Use Element, Circulation Element, Conservation Element, Scenic Highways Element, Noise Element, Seismic Safety-Safety Element and other applicable plans and policies. Final determinations of project consistency with applicable policies will be made by the decision-makers as part of their action to approve or deny the project proposal. The following information consists of some background information of the conservation, seismic safety/safety, noise and circulation elements of the General Plan.

1. Conservation Element

City Conservation Element policies provide that significant environmental resources of the City be preserved and protected. The Conservation Element requires implementation of resource protection measures for archaeological, cultural and historic resources; protection and enhancement of visual, biological and open space resources; protection of specimen and street trees; maintenance of air and water quality; and minimizing potential drainage, erosion and flooding hazards. The project may be found generally consistent with applicable policies of the Conservation Element through adherence to the identified project design and mitigation measures as detailed in this initial study. This would ensure potential conflicts with Conservation Element policies are avoided or minimized and are in conformance with applicable policies.

With respect to hillside development, there are three policies under the Conservation Element that directly apply to the project site, which are discussed below:

Visual Resources Policy 2.0 – “Development on hillsides shall not significantly modify the natural topography and vegetation.”

Visual Resources Policy 3.0 – “New development shall not obstruct scenic view corridors, including those of the ocean and lower elevations of the City viewed respectively from the shoreline and upper foothills, and of the upper foothills and mountains viewed respectively from the beach and lower elevations of the City.”

Biological Resources Policy 5.0 – “The habitats of rare and endangered species shall be preserved.”

In cases where projects have steep slopes of 30% or greater, the City uses the Neighborhood Preservation Ordinance (NPO) findings and the Single-Family Residence Design Guidelines for direction in reviewing appropriate development on constrained sites. The NPO findings (SBMC §22.68.060) implement policies focused on hillside development in the City’s Conservation and Open Space Elements pertaining to protection of the public health, safety, and welfare, appropriateness of proposed grading and development given the site topography, protection of existing trees, preservation of public views, and compatibility with the neighborhood. Although the parcels would have average slopes of 21.3% and 22.5 %, these findings and guidelines have been considered throughout the review of this project.

The existing oak trees on-site have also played a role in the siting of the proposed development.

Future construction of the four new single-family residences on both adjusted parcels is not anticipated to obstruct important public scenic views to the ocean or lower elevations of the City nor obstruct upper foothill or mountain views from the beach or lower elevations of the City. The project site is surrounded by existing residential development as well as significant vegetation, some of which is proposed for removal, but replacement is also proposed to maintain screening. Further, the houses have been designed to be tucked into the hillside to maintain a low profile. The project site is only minimally visible from Eucalyptus Hill Road, which is approximately 400 feet west of the project site.

2. Seismic Safety/Safety Element

The City's Seismic Safety/Safety Element requires that development be sited, designed and maintained to protect life, property, and public well-being from seismic and other geologic hazards, and to reduce or avoid adverse economic, social, and environmental impacts caused by hazardous geologic conditions. The Seismic Safety/Safety Element addresses a number of potential hazards including, geology, seismicity, flooding, liquefaction, tsunamis, high groundwater, and erosion.

As discussed in the Initial Study analysis, less than significant impacts associated with geologic hazards are anticipated with the implementation of recommendations for grading and development, which are outlined in the geotechnical report provided for the project.

3. Noise Element

The City's Noise Element includes policies intended to achieve and maintain a noise environment that is compatible with the variety of human activities and land uses in the City. The proposed development would not generate a significant increase in existing noise levels in the neighborhood in the long-term or exceed noise level guidelines. As such, the proposed project may be found consistent with the applicable policies of the Noise Element.

4. Circulation Element

The Circulation Element of the General Plan contains goals and implementing measures to reduce adverse impacts to the City's street system and parking by reducing reliance on the automobile, encouraging alternative forms of transportation, reviewing traffic impact standards, and applying land use and planning strategies that support the City's mobility goals. Traffic and circulation impacts resulting from the proposed project are very minor, and thus the project could be found consistent with the Circulation Element.

**MITIGATION MONITORING AND REPORTING PROGRAM (MMRP)**

A Mitigation Monitoring and Reporting Program (MMRP) will be prepared for the project in compliance with Public Resources Code §21081.6. The mitigation measures suggested in the Initial Study may be refined or augmented by decision-makers. Monitoring and reporting requirements would be adopted as conditions of project approval.

**ENVIRONMENTAL CHECKLIST**

The following checklist contains questions concerning potential changes to the environment that may result if this project is implemented. If no impact would occur, **NO** should be checked. If the project might result in an impact, check **YES** indicating the potential level of significance as follows:

Significant: Known substantial environmental impacts. Further review needed to determine if there are feasible mitigation measures and/or alternatives to reduce the impact.

Potentially Significant: Unknown, potentially significant impacts that need further review to determine significance level and whether mitigable.

Potentially Significant, Mitigable: Potentially significant impacts that can be avoided or reduced to less than significant levels with identified mitigation measures agreed-to by the applicant.

Less Than Significant: Impacts that are not substantial or significant.

1. AESTHETICS Could the project:	NO	YES <i>Level of Significance</i>
a) Affect a public scenic vista or designated scenic highway or highway/roadway eligible for designation as a scenic highway?		Less than Significant
b) Have a demonstrable negative aesthetic effect in that it is inconsistent with Architectural Board of Review or Historic Landmarks Guidelines or guidelines/criteria adopted as part of the Local Coastal Program?		Less than Significant
c) Create light or glare?		Less than Significant

**Visual Aesthetics - Discussion**

**Issues:** Issues associated with visual aesthetics include the potential blockage of important public scenic views, project on-site visual aesthetics and compatibility with the surrounding area, and changes in exterior lighting.

**Impact Evaluation Guidelines:** Aesthetic quality, whether a project is visually pleasing or unpleasing, may be perceived and valued differently from one person to the next, and depends in part on the context of the environment in which a project is proposed. The significance of visual changes is assessed qualitatively based on consideration of the proposed physical change and project design within the context of the surrounding visual setting. First, the existing visual setting is reviewed to determine whether important existing visual aesthetics are involved, based on consideration of existing views, existing visual aesthetics on and around the site, and existing lighting conditions. The importance of existing views is assessed qualitatively based on whether important visual resources such as mountains, skyline trees, or the coastline, can be seen, the extent and scenic quality of the views, and whether the views are experienced from public viewpoints. The visual changes associated with the project are then assessed qualitatively to determine whether the project would result in substantial effects associated with important public scenic views, on-site visual aesthetics, and lighting.

Significant visual aesthetics impacts may potentially result from:

- Substantial obstruction or degradation of important public scenic views, including important views from scenic highways; extensive grading and/or removal of substantial amounts of vegetation and trees visible from public areas without adequate landscaping; or substantial loss of important public open space.
- Substantial negative aesthetic effect or incompatibility with surrounding land uses or structures due to project size, massing, scale, density, architecture, signage, or other design features.
- Substantial light and/or glare that poses a hazard or substantial annoyance to adjacent land uses and sensitive receptors.

**Visual Aesthetics – Existing Conditions and Project Impacts**

**1.a) Scenic Views**

The project site is located in an urban environment in the Eucalyptus Hill neighborhood of the City of Santa Barbara. One of the parcels is currently developed with a single-family residence and attached garage and the other parcel contains a greenhouse foundation only. Existing development in the project vicinity includes single-family residences. The site is located within the City’s Hillside Design District and any development is subject to review by the Architectural Board of Review (ABR).

The City’s Master Environmental Assessment (MEA) maps identify the parcel as located in an area with no significant visual resources. The City carefully scrutinizes project sites proposed on parcels with an average slope of 30% or greater, where visual impacts are a general concern. The project site is located within the City’s Hillside Design District

and has slopes that exceed 20%, with a small portion of the two properties that exceed 30%. The project site is only minimally visible from the closest public street, Eucalyptus Hill Road, which is approximately 400 feet west of the project site. The proposed houses have been designed to be low profile and tucked into the hillside.

The ABR reviewed the proposal on three occasions and had the following comments on the current design: 1) As to the General Overall Site Design: The Board can support the densities of the development, the size of the buildings, and the number of garage parking spaces and not covered parking spaces; given the reconfiguration of the lots and that they are not visible by the general public. 2) The lower lot (226 Eucalyptus Hill) is not viewed by the general public and mostly concealed within the natural woodshed of the lower terrain. 3) The Board is comfortable with the walled scheme of the front elevation on the upper house; given the natural material palette with sandstone walls, and copper roofs that mostly slope toward the downhill view of the site. 4) The Board appreciates the reduction in the hardscape of the revised site planning effort, the minimized driveway areas, and the less paving visible from Eucalyptus Hill Drive. 5) The parking for the guest house at 226 Eucalyptus Hill Drive is a clever solution utilizing the sunken lift garage which helps to minimize the circulation and paving area presented on a prior scheme. 6) The architecture of the upper house (232 Eucalyptus Hill) is low in profile and barely visible beyond the wall presenting from Eucalyptus Hill Drive. 7) The use of the hip roof is acceptable to the other elements of the design. 8) The copper roof material is acceptable as presented. 9) As to the Guest House for 232 Eucalyptus Hill Drive: The Board finds it is tucked well into hillside, and the natural sandstone materiality helps it blend into the setting. 10) The Board is comfortable with the adjacent detached garage with the landscaped roof as it tucks into the hillside. 11) As to the Lower House of 226 Eucalyptus Hill Drive: The Board is comfortable with the siting around the central courtyard. 12) Some Board members are concerned with the proposed glazed roof tile, which should be a green tone coloration to blend with the landscape. 13) The Board looks forward to a more detailed landscape plan that expands the plant palette, walking paths, the proposed water features, locates all underground utilities to mitigate and preserve any oak trees, shows all proposed retaining walls including their height and materiality, and addresses the new entry driveway through the oak grove to clearly depict the oak trees to remain and those to be removed and/or replaced.

Given the location and topography of the site, public vantage points are limited. The project site is located in an urban area and is surrounded by residential development.

A total of 55 trees are proposed for removal, including 51 non-native trees and 4 coast live oak trees. Removal of this vegetation will be analyzed in terms of its biological impact in Section 3, "Biological Impacts," below. From an aesthetic point of view, although these trees do not provide for screening of the site from major public viewpoints, they do provide visual relief from surrounding urban development. Given the large amount of trees and vegetation proposed to remain, and the 70 coast live oak saplings proposed for replacement, the removal of the trees would be less than significant.

The visual change resulting from the proposed project would be nominal from public view vantage points, and long term view impacts may be adverse but less than significant. The proposal would not obstruct any public vantage points and would incorporate development compatible with the surrounding neighborhood. No designated open spaces would be impacted by this proposal. Therefore, the impacts to scenic views would be less than significant.

#### **1.b) On-Site Aesthetics**

The proposed development requires review and approval by the Architectural Board of Review (ABR) in accordance with ABR Design Guidelines. The Planning Commission must also make Neighborhood Preservation Ordinance findings. The ABR has conceptually reviewed the plans three times since 2004 (See Exhibit B) and has provided positive comments with regard to the overall site design and each of the four proposed houses and associated garages.

Subsequent ABR Preliminary and Final Design Review approvals will refine project architectural and landscaping details. The lot line adjustment and proposed single family residences' effect on public scenic views, visual aesthetics and compatibility, would be less than significant.

#### **1.c) Lighting**

The project is located in a residential neighborhood. The project would provide outdoor lighting typical of residential areas on a project of limited scope. Exterior lighting would be subject to compliance with the requirements of SBMC §22.75, the City's Outdoor Lighting and Design Ordinance. The ordinance provides that exterior lighting be shielded and

directed to the site such that no undue lighting or glare would affect surrounding residents, roads, or habitat areas. Project impacts on lighting and glare would be *less than significant*.

**Visual Aesthetics – Mitigation**

No mitigation is required.

2. AIR QUALITY Could the project:	NO	YES <i>Level of Significance</i>
a) Violate any air quality standard or contribute to an existing or projected air quality violation?		Less than Significant
b) Expose sensitive receptors to pollutants?		Less than Significant
c) Create objectionable odors?		Less than Significant
Is the project consistent with the County of Santa Barbara Air Quality Attainment Plan? Yes		

**Air Quality - Discussion**

**Issues.** Air quality issues involve pollutant emissions from vehicle exhaust and industrial or other stationary sources that contribute to smog, particulates and nuisance dust associated with grading and construction processes, and nuisance odors.

Smog, or ozone, is formed in the atmosphere through a series of photochemical reactions involving interaction of oxides of nitrogen [NO<sub>x</sub>] and reactive organic gases [ROG] (referred to as ozone precursors) with sunlight over a period of several hours. Primary sources of ozone precursors in the South Coast area are vehicle emissions. Sources of particulate matter (PM<sub>10</sub>) include demolition, grading, road dust, agricultural tilling and mineral quarries and vehicle exhaust (PM<sub>2.5</sub>).

The City of Santa Barbara is part of the South Coast Air Basin. The City is subject to the National Ambient Air Quality Standards and the California Ambient Air Quality Standards (CAAQS), which are more stringent than the national standards. The CAAQS apply to six pollutants: photochemical ozone, carbon monoxide, sulfur dioxide, nitrogen dioxide, particulate matter, and lead. The Santa Barbara County Air Pollution Control District (SBCAPCD) provides oversight on compliance with air quality standards and preparation of the County Clean Air Plan.

Presently, Santa Barbara County is considered in attainment of the federal eight-hour ozone standard, but does not meet the state one-hour ozone standard or the standard for particulate matter less than ten microns in diameter (PM<sub>10</sub>). Insufficient data is available to determine our attainment status for either the federal standard for particulate matter less than 2.5 microns in diameter (PM<sub>2.5</sub>) or the state PM<sub>2.5</sub> standard. The state recently adopted a new eight-hour ozone standard that became effective in May 2006. Although the state has not yet issued attainment designations, the data indicate Santa Barbara County will be considered in nonattainment of this standard.

**Impact Evaluation Guidelines.** A project may create a significant air quality impact from the following:

- Exceeding an APCD pollutant threshold; inconsistency with District regulations; or exceeding population forecasts in the adopted County Clean Air Plan.
- Exposing sensitive receptors, such as children, the elderly, or sick people to substantial pollutant exposure.
- Substantial unmitigated nuisance dust during earthwork or construction operations.
- Creation of nuisance odors inconsistent with APCD regulations.

Long-Term (Operational) Impact Guidelines: The City of Santa Barbara uses the SBCAPCD thresholds of significance for evaluating air quality impacts. The APCD has determined that a proposed project will not have a significant air quality impact on the environment if operation of the project will:

- Emit (from all project sources, both stationary and mobile) less than 240 pounds per day for ROG and NO<sub>x</sub>, and 80 pounds per day for PM<sub>10</sub>;
- Emit less than 25 pounds per day of ROG or NO<sub>x</sub> from motor vehicle trips only;
- Not cause a violation of any California or National Ambient Air Quality Standard (except ozone);
- Not exceed the APCD health risks public notification thresholds adopted by the APCD Board; and
- Be consistent with the adopted federal and state air quality plans for Santa Barbara.

Short-Term (Construction) Impacts Guidelines: Projects involving grading, paving, construction, and landscaping activities may cause localized nuisance dust impacts and increased particulate matter (PM<sub>10</sub>). Substantial dust-related impacts may be potentially significant, but are generally considered mitigable with the application of standard dust control mitigation measures. Standard dust mitigation measures are applied to projects with either significant or less than significant effects.

Exhaust from construction equipment also contributes to air pollution. Quantitative thresholds of significance are not currently in place for short-term or construction emissions. However, SBCAPCD uses combined emissions from all construction equipment that exceed 25 tons of any pollutant except carbon monoxide within a 12-month period as a guideline threshold for determining significance of construction emission impacts.

Cumulative Impacts and Consistency with Clean Air Plan: If the project-specific impact exceeds the ozone precursor significance threshold, it is also considered to have a considerable contribution to cumulative impacts. When a project is not accounted for in the most recent Clean Air Plan growth projections, then the project's impact may also be considered to have a considerable contribution to cumulative air quality impacts. The Santa Barbara County Association of Governments and Air Resources Board on-road emissions forecasts are used as a basis for vehicle emission forecasting. If a project provides for increased population growth beyond that forecasted in the most recently adopted CAP, or if the project does not incorporate appropriate air quality mitigation and control measures, or is inconsistent with APCD rules and regulations, then the project may be found inconsistent with the CAP and may have a significant impact on air quality.

## Air Quality – Existing Conditions and Project Impacts

### **2.a-b) Air Pollutant Emissions**

Long-Term (Operational) Emissions: Substantial long-term project emissions could potentially stem from stationary sources which may require permits from the APCD and from motor vehicles associated with the project and from mobile sources including the automobile. The proposed project does not contain any stationary sources (gas stations, auto body shops, dry cleaners, oil and gas production and processing facilities, and water treatment facilities) which require permits from APCD. However, the proposed project will result in 30 new average daily trips (ADTs) and 3 new a.m. peak hour trips (PHT) and 3 new p.m. PHT. Utilizing the URBEMIS 2002 ver. 8.7 computer model, it is estimated that the proposed project will generate 0.61 pounds per day of NO<sub>x</sub> and 0.40 pounds per day of ROG. Therefore, the proposed project is anticipated to have a less than significant effect on the environment.

Short-Term (Construction) Emissions: The project would involve grading, paving, and landscaping activities which could cause localized dust related impacts resulting in increases in particulate matter (PM<sub>10</sub>). Project demolition of the existing residence, followed by site grading would be completed in approximately 90 days. Estimated grading for Lot 1 (upper parcel) would consist of 990 cubic yards (cy) of cut and 1,580 cy of fill for the development of the two houses, driveway, and landscaping. Estimated grading for Lot 2 (lower parcel) would consist of 2,100 cy of cut and 1,250 cy of fill for the development of both houses, garages, driveway, and landscaping. The total estimated grading for both parcels is 3,090 cy of cut and 2,830 cy of fill, and is estimated to take approximately 3 months. Construction of structures on the upper lot including the new residence, guest house, and detached garage would take approximately 10 months; and construction of structures on the lower lot including the new residence and guest house is expected to take approximately 10 months. Dust-related impacts are considered less than significant, with the application of standard dust control mitigation measures.

Construction equipment would also emit NO<sub>x</sub> and ROG. However, in order for NO<sub>x</sub> and ROG emissions from construction equipment to be considered a significant environmental impact, combined emissions from all construction equipment would need to exceed 25 tons of any pollutant (except carbon monoxide) within a 12-month period. Utilizing the URBEMIS 2002 ver. 8.7 computer model, it is estimated that the proposed project will generate 0.026 tons per year of NO<sub>x</sub> and 2.13 tons per year of ROG, during construction. Therefore, the proposed project is anticipated to have a *less than significant* effect on the environment.

**Sensitive Receptors:** Sensitive receptors are defined as children, elderly, or ill people that can be more adversely affected by air quality problems. Land uses typically associated with sensitive receptors include schools, parks, playgrounds, childcare centers, retirement homes, convalescent homes, hospitals, and clinics. Stationary sources are of particular concern to sensitive receptors, as is construction dust and particulate matter. The project would not include stationary sources, but sensitive receptors could be affected by dust and particulates during project site grading. Nuisance dust and particulates would be reduced to a *less than significant* level through application of dust control mitigation measures. The insignificant amounts of these pollutants would result in an insignificant exposure of sensitive receptors to pollutants.

### **2.c) Odors**

The project is limited to residential uses, and would not include land uses involving odors or smoke.

The project would not contain features with the potential to emit substantial odorous emissions, from sources such as commercial cooking equipment, combustion or evaporation of fuels, sewer systems, or solvents and surface coatings. Due to the nature of the proposed land use and limited size of the project, project impacts related to odors would be considered *less than significant*.

### **Consistency with the Clean Air Plan:**

Direct and indirect emissions associated with the project are accounted for in the CAP emissions growth assumptions. Appropriate air quality mitigation measures, including construction dust suppression, would be applied to the project, consistent with CAP and City policies. The project can be found consistent with the Clean Air Plan.

### **Air Quality – Required Mitigation**

- AQ-1 Construction Dust Control – Minimize Disturbed Area/Speed.** Minimize amount of disturbed area and reduce on site vehicle speeds to 15 miles per hour or less.
- AQ-2 Construction Dust Control - Watering.** During site grading and transportation of fill materials, regular water sprinkling shall occur using reclaimed water whenever the Public Works Director determines that it is reasonably available. During clearing, grading, earth moving or excavation, sufficient quantities of water, through use of either water trucks or sprinkler systems, shall be applied to prevent dust from leaving the site. Each day, after construction activities cease, the entire area of disturbed soil shall be sufficiently moistened to create a crust.
- Throughout construction, water trucks or sprinkler systems shall also be used to keep all areas of vehicle movement damp enough to prevent dust raised from leaving the site. At a minimum, this will include wetting down such areas in the late morning and after work is completed for the day. Increased watering frequency will be required whenever the wind speed exceeds 15 mph.
- AQ-3 Construction Dust Control – Tarping.** Trucks transporting fill material to and from the site shall be covered from the point of origin.
- AQ-4 Construction Dust Control – Gravel Pads.** Gravel pads shall be installed at all access points to prevent tracking of mud on to public roads.
- AQ-5 Construction Dust Control – Disturbed Area Treatment.** After clearing, grading, earth moving or excavation is complete, the entire area of disturbed soil shall be treated to prevent wind pickup of soil. This may be accomplished by:
1. Seeding and watering until grass cover is grown.
  2. Spreading soil binders.

3. Sufficiently wetting the area down to form a crust on the surface with repeated soakings as necessary to maintain the crust and prevent dust pickup by the wind.
4. Other methods approved in advance by the Air Pollution Control District.

**AQ-6 Construction Equipment Requirements.** The following shall be adhered to during project grading and construction to reduce NOx and particulate emissions from construction equipment:

1. Heavy-duty diesel-powered construction equipment manufactured after 1996 (with federally mandated "clean" diesel engines) shall be utilized wherever feasible.
2. The engine size of construction equipment shall be the minimum practical size.
3. The number of construction equipment operating simultaneously shall be minimized through efficient management practices to ensure that the smallest practical number is operating at any one time.
4. Construction equipment shall be maintained in tune per the manufacturer specifications.
5. Catalytic converters shall be installed on gasoline-powered equipment, if feasible.
6. Diesel powered equipment shall be replaced by electric equipment whenever feasible.

**Air Quality - Residual Impacts**

Implementation of the identified mitigation measures would reduce short-term impacts to air quality to a less than significant level.

<b>3. BIOLOGICAL RESOURCES</b> Could the project result in impacts to:	<b>NO</b>	<b>YES</b> <i>Level of Significance</i>
a) Endangered, threatened or rare species or their habitats (including but not limited to plants, fish, insects, animals, and birds)?	X	
b) Locally designated historic, Landmark or specimen trees?	X	
c) Natural communities (e.g. oak woodland, coastal habitat, etc.).		Potentially Significant, Mitigable
d) Wetland habitat (e.g. marsh, riparian, and vernal pool)?	X	
e) Wildlife dispersal or migration corridors?		Less Than Significant

**Biological Resources - Discussion**

**Issues:** Biological resources issues involve the potential for a project to substantially affect biologically-important natural vegetation and wildlife, particularly species that are protected as rare, threatened, or endangered by federal or state wildlife agencies and their habitat, native specimen trees, and designated landmark or historic trees.

**Impact Evaluation Guidelines:** Existing native wildlife and vegetation on a project site are qualitatively assessed to identify whether they constitute important biological resources, based on the types, amounts, and quality of the resources within the context of the larger ecological community. If important biological resources exist, project effects to the resources are qualitatively evaluated to determine whether the project would substantially affect these important biological resources. Significant biological resource impacts may potentially result from substantial disturbance to important wildlife and vegetation in the following ways:

- Elimination or substantial reduction or disruption of important natural vegetative communities and wildlife habitat or migration corridors, such as oak woodland, coastal strand, riparian, and wetlands.
- Substantial effect on protected plant or animal species listed or otherwise identified or protected as endangered, threatened or rare.
- Substantial loss or damage to important native specimen trees or designated landmark or historic trees.

### **Biological Resources – Existing Conditions and Project Impacts**

#### **3.a, c, e) Native Wildlife, Natural Communities and Habitat and Wildlife Corridors**

As recognized by the City of Santa Barbara Master Environmental Assessment, portions of this site are designated as southern oak woodland habitat. The site contains several mature coast live oak trees and seedlings, and a number of native shrubs and forbs beneath the canopy of the eucalyptus trees. No natural drainage courses or creeks run through the parcels.

A Biological Assessment of the site was prepared by Condor Environmental Planning Services, Inc. (Exhibits E and F). Vegetation on the project site is characterized predominantly by non-native eucalyptus and acacia trees, with coast live oaks located primarily on the northern portions of the existing parcels. A large portion of the site has been previously disturbed and cleared of vegetation in the past. Ground cover includes non-native grasses and some native plants such as greenspot (Douglas') nightshade, poison oak, and Mexican tea.

According to the Biological Assessment, sensitive species that are likely to occur on the project site include the monarch butterfly, Cooper's hawk, and big free-tailed bat. A total of 18 wildlife species were observed on the site or adjacent to the site, including the a mule deer, monarch butterfly, Cooper's hawk, red-tailed hawk, great horned owl, and turkey vulture. A total of six monarch butterflies were observed patrolling, and no clusters were found. The Cooper's hawk is listed by the Department of Fish and Game as a Species of Special Concern, and the other three bird species are common species; however, all four are protected by the Federal Migratory Bird Treaty Act of 1918. A great horned owl was observed roosting in a eucalyptus tree and a dead eucalyptus tree was observed to be an acorn granary use by acorn woodpeckers. Both trees will be retained on-site and protection of the two trees has been incorporated into the tree protection plan. The Biological Assessment concludes that these species may be adversely impacted by short-term construction noise, removal of trees, and increased human presence during construction. However, implementation of the landscape plan, retention of the eucalyptus trees at the south of the of property, and planting grassland and other landscapes is likely to provide foraging habitat, while planting and maintaining 70 1-gallon oak trees, will result in a long term increase of habitat for these and other species.

As open areas are fragmented by urban encroachment, free movement of animals between areas of suitable habitat may become increasingly restricted. The site is likely to continue being used by urban-adopted wildlife such as birds, rodents, and small mammals for movement and foraging. Development of the site with a three additional single-family residences would not totally preclude this use, but could limit it, resulting in a less than significant impact.

A total of 55 trees are proposed for removal, including 51 non-native trees and 4 coast live oak trees. An Oak Tree Assessment and Protection Plan was prepared by Bill Spiewak to specifically analyze the impacts of the project on 17 oak trees on-site. The report recognized that a cluster of oaks could be impacted from driveway construction activities near the northwestern portion of the site. Recommendations are provided within the Tree Protection Plan for minimizing impacts to these oaks, which have been incorporated as required mitigation. To mitigate the removal of four oaks located further south on the property, 70 young oak saplings will be planted in the northern portion of the property adjacent to the existing oaks and also in the southern portion of the property where several eucalyptus trees will be removed. Impacts to native vegetation associated with construction of the new residences, driveways, and landscaping are considered potentially significant, but mitigable. Mitigation Measures B-1 through B-3 are required to reduce the biological impacts associated with the project to a less than significant level.

Although not a significant impact due the existing high level of human presence in the area, increased noise and light from the future residences has the potential to disrupt wildlife. To further reduce this less than significant impact, a mitigation measure is recommended to address lighting impacts (see Mitigation Measure A-3).

**3.b) Specimen Trees**

Mature native and non-native specimen trees provide numerous benefits to the environment, including visual beauty, shade, soil stability, air quality, and localized habitat for urban-adapted wildlife species, such as birds. No impacts to locally designated historic, Landmark or specimen trees would occur as a result of the proposed project since no such resources exist on the site. See biological resources discussion a) and c) for other issues associated with tree removal.

**3.d) Wetland Habitat**

The Master Environmental Assessment (MEA) identifies the site as southern oak woodland. The site is within a developed neighborhood; however, it contains several oak trees throughout the northern portion of the site. There are no drainage courses or creeks that run through the project site. The closest natural drainage course runs in a north-south direction through the southwestern corner of the adjacent parcel to the west. The Biological Assessment concludes that no wetland species were identified on-site. No sensitive habitat exists on the property and no sensitive habitat would be impacted by the proposed development. Therefore, there would be no impacts to wetland habitat.

**Biological Resources – Required Mitigation**

- B-1 Oak Tree Protection (Short-Term).** Tree protection measures for oaks, as recommended in the Oak Tree Protection Plan dated September 21, 2006, shall be followed for the duration of all grading and construction activities associated with the project.
- B-2 Oak Tree Replacement.** A replacement of the four oaks proposed for removal shall include the planting, management, and long-term maintenance of 70 1-gallon young saplings per the recommendations of the Oak Tree Protection Plan.
- B-3 Habitat Protection.** The two eucalyptus trees identified as a great horned owl roost and an acorn granary, shall be retained and protected per the recommendations of the Biological Assessment dated October 26, 2006, and as noted on the Tree Preservation Plan.

**Biological Resources - Residual Impacts**

Implementation of the identified mitigation measures would reduce impacts to biological resources to a less than significant level.

4. CULTURAL RESOURCES	NO	YES <i>Level of Significance</i>
Could the project:		
a) Disturb archaeological resources?	X	
b) Affect a historic structure or site designated or eligible for designation as a National, State or City landmark?	X	
c) Have the potential to cause a physical change which would affect ethnic cultural values or restrict religious uses in the project area?	X	

**Cultural Resources - Discussion**

**Issues:** Archaeological resources are subsurface deposits dating from Prehistoric or Historical time periods. Native American culture appeared along the channel coast over 10,000 years ago, and numerous villages of the Barbareno Chumash flourished in coastal plains now encompassed by the City. Spanish explorers and eventual settlements in Santa Barbara occurred in the 1500's through 1700's. In the mid-1800's, the City began its transition from Mexican village to American city, and in the late 1800's through early 1900's experienced intensive urbanization. Historic resources are above-ground structures and sites from historical time periods with historic, architectural, or other cultural importance.

The City's built environment has a rich cultural heritage with a variety of architectural styles, including the Spanish Colonial Revival style emphasized in the rebuilding of Santa Barbara's downtown following a destructive 1925 earthquake.

**Impact Evaluation Guidelines:** Archaeological and historical impacts are evaluated qualitatively by archeologists and historians. First, existing conditions on a site are assessed to identify whether important or unique archaeological or historical resources exist, based on criteria specified in the State CEQA *Guidelines* and City Master Environmental Assessment *Guidelines for Archaeological Resources and Historical Structures and Sites*, summarized as follows:

- Contains information needed to answer important scientific research questions and there exists a demonstrable public interest in that information.
- Has a special and particular quality such as being the oldest of its type or the best available example of its type.
- Is directly associated with an important prehistoric or historic event or person.

If important archaeological or historic resources exist on the site, project changes are evaluated to determine whether they would substantially affect these important resources.

**Cultural Resources – Existing Conditions and Project Impacts**

**4.a) Archaeological Resources**

The project site is not located in any cultural resource sensitivity areas according to the City's MEA, and no archaeological studies were requested. No impacts to cultural resources would occur as a result of the proposed project.

**4.b) Historic Resources**

One of the existing parcels, APN 015-050-018, is currently developed with a single-family residence and attached garage. APN 015-050-017 is not developed, with the exception of the remains of a greenhouse foundation, which will be utilized for the location of a future retention area. The project site is located in the City's Demolition Review Study Area, as described in SBMC §22.22; however, the existing residence located at 232 Eucalyptus Hill Drive is less than 50 years old and is not considered historically significant. No impacts to historical resources would occur as a result of the proposed demolition of the existing residence.

**4.c) Ethnic/Religious Resources**

There is no evidence that the site involves any ethnic or religious use or importance. The project would have no impact on historic, ethnic or religious resources.

**Cultural Resources – Mitigation**

No mitigation is required.

<p><b>5. GEOPHYSICAL CONDITIONS</b></p> <p>Could the project result in or expose people to:</p>	<p><b>NO</b></p>	<p><b>YES</b></p> <p><i>Level of Significance</i></p>
---	------------------	---

a)	Seismicity: fault rupture?	Less than Significant
b)	Seismicity: ground shaking or liquefaction?	Less than Significant
c)	Seismicity: seiche or tsunami?	Less than Significant
d)	Landslides or mudslides?	Less than Significant
e)	Subsidence of the land?	Less than Significant
f)	Expansive soils?	Potentially Significant, Mitigable
g)	Excessive grading or permanent changes in the topography?	Less than Significant

### **Geophysical Conditions - Discussion**

**Issues:** Geophysical impacts involve geologic and soil conditions and their potential to create physical hazards affecting persons or property; or substantial changes to the physical condition of the site. Included are earthquake-related conditions such as fault rupture, ground-shaking, liquefaction (a condition in which saturated soil loses shear strength during earthquake shaking); or seismic sea waves; unstable soil or slope conditions, such as landslides, subsidence, expansive or compressible/collapsible soils; or erosion; and extensive grading or topographic changes.

**Impact Evaluation Guidelines:** Potentially significant geophysical impacts may result from:

- Exposure to or creation of unstable earth conditions due to seismic conditions, such as earthquake faulting, groundshaking, liquefaction, or seismic waves.
- Exposure to or creation of unstable earth conditions due to geologic or soil conditions, such as landslides, settlement, or expansive, collapsible/compressible, or expansive soils.
- Extensive grading on slopes exceeding 20%, substantial topographic change, destruction of unique physical features; substantial erosion of soils, overburden, or sedimentation of a water course.

### **Geophysical Conditions – Existing Conditions and Project Impacts**

#### **5.a-c) Seismic Hazards**

**Fault Rupture:** According to the City's MEA map, the project site is located in an area that has low seismic hazard damage to all structures. The MEA map shows no fault crossing the project site, but does show a fault trending towards the site from the west. An Engineering Geology and Geotechnical Engineering Report was prepared by Earth Systems Southern California on July 14, 2006, and as part of the study, test pits were excavated in a north-south direction across the parcels and no faults were identified. According to this report, faulting is located south of the project site and the potential for fault rupture hazard is considered low. The report identifies the closest active fault as the Mission Ridge Arroyo Parida-Santa Ana Fault, located approximately 1 mile away. Fault rupture impacts are considered *less than significant*.

**Ground Shaking and Liquefaction:** The project site is located in a seismically active area of southern California. Ground shaking as a result of a local or regional earthquake is likely to occur during the life of the project. The site is considered to be minimally susceptible to liquefaction in the event of a strong earthquake. The potential for ground shaking is considered a *less than significant* impact. Future development would be required to comply with building code requirements that would minimize potential hazards associated with ground shaking.

**Seiche or Tsunami:** The project site is not located within the tsunami run-up zone as identified in the City's Master Environmental Assessment. The project site is not subject to seiche hazards because of its distance from potential seiche hazard areas (i.e. open bodies of water and the harbor). Impacts would be *less than significant*.

#### **5.d-f) Geologic or Soil Instability**

**Landslides:** The project site has some areas with relatively steep slopes, but is not identified as subject to landslide

hazards on the City's MEA map. Therefore, project impacts from landslides would be *less than significant*.

Subsidence: The potential for subsidence on the site is considered low, and impacts would be *less than significant*.

Expansive Soils: As shown on the City's MEA, the site is subject to moderately high expansive clay soil. The Geotechnical Report identified near-surface soils underlying the proposed building areas as artificial fill over topsoil/colluvium over Monterey Formation bedrock. Testing indicated that anticipated bearing soils lie in the "very low" expansion range in the 2001 California Building Code. Soils were also tested for pH, resistivity, soluble sulfates and soluble chlorides. Results indicated that sulfate exposure is negligible, but that the soil is corrosive to ferrous metals in the bedrock units and mildly corrosive in the topsoil/colluvial units, and that the test results should be provided to the project designers for interpretations pertaining to the corrosivity or reactivity of various construction materials with the soils. Mitigation is identified to reduce this *potentially significant* impact to less than significant.

**5.g) Topography; Grading**

Grading: Site grading would include excavation and replacement of artificial fill. The amount of earthwork required for grading for both parcels is estimated at is 3,090 cy of cut and 2,830 cy of fill. The currently proposed grading would result in some alteration of the existing landform but would not substantially change the existing topography of the site. In general, the slopes on the property range from nearly flat to over 30%, and the two main house sites would be located in areas of between 0-20% slopes. The two guest houses would be located in areas of mostly 20-30% slopes, with a small portion of the lower guest house and a portion of the driveway located in areas that exceed 30% slopes. Impacts associated with project grading would be *less than significant*.

**Geophysical Conditions – Required Mitigation**

**G-1 Grading and Foundation Recommendations.** Site preparation, grading and project construction related to soil conditions shall be in accordance with the recommendations contained in the Engineering Geology and Geotechnical Engineering Report, prepared by Earth Systems Southern California, and dated July 14, 2006. Compliance shall be demonstrated on plans submitted for grading and/or building permits.

**Geophysical Conditions – Residual Impacts**

Implementation of the required site preparation and structural design measures would mitigate potential geologic hazards associated with grading to less than significant levels.

6. HAZARDS Could the project involve:	NO	YES <i>Level of Significance</i>
a) A risk of accidental explosion or release of hazardous substances (including, but not limited to: oil, pesticides, chemicals or radiation)?	X	
b) The creation of any health hazard or potential health hazards?	X	
c) Exposure of people to existing sources of potential health hazards?		Less than Significant
d) Increased fire hazard in areas with flammable brush, grass, or trees?		Potentially Significant, Mitigable

**Hazards - Discussion**

**Issues:** Hazardous materials issues involve the potential for public health or safety impacts from exposure of persons or the environment to hazardous materials or risk of accidents involving combustible or toxic substances.

**Impact Evaluation Guidelines:** Significant impacts may result from the following:

- Siting of incompatible projects in close proximity to existing sources of safety risk, such as pipelines, industrial processes, railroads, airports, etc.
- Exposure of project occupants or construction workers to unremediated soil or groundwater contamination.
- Exposure of persons or the environment to hazardous substances due to improper use, storage, or disposal of hazardous materials.
- Siting of development in a high fire hazard areas or beyond adequate emergency response time, with inadequate access or water pressure, or otherwise in a manner that creates a fire hazard.

**Hazards – Existing Conditions and Project Impacts**

**6.a,b,c) Public Health and Safety**

The project site has no known contamination and is not listed on the County Fire Department Hazardous Materials parcel listings. The project site is not located close to sources of public safety or health hazards, such as pipelines. Hazardous materials use and storage would be limited to small amounts of common household, automotive, and gardening supplies, such as cleansers, paint, motor oil, and pesticides. *Less than significant impacts* due to the use of oils, paint, and cleaners during construction activities would be present during development of four single family residences on the subject properties.

**6.d) Fire Hazard**

The project site is located in the High Fire Hazard area, and development of four new residences constitutes a *potentially significant* but mitigable impact. The proposed project’s landscape plan complies with City high fire hazard area requirements for access, construction (access), water availability, and vegetation brush management, with application of vegetation landscape and management zones around developable areas. Table 1 below identifies what generally can and cannot be planted within the various landscape and management zones. Because both resulting parcels would have slopes greater than 20%, fuel management would be required up to 200 feet from all development. Most of the vegetation required to be removed or trimmed is non-native. Short- and long-term impacts to biological resources are considered less than significant, and are fully analyzed in Section 3, “Biological Resources”. Compliance with the City’s high fire hazard requirements for brush maintenance and landscape design are identified as mitigation to reduce project related fire hazard impacts to a *less than significant* level.

**Table 1: Recommendations for Plant Placement in the High Fire Hazard Area**

ZONE 1 0 – 30 feet	This area is closest to a structure. It provides the best protection against the high radiant heat that results during a wildfire. Plants should be low growing, irrigated plants. Focus should be on ground covers not more than 12 inches in height or succulents. Use non-flammable materials for paths, patios, and mulch. Trees should not be planted closer than 15 feet to a structure.
ZONE 2 30 – 50 feet	Maintain a reasonably open character in this area. Plant low growing ground covers and succulents resistant to fire. Shrubs up to 3 feet can be planted but should have at least 18 feet spacing between other shrubs or other trees. Shrubs can be planted in clusters not more than 10 feet in diameter, but should have at least 18 feet between clusters. Do not plant shrubs underneath tree canopies. Trees should be spaced at least 30 feet apart to prevent crowns from touching once fully grown.
ZONE 3 50 – 70 feet	This area should have native and Mediterranean plantings that require irrigation and should not be higher than 4 to 6 feet. Shrubs should be spaced at least 18 feet away from each other. Shrubs can be planted in clusters not more than 10 feet in diameter, but should have at least 18 feet between clusters. Trees should be spaced at least 30 feet apart to prevent crowns from touching once fully grown.
ZONE 4 70 – 100 feet or greater	This zone is furthest from the structure. Plantings once established need no irrigation. There is no limit to height. Shrubs planted in this area should have 18 feet spacing or be planted in clusters with at least 18 feet spacing. Trees can be planted in groups or with individual spacing at least 30 feet from other trees.

Slopes > 20%	Additional vegetation modification may be required.
--------------	---

**Hazards – Required Mitigation**

**H-1 High Fire Vegetation Management.** Residences located in the High Fire Hazard area are required to maintain vegetation to create an effective fuel break by thinning dense vegetation (mosaic style) and removing dry brush, flammable vegetation and combustible growth from areas within 100 feet of all buildings or structures. The owner shall perform the following maintenance annually for the life of the project.

- Cut and remove hazardous brush, shrubs, and flammable vegetation such as dry grass and weeds within 100 feet of any structure and within 2 inches of the ground.
- Thin brush from streets and driveways both horizontally and vertically along the property. Flammable vegetation must be cleared on each side of the street or driveway for a distance of 10 feet and a vertical distance of 13 feet, 6 inches. Vegetation must be cut to within 2 inches of the ground. This applies to the public or private driveway and any public or private streets that border the property.
- Remove dead wood, trim the lower branches, and limb all live trees to 6 feet above the ground (or as much as possible with younger, smaller trees), especially trees adjacent to buildings.
- Trim tree limbs back a minimum distance of 10 feet from any chimney opening.
- Remove all dead trees from the property.
- Maintain the roof of all structures free of leaves, needles or other vegetative debris.
- Legally dispose of all cut vegetation, including any debris left from previous tree trimming and brush removal. Cut vegetation may be chipped and spread throughout the property as a ground cover, up to 12 inches in depth, and at least 30 feet from any structure.

**H-2 Landscape Plan.** The final landscape plan shall adhere to the Fire Department Landscape Guidelines for properties that are in the high fire hazard area. These plans shall be reviewed and approved by the Architectural Board of Review and the Fire Department.

**Hazards – Residual Impacts**

Compliance with local requirements for high fire hazard areas would ensure wildfire hazard impacts of the proposed project are less than significant.

7. NOISE	NO	YES
Could the project result in:		<i>Level of Significance</i>
a) Increases in existing noise levels?		Less than Significant
b) Exposure of people to severe noise levels?		Less than Significant

**Noise - Discussion**

**Issues:** Noise issues are associated with siting of a new noise-sensitive land use in an area subject to high ambient background noise levels, siting of a noise-generating land use next to existing noise-sensitive land uses, and/or short-term construction-related noise.

The primary source of ambient noise in the City is vehicle traffic noise. The City Master Environmental Assessment (MEA) *Noise Contour Map* identifies average ambient noise levels within the City.

Ambient noise levels are determined as averaged 24-hour weighted levels, using the Day-Night Noise Level (L<sub>dn</sub>) or

Community Noise Equivalence Level (CNEL) measurement scales. The  $L_{dn}$  averages the varying sound levels occurring over the 24-hour day and gives a 10 decibel penalty to noises occurring between the hours of 10:00 p.m. and 7:00 a.m. to take into account the greater annoyance of intrusive noise levels during nighttime hours. Since  $L_{dn}$  is a 24-hour average noise level, an area could have sporadic loud noise levels above 60 dB(A) which average out over the 24-hour period. CNEL is similar to  $L_{dn}$  but includes a separate 5 dB(A) penalty for noise occurring between the hours of 7:00 p.m. and 10:00 p.m. CNEL and  $L_{dn}$  values usually agree with one another within 1 dB(A). The Equivalent Noise Level ( $L_{eq}$ ) is a single noise level, which, if held constant during the measurement time period, would represent the same total energy as a fluctuating noise.  $L_{eq}$  values are commonly expressed for periods of one hour, but longer or shorter time periods may be specified. In general, a change in noise level of less than three decibels is not audible. A doubling of the distance from a noise source will generally equate to a change in decibel level of six decibels.

Guidance for appropriate long-term background noise levels for various land uses are established in the City General Plan Noise Element Land Use Compatibility Guidelines. Building codes also establish maximum average ambient noise levels for the interiors of structures.

High construction noise levels occur with the use of heavy equipment such as scrapers, rollers, graders, trenchers and large trucks for demolition, grading, and construction. Equipment noise levels can vary substantially through a construction period, and depend on the type of equipment, number of pieces operating, and equipment maintenance. Construction equipment generates noise levels of more than 80 or 90 dB(A) at a distance of 50 feet, and the shorter impulsive noises from other construction equipment (such as pile drivers and drills) can be even higher, up to and exceeding 100 dB(A). Noise during construction is generally intermittent and sporadic, and after completion of the initial demolition, grading and site preparation activities, tends to be quieter.

The Noise Ordinance (Chapter 9.16 of the Santa Barbara Municipal Code) governs short-term or periodic noise, such as construction noise, operation of motorized equipment or amplified sound, or other sources of nuisance noise. The ordinance establishes limitations on hours of construction and motorized equipment operations, and provides criteria for defining nuisance noise in general.

**Impact Evaluation Guidelines:** A significant noise impact may result from:

- Siting of a project such that persons would be subject to long-term ambient noise levels in excess of Noise Element land use compatibility guidelines as follows (**Use applicable land uses**):
  - Residential: Normally acceptable maximum exterior ambient noise level of 60 dB(A); maximum interior noise level of 45 dB(A).
- Substantial noise from grading and construction activity in close proximity to noise-sensitive receptors for an extensive duration.

## **Noise – Existing Conditions and Project Impacts**

### **7.a-b) Increased Noise Level; Exposure to High Noise Levels**

#### Long-Term Operational Noise:

The project site is located in an area subject to average ambient noise levels from roadway noise of less than 60 dBA, as shown on the City's Master Environmental Assessment noise contour maps. The Noise Element establishes 60 dBA as the acceptable exterior noise level for residential uses. No substantial noise generation is anticipated to occur as a result of the proposed residential use. Therefore, the project site would not be subject to high noise levels, nor would the project cause high operational noise levels. Long-term operational noise impacts would be less than significant.

#### Temporary Construction Noise:

Noise during construction is generally intermittent and sporadic, and after completion of initial grading and site clearing activities, tends to be quieter. Noise generated during project grading activities would result in a short-term adverse construction impact to residential receptors in the area. Demolition of the existing house and construction of the four residences and associated driveways are anticipated to result in use of heavy equipment. Construction noise is limited by City ordinance to the hours between 7:00 a.m. and 8:00 p.m. daily for noise generating activities that would increase noise

levels at the nearest residential property line by 5 decibels. The project is limited in scope and the potential impact due to construction noise would be *less than significant*. However, the level of potential adverse effect would be further reduced through recommended measures below, including construction scheduling, further limiting grading activities to daytime hours on weekdays, and use of equipment mufflers.

**Noise – Recommended Mitigation**

**N-1 Construction Hours.** Noise-generating construction activities associated with the site grading (which may include preparation for construction work) shall be permitted weekdays between the hours of 8:00 a.m. and 5:00 p.m., excluding holidays observed by the City as legal holidays: New Year's Day (January 1<sup>st</sup>); Martin Luther King Jr.'s Birthday (3<sup>rd</sup> Monday in January); President's Day (3<sup>rd</sup> Monday in February); Memorial Day (Last Monday in May); Independence Day (July 4<sup>th</sup>); Labor Day (1<sup>st</sup> Monday in September); Thanksgiving Day (4<sup>th</sup> Thursday in November); Day Following Thanksgiving Day (Friday following Thanksgiving); Christmas Day (December 25<sup>th</sup>). \*When a holiday falls on a Saturday or Sunday, the preceding Friday or following Monday respectively shall be observed as a legal holiday.

Occasional night work may be approved for the hours between 5 p.m. and 8 a.m. weekdays by the Chief of Building and Zoning (per Section 9.16.015 of the Municipal Code). In the event of such night work approval, the applicant shall provide written notice to all property owners and residents within 450 feet of the project property boundary and the City Planning and Building Divisions at least 48 hours prior to commencement of any. Night work shall not be permitted on weekends and holidays.

**N-2: Construction Equipment Sound Control.** All construction equipment, including trucks, shall be professionally maintained and fitted with standard manufacturers' muffler and silencing devices.

**Noise – Residual Impact**

Impacts associated with long and short term noise sources are considered *less than significant*. Recommended mitigation measures would minimize the nuisance associated with construction noise.

8. POPULATION AND HOUSING Could the project:	NO	YES Level of Significance
a) Induce substantial growth in an area either directly or indirectly (e.g. through projects in an undeveloped area or extension of major infrastructure)?		Less than Significant
b) Displace existing housing, especially affordable housing?	X	

**Population and Housing - Discussion**

**Impact Evaluation Guidelines:** Issues of potentially significant population and housing impacts may involve:

- Growth inducement, such as provision of substantial population or employment growth or creation of substantial housing demand; development in an undeveloped area, or extension/ expansion of major infrastructure that could support additional future growth.
- Loss of a substantial number of housing units, especially loss of more affordable housing.

**Population and Housing – Existing Conditions and Project Impacts**

**8.a) Growth-Inducing Impacts**

The project site is located in an existing developed area already served by urban infrastructure. A total of four residential units would be permitted as a result of the project resulting in three new residences in the neighborhood. No new parcels

are being created by the project and one of the lots is not currently developed with a residence. The sizes of both the existing and adjusted parcels would be large enough to allow for two residential units on each parcel per the density regulations of the City's Zoning Ordinance. No extensions of infrastructure or urban services would be necessary to serve the project site. The proposed residential units are intended to meet existing demand for ownership housing units within the community and would not induce growth. Growth inducing impacts as a result of the project would be *less than significant*.

**8.b) Housing Displacement**

The project would not involve any housing displacement. No impact would result from the project.

**Population and Housing - Mitigation**

No mitigation is required.

9. PUBLIC SERVICES	NO	YES
Could the project have an effect upon, or result in a need for new or altered services in any of the following areas:		<i>Level of Significance</i>
a) Fire protection?		Less than Significant
b) Police protection?		Less than Significant
c) Schools?		Less than Significant
d) Maintenance of public facilities, including roads?		Less than Significant
e) Other governmental services?		Less than Significant
f) Electrical power or natural gas?		Less than Significant
g) Water treatment or distribution facilities?		Less than Significant
h) Sewer or septic tanks?		Less than Significant
i) Water distribution/demand?		Less than Significant
j) Solid waste disposal?		Less than Significant

**Public Services - Discussion**

**Issues:** This section evaluates project effects on fire and police protection services, schools, road maintenance and other governmental services, utilities, including electric and natural gas, water and sewer service, and solid waste disposal.

**Impact Evaluation Guidelines:** The following may be identified as significant public services and facilities impacts:

- Creation of a substantial need for increased police department, fire department, road maintenance, or government services staff or equipment.
- Generation of substantial numbers of students exceeding public school capacity where schools have been designated as overcrowded.
- Inadequate water, sewage disposal, or utility facilities.
- Substantial increase in solid waste disposal to area sanitary landfills.

**Public Services – Existing Conditions and Project Impacts**

**9a-b,d-g. Facilities and Services**

The project site is located in an urban area where all public services are available. In 2005, the City prepared a General

Plan Update: 2030 Condition, Trends, and Issues (CTI) Report (September 2005) that examined existing conditions associated with fire protection, police protection, library services, public facilities, governmental facilities, electrical power, and natural gas. The CTI Report specifically analyzed whether there were deficiencies existing or anticipated for each of the public services. The CTI report determined that police and fire protection services, and library services are being provided at acceptable levels to the City. In addition, the CTI Report determined that electricity, natural gas, telephone, and cable telecommunication services are being provided at acceptable service levels and utility companies did not identify any deficiencies in providing service in the future. Finally, the CTI Report determined that demand for City buildings and facilities will continue to be impacted by growth, although no appropriate/acceptable levels of service have been established.

The project would be served with connections to existing public services for gas, electricity, cable, and telephone traversing the site, as well as access to existing roads. The project is not anticipated to create a substantially different demand on fire or police protection services, library services, or City buildings and facilities than that anticipated in the CTI Report. Therefore, impacts to fire protection, police protection, library services, City buildings and facilities, electrical power, natural gas, telephone, and cable telecommunication services are anticipated to be less than significant.

### **9.c) Schools**

The project site is served by the Santa Barbara Elementary and High School Districts for elementary and high school. The project has the potential to generate additional students; however, not to a degree that would impact area schools.

None of the school districts in the South Coast have been designated "overcrowded" as defined by California State law. School impact fees would be applied to the project in accordance with State law. Project impacts to schools would be less than significant.

### **9.h,i) Water and Sewer**

#### Water

The City of Santa Barbara's water supply comes from the following sources, with the actual share of each determined by availability and level of customer demand: Cachuma Reservoir and Tecolote Tunnel, Gibraltar Reservoir and Mission Tunnel, 300 Acre Feet per Year (AFY) of contractual transfer from Montecito Water district, groundwater, State Water Project entitlement, desalination, and recycled water. Conservation and efficiency improvements are projected to contribute to the supply by displacing demand that would otherwise have to be supplied by additional sources. In 1994, based on the comprehensive review of the City's water supply in the Long Term Water Supply Alternatives Analysis (LTWSAA), the City Council approved the Long Term Water Supply Program (LTWSP). The LTWSP outlines a strategy to use the above sources to meet the City's projected demand of 17,900 AFY (including 1,500 AFY of demand projected to be met with conservation) plus a 10 percent safety margin for a total of 19,700 AFY. Therefore, the target for the amount of water the system will actually have to supply, including the safety margin, is 18,200 AFY. The 2003 Water Supply Management Report documents an actual system demand of 13,460 AFY and a theoretical commitment of 16,170 AFY. Of the total system production, 95% was potable water and 5% was reclaimed water.

In 2005, the City prepared a General Plan Update: 2030 Condition, Trends, and Issues (CTI) Report (September 2005) that examined existing conditions associated with water supply, treatment, and distribution system, and specifically analyzed and determined that there were no existing or anticipated deficiencies for the next 20-year planning period based on a growth rate of 0.7% per year.

The existing development on the site receives water service from the City of Santa Barbara water supply, treatment, and distribution system. The proposed project is estimated to demand 1.12 AFY of potable water. The proposed project is within the anticipated growth rate for the City and therefore, the City's long-term water supply and existing water treatment and distribution facilities would adequately serve the proposed project. The potential increase in demand would constitute a less than significant impact to the City water supply.

#### Sewer

The project site is currently served by City sewer system. The project would include four new residences, with a net increase of three residences, which are estimated to generate 868 gallons/day or 0.97 AFY (87% of water demand). The

maximum capacity of the El Estero Treatment Plant is 11 million gallons per day (MGD), with current average daily flow 8.5 MGD. The Treatment Plant is designed to treat the wastewater from a population of 104,000. Increased sewage treatment associated by the project can be accommodated by the existing City sewer system and sewage treatment plant, and would represent a *less than significant* impact.

**9.j) Solid Waste Generation/ Disposal**

Most of the waste generated in the City is transported on a daily basis to seven landfills located around the County. The County of Santa Barbara, which operates the landfills, has developed impact significance thresholds related to the impacts of development on remaining landfill capacity. The County thresholds are based on the projected average solid waste generation for Santa Barbara County from 1990-2005. The County assumes a 1.2% annual increase (approximately 4,000 tons per year) in solid waste generation over the 15-year period.

The County's threshold for project specific impacts to the solid waste system is 196 tons per year (this figure represents 5% of the expected average annual increase in solid waste generation [4000 tons/year]). Source reduction, recycling, and composting can reduce a project's waste stream by as much as 50%. If a proposed project generates 196 or more tons per year (TPY) after reduction and recycling efforts, impacts would be considered significant and unavoidable.

Proposed projects with a project specific impact as identified above (196 tons/year or more) would also be considered cumulatively significant, as the project specific threshold of significance is based on a cumulative growth scenario. However, as landfill space is already extremely limited, any increase in solid waste of 1% or more of the expected average annual increase in solid waste generation [4,000 tons/year], which equates to 40 TPY, is considered an adverse cumulative impact.

Using methodology and factors found in the County's Environmental Thresholds and Guidelines Manual (1995), the annual generation of the proposed project is calculated below:

Existing land use on the site generates an estimated 2.52 TPY of solid waste (2.65 people/unit x 1 unit x 0.95 TPY/person = 2.52 TPY), and the site is served by recycling pick up.

The proposed project would generate an additional 7.55 TPY of solid waste (2.65 people/unit x 3 units x 0.95 TPY/person = 7.55 TPY) (3.78 TPY with source reduction and recycling).

Net project generation of 7.55 TPY solid waste is considered a *less than significant* project-specific impact and contribution to cumulative impact.

Short-Term (Demolition and Construction). Construction-related waste generation would result from the demolition of the existing residence and exported cut, and would be short-term and *less than significant*.

**Public Services –Mitigation**

No mitigation is required.

10. RECREATION		NO	YES
Could the project:			<i>Level of Significance</i>
a)	Increase the demand for neighborhood or regional parks or other recreational facilities?		Less than Significant
b)	Affect existing parks or other public recreational facilities?		Less than Significant

**Recreation - Discussion**

**Issues:** Recreational issues are associated with increased demand for recreational facilities, or loss or impacts to existing recreational facilities.

**Impact Evaluation Guidelines:** Recreation impacts may be significant if they result in:

- Substantial increase in demand for park and recreation facilities in an area under-served by existing public park and recreation facilities.
- Substantial loss or interference with existing park space or other public recreational facilities such as hiking, cycling, or horse trails.

### **Recreation – Existing Conditions and Project Impacts**

#### **10.a) Recreational Demand**

Currently within the City there are more than 1,800 acres of natural open space, park land and other recreational facilities. In addition, there are 28 tennis courts, 2 public outdoor swimming pools, beach volleyball courts, sport fields, lawn bowling greens, a golf course, 13 community buildings and a major skateboard facility. The City also offers a wide variety of recreational programs for people of all ages and abilities in sports, various classes, tennis, aquatics and cultural arts.

In 2005, the City prepared a General Plan Update: 2030 Condition, Trends, and Issues (CTI) Report (September 2005) that examined existing conditions associated with recreation and parks. Population characteristics including income, age, population growth, education and ethnicity affect recreation interests and participation levels.

The CTI Report determined that there is an uneven distribution of parkland in the City, such that some areas of the City may currently be underserved with neighborhood parks, but overall the City has adequate passive, community, beach, regional, open space, and sports facility parks.

The National Recreation and Park Association has established park service area standards for various types of parks. The NRPA standards have not been adopted by the City; however, the standards do provide a useful tool for assessing park space needs. The CTI Report determined that, based on NRPA standards, there is an uneven distribution of parkland in the City, such that some areas of the City may currently be underserved with neighborhood and community parks, but overall the City has adequate passive, community, beach, regional, open space, and sports facility parks.

The future development of the two parcels with a three additional residences would create a very minor increase in the demand for park and recreational opportunities. As indicated above, the City of Santa Barbara has ample parkland, albeit unevenly distributed throughout the City, and adequate recreation facilities. The proposed project would introduce additional residents into the Eucalyptus Hill neighborhood where existing nearby parks include Eastside Neighborhood Park, Hale Park and Sunflower Park. Hale Park is located within the NRPA ¼ to ½-mile radius standard of the proposed project site and residents of the proposed project would have access to the other neighborhood parks, although somewhat less conveniently than if located within the NRPA standard distance. In addition, residents would have access to other community, beach, regional, open space, and sports facility parks, and all City recreation programs. Therefore, the increase in park and recreational demands associated with the residences would be a *less than significant* impact.

#### **10.b) Existing Recreational Facilities**

As described above, the proposed project is located within close proximity of Hale Park. The proposed residential use would not interfere or cause a substantial loss of use of existing parks or recreational facilities by means of obnoxious or offensive emission of odors, dust, gas, fumes, smoke, liquids, wastes, noise, vibrations, or disturbances. Therefore, the project would have *less than significant* impacts on recreational facilities.

### **Recreation - Mitigation**

No mitigation is required.

11. TRANSPORTATION/CIRCULATION Could the project result in:	NO	YES <i>Level of Significance</i>
a) Increased vehicle trips?		Less than Significant
b) Hazards to safety from design features (e.g. sharp curves, inadequate sight distance or dangerous intersections)?		Less than Significant
c) Inadequate emergency access or access to nearby uses?		Less than Significant
d) Insufficient parking capacity on-site or off-site?	X	
e) Hazards or barriers for pedestrians or bicyclists?	X	

**Transportation - Discussion**

**Issues:** Transportation issues include traffic, access, circulation, safety, and parking. Vehicle, bicycle and pedestrian, and transit modes of transportation are all considered, as well as emergency vehicle access. The City General Plan Circulation Element contains policies addressing circulation, traffic, and parking in the City.

**Impact Evaluation Guidelines:** A proposed project may have a significant impact on traffic/ circulation/ parking if it would:

Vehicle Traffic

- Cause an increase in traffic that is substantial in relation to the existing traffic load and street system capacity (see traffic thresholds below).
- Cause insufficiency in transit system.
- Conflict with the Congestion Management Plan (CMP) or Circulation Element or other adopted plan or policy pertaining to vehicle or transit systems.

Circulation and Traffic Safety

- Create potential hazards due to addition of traffic to a roadway that has design features (e.g., narrow width, roadside ditches, sharp curves, poor sight distance, and inadequate pavement structure) or that supports uses that would be incompatible with substantial increases in traffic.
- Diminish or reduce safe pedestrian and/or bicycle circulation.
- Result in inadequate emergency access on-site or to nearby uses.

Parking

- Result in insufficient parking capacity for the projected amount of automobiles and bicycles.

**Traffic Thresholds of Significance:** The City uses Levels of Service (LOS) “A” through “F” to describe operating conditions at signalized intersections in terms of volume-to-capacity (V/C) ratios, with LOS A (0.50-0.60 V/C) representing free flowing conditions and LOS F (0.90+ V/C) describing conditions of substantial delay. The City General Plan Circulation Element establishes the goal for City intersections to not exceed LOS C (0.70-0.80 V/C).

For purposes of environmental assessment, LOS C at 0.77 V/C is the threshold Level of Service against which impacts are measured. An intersection is considered “impacted” if the volume to capacity ratio is .77 V/C or greater.

Project-Specific Significant Impact: A project-specific significant impact results when:

- Project peak-hour traffic would cause a signalized intersection to exceed 0.77 V/C, or
- The V/C of an intersection already exceeding 0.77 V/C would be increased by 0.01 (1%) or more as a result of project

peak-hour traffic.

For non-signalized intersections, delay-time methodology is utilized in evaluating impacts.

Significant Cumulative Contribution: A project would result in a significant contribution to cumulative traffic impacts when:

- (a) Project peak-hour traffic together with other cumulative traffic from existing and reasonably foreseeable pending projects would cause an intersection to exceed 0.77 V/C, or
- (b) Project would contribute traffic to an intersection already exceeding 0.77 V/C.

## Transportation – Existing Conditions and Project Impacts

### 11.a) Traffic

#### Long-Term Traffic

The project site is located in the Eucalyptus Hill neighborhood and is accessed from Eucalyptus Hill Drive, a private road off of Eucalyptus Hill Road. Milpas Street, located to the southwest of the site, is the closest arterial and provides access to the beach and Highway 101 to the south and many east-west connectors to the north. All the nearby intersections operate at an acceptable level, per City thresholds. The project is expected to generate approximately three a.m. peak hour trips and 3 p.m. peak hour trips and 30 average daily trips. When these trips are added to the existing street network they would result in a less than significant impact to traffic.

#### Short-Term Construction Traffic

The project includes approximately 3,090 cubic yards of cut and 2,830 cubic yards of fill, resulting in approximately 260 cubic yards exported cut. Based on an estimated average of 10 cubic yards per truck trip, this would generate approximately 26 truck trips during the grading process. Based on the limited scope of the project, potential temporary construction related traffic impacts would be temporary and would not be significant. City Transportation Planning staff have determined that the existing roadway network is sufficiently designed to handle the additional vehicle trips. Standard mitigation measures are recommended to minimize adverse impacts to the neighborhood. These include restrictions on the hours permitted for construction trips and approval of routes for construction traffic.

### 11.b, e) Access/Circulation Hazards

Access drives meeting minimum City width and slope standards are proposed for the site. The project site is located off a private road and adequate line of sight distance from the proposed ingress/egress points have been provided. Less than significant traffic safety impacts of the project would occur.

### 11.c) Emergency Access

The Fire Department has reviewed the site plan for the proposed project and indicates that emergency access is adequate and access/distance from fire-fighting equipment to the proposed structures meets standards. Therefore, Less than significant impacts to emergency access would occur.

### 11.d, e) Parking

No sharp curves, inadequate sight distance or dangerous intersections are present in this area. Adequate on-site parking for the residences would be provided with the proposed garages, consistent with City minimum requirements. No parking supply impacts on- or off-site have been identified.

## Transportation – Recommended Mitigation

**T-1 Construction Traffic.** The haul routes for all construction-related trucks, three tons or more, entering or exiting the site, shall be approved by the Transportation Engineer. Construction-related truck trips shall not be scheduled during peak hours (7:00 a.m. to 9:00 a.m. and 4:00 p.m. to 6:00 p.m.) to help reduce truck traffic and noise on adjacent streets and roadways. The route of construction-related traffic shall be established to minimize trips through surrounding residential neighborhoods.

**T-2 Construction Parking.** Construction parking and vehicle/equipment/materials storage shall be provided as follows:

1. During construction, free parking spaces for construction workers shall be provided on-site.
2. On-site or off-site storage shall be provided for construction materials, equipment, and vehicles. Storage of construction materials within the public right-of-way is prohibited.

**Transportation – Residual Impact**

Impacts associated with transportation/circulation are considered *less than significant*. Recommended mitigation measures would minimize the nuisance associated with construction traffic.

12. WATER ENVIRONMENT Could the project result in:	NO	YES <i>Level of Significance</i>
a) Changes in absorption rates, drainage patterns, or the rate and amount of surface runoff?		Potentially Significant, Mitigable
b) Exposure of people or property to water related hazards such as flooding?	X	
c) Discharge into surface waters?		Potentially Significant, Mitigable
d) Change in the quantity, quality, direction or rate of flow of ground waters?		Less than Significant
e) Increased storm water drainage?		Potentially Significant, Mitigable

**Water – Discussion**

**Issues:** Water resources issues include changes in offsite drainage and infiltration/groundwater recharge; storm water runoff and flooding; and water quality.

**Impact Evaluation Guidelines:** A significant impact would result from:

Water Resources and Drainage

- Substantially changing the amount of surface water in any water body or the quantity of groundwater recharge.
- Substantially changing the drainage pattern or creating a substantially increased amount or rate of surface water runoff that would exceed the capacity of existing or planned drainage and storm water systems.

Flooding

- Locating development within 100-year flood hazard areas; substantially altering the course or flow of flood waters or otherwise exposing people or property to substantial flood hazard.

Water Quality

- Substantial discharge of sediment or pollutants into surface water or groundwater, or otherwise degrading water quality, including temperature, dissolved oxygen, or turbidity.

**Water Resources – Existing Conditions and Project Impacts**

**12.a, d, e) Drainage and Surface Runoff Rate and Quality**

Drainage from the site sheet flows to the southern boundary of the parcels, into neighboring properties, and eventually into the public right-of-way. The site is within the Andre Clark Bird Refuge watershed. The two parcels are currently

developed with approximately 11,500 square feet of impervious area, including buildings, hardscape, and driveway. The project proposes to demolish the existing buildings and hardscape and construct four new residences and associated driveways, resulting in an increase of approximately 37,500 square feet of impervious surface. The project includes two stormwater retention areas; a 900 square foot retention area for the upper parcel and a 600 square foot retention area for the lower parcel. The retention areas were designed to retain the increase in runoff for a 25-year storm event as a result of the proposed project, as described in a preliminary stormwater study prepared by Triad/Holmes Associates. A 24" storm drain is also proposed, starting at the bottom of the foundation for the upper parcel's retention area, and would be directed through a proposed easement over the private property at 860 Woodland Drive.

Based on the preliminary drainage calculations in the study, the potential total overland flow for a 100-year storm event is estimated as a total of 9.4 CFS, an increase of 1.6 CFS from the existing conditions estimate of 7.8 CFS. Approximately 7.6 CFS is proposed to be directed the 24" storm drain across the property located at 860 Woodland Drive and then to the public right-of-way.

Development of the project would result in an increase in impervious surface coverage, so the change in quantity of water is considered *potentially significant*. The proposed drainage design would prevent an increase of stormwater runoff by retaining increased flows on-site. By implementing adequate drainage facilities to reduce potential runoff to pre-development levels, the project would be consistent with the City's Storm Water Management Plan and potential impacts to runoff rates would be reduced to a *less than significant* level.

The conceptual drainage design provided has been reviewed by the Building & Safety Division and generally meets City standards. Development of a final engineered design would be required prior to issuance of building permits. Mitigation Measure W-3 is recommended to ensure that the proposed drainage system continues to be maintained and functional.

No groundwater was encountered at a depth of 20 feet during exploratory boring as a part of the soil analysis. Therefore, impacts to groundwater are considered *less than significant*.

#### **12.b) Flooding**

According to the FEMA Federal Flood Insurance Program Flood Insurance Rate Map for the City of Santa Barbara, the project site is not located within the 100-year floodplain or an area otherwise subject to flooding. Flooding impacts are considered *not significant*.

#### **12.c) Water Quality**

Long-Term (Operational) Impacts. See 12.a, d, e above. The proposed project would include on-site retention for the purpose of allowing no increase in runoff as a result of the project, as well as the installation of a new storm drain. The project site does not abut any natural drainage courses. Impacts from discharge into surface waters would be *less than significant*.

Short-Term (Construction) Impacts. Project grading activities and construction of the new structures have the potential to create erosion and sedimentation, which may result in a *potentially significant, mitigable impact* to water quality. With the implementation of an Erosion Control Plan, the potential for short-term water quality impacts due to erosion and sedimentation during grading and construction would be reduced to a *less than significant level*.

### **Water Resources – Required Mitigation**

**W-1 Drainage and Water Quality.** Any increase in runoff above existing conditions shall be retained on site, consistent with the City's NPDES Guidelines. Project plans for grading, drainage, stormwater facilities, and project development, shall be subject to review and approval by City Building Division and Public Works Department per City regulations. Sufficient engineered design and adequate measures shall be employed to ensure that no significant construction-related or long-term effects from increased runoff, erosion and sedimentation, urban water quality pollutants, or groundwater pollutants would result from the project. The Owner shall maintain the storm drain and retention areas consistent with an approved maintenance plan. This plan shall be provided with the building plan submittal for review and approval by Community Development prior to approval of building permits.

**W-2 Construction Erosion/Sedimentation Control Plan.** Appropriate erosion/sediment control devices between the construction zone and adjacent areas shall be installed prior to initiation of grading or construction activities and shall be maintained throughout the duration all construction phases on the site as mitigation for short-term impacts to water quality from erosion and sedimentation. The applicant shall submit and obtain Building Division or Public Works Department approval of a detailed erosion control plan for the project prepared by a licensed or certified professional soil erosion and sediment control specialist, a California licensed civil engineer, landscape architect, registered geologist, or a licensed architect. The plan shall include Best Management Practices approved by the City and Regional Water Quality Control Board, and shall include, at a minimum, the following:

1. Minimize the area of bare soil exposed at one time (phased grading).
2. Install silt fence, sand bag, hay bale or silt devices where necessary around the project site to prevent offsite transport of sediment.
3. Bare soils shall be protected from erosion by applying heavy seeding, within five days of clearing or inactivity in construction.
4. Construction entrances should be stabilized immediately after grading and frequently maintained to prevent erosion and control dust.
5. During construction of the home, the contractor and/or property owner shall protect the storm drain inlets from sediment-laden runoff.
6. Erosion control materials (i.e. sandbags, strawbales, and silt fencing) shall be used to trap and filter sediment before entering the storm drain.
7. Establish fuel and vehicle maintenance staging areas located away from all drainage courses, and design these areas to control runoff.
8. Maintain and wash equipment and machinery in confined areas specifically designed to control runoff. Thinners or solvents should not be discharged into sanitary or storm sewer systems. Washout from concrete trucks should be disposed of at a location not subject to runoff and more than 50 feet away from a storm drain, open ditch or surface water.
9. Construction site operators shall be responsible for implementation of sedimentation control and good housekeeping measures in accordance with the approved erosion control plan and the Public Works Department Procedures for the Control of Runoff into Storm Drains and Watercourses. City (Building Division or Public Works Department) staff will site inspect to ensure proper installation, ongoing implementation, and effectiveness of approved BMPs, and may adjust requirements in the field if necessary to protect water quality.

### **Water Resources – Recommended Mitigation**

**W-3 Permeable Paving.** Permeable/porous paving materials shall be utilized where possible to reduce the impermeability of hardscape surfaces.

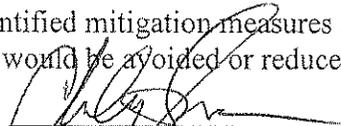
**Water Resources – Residual Impact**

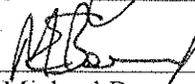
With implementation of identified mitigation measures W-1 and W-2, potentially significant impacts associated with drainage, surface water run-off and short-term water quality would be reduced to a less than significant level. Impacts associated with surface water run-off could be further reduced with implementation of mitigation measure W-3.

<b>MANDATORY FINDINGS OF SIGNIFICANCE.</b>		<b>YES</b>	<b>NO</b>
a)	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 the major periods of California history or prehistory?		X
b)	Does the project have the potential to achieve short-term, to the disadvantage of long-term, environmental goals?		X
c)	Does the project have potential impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?		X
d)	Does the project have potential environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?		X

**INITIAL STUDY CONCLUSION**

On the basis of this initial evaluation it has been determined that the proposed project may have a significant effect on the environment. With identified mitigation measures agreed-to by the applicant, potentially significant impacts in all issue areas would be avoided or reduced to less than significant levels.

Case Planner/Initial Study Preparer:  Chelsey Swanson, Assistant Planner

Environmental Analyst:  Michael Berman Date: 4/2/2007

**EXHIBITS:**

- A. Project Plans
- B. Architectural Board of Review Minutes, dated July 19, 2004, September 20, 2004, and May 8, 2006.
- C. URBEMIS 2002 ver. 8.7, project construction and operation emission estimates.
- D. Oak Tree Assessment and Protection Plan prepared by Bill Spiewak Consulting Arborist, dated September 21, 2006
- E. Biological Survey prepared by Condor Environmental Planning Services, Inc, dated November 8, 2005
- F. Biological Impact Analysis of Revised Site Plan Response Letter prepared by Condor Environmental Planning Services, Inc, dated October 26, 2006
- G. Engineering Geology and Geotechnical Engineering Report prepared by Earth Systems Southern California, dated July 14, 2006

H. Preliminary Stormwater Study, prepared by Triad/Holmes Associates, dated July 2006

I. Public Comment Letters Regarding Draft Mitigated Negative Declaration

J. Responses to Comments Regarding Draft Mitigated Negative Declaration

K. Mitigation Monitoring Reporting Program (MMRP)

#### **LIST OF SOURCES USED IN PREPARATION OF THIS INITIAL STUDY**

The following sources used in the preparation of this Initial Study are located at the Community Development Department, Planning Division, 630 Garden Street, Santa Barbara and are available for review upon request.

California Environmental Quality Act (CEQA) & CEQA Guidelines

General Plan Circulation Element

General Plan Conservation Element

General Plan Land Use Element

General Plan Noise Element w/appendices

General Plan Map

General Plan Seismic Safety/Safety Element

General Plan Update 2030: Conditions, Trends and Issues Report

Geology Assessment for the City of Santa Barbara

2004 Housing Element

Institute of Traffic Engineers Parking Generation Manual

Institute of Traffic Engineers Trip Generation Manual

Master Environmental Assessment

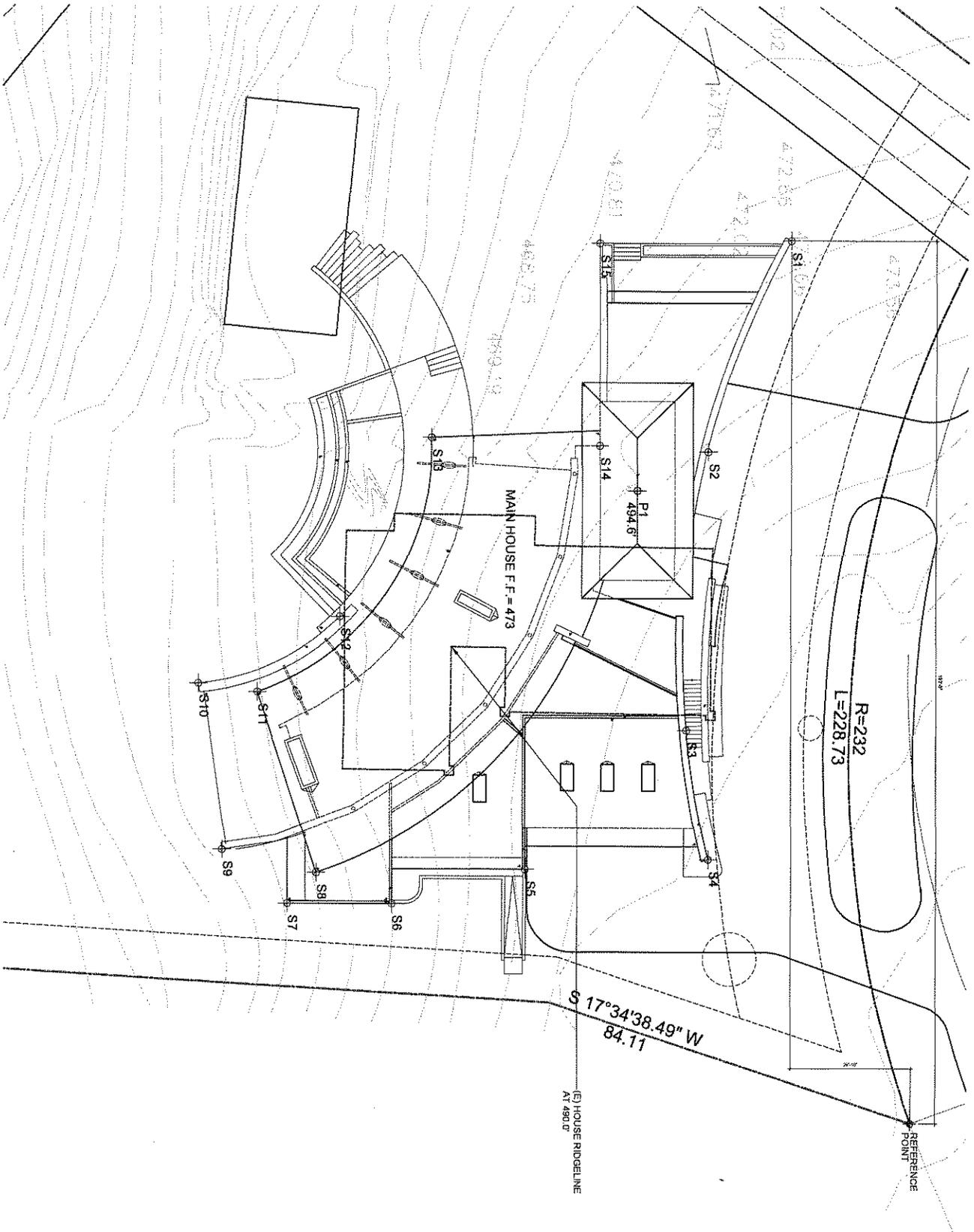
Santa Barbara Municipal Code

Special District Map

Uniform Building Code as adopted by City







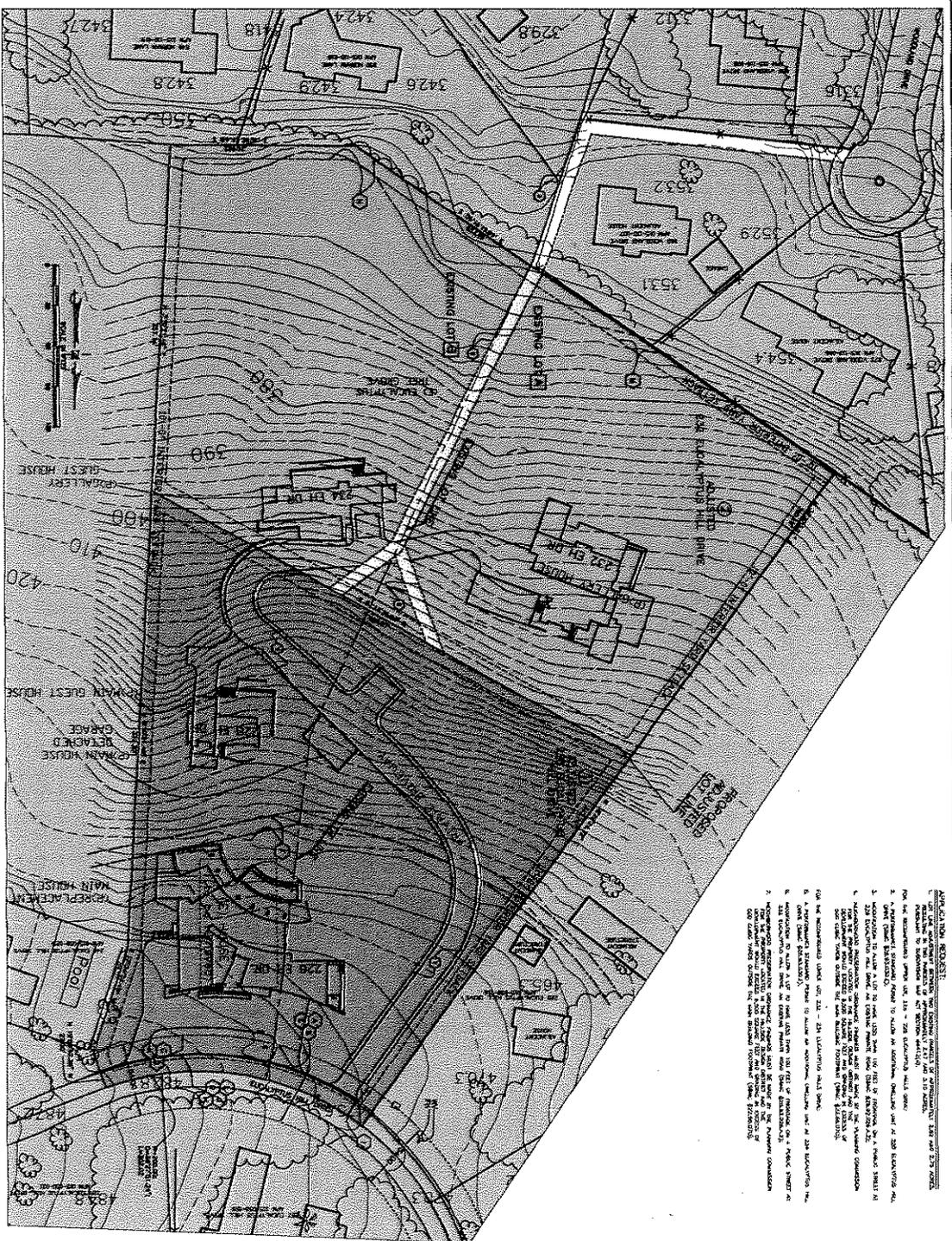
<p><b>STORY POLE LEGEND</b></p> <p>1. STORY POLES TO BE SHOWN IN EACH CORNER OF THE BUILDING.</p> <p>2. STORY POLES TO BE SHOWN IN EACH CORNER OF THE BUILDING AND AT THE MIDPOINT OF EACH SIDE.</p> <p>3. STORY POLES TO BE SHOWN IN EACH CORNER OF THE BUILDING AND AT THE MIDPOINT OF EACH SIDE.</p>	
<p><b>P</b></p> <p><b>X-XX"</b></p> <p><b>BUILDING HEIGHT POLES:</b></p> <p>1. STORY POLES TO BE SHOWN IN EACH CORNER OF THE BUILDING AND AT THE MIDPOINT OF EACH SIDE.</p>	<p><b>S</b></p> <p><b>BUILDING CORNER STAKES:</b></p> <p>1. STORY POLES TO BE SHOWN IN EACH CORNER OF THE BUILDING AND AT THE MIDPOINT OF EACH SIDE.</p>
<p><b>EUCALYPTUS HILL RESIDENCE</b></p> <p>32.500 EUCALYPTUS HILL</p> <p><b>SHUBIN+DONALDSON</b></p> <p>ARCHITECTS INC.</p> <p>2018.03.01</p> <p>MAN HOUSE</p> <p>STORY POLE PLAN</p>	
<p><b>T.03</b></p>	











**PROJECT SET DATA:**  
 TITLE: LOT LINE ADJUSTMENT  
 DATE: 10/20/2006  
 DRAWN BY: [Name]  
 CHECKED BY: [Name]  
 PROJECT NO: 018-030-017 & 018

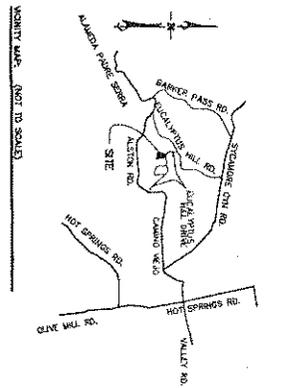
**PROPOSED LOT LINES:**  
 1. PROPOSED LOT LINE ADJUSTMENT  
 2. PROPOSED LOT LINE ADJUSTMENT  
 3. PROPOSED LOT LINE ADJUSTMENT

**EXISTING LOT LINES:**  
 1. EXISTING LOT LINE ADJUSTMENT  
 2. EXISTING LOT LINE ADJUSTMENT  
 3. EXISTING LOT LINE ADJUSTMENT

**ASSASSOR'S PARCEL:**  
 018-030-017 & 018  
 CITY OF SANTA BARBARA  
 STATE OF CALIFORNIA  
 OCTOBER 2006

**GENERAL NOTES:**  
 1. THE LOT LINE ADJUSTMENT IS BASED ON THE RECORD MAP AND THE FIELD SURVEY.  
 2. THE LOT LINE ADJUSTMENT IS SUBJECT TO THE RECORD MAP AND THE FIELD SURVEY.  
 3. THE LOT LINE ADJUSTMENT IS SUBJECT TO THE RECORD MAP AND THE FIELD SURVEY.

**GENERAL NOTES:**  
 1. THE LOT LINE ADJUSTMENT IS BASED ON THE RECORD MAP AND THE FIELD SURVEY.  
 2. THE LOT LINE ADJUSTMENT IS SUBJECT TO THE RECORD MAP AND THE FIELD SURVEY.  
 3. THE LOT LINE ADJUSTMENT IS SUBJECT TO THE RECORD MAP AND THE FIELD SURVEY.



**LOT LINE ADJUSTMENT**  
 BETWEEN LOTS WITHIN  
 ASSASSOR'S PARCEL 018-030-017 & 018  
 CITY OF SANTA BARBARA  
 STATE OF CALIFORNIA  
 OCTOBER 2006







PROPOSED SITE PLAN  
SCALE: 1/8" = 1'-0"

<p><b>EUCALYPTUS HILL RESIDENCE</b></p> <p>1000 S. 100th Street, Suite 100, Kent, WA 98148</p> <p>TEL: 206.835.1234 FAX: 206.835.1235</p> <p>WWW.SHUBIN-DONALDSON.COM</p>	
<p><b>SHUBIN-DONALDSON</b></p> <p>ARCHITECTS</p> <p>1000 S. 100th Street, Suite 100, Kent, WA 98148</p> <p>TEL: 206.835.1234 FAX: 206.835.1235</p> <p>WWW.SHUBIN-DONALDSON.COM</p>	
<p>DATE: 10/15/2010</p> <p>PROJECT: EUCALYPTUS HILL RESIDENCE</p> <p>SCALE: 1/8" = 1'-0"</p> <p>PROJECT NO.: A0.02</p> <p>DATE: 10/15/2010</p>	
<p><b>A0.02</b></p> <p>PROPOSED SITE PLAN</p>	







**SCHEMATIC TREE PLANTING LIST**

The following list of trees is intended to provide a general guide for the selection of trees for the site. The list is not intended to be a final selection of trees for the site. The final selection of trees should be made in consultation with the landscape architect and the client. The list is intended to provide a general guide for the selection of trees for the site. The list is not intended to be a final selection of trees for the site. The final selection of trees should be made in consultation with the landscape architect and the client.

**SCHEMATIC PLANTING LIST**

The following list of plants is intended to provide a general guide for the selection of plants for the site. The list is not intended to be a final selection of plants for the site. The final selection of plants should be made in consultation with the landscape architect and the client. The list is intended to provide a general guide for the selection of plants for the site. The list is not intended to be a final selection of plants for the site. The final selection of plants should be made in consultation with the landscape architect and the client.

**SCHEMATIC MATERIALS LIST**

The following list of materials is intended to provide a general guide for the selection of materials for the site. The list is not intended to be a final selection of materials for the site. The final selection of materials should be made in consultation with the landscape architect and the client. The list is intended to provide a general guide for the selection of materials for the site. The list is not intended to be a final selection of materials for the site. The final selection of materials should be made in consultation with the landscape architect and the client.

**SCHEMATIC LIGHTING LIST**

The following list of lighting fixtures is intended to provide a general guide for the selection of lighting fixtures for the site. The list is not intended to be a final selection of lighting fixtures for the site. The final selection of lighting fixtures should be made in consultation with the landscape architect and the client. The list is intended to provide a general guide for the selection of lighting fixtures for the site. The list is not intended to be a final selection of lighting fixtures for the site. The final selection of lighting fixtures should be made in consultation with the landscape architect and the client.

**SCHEMATIC FURNITURE LIST**

The following list of furniture is intended to provide a general guide for the selection of furniture for the site. The list is not intended to be a final selection of furniture for the site. The final selection of furniture should be made in consultation with the landscape architect and the client. The list is intended to provide a general guide for the selection of furniture for the site. The list is not intended to be a final selection of furniture for the site. The final selection of furniture should be made in consultation with the landscape architect and the client.

**SCHEMATIC SIGNAGE LIST**

The following list of signage is intended to provide a general guide for the selection of signage for the site. The list is not intended to be a final selection of signage for the site. The final selection of signage should be made in consultation with the landscape architect and the client. The list is intended to provide a general guide for the selection of signage for the site. The list is not intended to be a final selection of signage for the site. The final selection of signage should be made in consultation with the landscape architect and the client.

**SCHEMATIC PAINTING LIST**

The following list of painting is intended to provide a general guide for the selection of painting for the site. The list is not intended to be a final selection of painting for the site. The final selection of painting should be made in consultation with the landscape architect and the client. The list is intended to provide a general guide for the selection of painting for the site. The list is not intended to be a final selection of painting for the site. The final selection of painting should be made in consultation with the landscape architect and the client.

**SCHEMATIC FINISHES LIST**

The following list of finishes is intended to provide a general guide for the selection of finishes for the site. The list is not intended to be a final selection of finishes for the site. The final selection of finishes should be made in consultation with the landscape architect and the client. The list is intended to provide a general guide for the selection of finishes for the site. The list is not intended to be a final selection of finishes for the site. The final selection of finishes should be made in consultation with the landscape architect and the client.

**HIGH FIRE HAZARD AREA LANDSCAPE GUIDELINES**

- ZONE 1** - This zone is located in a wetland area and is characterized by a high water table. The vegetation in this zone is primarily wetland plants and shrubs. The water table is generally 1 to 2 feet below the ground surface. The vegetation in this zone is primarily wetland plants and shrubs.
- ZONE 2** - This zone is located in a wetland area and is characterized by a high water table. The vegetation in this zone is primarily wetland plants and shrubs. The water table is generally 1 to 2 feet below the ground surface. The vegetation in this zone is primarily wetland plants and shrubs.
- ZONE 3** - This zone is located in a wetland area and is characterized by a high water table. The vegetation in this zone is primarily wetland plants and shrubs. The water table is generally 1 to 2 feet below the ground surface. The vegetation in this zone is primarily wetland plants and shrubs.
- ZONE 4** - This zone is located in a wetland area and is characterized by a high water table. The vegetation in this zone is primarily wetland plants and shrubs. The water table is generally 1 to 2 feet below the ground surface. The vegetation in this zone is primarily wetland plants and shrubs.
- ZONE 5** - This zone is located in a wetland area and is characterized by a high water table. The vegetation in this zone is primarily wetland plants and shrubs. The water table is generally 1 to 2 feet below the ground surface. The vegetation in this zone is primarily wetland plants and shrubs.

**SCHEMATIC PLANTING LIST**

- PLANTING LIST** - This list contains the names of the plants to be used in the landscape plan. The plants are listed in alphabetical order. The list includes the name of the plant, the quantity of plants, and the location of the plants.

**220, 228, 232 & 234**  
**EUWAL PTGS HILL DRIVE**  
 Euwal Ptgs Hill Drive  
 Euwal Ptgs Hill Drive  
 Euwal Ptgs Hill Drive

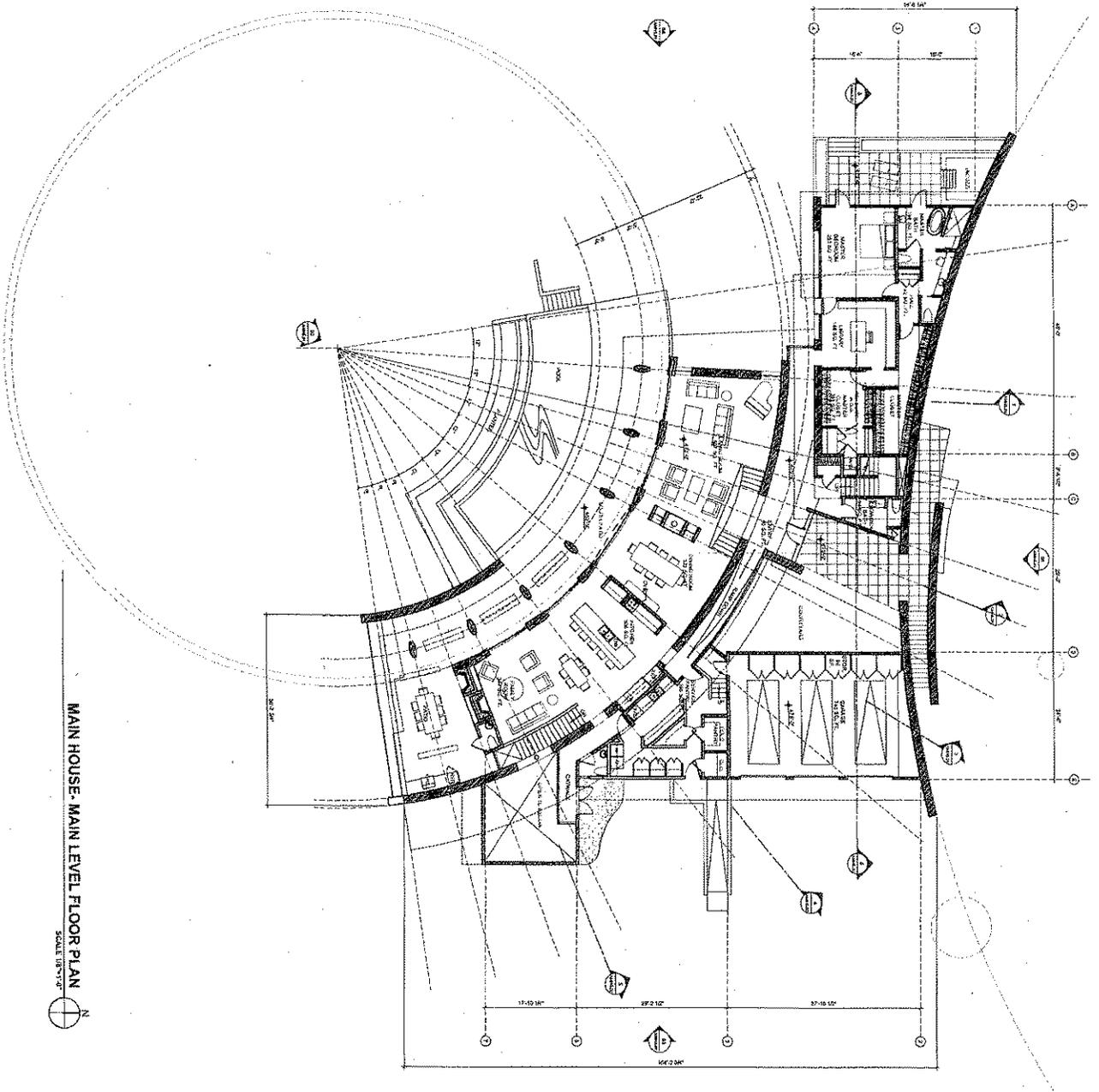
**SCHEMATIC LANDSCAPE PLAN**

**L12**

**SCHEMATIC LANDSCAPE PLAN**







MAIN HOUSE - MAIN LEVEL FLOOR PLAN  
SCALE 1/8" = 1'-0"

**EUCALYPTUS HILL RESIDENCE**  
1200 W. 10th St., Suite 100, Phoenix, AZ 85007  
TEL: 602.955.1234 FAX: 602.955.1235

**STEPHEN D. GARDNER ARCHITECTS**  
1000 N. 1st St., Suite 100, Phoenix, AZ 85004  
TEL: 602.254.1234 FAX: 602.254.1235

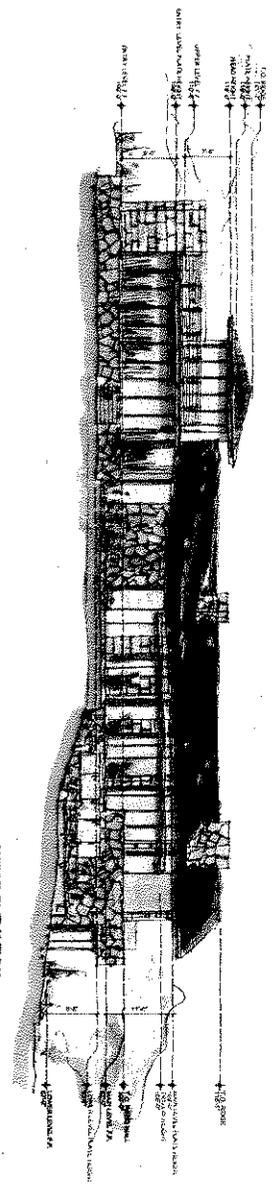
**AMH2.01**  
MAIN LEVEL  
FLOOR PLAN  
DATE: 10/15/01

DATE: 10/15/01  
SCALE: 1/8" = 1'-0"

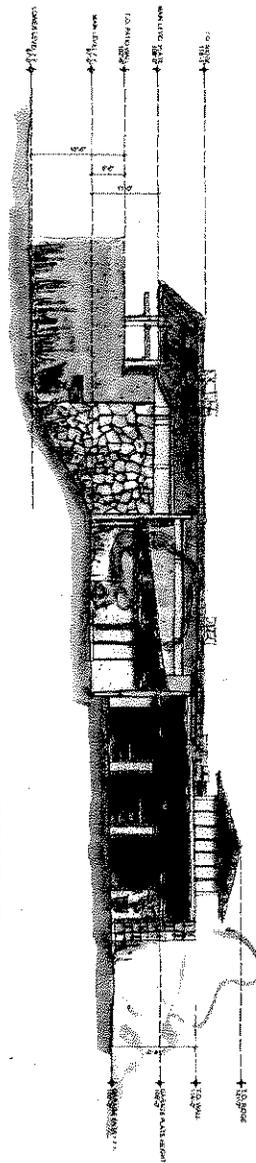
PROJECT: EUCALYPTUS HILL RESIDENCE  
SHEET: AMH2.01  
DRAWN BY: [Name]  
CHECKED BY: [Name]  
DATE: 10/15/01



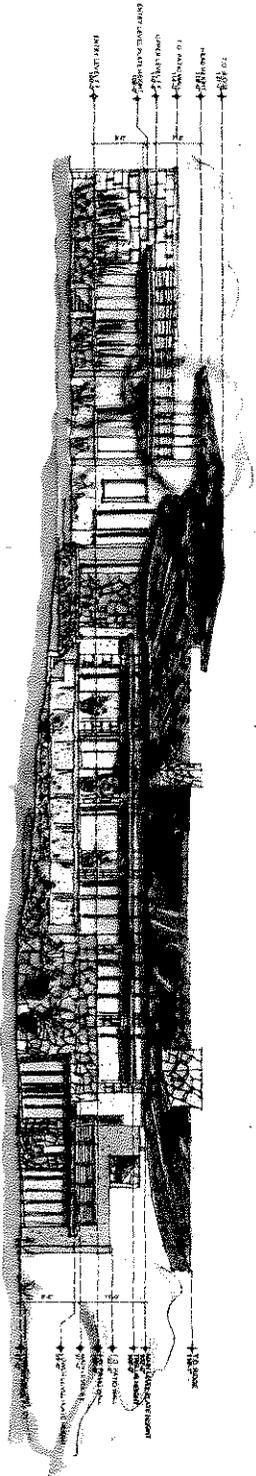




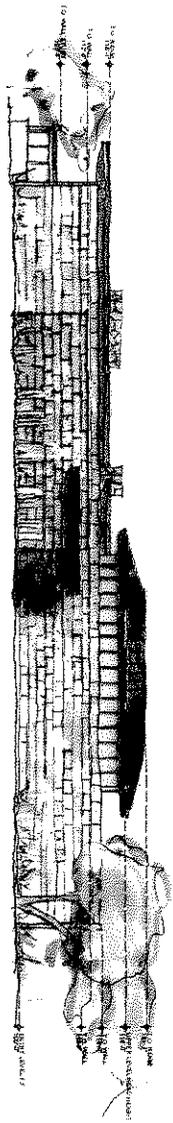
WEST ELEVATION 04



EAST ELEVATION 03



SOUTH ELEVATION 02



NORTH ELEVATION 01

**EUCALYPTUS HILL RESIDENCE**  
 2017 REDWOOD, CALIFORNIA

DATE: 05/15/17  
 DRAWING NO: AMH5.01  
 PROJECT NO: 17-0001

SCALE: AS SHOWN

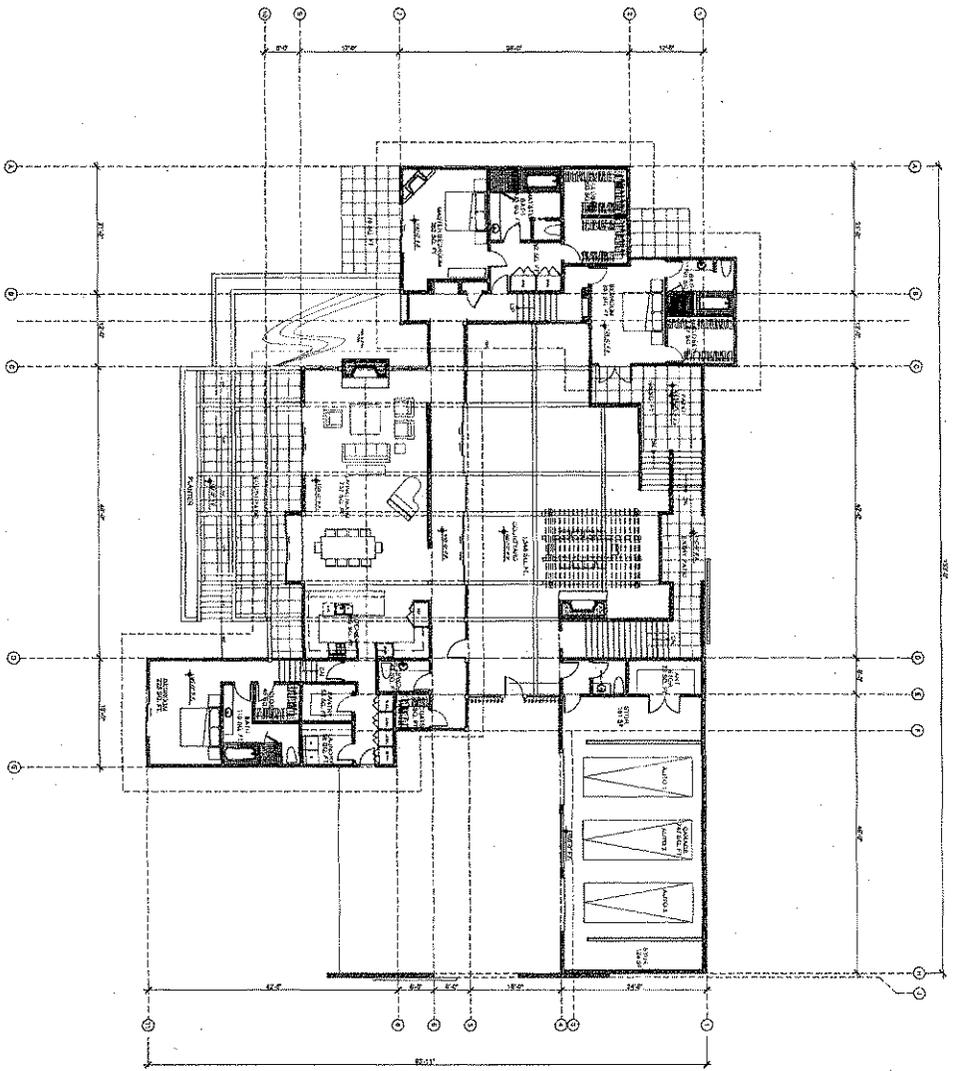
AMH5.01  
 ELEVATIONS  
 AMH/MSD









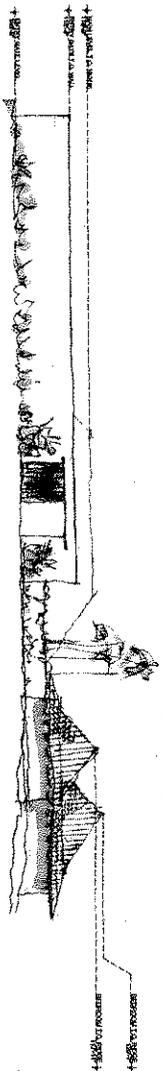


GALLERY HOUSE - MAIN LEVEL FLOOR PLAN

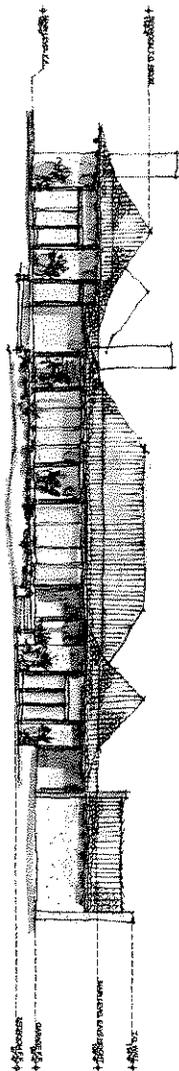


SCALE 1/8" = 1'-0"

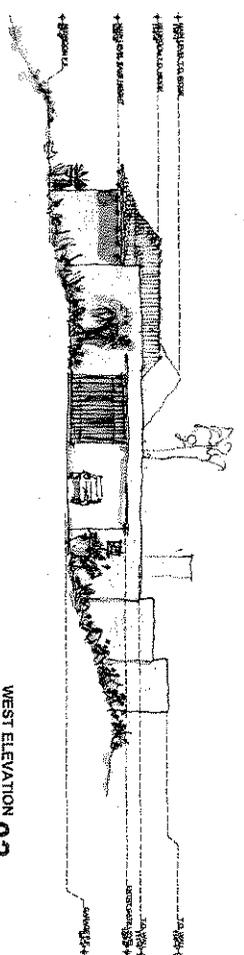
	
<b>EUCALYPTUS HILL RESIDENCE</b> 1400 EUCALYPTUS HILL DRIVE SANTA FE, VIRGINIA, VA 22988 540.338.3333	
DATE: 12/15/2010 PROJECT: EUCALYPTUS HILL RESIDENCE DRAWING NO.: AGH2.01 SHEET NO.: 1 OF 1 DESIGNER: JAMES R. SMITH CHECKED: JAMES R. SMITH SCALE: AS SHOWN	<p style="text-align: center;"><b>AGH2.01</b></p> <p style="text-align: center;">FLOOR PLAN</p> <p style="text-align: center;">GALLERY HOUSE</p>



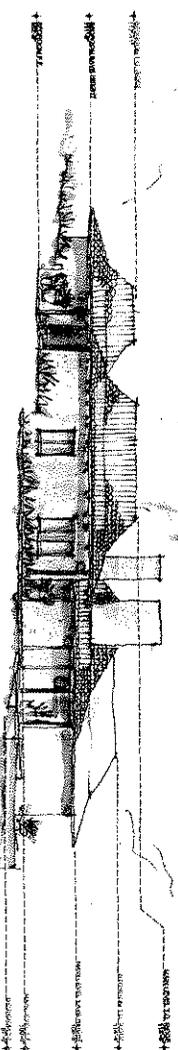
NORTH ELEVATION  
SCALE 1/8" = 1'-0"



SOUTH ELEVATION  
SCALE 1/8" = 1'-0"



WEST ELEVATION  
SCALE 1/8" = 1'-0"



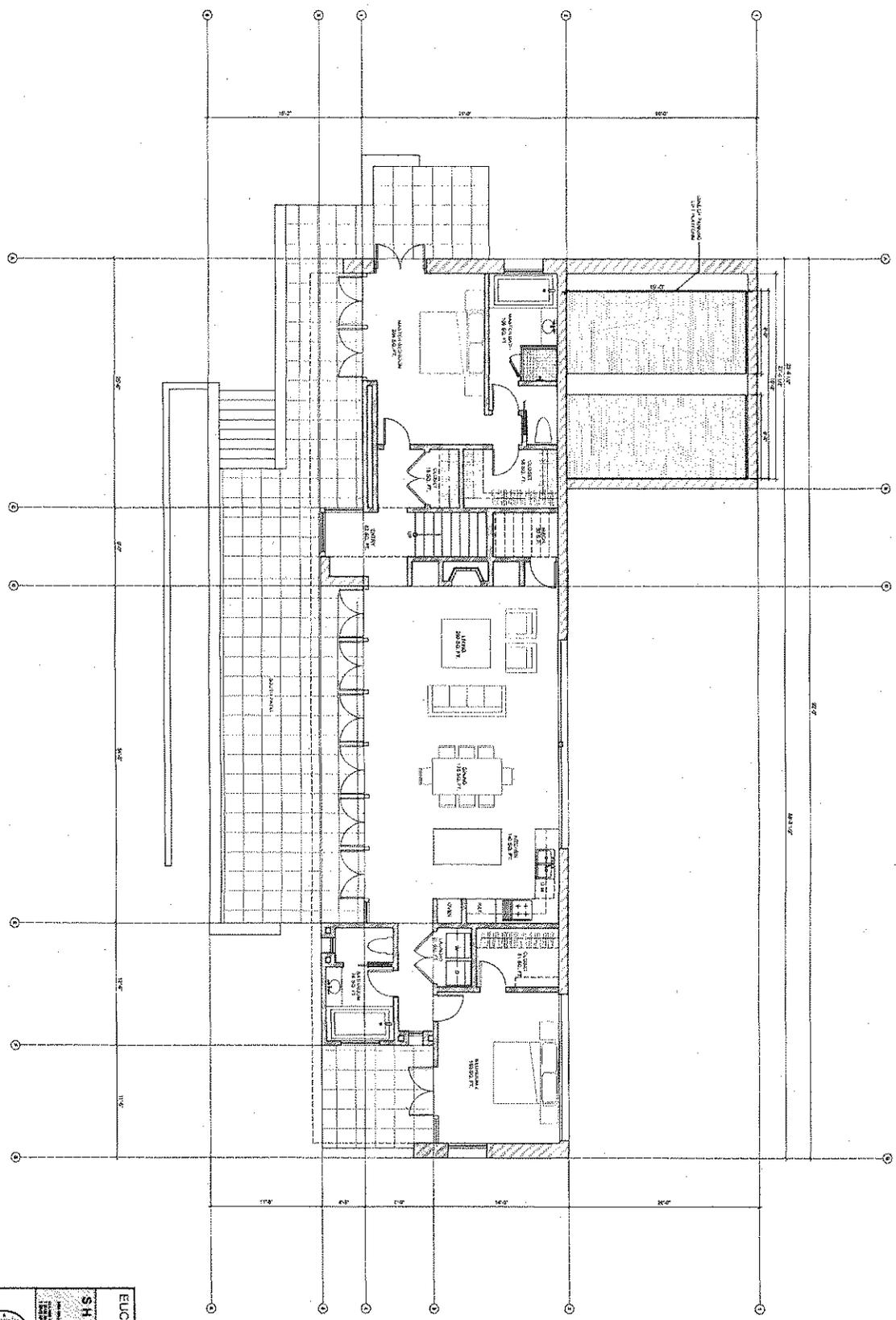
EAST ELEVATION  
SCALE 1/8" = 1'-0"

**EUCALYPTUS HILL RESIDENCE**  
 2400 EUCALYPTUS HILL DRIVE  
 SAN ANTONIO, TEXAS 78240  
 2011.11.11



**AGH5.01**  
 EXTENSION  
 ELEVATIONS  
 DWG. 11/11/11

DATE: 11/11/11  
 DRAWN BY: [Name]  
 CHECKED BY: [Name]  
 PROJECT NO.: [Number]  
 SHEET NO.: [Number]



GALLERY GUEST HOUSE - MAIN LEVEL FLOOR PLAN  
 SCALE: 1/8" = 1'-0"

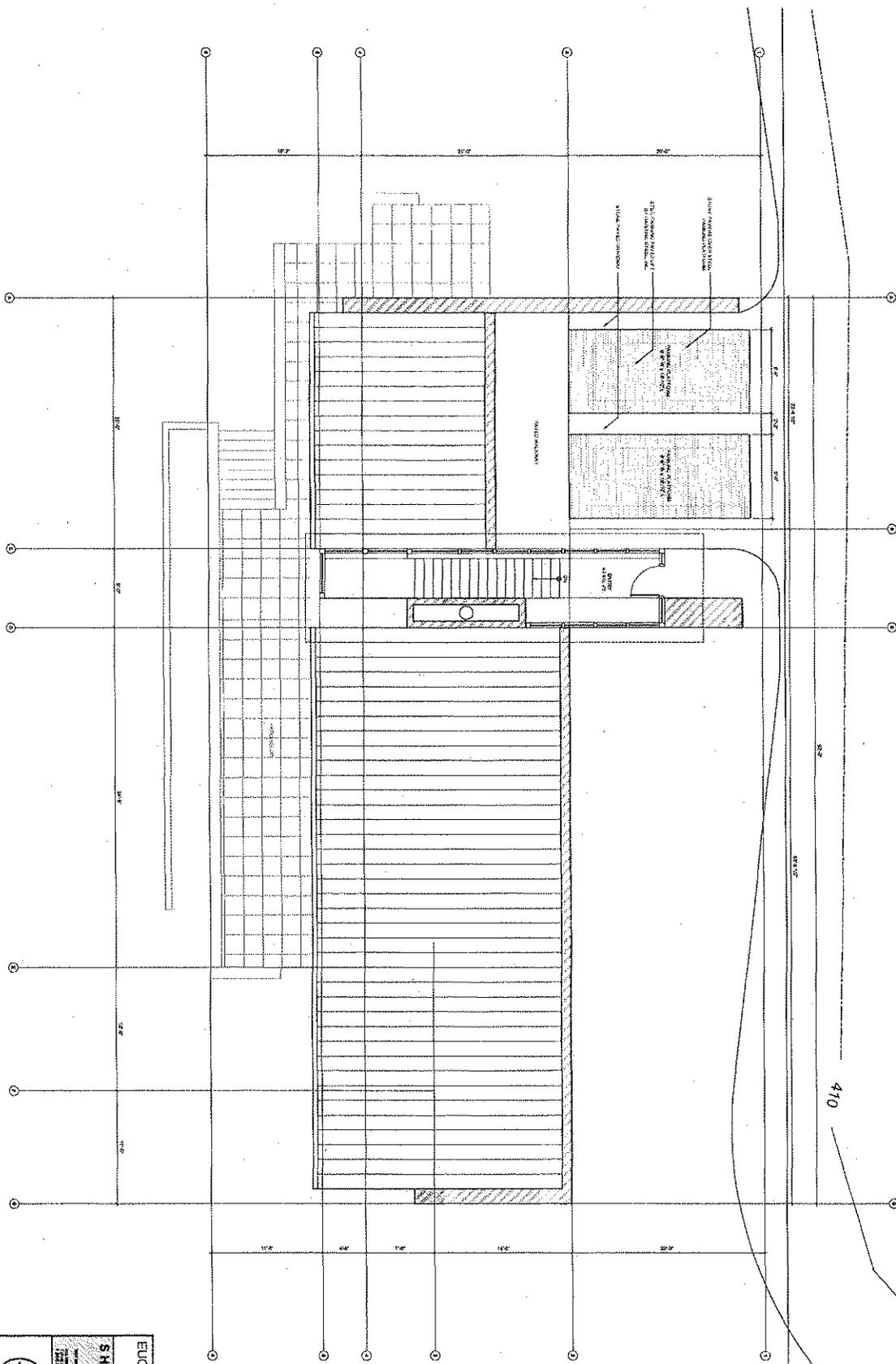


**EUCALYPTUS HILL RESIDENCE**  
 10000 EUCALYPTUS HILL DRIVE  
 DAVIS, CALIFORNIA 95618

**SHUBIN DONALDSON**  
 ARCHITECTS  
 10000 EUCALYPTUS HILL DRIVE  
 DAVIS, CALIFORNIA 95618  
 (916) 752-1000

**AGG2.01**  
 FLOOR PLAN  
 QUALITY CONTROL SHEET

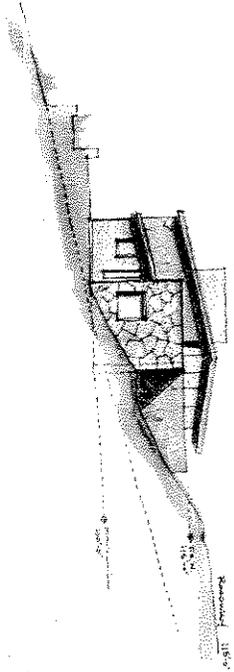
DATE: 08/15/01	DESCRIPTION: FLOOR PLAN
DESIGNED BY: SHUBIN DONALDSON	CHECKED BY: SHUBIN DONALDSON
DRAWN BY: SHUBIN DONALDSON	APPROVED BY: SHUBIN DONALDSON
SCALE: 1/8" = 1'-0"	PROJECT NO.: AGG2.01



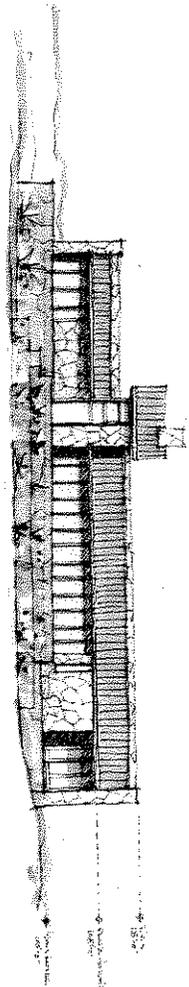
410

GALLERY GUEST HOUSE - ENTRY LEVEL FLOOR PLAN  
SCALE: 1/8" = 1'-0"

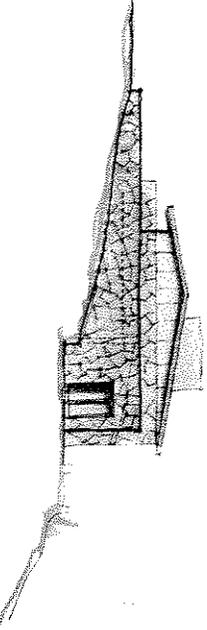
<p><b>EUCALYPTUS HILL RESIDENCE</b>          200 N. 10th St., Suite 100, Lubbock, TX 79401          806.792.1234</p>	
<p><b>SHUBIN+DONALDSON</b>          ARCHITECTS, INC.          1000 N. 10th St., Suite 100, Lubbock, TX 79401          806.792.1234</p>	
<p>PROJECT: EUCALYPTUS HILL RESIDENCE          DATE: 10/2011          DRAWING NO.: AGG2.02          SHEET NO.: 1 OF 1</p>	
<p>OWNER: EUCALYPTUS HILL RESIDENCE          200 N. 10th St., Suite 100, Lubbock, TX 79401</p>	
<p>DESIGNED BY: SHUBIN+DONALDSON ARCHITECTS, INC.          DRAWN BY: [Name]          CHECKED BY: [Name]          DATE: 10/2011</p>	
<p>AGG2.02          ENTRY LEVEL FLOOR          PLAN &amp; ROOF PLAN</p>	



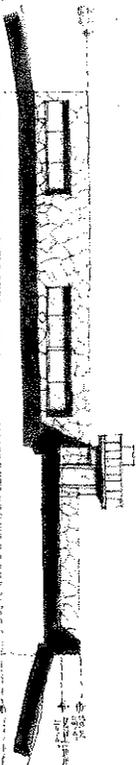
**EAST ELEVATION 04**  
SCALE 1/8" = 1'-0"



**SOUTH ELEVATION 03**  
SCALE 1/8" = 1'-0"



**WEST ELEVATION 02**  
SCALE 1/8" = 1'-0"

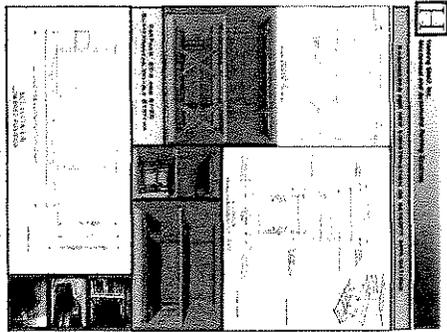


**NORTH ELEVATION 01**  
SCALE 1/8" = 1'-0"

**EUCALYPTUS HILL RESIDENCE**  
 200 EUCALYPTUS HILL  
 SAN ANTONIO, TEXAS 78205

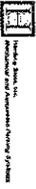
AGG5.01  
 EXTERIOR  
 ELEVATIONS

ARCHITECT: [Logo]  
 DATE: [Blank]  
 DRAWN BY: [Blank]  
 CHECKED BY: [Blank]  
 PROJECT NO.: [Blank]  
 SHEET NO.: [Blank]

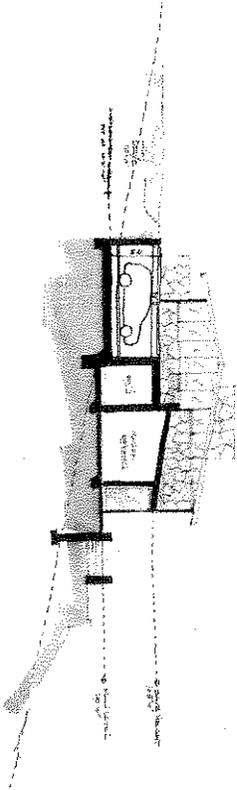
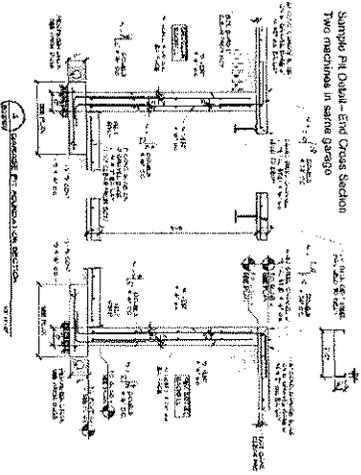


GarpaX SF-2  
Product and Fit  
Specifications

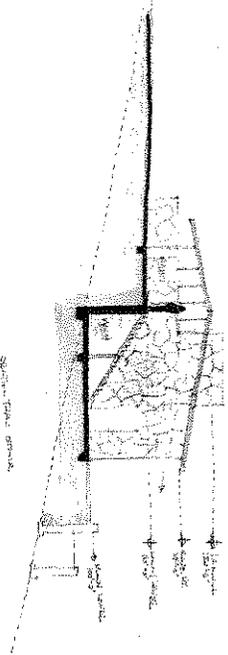
ITEM NO.	DESCRIPTION	QTY	UNIT	PRICE	TOTAL
1	GarpaX SF-2 Garage Door	1	Sq Ft	1200.00	1200.00
2	Transom Window	1	Sq Ft	150.00	150.00
3	Decorative Panel	2	Sq Ft	75.00	150.00
4	Hardware	1	Set	50.00	50.00
5	Installation	1	Hour	100.00	100.00
6	Paint	1	Gal	20.00	20.00
7	Sealant	1	Tube	10.00	10.00
8	Weatherstripping	1	Linear Ft	10.00	10.00
9	Subtotal				1680.00
10	Tax				168.00
11	Total				1848.00



Sample Pit Detail - End Cross Section  
Two machines in same garage



SECTION THROUGH SUBTERRANEAN GARAGE 02  
SCALE 1/8" = 1'-0"



STAIR SECTION 01  
SCALE 1/8" = 1'-0"

**EUCALYPTUS HILL RESIDENCE**  
1000 EUCALYPTUS HILL DRIVE  
DUBLIN, CALIFORNIA 94568

**SHUBIN TOONALDSON**  
ARCHITECTS  
1000 EUCALYPTUS HILL DRIVE  
DUBLIN, CALIFORNIA 94568  
TEL: (925) 851-1000  
WWW.SHUBINTOONALDSON.COM

**AGG6.01**  
GARAGE QUESTIONS  
SECTIONS & FINISHING PLANS

DATE: 08/15/2011  
DRAWN BY: J. SHUBIN  
CHECKED BY: M. TOONALDSON  
SCALE: AS SHOWN

**CONCEPT REVIEW - NEW ITEM****2. 226 EUCALYPTUS HILL DR**

A-2 Zone

Assessor's Parcel Number: 015-050-017  
 Application Number: MST2004-00349  
 Owner: CYNTHIA DEE HOWARD  
 Applicant: L & P Consultants  
 Architect: Shubin & Donaldson

(Proposal for a lot line adjustment between two lots (2.76 and 2.67 acres) to create a 3.10-acre and 2.34-acre lot. Also proposed is demolition of the existing single family residence and accessory buildings, and construction of a new 5,000 sq. ft. residence and detached guesthouse at 232 Eucalyptus Hill Drive, and construction of a new 5,000 sq. ft. residence and 1,500 sq. ft. guesthouse at 226 Eucalyptus Hill Drive. A Conditional Use Permit for an additional dwelling unit on each lot is required.)

**(COMMENTS ONLY; PROJECT REQUIRES ENVIRONMENTAL ASSESSMENT, PLANNING COMMISSION APPROVAL OF CONDITIONAL USE PERMIT, NEIGHBORHOOD PRESERVATION ORDINANCE COMPLIANCE, MODIFICATIONS, AND A LOT LINE ADJUSTMENT, AND A PUBLIC HEARING.)**

(4:32)

Robyn Donaldson, Architect; Kim Maciorowski, Project Captain; and Brent Daniels, Applicant, present.

Public comment opened at 5:00 p.m., but seeing no one who wished to speak, it was closed.

Staff Comment: Renee Brooke, Case Planner, stated that staff has completed a pre-application review of the lot line adjustment proposal with the modifications and that staff has concerns with the proposed lot line adjustment not being consistent with the surrounding neighborhood. Staff feels that a reasonable development similar to what the applicant is proposing can be accomplished with the existing lot configuration. Staff has suggested that the applicant adjust the line near the road rather than turning the lot line on a ninety degree angle. Staff also is concerned with the length of the driveway to the lower house and recommends locating the house closer to the street.

Motion: Continued indefinitely with the following comments:

General overall site design: 1) The Board can support the densities of the development, the size of the buildings, and the number of garage parking spaces; given the sizeable and reconfigured lots. 2) The lower lot (226) is not viewed by the general public in such a way that the amount of development is adverse to the public hillside. 3) Provide further documentation of the experience on Eucalyptus Hill Drive to determine the supportability of the walled scheme and the double entry points of the driveway. 4) Reduce the length and amount of driveways and hardscapes required for automobile access to the site. 5) Determine if one way driveway point would suffice for the upper unit. 6) Ensure that a balance of the existing trees is not disrupted and provide documentation of a tree protection removal plan. 7) Be sensitive to reflectivity of roof materials.

232 Eucalyptus Hill: 1) The Board can support the low slung nature of the plan with a very minimal two story. 2) Provide more complete elevation drawings on the main house and the guest house. 3) The Board has no initial objections to the contemporary style of the house. 4) The general plan of the guesthouse appears acceptable.

226 Eucalyptus Hill: 1) Provide southern elevation of the main house. 2) Make an effort to minimize the driveway.

Action: Bartlett/Larson, 8/0/0.

**CONCEPT REVIEW - CONTINUED ITEM**

4. **226 EUCALYPTUS HILL DR**

Assessor's Parcel Number: 015-050-017  
Application Number: MST2004-00349  
Owner: Cynthia Dee Howard, Trustee  
Applicant: L & P Consultants  
Architect: Shubin & Donaldson

(Proposal for a lot line adjustment between two lots (2.76 and 2.67 acres) to create a 3.10-acre and 2.34-acre lot. Also proposed is demolition of the existing single family residence and accessory buildings, and construction of a new 5,000 sq. ft. residence and detached guesthouse at 232 Eucalyptus Hill Drive, and construction of a new 5,000 sq. ft. residence and 1,500 sq. ft. guesthouse at 226 Eucalyptus Hill Drive. A Conditional Use Permit for an additional dwelling unit on each lot is required.)

(Second Review)

**(COMMENTS ONLY; PROJECT REQUIRES ENVIRONMENTAL ASSESSMENT, PLANNING COMMISSION APPROVAL OF CONDITIONAL USE PERMIT, NEIGHBORHOOD PRESERVATION ORDINANCE COMPLIANCE, MODIFICATIONS, AND A LOT LINE ADJUSTMENT.)**

**(4:59)**

Robyn Donaldson, Architect; Kim Maciorowski, Project Captain; and Brent Daniels, Applicant, present.

Motion: Continued indefinitely with the following comments: The general overall site design: 1) The Board can support the densities of the development, the size of the buildings, and the number of garage parking spaces; given the size and reconfigured lots. 2) The lower lot (226) is not viewed by the general public in such a way that the amount of development is adverse to the public view of the hillside. 3) The Board is comfortable with the walled scheme of the front elevation, as it has shown compatible with the neighborhood, but it should be lowered by an additional 18 inches in relationship to the street. 4) The Board appreciates the reduction in the hardscape on the site plan with respect to the elimination of driveway areas and changing the guest house driveway. 5) The Board suggests that the guest parking at the lower house be designed to combine with the requirements of the Fire Department turn around area hammerhead. 6) The Board appreciates that the reduced paving has maintained more of the existing trees from the previous scheme. 7) The natural materials of stone, plaster, copper and glass chosen for the project are important to integrating the contemporary architecture into the existing neighborhood.

232 Eucalyptus Hill: 1) The Board likes the stepping nature of the house the way it descends into the hillside. 2) The Board likes the contemporary style of the house. 3) The general plan of the guesthouse is acceptable. 4) The metal roof should be copper, to ensure that it patinas naturally and is compatible with the neighborhood.

226 Eucalyptus Hill: 1) The Board looks forward to seeing plans for the southern elevation. 2) One Board member suggested providing stone elements on the courtyard walls.

Action: Bartlett/LeCron, 7/0/0.

**CONCEPT REVIEW - CONTINUED ITEM****7. 226 EUCALYPTUS HILL DR**

A-2 Zone

Assessor's Parcel Number: 015-050-017  
Application Number: MST2004-00349  
Owner: Cynthia Dee Howard, Trustee  
Applicant: L & P Consultants  
Architect: Shubin & Donaldson

(Proposal for a lot line adjustment between two lots (2.76 and 2.67 acres) to create a 3.10-acre and 2.34-acre lot. Also proposed is demolition of the existing single-family residence and accessory buildings, and construction of a new 5,000 sq. ft. residence and detached guesthouse at 232 Eucalyptus Hill Drive, and construction of a new 5,000 sq. ft. residence and 1,500 sq. ft. guesthouse at 226 Eucalyptus Hill Drive. A Conditional Use Permit for an additional dwelling unit on each lot is required.)

**(Third Concept Review)**

**(COMMENTS ONLY; PROJECT REQUIRES ENVIRONMENTAL ASSESSMENT, PLANNING COMMISSION APPROVAL OF CONDITIONAL USE PERMIT, NEIGHBORHOOD PRESERVATION ORDINANCE FINDINGS, MODIFICATIONS, AND A LOT LINE ADJUSTMENT.)**

(6:24)

Kim Maciorowski, Architect for Shubin & Donaldson, present.

Motion: Continued indefinitely to Planning Commission with the following comments: 1) As to the General Overall Site Design: The Board can support the densities of the development, the size of the buildings, and the number of garage parking spaces and not covered parking spaces; given the reconfiguration of the lots and that they are not visible by the general public. 2) The lower lot (226 Eucalyptus Hill) is not viewed by the general public and mostly concealed within the natural woodshed of the lower terrain. 3) The Board is comfortable with the walled scheme of the front elevation on the upper house; given the natural material palette with sandstone walls, and copper roofs that mostly slope toward the downhill view of the site. 4) The Board appreciates the reduction in the hardscape of the revised site planning effort, the minimize driveway areas, and the less paving visible from Eucalyptus Hill Drive. 5) The parking for the guest house at 226 Eucalyptus Hill Drive is a clever solution utilizing the sunken lift garage which helps to minimize the circulation and paving area presented on a prior scheme. 6) The architecture of the upper house (232 Eucalyptus Hill) is low in profile and barely visible beyond the wall presenting from Eucalyptus Hill Drive. 7) The use of the hip roof is acceptable to the other elements of the design. 8) The copper roof material is acceptable as presented. 9) As to the Guest House for 232 Eucalyptus Hill Drive: The Board finds it is tucked well into hillside, and the natural sandstone materiality helps it blend into the setting. 10) The Board is comfortable with the adjacent detached garage with the landscaped roof as it tucks into the hillside. 11) As to the Lower House of 226 Eucalyptus Hill Drive: The Board is comfortable with the siting around the central courtyard. 12) Some Board members are concerned with the proposed glazed roof tile, which should be a green tone coloration to blend with the landscape. 13) The Board looks forward to a more detailed landscape plan that expands the plant palette, walking paths, the proposed water features, locates all underground utilities to mitigate and preserve any oak trees, shows all proposed retaining walls including their height and materiality, and addresses the new entry driveway through the oak grove to clearly depict the oak trees to remain and those to be removed and/or replaced.

Action: LeCron/Wienke, 8/0/0.

URBEMIS 2002 For Windows 8.7.0

File Name: <Not Saved>  
Project Name: 3 unit construction  
Project Location: Santa Barbara County  
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT  
(Pounds/Day - Summer)

CONSTRUCTION EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2005 ***							
TOTALS (lbs/day, unmitigated)	0.02	0.01	0.23	0.00	0.00	0.00	0.00

	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2006 ***							
TOTALS (lbs/day, unmitigated)	16.38	0.02	0.38	0.00	0.00	0.00	0.00

URBEMIS 2002 For Windows 8.7.0

File Name: <Not Saved>  
Project Name: 226 Eucalyptus Hill Drive  
Project Location: Santa Barbara County  
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT  
(Pounds/Day - Summer)

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day, unmitigated)	0.40	0.61	4.99	0.01	0.49



# Bill Spiewak

CONSULTING ARBORIST

Registered Consulting Arborist #381 • American Society of Consulting Arborists

September 21, 2006

Brent Daniels  
L & P Consultants  
3 West Carrillo St., Suite 205  
Santa Barbara, Ca. 93101

962-4611  
729-3233 cell

RECEIVED  
OCT 30 2006  
CITY OF SANTA BARBARA  
PLANNING DIVISION

**RE: Oak Tree Assessment and Protection for 226 - 234 Eucalyptus Hill Dr. Santa Barbara**

## SUMMARY

The development at this site includes construction of several structures and infrastructure that is adjacent to, and within the root zones of several oaks. Of the seventeen oak trees covered by this report, four oaks will need to be removed for the project and three trees will be impacted to the extent that warrants tree replacement. Along with tree protection guidelines including fencing, I recommend planting seventy (70), one-gallon saplings as a mitigation measure and effort toward conservation of the oak resource. The text below presents the details of my findings and recommendations.

## BACKGROUND

I was contacted by Brent Daniels, Land Use Planner from L & P Consultants, regarding development at the Howard residence on 226-234 Eucalyptus Hill Drive, a multiple parcel property. Ms. Cyndee Howard is proposing to build a residence with a guesthouse and garage and two additional homes on this five and one half-acre parcel. Portions of the project are adjacent to and/or conflict with several oak trees, and required an assessment by an arborist prior to approval of the City of Santa Barbara Planning Department. I met on the site with Brent Daniels and Cyndee Howard on 9/18/06 to review the site plan and look at the trees.

## ASSIGNMENT

I have been assigned to assess potential impacts to 17 oak trees (identified on the plan as #1-13, 21, 22, 23 and 24) and provide an opinion with mitigation measures, and tree protection relative to this project.

## LIMITS OF THE ASSIGNMENT

- This report is based on review of the Landscape Plans, sheets L1.1 & L1.2 of plan set dated 8/8/06 in conjunction with a site visit.
- My assignment was limited to assessment of oak trees #1-13 and #22-24.
- I have not performed any exploratory excavation of the root zone due to lack of need.

EXHIBIT D

### USE OF REPORT

I intend for this report:

- To fulfill the city requirement of providing an oak tree assessment and projection plan.
- To assist the homeowner and developer in protection and replacement of selected oak trees.

### PROJECT ELEMENTS

The following project elements were incorporated into this report:

- A visual on -site tree assessment with site plan.
- A tree inventory presented in table form including the 17 oaks, identified by numbers that corresponds with sheet L1.1 and L1.2 of the 8/8/06 plan set. The table includes the tree number, DBH (diameter at breast height measured at 54" above ground), their condition, potential impacts from the project and mitigation measures. T
- A discussion on tree impacts from the proposed project and opportunities for planting.
- Recommendations for tree protection and mitigation.
- A site map with the numbered trees, areas of potential impacts, fencing locations, and suggested areas for tree planting.

### GENERAL OBSERVATIONS

The oaks relative to this assignment are predominantly on the upper portion (northwestern edge) of the property. These include oaks #4-6 and 9-13. They are grouped in one location and appear to be in good condition. The project calls for an improved driveway that runs along side several of these trees and leads downward to the southern portion of the property. This driveway is the improvement of an existing unimproved access road, which extends to the south of the property.

There is also a proposed terrace on the south side of the main house that conflicts with a portion of oak #13.

On the west side of this group above, are several oaks that have not had equal care and conflict with understory shrubs and pittosporum. These include oaks #1-3 and 7-8. Although not as high quality as the former, they contribute to a vegetative screen between neighboring properties and contribute to the oak tree resource.

Impacts from driveway construction will be from initial grading, root ripping and compaction, during preparation for the new asphalt/concrete surface. Manual excavation along the edges of the proposed driveway and clean cutting of roots, prior to commencement of grading, can reduce impacts by controlling the extent of damage. Protecting remaining roots is critical and often a positive step in preserving a tree.

Four oaks, #21-24, located at mid-section of the property have not received the same care as the other oaks at the top and are not as structurally sound. It is proposed to remove these oaks for the project, to allow construction of a guesthouse and hammerhead in the driveway.

A large grove of eucalyptus trees at the south section of the 5.5 acres, extend to the east and west onto adjacent properties. Although these trees have been thinned for fire suppression, the large grove to the east and west of the Howard property remains very dense, and potentially hazardous. It would also appear that eucalyptus domination has suppressed the growth of native oak trees.

## OAK INVENTORY

DBH = Diameter at Breast Height; CRZ = Critical Root Zone

TREE #	DBH	CRZ	CONDITION	COMMENT
1	12"	12'	Fair condition-tree receives little maintenance. Understory shrubbery conflicts with tree.	Proposed driveway is on east side of trunk. Less than 20% encroachment into CRZ. Fence at edge of driveway and follow tree protection measures.
2	14"	14'	Fair condition-tree receives little maintenance. Understory shrubbery conflicts with tree.	Proposed driveway is on east side of trunk. Approximately 20% encroachment into CRZ. Fence at edge of driveway and follow tree protection measures.
3	7 7/8"	15'	Fair condition-tree receives little maintenance. Understory shrubbery conflicts with tree.	Proposed driveway is on east side of multiple trunks. Approximately <del>30%</del> encroachment into CRZ. Fence at edge of driveway and follow tree protection measures. <b>Mitigate impact by planting 10 saplings.</b>
4	13"	13'	Good condition, well pruned but soil could be improved with more leaf liter.	At edge of proposed project, but no impact if protected with fencing.
5	13"	13'	Good condition, well pruned but soil could be improved with more leaf liter.	At edge of proposed project, but no impact if protected with fencing.
6	12"	12'	Good condition, well pruned but soil could be improved with more leaf liter.	At edge of proposed project, but no impact if protected with fencing.
7	9"	9'	Fair condition-tree receives little maintenance. Understory shrubbery conflicts with tree.	At edge of proposed project, but no impact if protected with fencing.
8	12"	12'	Fair condition-tree receives little maintenance. Understory shrubbery conflicts with tree.	Proposed driveway is on east side of trunk. Approximately 20% encroachment into CRZ. Fence at edge of driveway and follow tree protection measures.
9	20"	20'	Good-well pruned but soil conditions could be improved with more leaf liter	Proposed driveway is on west side of tree. Approximately <del>40%</del> encroachment into CRZ. Manually excavate soil along edge of driveway, within CRZ and cleanly cut roots. Install fence between tree and edge of work zone. <b>Significant encroachment that warrants planting 10 one-gallon saplings.</b>
10	14"	14'	Good condition, well pruned but soil could be improved with more leaf liter.	At edge of proposed project, but no impact if protected with fencing.
11	19"	19'	Good condition, well pruned but soil could be improved with more leaf liter.	At edge of proposed project, but no impact if protected with fencing.
12	14"	14'	Good condition, well pruned but soil could be improved with more leaf liter.	At edge of proposed project, but no impact if protected with fencing.
13	23"	23'	Good condition, well pruned but	Approximately <del>25%</del> encroachment into

			soil could be improved with more leaf liter.	CRZ from construction of proposed south terrace of house. Manually excavate soil along edge of proposed construction, within CRZ, and cleanly cut roots. Install fence between tree and edge of work zone. <b>Significant encroachment that warrants planting 10 one-gallon saplings.</b>
21	5 3/4"	9'	Poor- tree is a sprout that has not been maintained, co-dominant trunks will most-likely split	<del>Remove</del> for project, <b>mitigate by planting 10 one-gallon saplings.</b>
22	18"	18'	Poor-tree had split on south side and has a large column of decay from ground up to 6'.	<del>Remove</del> for project, <b>mitigate by planting 10 one-gallon saplings.</b>
23	3 3/3"	6'	Poor- tree is a sprout that has not been maintained, co-dominant trunks will most-likely split	<del>Remove</del> for project, <b>mitigate by planting 10 one-gallon saplings.</b>
24	17"	17'	Fair-tree is very dense and has some broken limbs, not maintained	Proposed hammerhead for fire department access will encroach into about 755 of CRZ. <del>Remove</del> for project, <b>mitigate by planting 10 one-gallon saplings.</b>

## DISCUSSION

Generally speaking, preparation a dirt driveway for a new surface requires removal of several inches of topsoil, re-compaction of the excavated grade (depending on soil composition), replacement and compaction of additional soil, and the final surface covering. This process usually includes damaging roots of adjacent trees. Damage is exacerbated when heavy equipment rips roots beyond the designated driveway parameters.

Young oak trees, such as these, can often survive impacts, especially when the extent of root damage can be anticipated and somewhat controlled. This is accomplished by manual excavation of trenches along the sides of the driveway within the critical root zones and hand cutting roots, thus limiting the extent of damage. Supplemental irrigation to those roots that remain can provide adequate water, assisting the tree to survive and aiding in the growth of new roots. Applying a protective pesticide (of permethrin – trade name *Astro*) to the lower trunks of oaks in spring and again in late summer or early fall, can reduce risks of attack by fatal oak bark beetles.

Although survival and renewal of vigor cannot be guaranteed, the process is often successful. To compensate for possible loss of trees, planting new saplings can mitigate losses. Planting ten saplings (one-gallon in size) per each tree impacted or removed, offers a reasonable assurance that there will be a meaningful amount of oak trees on site for the long term, thus significantly contributing to conservation of the oak resource.

The aggressiveness of the eucalyptus genus can easily be recognized when observing the southern portion of the Howard property and the adjacent neighbors' property. As this non-native tree vigorously reproduces, oaks become subordinate, until phased out. Although I am unaware of the history of this parcel, it is evident that eucalyptus trees grow wherever allowed and contribute to the high fire potential created by their oily crowns. Oaks hardly stand a chance unless the area is managed.

Concerned about their aggressiveness and fire potential, Cyndee Howard has participated in thinning and removal of eucalyptus trees on her property. Her management of the southern section of the parcel subsequently provides an opportunity to plant a grove of oaks as a mitigation measure, prompted by a combination of removal and impacts to the seven oaks identified above.

It should also be noted, that while the current Landscape Plan identifies numerous 24-inch box oaks to be planted in and among the existing oak cluster; I am concerned that this size may contribute additional impacts to the existing oaks. A 24 inch box would required a rather large hole for planting purposes (typically a 4'x 4'x 4') and in effect could increase the amount of impact to the oaks not currently impacted by the proposed driveway. The recommendation to plant more one-gallon saplings would avoid this potential impact and benefit both the existing trees as well as the newly planted oaks. Utilizing saplings benefit the oak resource and mitigate more effectively in the long run.

## CONCLUSIONS

- Four oaks will be removed for the project and three will be impacted. These conflicts warrant planting of seventy (70) young saplings.
- Tree protection guidelines will minimize impacts to oaks close to construction, as best as reasonable.
- Planting a grove of saplings at the south section off the property could begin to establish a significant grove of oaks, that with proper management, could reduce the domination of the non-native and fire prone eucalyptus trees.

## RECOMMENDATIONS

1. Tree protection recommendations should be discussed at a pre-conference meeting with all contractors prior to any construction activities.
2. CRZs and TPZs should be defined.
  - a) The CRZ is an area around the tree sensitive to disturbance, where the concentration of roots lies below the ground. This is an area that has a 1' radius per inch of DBH as identified in the tree inventory.
  - b) The TPZ is discussed in item #3 below and includes the fenced area around the tree but may not include the entire CRZ.
3. Fences should be installed as indicated on the fencing plan. These fenced areas are called TPZs (Tree Protection Zones). Fencing should remain upright and intact throughout the duration of the project.
4. TPZs should be void of any activities (unless specified in this plan), which may include but is not limited to heavy equipment use, storage or dumping of materials, accumulation of soil for later use. Violation of TPZs could cause additional impacts and result in the need to plant additional trees.
5. Any roots encountered within the CRZ of trees, even if outside of TPZs, should be cleanly cut to an undisturbed portion of the root. In areas where roots are cut, the soil profile should be irrigated to reduce drying of newly exposed soil and subsequently, damage to remaining roots in that profile. The amount, area and frequency of irrigation dependent on damage and weather, and should be determined by the project arborist. Repeated irrigations will likely be necessary.
6. A permethrin-based pesticide (*Astro*) should be applied to the lower six feet of trunk of all oaks (particularly those stressed from root cutting) in the spring and in late summer or early fall to reduce the risk of attack by fatal oak bark beetles. This may need to be repeated for several years.
7. The project arborist should monitor activities within CRZs during the initial demolition and grading and periodically throughout the project to insure that tree protection zones are maintained as recommended.
8.
  - a) Trees to be planted should be one-gallon in size. These may be grown from acorn or purchased from a local nursery that grows trees from seed.
  - b) Several oaks should be planted among the grove by the driveway (east and west sides). The remaining saplings should be planted between the new structures and the eucalyptus grove at the south side of the property. Consideration should be given to fire zones and suggested clearances referred to in the landscape plan.
  - c) Planting should be done after completion of the construction. In order to prevent oak trees from continual "hedge-type" pruning, trees should be planted where they will least likely restrict vistas over the long term, but should also form a continuous line between the east and west sides of the property.
  - d) Newly planted saplings should be irrigated with drip for the first year until they appear to be established. Cages around the saplings may need to be installed during planting, to prevent wildlife from damaging the trees.
  - e) Some eucalyptus may need to be removed over time to avoid conflicts among trees and encourage the oak population.

## ARBORISTS DISCLOSURE STATEMENT AND CERTIFICATION OF PERFORMANCE

Arborists are tree specialists who use their education, knowledge, training and experience to examine trees, recommend measures to enhance the beauty and health of trees, and attempt to reduce the risk of living near trees. Clients may choose to accept or disregard the recommendations of the arborist, or to seek additional advice.

Arborists cannot detect every condition that could possibly lead to structural failure of a tree. Trees are living organisms that fail in ways we do not fully understand. Conditions are often hidden within trees and below ground. Arborists cannot guarantee that a tree will be healthy or safe under all circumstances, or for a specified period of time. Likewise, remedial treatments, like any medicine, cannot be guaranteed.

Treatment, pruning and removal of trees may involve considerations beyond the scope of the arborist's services such as property boundaries, property ownership, site lines, disputes between neighbors, and other issues. Arborists cannot take such considerations into account unless complete and accurate information is disclosed to the arborist. An arborist should then be expected to reasonably rely upon the completeness and accuracy of the information provided.

Trees can be managed, but they cannot be controlled. To live near a tree is to accept some degree of risk. The only way to eliminate all risk associated with trees is to eliminate all trees.

I Bill Spiewak, certify:

- That I have personally inspected the trees on the property referred to in this report and have stated my findings accurately.
- The analysis, opinions and conclusions stated herein are my own and are based on current scientific procedures and commonly accepted arboricultural practices.

Signed: \_\_\_\_\_

Bill Spiewak  
Registered Consulting Arborist #381  
American Society of Consulting Arborists

Board Certified Master Arborist #310-B  
International Society of Arboriculture





**CONDOR ENVIRONMENTAL  
PLANNING SERVICES, INC.**

**Biological Survey  
Howard Lot Line Adjustment  
226 and 232 Eucalyptus Hill Drive  
Santa Barbara, California  
November 8, 2005**



*Prepared by:*

Elihu Gevirtz, Jennifer Jackson, and Vince Semonsen

*Prepared for:*

Cyndee Howard  
232 Eucalyptus Hill Drive  
Santa Barbara, California



## Background

This report has been prepared for Cyndee Howard, owner of two parcels at 226 and 232 Eucalyptus Hill Drive in Santa Barbara, California, in order to identify potential impacts to plant and wildlife species associated with a proposed lot line adjustment known as MST#2004-00349. The proposed development is comprised of a main house, main guest house, gallery house, and gallery guest house.

## Location

The property is located in southern Santa Barbara County, California at latitude 34.43349 and longitude -119.66188226 (Figure 1). The property addresses are 226 and 232 Eucalyptus Hill Drive in the City of Santa Barbara, near the intersection of Eucalyptus Hill Road and Eucalyptus Hill Drive (Figure 2). The project site generally slopes from north to south between approximately 476 feet and 393 feet (145 meters and 120 meters) in elevation.

## Objective

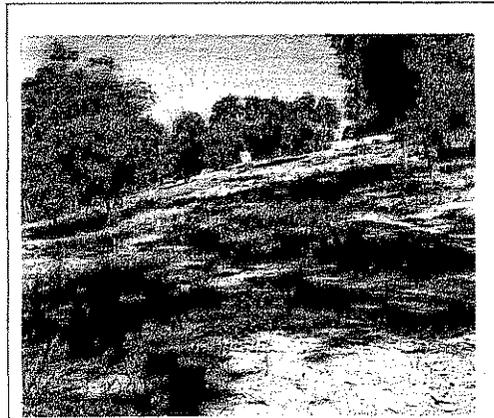
The objective of the biological survey and this report is to describe the existing environmental setting and onsite biological resources, assess the known and potential occurrence of endangered or special status plant and animal species and habitat on the property, and assess potential impacts associated with the proposed development, with particular attention to the trees on the property.

## Field Surveys

Condor Environmental biologists Vince Semonsen, Elihu Gevirtz, and Jennifer Jackson conducted wildlife and botanical surveys of the property on Thursday, September 15, 2005 from 10 a.m. until 12:30 p.m. Jennifer Jackson visited the site a second time on Wednesday, September 21, 2005 from 10:00 am to 3:00 pm, with the assistance of graduate student intern Bernhard Preusser, in order to collect DBH (diameter at breast height) and height measurements of potentially impacted trees on the property. A third survey was conducted by Elihu Gevirtz on Monday, October 31, 2005 to determine whether any monarch butterfly aggregations are present on the site.

## Weather Conditions

The first site visit was conducted amid sunny skies, virtually no wind, and a temperature of approximately 56° F (13 °C) rising to 72° (22 °C) by early afternoon. The second survey was conducted on a sunny day, no clouds, with a slight breeze, and a temperature of 72° F (22° C). The third was conducted in the late afternoon with blue skies, no wind, and a temperature of 85°.



**Photo 1:** View from mid-southwest quadrant of property near proposed gallery guest house site.

*Photograph by: Jennifer Jackson*

## Background Research

The California Department of Fish and Game Natural Diversity Database (CNDDDB) was reviewed on September 12, 2005 for records of sensitive plant and wildlife species in the vicinity. The results (provided in Appendix 1) indicate a total of 4 animal species and 1 plant species recorded on the 7.5-minute USGS Santa Barbara Quadrangle as shown in Tables 1 and 2 below.

**Table 1**  
**Sensitive Plant Species Listed in the Department of Fish and Game CNDDDB**  
**Santa Barbara Quadrangle**

Scientific name	Common name	Vegetation type in which it normally occurs
<i>Thermopsis macrophylla</i>	Santa Ynez False Lupine	Open sites in the Santa Ynez Mountains on gravelly to rocky substrates derived from sandstone at an altitude of 1000 - 1400 meters. Common chaparral associates include <i>Adenostoma fasciculatum</i> , <i>Arctostaphylos glandulosa</i> , and <i>Ceanothus leucodermis</i> .*
<b>Total Number:</b>	<b>1</b>	

\*Information confirmed by Dieter Wilken, Center of Plant Conservation, Santa Barbara Botanic Garden

**Table 2**  
**Sensitive Wildlife Species Listed in the Department of Fish and Game CNDDDB**  
**Santa Barbara Quadrangle**

Scientific Name	Common Name	Habitat type in which it normally occurs
<i>Charadrius alexandrinus nivosus</i>	Western Snowy Plover	Beaches and dunes
<i>Eucyclogobius newberryi</i>	Tidewater goby	Shallow water of lagoons and streams at or immediately near the coast.
<i>Rana aurora draytonii</i>	California red-legged frog	Streams, rivers, ponded wetland
<i>Riparia riparia</i>	Bank swallow	Steep, sandy riverbanks and man-made excavations
<b>Total Number</b>	<b>4</b>	

## Methods

A wildlife survey was conducted on foot by Condor biologists Vince Semonsen and Elihu Gevirtz on September 15, 2005 from 10 a.m. to 11:15 a.m. An initial botanical survey was conducted by Jennifer Jackson and Elihu Gevirtz later the same day from 11:15 a.m. to 12:30 p.m. Site characteristics, conditions, wildlife, and plants were observed and documented.

The property was revisited one week later on September 21, 2005 from 10:00 am to 3:00 pm in order to collect DBH and estimated height data for trees that could be impacted by the proposed development. Architectural plans were evaluated prior to the site visits and a

potential impact zone was defined in order to assess which trees could be impacted by development. It was estimated that the impact zone could include the building envelope plus a 50 foot (15 meter) construction buffer. Trees were identified and delineated as being within the potential impact zone or outside the impact zone. The lower half of the property was divided visually into 4 quadrants and data (DBH and estimated height) were collected for each tree in the vicinity of the proposed development. Tree DBH is defined as the outside bark diameter at breast height; and breast height is defined as 4.5 feet (1.37 meter) from the ground surface (International Society of Arboriculture 2005). Measurements were taken using a standard tape measure instead of a forester's diameter tape. Therefore, a conversion was performed back in the office using the following ratio: 3" on a tape measure = 1" on a diameter tape (City of Boston 2005). Additionally, a gps point was taken at nearly every tree surveyed, except where trees were growing immediately adjacent to one another, in which case a single gps point was used to express the location. The oak trees at the top (northern) portion of the property closest to Eucalyptus Hill Drive were not surveyed in this manner. Measurements of these trees were estimated on October 31.

On October 31 the Eucalyptus grove was surveyed for any monarch butterfly aggregations. The survey took place from 4:00 to 4:40 pm on a sunny and warm afternoon during the fall season when monarch butterflies are typically on the south coast. The surveyor walked through the Eucalyptus grove in a random manner, looking in each area of the grove. Eight power binoculars were used to facilitate the survey.

### Description of Property

Currently, the main residence exists on the northern edge of the easterly parcel on more or less level ground. Development has been proposed to occur south and southwest of the main residence on the portion of the property that steadily descends into a Eucalyptus grove at the southern end of the parcel. The majority of the slope is disturbed, in some areas entirely cleared of vegetation, and in other areas, dominated by non-native trees: Eucalyptus (*Eucalyptus globulus*), Acacia (*Acacia pycnantha* (?) and *Acacia baileyana* (?). (These two species identifications are preliminary and therefore marked with a "?". Flowers are required to complete the identification.) The vegetation clearing appears to have occurred years ago. Ground cover other than leaf litter is limited but includes non-native grasses, and occasional native and introduced low-growing plants such as greenspot (Douglas') nightshade (*Solanum douglasii*), poison oak (*Toxicodendron diversilobum*) and Mexican tea (*Chenopodium ambrosioides*).

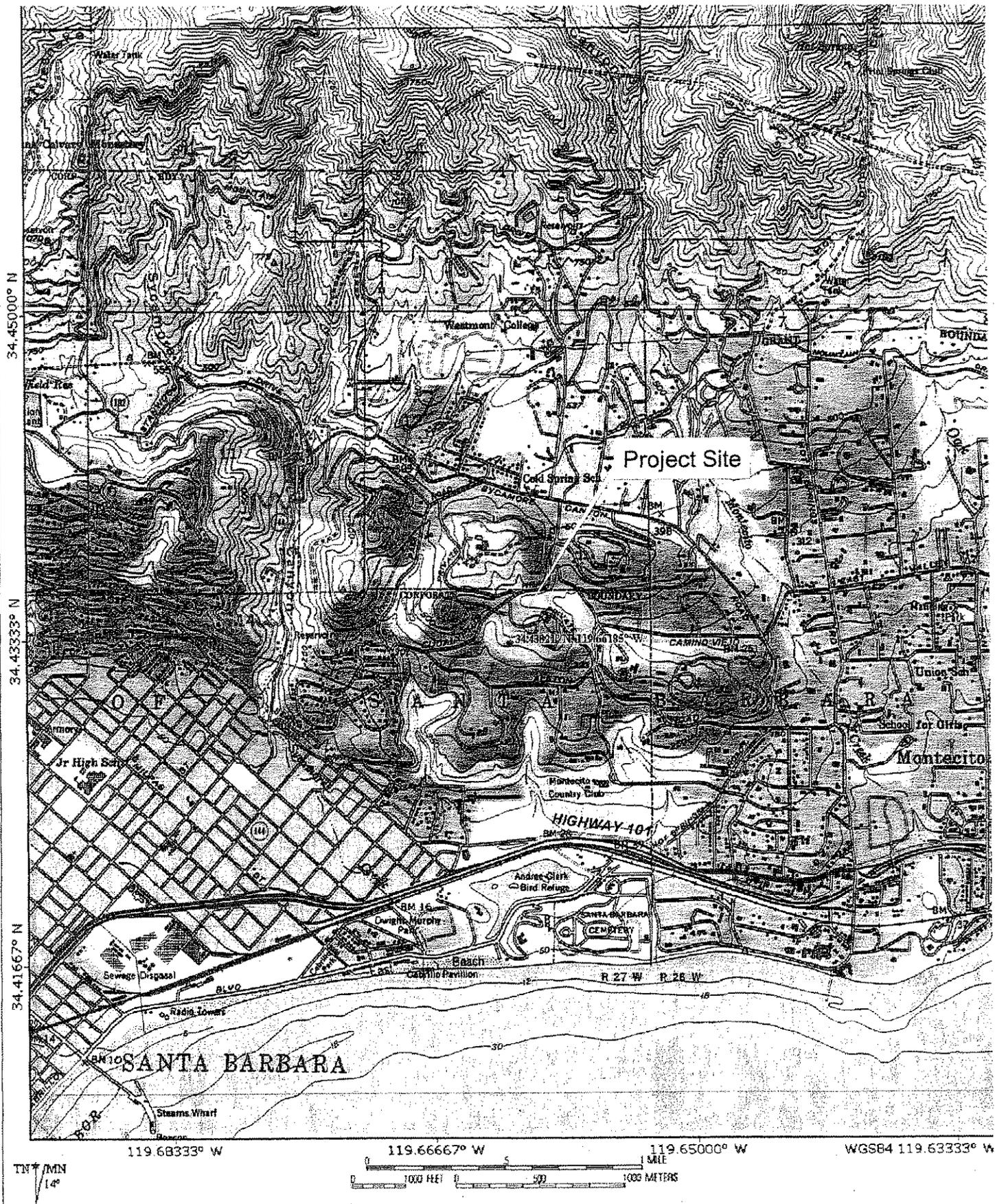


**Photo 2:** View of property looking south. Heavily disturbed soil is in the foreground and a large number of Eucalyptus and other trees are in the background. *Photograph by: Jennifer Jackson*

---

## **Plant Observations**

The project site is composed predominantly of Eucalyptus and Acacia trees. However, a few coast live oaks exist on the property near the existing main house and near the edges of the parcel (Figure 3). While we did not count every tree on the property, we estimate that there are roughly 350 trees on the property, most being *Eucalyptus globulus*. Table 3 provides a partial list of species that occur on the property. DBH and height data for trees that could potentially be impacted as a result of development are provided in Appendix 2 and summarized in Table 4A and 4B.



**Figure 1: Project Region**

226 & 232 Eucalyptus Hill Drive

November 8, 2005

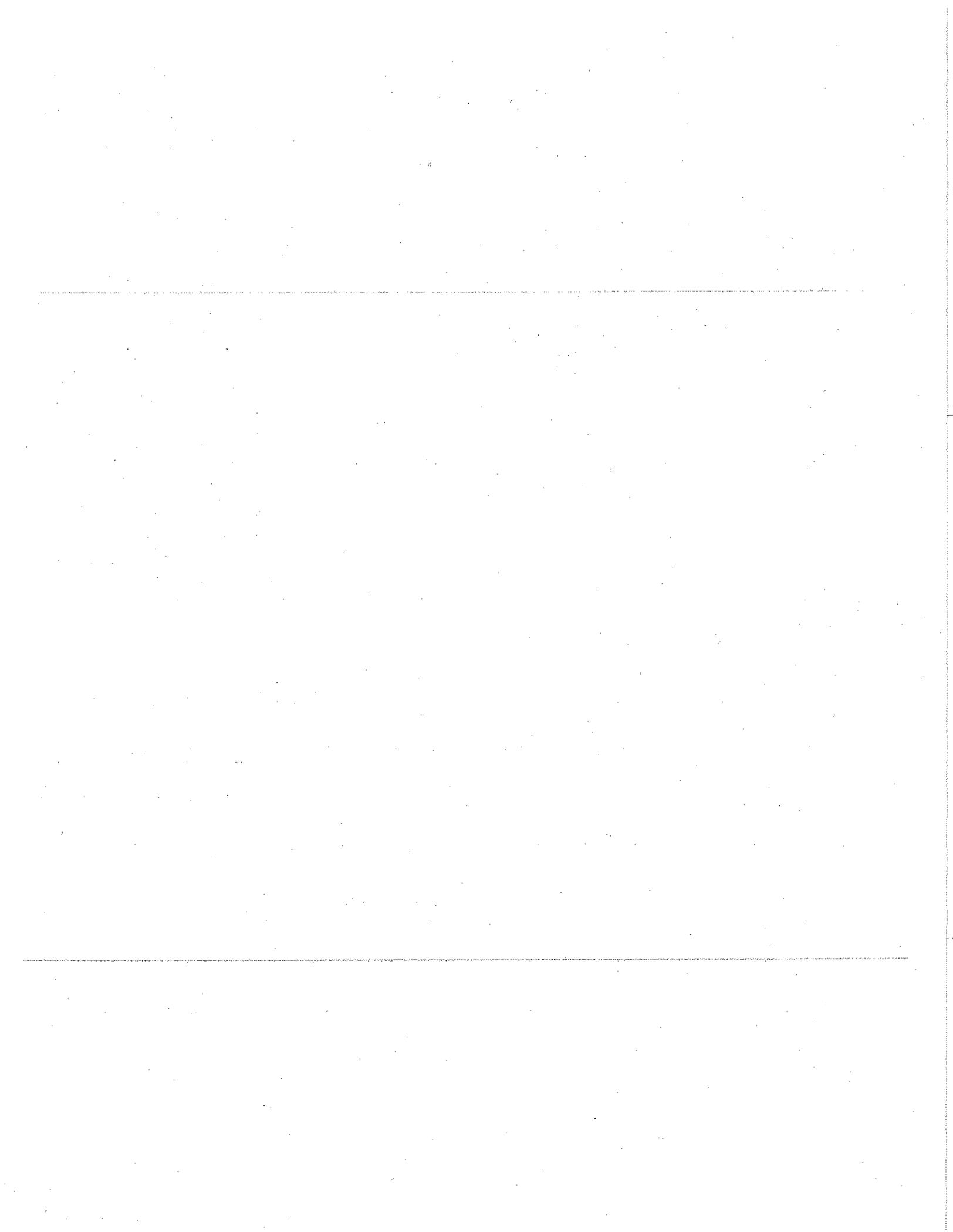
Prepared for: Cyndee Howard

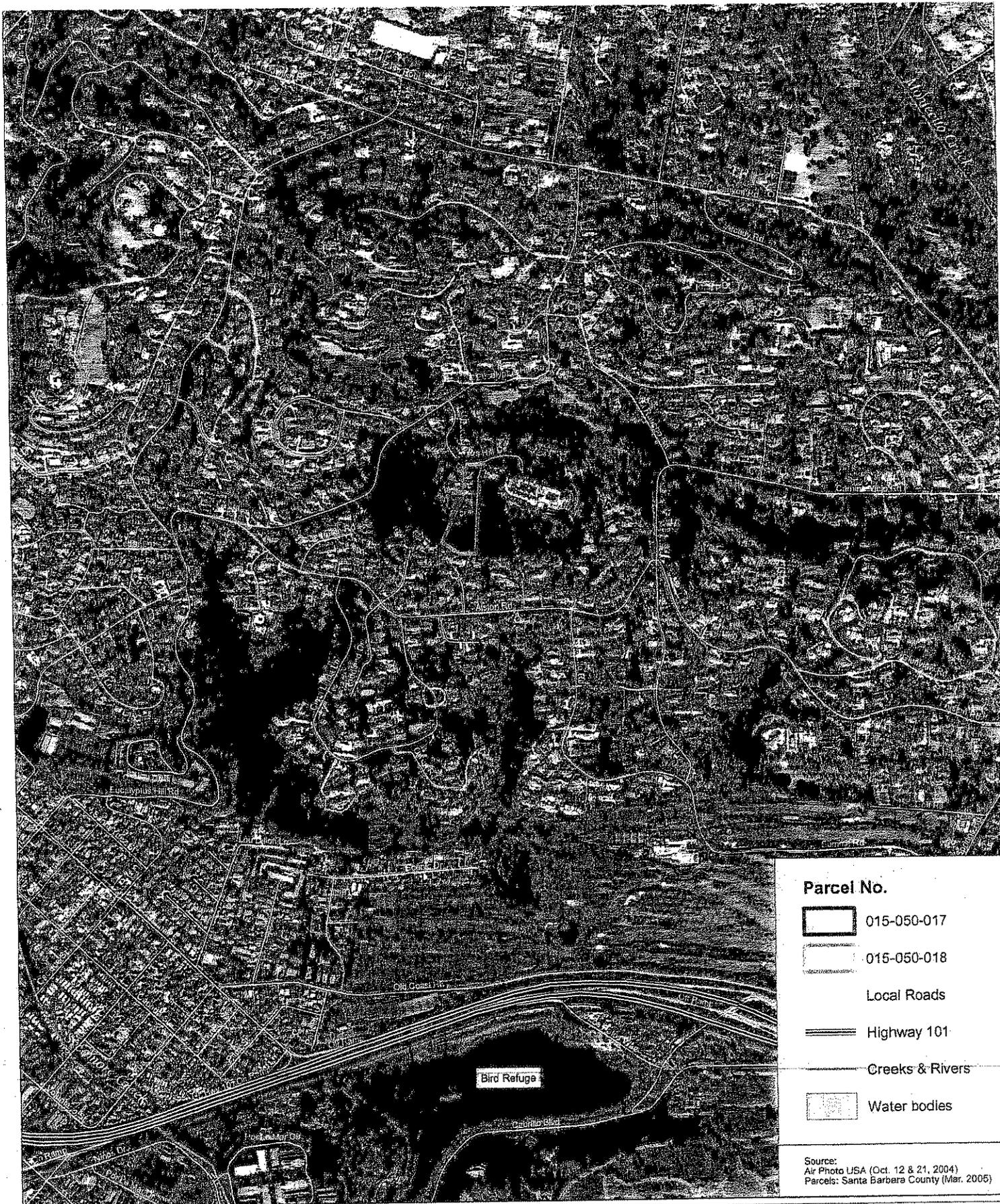
Source:  
National Geographic USGS Topographic Maps (2000)



**CONDOR ENVIRONMENTAL  
PLANNING SERVICES, INC.**

Tel. (805) 898-2000 [www.condorenvironmental.com](http://www.condorenvironmental.com)



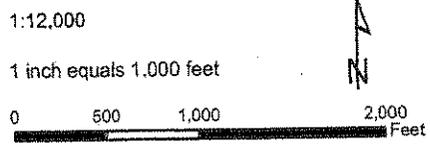


**Parcel No.**

-  015-050-017
-  015-050-018
-  Local Roads
-  Highway 101
-  Creeks & Rivers
-  Water bodies

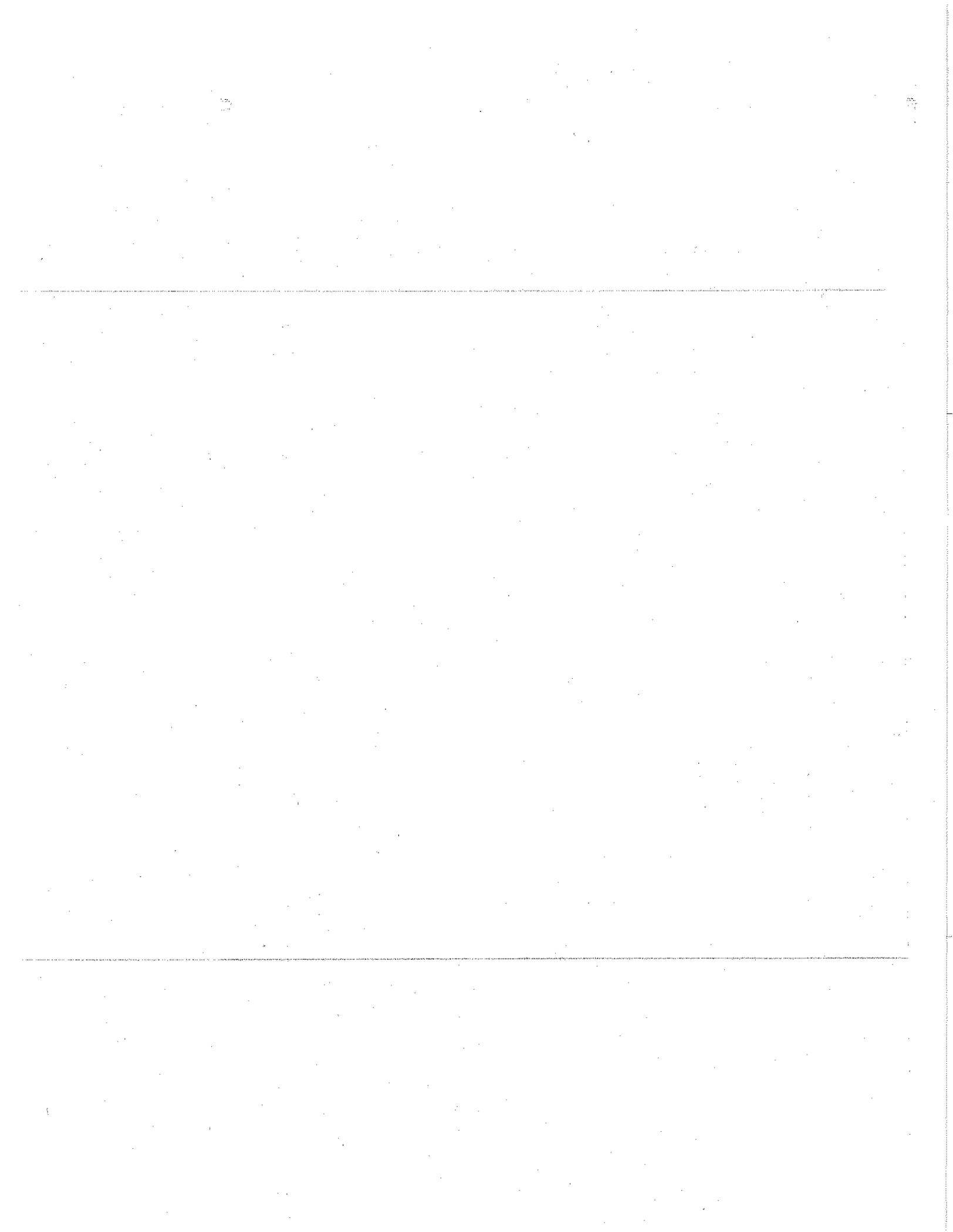
Source:  
 Air Photo USA (Oct. 12 & 21, 2004)  
 Parcels: Santa Barbara County (Mar. 2005)

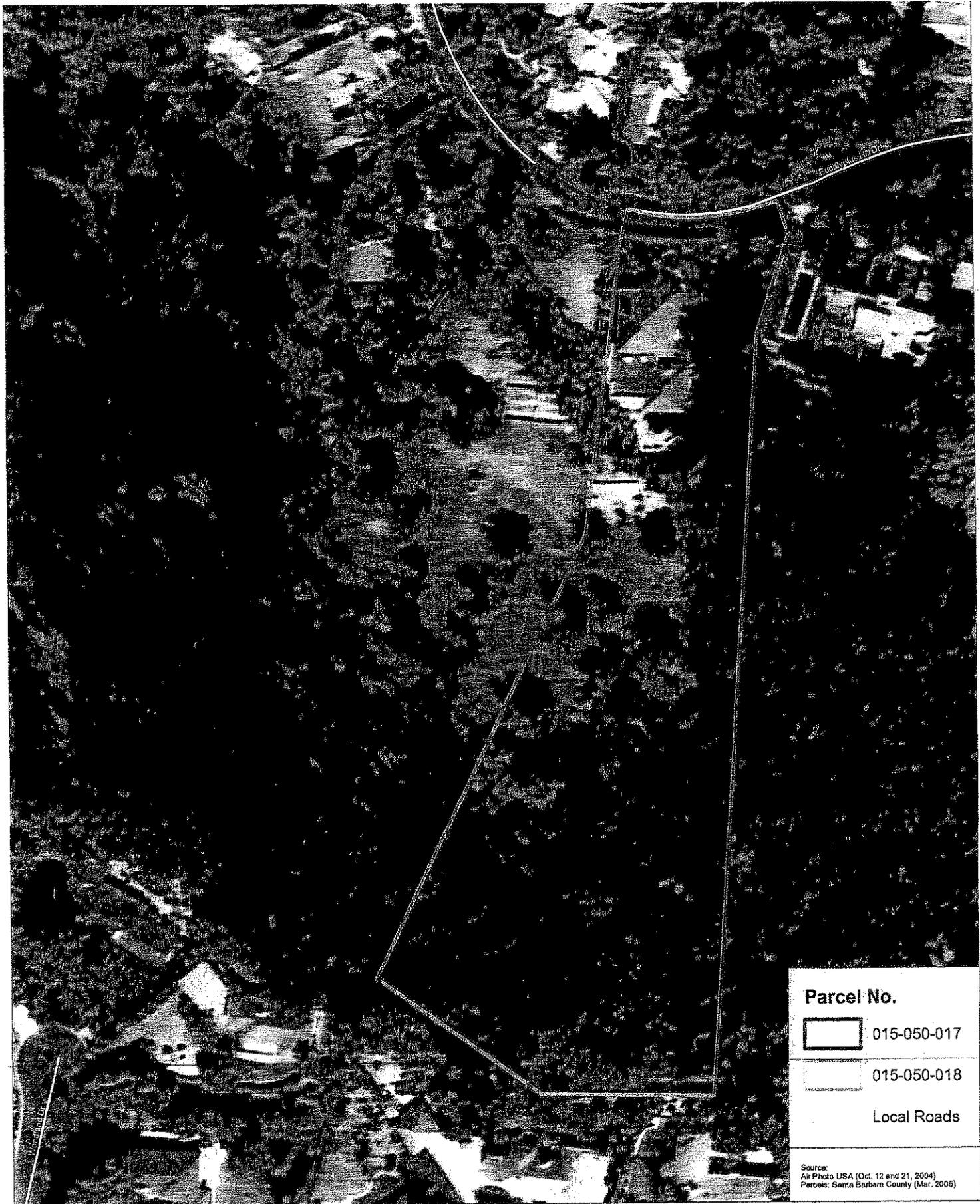
**Figure 2:**  
**Aerial Photo Project Region**  
 226 & 232 Eucalyptus Hill Drive  
 November 8, 2005



Prepared for:  
 Cyndee Howard

 **CONDOR ENVIRONMENTAL**  
 PLANNING SERVICES, INC.  
 Tel. (805) 898-2000 www.condorenvironmental.com





**Parcel No.**

 015-050-017

 015-050-018

Local Roads

Source:  
Air Photo USA (Oct. 12 and 21, 2004)  
Parcels: Santa Barbara County (Mar. 2005)

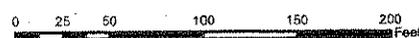
**Figure 3:  
Project Site**

226 & 232 Eucalyptus Hill Drive

November 8, 2005

1:1,200

1 inch equals 100 feet



Prepared for:  
Cyndee Howard

 **CONDOR ENVIRONMENTAL  
PLANNING SERVICES, INC.**

Tel. (805) 898-2000 [www.condorenvironmental.com](http://www.condorenvironmental.com)



**Table 3**  
**Partial List of Plants Occurring on the Property\*\***

Scientific Name	Common Name
<i>Pittosporum undulatum</i>	Mock orange
<i>Rhus integrifolia</i>	Lemonade berry
<i>Sambucus mexicana</i>	Blue Elderberry
<i>Mimulus aurantiacus</i>	Bush monkey flower
<i>Quercus agrifolia</i>	Coast live oak
<i>Eucalyptus globulus</i>	Blue gum
<i>Acacia baileyana</i> (?)	Bailey acacia
<i>Acacia pycnantha</i> (?)	Golden wattle
<i>Solanum douglasii</i>	Greenspot (Douglas') nightshade
<i>Toxicodendron diversilobum</i>	Poison oak
<i>Chenopodium ambrosioides</i>	Mexican tea
<b>Total</b>	<b>11</b>

\* Highlight denotes non-native species.

**Table 4A**  
**Range of Tree Sizes in Potential Impact Zone**  
**(Using Tape Measure)**

Species	DBH (diameter at breast height in inches)			Average Estimated Height (feet)
	minimum	maximum	average	
<i>Acacia baileyana</i> (?)	2.4	13.2	8.52	31
<i>Acacia pycnantha</i> (?)	7.2	9.6	9	40
<i>Eucalyptus globulus</i>	1.2	24	12.1	52
<i>Quercus agrifolia</i>	16.8	16.8	16.8	29

**Table 4B**  
**Range of Tree Sizes in Potential Impact Zone**  
**(Corrected Using Diameter Tape Conversion)\***

Species	DBH corrected (diameter at breast height in inches)			Average Estimated Height (feet)
	minimum	maximum	average	
<i>Acacia baileyana</i> (?)	0.8	4.4	2.84	31
<i>Acacia pycnantha</i> (?)	2.4	3.2	3.0	40
<i>Eucalyptus globulus</i>	0.4	8.0	4.0	52
<i>Quercus agrifolia</i>	5.6	5.6	5.6	29

\*Measurements were taken with a traditional tape measure instead of a forester's diameter tape. Therefore, results were converted using the following ratio (3" on a tape measure = 1" on a diameter tape).

\*\* The *Acacia* species notated in the following manner: (?), are probable identifications of the species based upon tree characteristics visible in the fall. In order to determine the species identity with certainty, flowers are required.

## Sensitive Plant Species

No sensitive plant species were observed on the project site. The survey was conducted in late summer when many flowering annuals are not conspicuous. However, the anticipated building envelopes do not appear to offer suitable habitat to accommodate any species listed in Table 1. The single sensitive species listed for the Santa Barbara Quadrangle is almost exclusively limited to chaparral at or near the ridge of the Santa Ynez Mountains, preferring sites that have been disturbed by fire. The property is not near this elevation, and this type of habitat does not occur on the project site. Therefore, it is not likely that this species occurs on the properties.

## Wildlife Observations

A total of 18 species of animals were observed on the site or adjacent to the site either by sight or sound or other evidence such as burrows (Table 3). Among the observations was a great horned owl (*Bubo virginianus*) roosting in a Eucalyptus tree and another dead Eucalyptus tree being used as an acorn granary (storage), by acorn woodpeckers (*Melanerpes formicivorus*). Both species are common.

Table 5  
Wildlife Species Observed Onsite or Offsite

Scientific Name	Common Name
<b>Reptiles</b>	
<i>Sceloporus occidentalis</i>	Western fence lizard
<b>Birds</b>	
<i>Cathartes aura</i>	Turkey vulture
<i>Accipiter cooperii</i>	Cooper's hawk
<i>Buteo jamaicensis</i> *	Red-tailed hawk
<i>Zenaida macroura</i>	Mourning dove
<i>Bubo virginianus</i>	Great horned owl
<i>Calypte anna</i>	Anna's hummingbird
<i>Colaptes auratus</i>	Northern flicker
<i>Melanerpes formicivorus</i>	Acorn woodpecker
<i>Picoides nuttallii</i>	Nuttall's woodpecker
<i>Picoides pubescens</i>	Downy woodpecker
<i>Sayornis nigricans</i>	Black phoebe
<i>Aphelocoma californica</i>	Western scrub jay
<i>Corvus brachyrhynchos</i>	American crow
<i>Sturnus vulgaris</i>	European starling
<i>Baeolophus inornatus</i>	Oak titmouse
<i>Troglodytes aedon</i>	House wren
<i>Dendroica townsendi</i>	Townsend's warbler
<i>Pipilo crissalis</i>	California towhee
<i>Junco hyemalis</i>	Dark eyed junco
<b>Mammals</b>	
<i>Tamias merriami</i>	Merriam's chipmunk
<i>Thomomys bottae</i>	Botta's pocket gopher
<i>Odocoileus hemionus</i>	Mule deer
<b>Total</b>	<b>23</b>

## **Nesting, Roosting, and Other Observations**

The surveys took place outside of the nesting season for birds. However, a great horned owl was observed roosting on the property (location shown on Figure 3). This species is a common permanent resident in Santa Barbara County. It is not threatened or endangered and is not considered sensitive by the California Department of Fish and Game (2004). It is widespread and can occur in a variety of habitats, including residential areas (Lehman 1994). Christmas bird counts in the Santa Barbara area in the early 1990s recorded as many as 27 individuals on a single day (Lehman 1994). No other evidence of nesting or roosting was observed on the property. A male mule deer (*Odocoileus hemionus*) was observed near the northwestern corner of the property moving west - southwest toward the deep canyon that is off the property. Mule deer are common on the south coast, and it is not a species that is listed by the State or Federal government as threatened or endangered. Although it is unusual to see bucks, it is believed that they move more freely during the mating season which occurs between September and December (Mulligan and Davis 1985). This, combined with the abundance of acorns in the numerous oak trees in the area that are an important food resource for deer and the well vegetated canyon to the west, may explain the presence of the buck.

## **Sensitive Wildlife Species**

The property is highly disturbed, dominated by non-native trees, and exhibits a low potential for occurrence of sensitive wildlife species. Sensitive animals listed in the CNDDDB for the Santa Barbara quadrangle are restricted to habitats along the immediate coastline. Therefore, it is unlikely that any species listed in Table 2 occur on the property.

## **Monarch Butterfly Aggregation**

Monarch butterflies (*Danaus plexippus*) migrate to the coast of Santa Barbara County in autumn of each year. Individuals aggregate in large clusters in groves of trees near the coast and remain there through the winter. These aggregations in Santa Barbara County most often occur in groves of blue gum eucalyptus (*Eucalyptus globulus*) trees near the coast. The aggregation sites closest to the Howard property are located near the intersection Hot Springs Road and US Highway 101 (Meade 1999), which is closer to the coast and lower in elevation than the project site. In fact, the Howard property is higher in elevation and further from the coast than most other sites documented in Meade's 1999 report; thus a monarch butterfly aggregation is possible but probably unlikely at this location.

A total of six monarch butterflies were observed on the property on October 31. Of these, one was within 20 feet of the road (Eucalyptus Hill Drive) at the northern edge of the property, and the other five were in or around the grove at the bottom of the property. Two of these were on the edge of the grove nearest the Acacias, and three were within the grove itself. It appears that these six butterflies observed were patrolling. This behavior is widely distributed across the south coast in the early to mid fall of most years, as they patrol the coast searching for the most favorable, best protected, and established sites. In addition to searching for a large number of individuals, the surveyor searched for clusters hanging from or on the Eucalyptus leaves, but none were found.

## Project Impacts

### Native Vegetation

The site is nearly void of native vegetation with the exception of several mature coast live oak trees and seedlings, and a number of native shrubs and forbs that are beneath the canopy of the Eucalyptus trees.

### Tree Removal

The building footprints of the four structures would avoid native coast live oaks, but would remove a number of non-native trees including *Eucalyptus* and *Acacia*, as shown in Figure 3. In addition to the building footprints, the City of Santa Barbara's High Fire Hazard Area Brush Clearance Standards require removal of hazardous brush, shrubs, and flammable vegetation within 100 feet of any structure and additional cleared area on slopes (City of Santa Barbara 2003a). In the case of Eucalyptus trees, the City does not require removal of all trees, but rather thinning of the trees within 100 feet of structures resulting in a density of 6 to 8 trees per 1,000 square feet. Given the slope on the property, City Fire Department staff estimates that an additional 20 feet of brush clearance and thinning of the trees would be required (Ann Marx, *pers comm* 9/29/05). Thus, we estimate that the project would require the removal of approximately 100 to 150 trees that are either Eucalyptus or Acacia. Most of these are Eucalyptus. This would leave an estimated 200 to 250 trees remaining on the property.

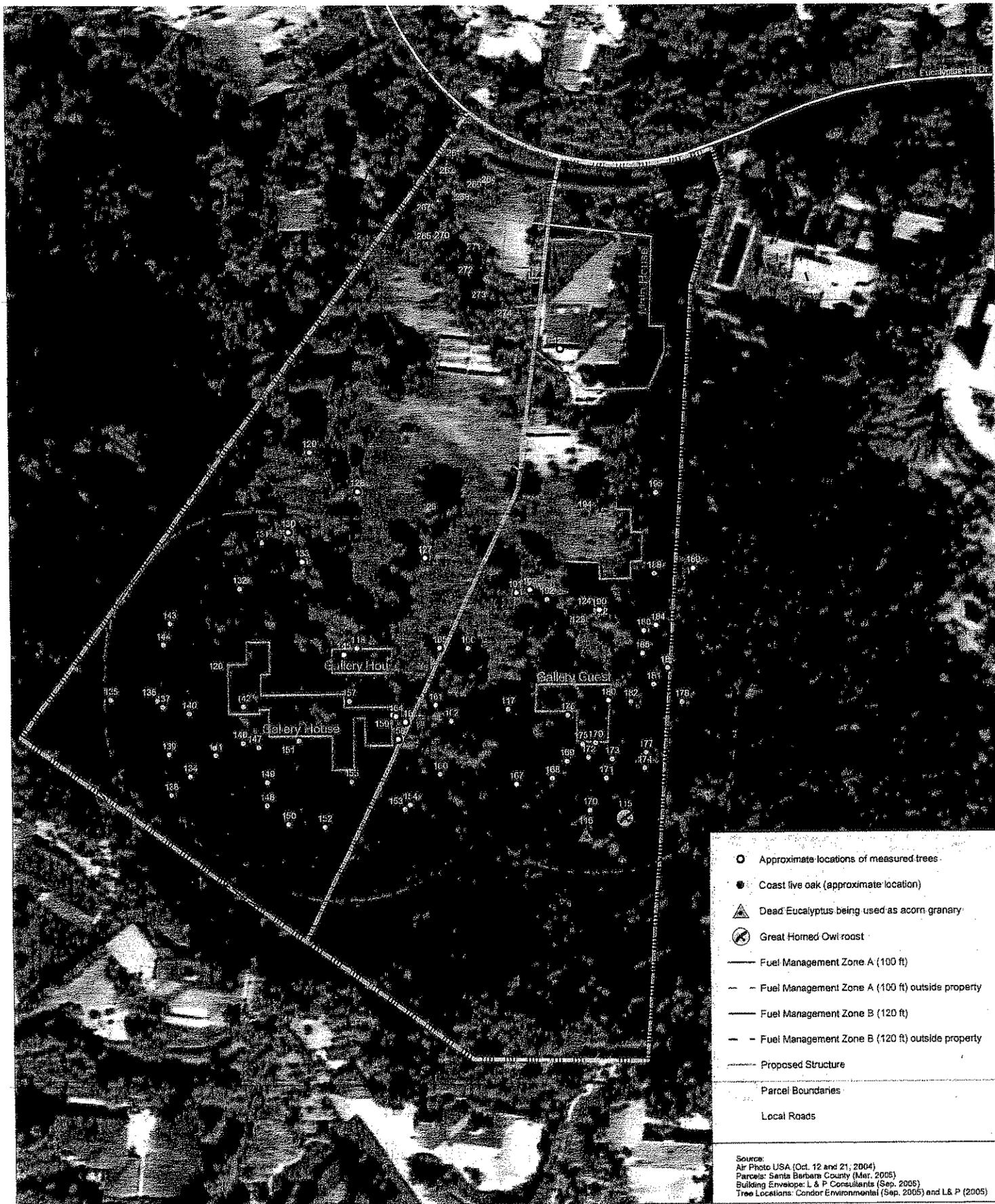
### Wildlife

Eucalyptus forests are not native to California and, in general, have relatively low value to wildlife, as compared to native oak forests and other native communities. Nevertheless, they do provide some functions and values for native animals (Table 3). The great horned owl roost and the acorn granary are examples. Because these two particular trees are outside of the building footprints and the trees will be selectively thinned, these trees could be among those that are retained. In addition, a large number of trees in the southeastern corner of the property are outside of the required thinning zone and could also be retained.

### Wildlife Corridor

The site is surrounded on all sides by a developed, low-density residential neighborhood; and it is more than  $\frac{3}{4}$  of a mile to Sycamore Creek and about 1 mile to Montecito Creek (Figures 1 and 4). Although there is a band of Eucalyptus forest that stretches from east to west across the lower section of the property for 500 feet or more in both directions, the property is fenced with chain link fencing on its easterly boundary, and it is unlikely that most wildlife, other than common animals such as coyote, raccoon, and striped skunk, would use this as a movement corridor given the lack of water, minimal cover close to the ground, minimal if any food, and lack of connectivity to native habitats such as a stream corridor that stretches from the mountains to the coast. The presence of the buck suggests that the canyon to the west (off the property) may be used by deer as habitat. Based upon our brief site visits and review of a recent aerial photograph of the region (Figure 2), it does not appear that a wildlife corridor exists on the property.





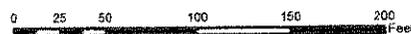
## Figure 4: Potential Impacts

226 & 232 Eucalyptus Hill Drive

November 8, 2005

1:1,200

1 inch equals 100 feet

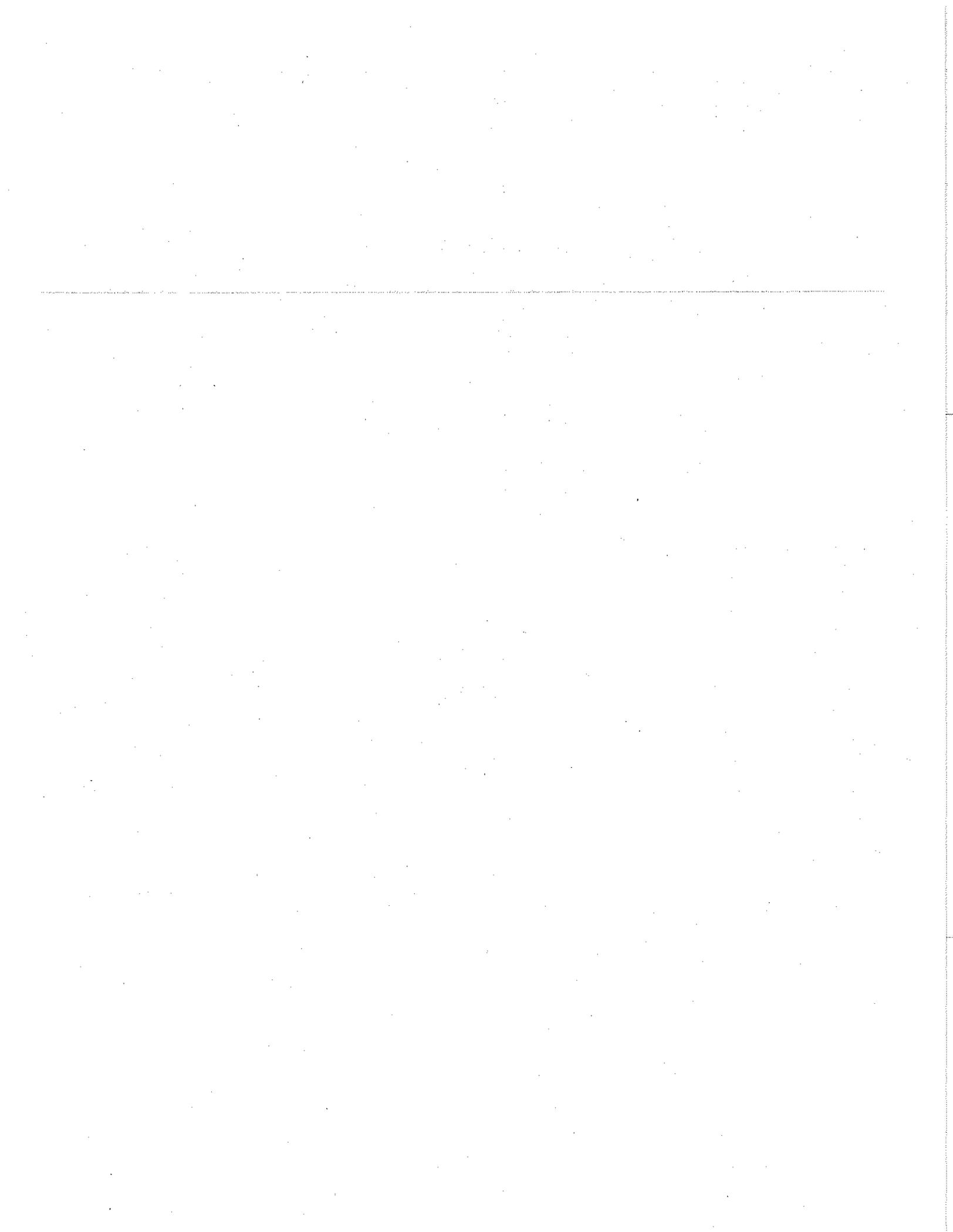


Prepared for:  
Cyndee Howard



**CONDOR ENVIRONMENTAL**  
PLANNING SERVICES, INC.

Tel. (805) 898-2000 [www.condorenvironmental.com](http://www.condorenvironmental.com)



### **Sensitive Species and Habitats**

Sensitive habitat (a plant community identified by the Department of Fish and Game as rare) does not exist on the property and would not be impacted by the proposed development. No sensitive species were observed, and none are likely to occur on the site.

### **Short-term Impacts**

Short-term impacts to wildlife during construction would include noise and dust. Neither of these elements is expected to significantly impact native animals on or near the project site. Removal of 150 to 200 trees would remove some habitat for birds and other wildlife species, but these animals are expected to use the 150 to 200 trees that will remain.

### **Cumulative Impacts**

The removal of a large number of Eucalyptus and Acacia trees is not expected to add significantly to a cumulative loss of habitat, given the relatively low habitat value of these trees and the presence of many more both on the property and in the neighborhood. Landscaping with native trees and shrubs is likely to produce greater benefit for wildlife in the long run.

### **Recommendations**

1. Protect the mature coast live oak trees on the site.
2. Protect the coast live oak seedlings on the site, or transplant them if necessary.
3. Use landscaping materials native to Santa Barbara as much as possible, consistent with the City's High Fire Hazard Area Landscape Guidelines (City of Santa Barbara 2003b).
4. Retain the trees used as a roost by great horned owl and as an acorn granary by acorn woodpeckers.

### **Acknowledgements**

Nadine Martins, Condor GIS Technician, created the GIS and produced the maps, and Bernhard Preusser assisted us with collecting tree measurements.

---

## References

- California Department of Fish and Game, 2003. California Natural Diversity Database, Rare Find 3.
- California Department of Fish and Game 2004. California Natural Diversity Database. State and Federally Listed Endangered and Threatened Animals of California. August 2004.
- City of Boston. 2005. 27 September 2005 <[www.cityofboston.gov/parks/streettrees/pdf/dbh](http://www.cityofboston.gov/parks/streettrees/pdf/dbh)>
- City of Santa Barbara Fire Prevention Bureau 2003a. High Fire Hazard Area Requirements; Minimum Brush Clearance Standards. Ordinance #5257.
- City of Santa Barbara Fire Prevention Bureau 2003b. High Fire Hazard Area Landscape Guidelines. Ordinance #5257.
- International Society of Arboriculture. *Simplified Guide to Measuring DBH*. 2005. 26 September 2005. <[www.isa-arbor.com](http://www.isa-arbor.com)>
- Lehman. P. 1994. *The Birds of Santa Barbara County, California*. Lawrence, Kansas. Allen Press.
- Marx, A. 2005. Santa Barbara City Fire Department Wildland Specialist. Personal communication September 29, 2005.
- Meade, D.E. 1999. Monarch Butterfly Overwintering Sites in Santa Barbara County, California. Althouse and Meade Biological and Environmental Services.
- Mulligan, M.J. and Davis, J.H. 1985. Santa Barbara Deer Herd Management Plan. California Department of Fish and Game.

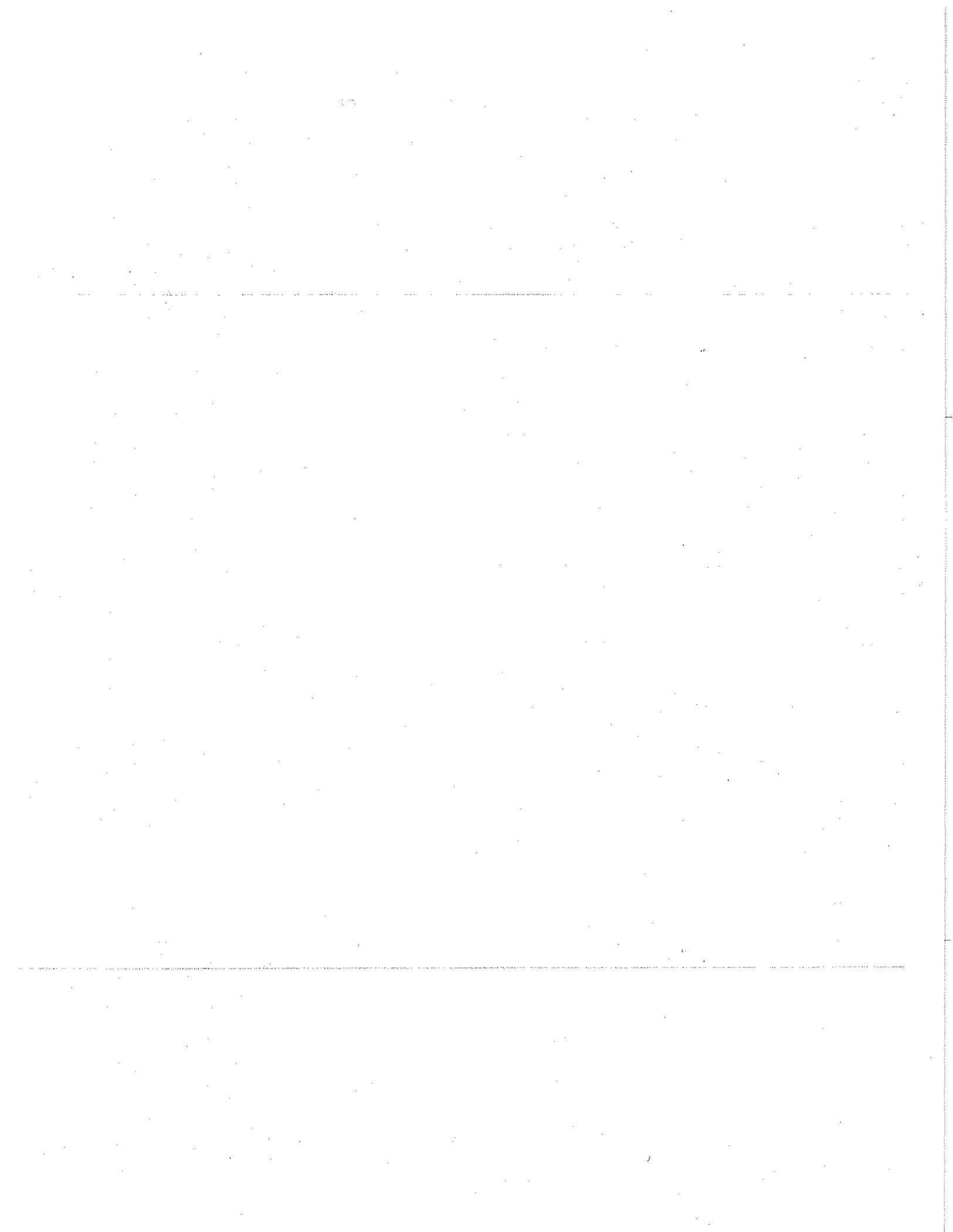
Appendix 1  
CNDDDB Report

---

This page intentionally blank

California Department of Fish and Game  
 Natural Diversity Database  
 Selected Elements by Scientific Name - Portrait

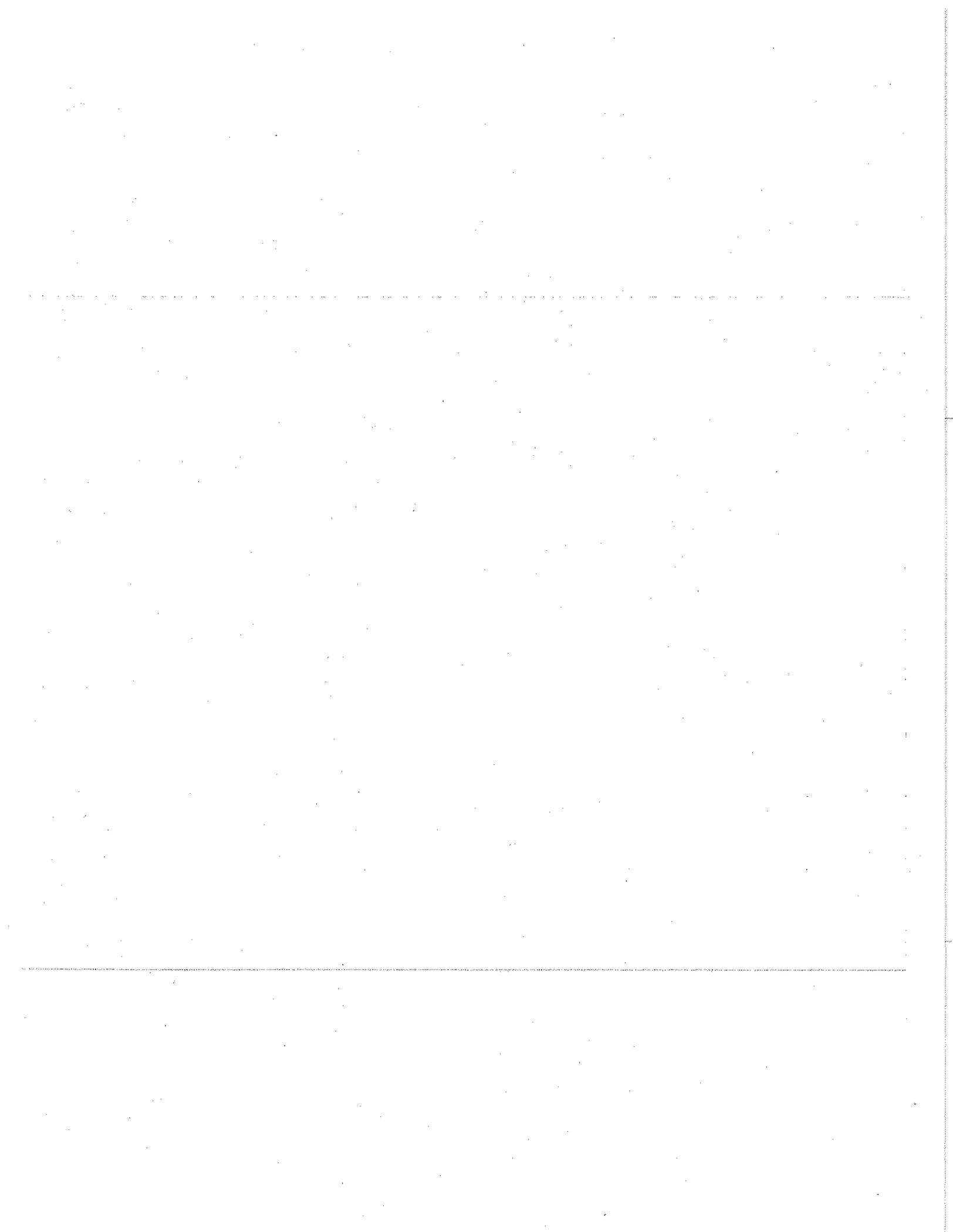
Scientific Name/Common Name	Element Code	Federal Status	State Status	GRank	SRank	CDFG or CNPS/R-E-D
1 <i>Charadrius alexandrinus nivosus</i> western snowy plover	ABNNB03031	Threatened		G4T3	S2	SC
2 <i>Eucyclogobius newberryi</i> tidewater goby	AFCQN04010	Endangered		G3	S2S3	SC
3 <i>Rana aurora draytonii</i> California red-legged frog	AAABH01022	Threatened		G4T2T3	S2S3	SC
4 <i>Riparia riparia</i> bank swallow	ABPAU08010		Threatened	G5	S2S3	
5 <i>Thermopsis macrophylla</i> Santa Ynez false lupine	PDFAB3Z0E0		Rare	G1	S1.3	1B/3-1-3



---

## Appendix 2

### Tree Survey Data



Appendix 2  
226 and 232 Eucalyptus Hill Drive  
Data Collection Date: September 21, 2005

Waypoint	Species	Subspecies	Height	DBH	DBH (at breast height)	Number of trees	Notes
115	Eucalyptus	globulus					great horned owl roost
116	Eucalyptus	globulus					acorn granary
120	Quercus	agrifolia					seedling
121	Quercus	agrifolia					seedling
122	Quercus	agrifolia					seedling
123	Quercus	agrifolia					4 seedlings
124	Quercus	agrifolia					seedling
126	Quercus	agrifolia	1.4	16.8	5.6	33	
127	Acacia	pycnantha	0.6/0.7	7.2/8.4	0.2/2.8	40	
127	Acacia	pycnantha	0.7	8.4	2.8	40	
128	Acacia	pycnantha	0.8	9.6	3.2	40	
129	Acacia	baileyana	0.9	10.8	3.6	35	
130	Eucalyptus	globulus	0.9	10.8	3.6	55	
131	Eucalyptus	globulus	0.9/1.0	10.8/12	3.6/4	65	
132	Eucalyptus	globulus	1.1	13.2	4.4	65	
133	Eucalyptus	globulus	0.8	9.6	3.2	55	
134	Eucalyptus	globulus	0.8	9.6	3.2	55	
135	Eucalyptus	globulus	1.2	14.4	4.8	63	
136	Acacia	baileyana	1	12	4	15	plus seedling
137	Eucalyptus	globulus	0.7	8.4	2.8	57	
138	Eucalyptus	globulus	0.9	10.8	3.6	50	
139	Eucalyptus	globulus	1.3	15.6	5.2	60	
140	Eucalyptus	globulus	1.1	13.2	4.4	60	
141	Eucalyptus	globulus	1.3	15.6	5.2	60	
142	Eucalyptus	globulus	1.2	14.4	4.8	60	
143	Eucalyptus	globulus	0.9/0.9	10.8/10.8	3.6/3.6	60	
143	Eucalyptus	globulus	0.9	10.8	3.6	60	
144	Eucalyptus	globulus	0.9	10.8	3.6	60	
145	Eucalyptus	globulus	1.1	13.2	4.4	65	
146	Eucalyptus	globulus	0.9	10.8	3.6	55	
147	Eucalyptus	globulus	1.2	14.4	4.8	55	
147	Eucalyptus	globulus	1.2	14.4	4.8	55	
148	Eucalyptus	globulus	1.7	20.4	6.8	65	
149	Eucalyptus	globulus	0.9	10.8	3.6	63	
150	Acacia	baileyana	0.1	1.2	0.4	15	
150	Acacia	baileyana	0.2	2.4	0.8	12	
150	Eucalyptus	globulus	0.6	7.2	2.4	55	
150	Eucalyptus	globulus	0.8	9.6	3.2	55	
150	Eucalyptus	globulus	0.3	3.6	1.2	23-30	plus seedlings
150	Eucalyptus	globulus	0.4	4.8	1.6	25-30	plus seedlings
150	Eucalyptus	globulus	0.1	1.2	0.4	25	plus seedlings
150	Eucalyptus	globulus	1	12	4	60	
150	Eucalyptus	globulus	1.1	13.2	4.4	60	
150	Eucalyptus	globulus	0.8	9.6	3.2	60	
151	Eucalyptus	globulus	1.3	15.6	5.2	55	
151	Eucalyptus	globulus	1.4	16.8	5.6	55	
151	Eucalyptus	globulus	1	12	4	50	
151	Eucalyptus	globulus	0.9	10.8	3.6	50	
151	Eucalyptus	globulus	1.2	14.4	4.8	55	
152	Eucalyptus	globulus	1.3	15.6	5.2	70	
153	Acacia	baileyana	0.6	4.2	1.4	38	
153	Eucalyptus	globulus	0.8	9.6	3.2	63	
154	Eucalyptus	globulus	1.8	21.6	7.2	65	
154	Eucalyptus	globulus	1.6/1.4	19.2/16.8	6.4/5.6	65	
155	Eucalyptus	globulus	0.9	10.8	3.6	50	
156	Eucalyptus	globulus	0.8	9.6	3.2	70	
157	Eucalyptus	globulus	1.8	21.6	7.2	65	
158	Eucalyptus	globulus	1.1	13.2	4.4	65	
159	Eucalyptus	globulus	1.2	14.4	4.8	70	
160	Eucalyptus	globulus	1.7	20.4	6.8	65	
161	Eucalyptus	globulus	0.9	10.8	3.6	60	
162	Acacia	baileyana	0.8	9.6	3.2	40	
162	Acacia	baileyana	0.8	9.6	3.2	35	
163	Eucalyptus	globulus	0.8	9.6	3.2	55	
164	Eucalyptus	globulus	0.9	10.8	3.6	60	
165	Eucalyptus	globulus	2	24	8	30	
166	Acacia	baileyana	0.6/0.6	7.2/7.2	2.4/2.4	30	
167	Eucalyptus	globulus	0.9	10.8	3.6	55	
168	Eucalyptus	globulus	1.1	13.2	4.4	50	
169	Eucalyptus	globulus	1.1	13.2	4.4	55	
170	Eucalyptus	globulus	0.9	10.8	3.6	65	
171	Eucalyptus	globulus	0.1	1.2	0.4	45	
171	Eucalyptus	globulus	0.9	10.8	3.6	45	
172	Eucalyptus	globulus			0	6	plus seedlings

Appendix 2  
226 and 232 Eucalyptus Hill Drive  
Data Collection Date: September 21, 2005

waypoint	genus	species	dbh (ft)	dbh (in)	dbh(corrected)(in)	estimated height(ft)	notes
173	Eucalyptus	globulus	0.7	8.4	2.8	40	
174	Eucalyptus	globulus	0.9	10.8	3.6	40	
174	Eucalyptus	globulus	0.9	10.8	3.6	40	
175	Eucalyptus	globulus	0.8	9.6	3.2	55	
176	Eucalyptus	globulus	1.2/1.3/0.9	14.4/15.6/10.8	4.8/5.2/3.6	60	
177	Eucalyptus	globulus	0.7/0.8	8.4/9.6	2.8/3.2	55	
178	Eucalyptus	globulus			0	5	plus seedlings
179	Eucalyptus	globulus	1.2/0.8/0.9	14.4/9.6/10.8	4.8/3.2/3.6	45	
180	Eucalyptus	globulus	1.2/0.9	14.4/10.8	4.8/3.6	60	
181	Eucalyptus	globulus	0.6	7.2	2.4	30	
182	Eucalyptus	globulus	1.1	13.2	4.4	50	
183	Eucalyptus	globulus	1.2	14.4	4.8	60	
185	Eucalyptus	globulus	0.8/0.6	9.6/7.2	3.2/2.4	45	
186	Eucalyptus	globulus			0	5	plus seedlings
186	unknown				0	5	
187	Acacia	baileyana	0.2/0.4	2.4/4.8	0.8/1.6	25	
187	Eucalyptus	globulus	1	12	4	55	
188	Eucalyptus	globulus	1.3	15.6	5.2	60	
188	Eucalyptus	globulus			0	5	plus seedlings
189	Eucalyptus	globulus	1	12	4	60	
190	Eucalyptus	globulus	0.8	9.6	3.2	50	
191	Eucalyptus	globulus	1.6	19.2	6.4	40	
192	Acacia	baileyana	0.7	8.4	2.8	30	
193	Acacia	baileyana	1.1	13.2	4.4	30	
194	Quercus	agrifolia	1.4	16.8	5.6	25	plus seedlings
195	Eucalyptus	globulus			0	5	plus seedlings
261	Quercus	agrifolia		12			
262	Quercus	agrifolia		6/7			
263	Quercus	agrifolia		12			
264	Quercus	agrifolia		10			
265	Quercus	agrifolia		10			
267	Quercus	agrifolia		8			
268	Quercus	agrifolia		11			
269	Quercus	agrifolia		11			
270	Quercus	agrifolia		16			
271	Quercus	agrifolia		12			
272	Quercus	agrifolia		15			
273	Quercus	agrifolia		12			
274	Quercus	agrifolia		19			

\* Diameter is typically measured using a diameter tape. However, initial measurements were collected using a traditional tape measure and converted using this ratio provided by the Division of Forestry, Champion Tree Program in Nashville, TN. (3" on a tape measure = 1" on a diameter tape)

\*\* Source for Oak locations/diameter on waypoints 261-274 from L & P (2005).



CONDOR ENVIRONMENTAL  
PLANNING SERVICES, INC.

RECEIVED

OCT 30 2006

CITY OF SANTA BARBARA  
PLANNING DIVISION

October 26, 2006

Kimberly Maciorowski  
Shubin and Donaldson Architects  
1 N. Calle Cesar Chavez, Suite 200  
Santa Barbara, CA 93103

**RE: Howard: Impact Analysis of Revised Site Plan**

Dear Kim,

This letter serves to update our previous report regarding the biological resources at Ms. Cyndee Howard's property at 226 and 232 Eucalyptus Hill Drive in Santa Barbara (Gevirtz, Jackson, and Semonsen, November 8, 2005). Pursuant to your request, we have evaluated the tree preservation and removal plan (Lane Goodkind, Sheet L1.1 dated October 2, 2006 and the October 25 revision), the revised site plan and schematic landscape plan (Lane Goodkind, Sheet L1.2 dated October 16, 2006 and the October 20 revision), and the arborist report (Bill Spiewak, September 21, 2006).

Methodology

We reviewed the new site plan that shifted the gallery house and main guest house and a portion of the driveway from their originally proposed location to the north, and shifted the gallery guest house to the east. We also reviewed the tree survey data by L&P Consultants (July 2005), and a new aerial photograph (Pacific Western Aerial Surveys, 2005). We added the tree data that we collected in fall 2005 and summer 2006, and the outlines of the proposed structures and driveway to the 2005 aerial photograph (Figure 1). Please note that the aerial photograph is not orthorectified. This results in a slight displacement of the geographic position of the site plan.

We determined the approximate number of trees that are within 50 feet of the proposed structures by "overlying" these datasets. The 50-foot distance had been identified as the anticipated fuel modification zone prior to development of the tree preservation and removal plan. This was supplemented by reviewing the arborist report for his conclusions regarding the oak trees. The tree preservation and removal plan and landscape plan were reviewed and specifically compared to the trees that had been identified and mapped in Figure 4 of our previous report as being utilized by acorn woodpeckers and a great horned owl.

### Results

As a result of shifting several project elements north and east as shown in the current plans, fewer eucalyptus trees would be removed and less thinning of the eucalyptus grove would be required. Under the current plan, approximately 26 coast live oak trees and 63 non-native trees are within 50 feet of the proposed structures (Table 1). The non-natives are comprised of 51 eucalyptus, 9 acacia, and 3 pear trees. Appendix 2 (revised) provides the data we collected on each tree including waypoint (the number shown at its geographic location on the maps), the species, and the diameter at breast height. Prompted by your email notifying us of a possible error in Appendix 2, we compared our raw field data to the table and found that the original Appendix 2 had four errors that occurred in the process of transposing the data. The tree data that have been corrected are for trees 133, 165, 181, and 185. All four of these trees are acacia. Please note that there are several locations where two or more trees have the same waypoint. For example, two acacias are entered at waypoint 162 because the trees are quite close together.

**Table 1**  
**Approximate Number of Trees within 50 Feet of Proposed Structures**

Scientific Name	Common Name	# of Trees
<i>Quercus agrifolia</i>	Coast Live Oak	26
<i>Eucalyptus sp.</i>	Eucalyptus	48
<i>Acacia sp.</i>	Acacia, Wattle	12
<i>Pyrus sp. (?)</i> *	Evergreen Pear	3
	<b>Subtotal</b>	<b>89</b>

\* Provided by L&P Consulting July, 2005

A list of sensitive species in the region provided by the Department of Fish and Game Natural Diversity Database is attached to this letter. None of the species listed are likely to occur on the site with the exception of monarch butterfly (*Danaus plexippus*), as discussed in our previous report, Cooper's hawk (*Accipiter cooperii*) and big free-tailed bat (*Nyctinomops macrotis*) possibly foraging over the site but not roosting. (This bat requires high cliffs or rocky outcrops for roosting sites.) Wildlife observations included Cooper's hawk (*Accipiter cooperii*), red-tailed hawk (*Buteo jamaicensis*), great horned owl (*Bubo virginianus*), and turkey vulture (*Cathartes aura*), among others.

The Cooper's hawk is listed by the Department of Fish and Game as a Species of Special Concern, but is unlikely to appear on the updated list, as this species is experiencing population growth state wide (L. Comrack *pers. comm.* in Gevirtz et. al. 2005)<sup>1</sup>. This

<sup>1</sup> Gevirtz E., Olson T., Carroll M., Collins P., Burton K. and Nelson A. 2005. Ecosystem Characterization of La Purisima Mission State Historic Park. Prepared for California Department of Parks and Recreation. Condor Environmental Planning Services, Santa Barbara. 321 pp.

species occurs in wooded and forested habitats throughout California. Regionally, they are found in oak woodland, oak savanna, and open riparian woodlands. Foraging occurs in similar habitats, as well as over cultivated fields and grasslands.

In Santa Barbara County, Cooper's hawks occur mostly as transients and winter visitors, with scattered nesting locations. Nesting usually takes place in trees, near the main trunk or on sturdy limbs (H. Harrison 1979).<sup>2</sup> This species is also known to nest in shrubs in relatively treeless areas. At least one individual was heard calling on two separate days on or near the property.

Red-tailed hawk, great horned owl, and turkey vulture are common species and are not listed by the State of California or the United States government as species of special concern or listed rare, threatened, or endangered. However, all three species, as well as Cooper's hawk, are protected by the Federal Migratory Bird Treaty Act of 1918. This federal law decrees that all migratory birds and their parts (including eggs, nests, and feathers) are fully protected. The Migratory Bird Treaty Act is the domestic law that affirms or implements the United States' commitment to four international conventions (with Canada, Japan, Mexico, and Russia) for the protection of a shared migratory bird resource. Each of the conventions protect selected species of birds that are common to both countries (i.e., they occur in both countries at some point during their annual life cycle).

A canyon to the west of the property may provide some habitat to native wildlife. The canyon was not surveyed as it is not on or even adjacent to the Howard property. The largely barren mid-section of the property and the eucalyptus grove in the southerly portion with very little understory beneath the canopy, combined with the absence of wetlands on the site, and the probable lack of ponded water in the canyon likely preclude the possibility of occurrence of sensitive amphibians and reptiles on the Howard property such as California red-legged frog (*Rana aurora draytonii*), western pond turtle (*Clemmys marmorata pallida*) and two-striped garter snake (*Thamnophis hammondi*).

The Main House and upper portion of the driveway would potentially impact three coast live oak trees by encroaching into the root zones of these trees (Spiewak 2006). The Gallery Guest House and the Gallery House would be built in areas that are largely unvegetated. Several non-native trees would have to be removed to build these structures and to provide fuel clearance around them. The mid-section of the driveway would remove one coast live oak (Spiewak 2006). Thus, a total of four oak trees would be removed for the project and three oak trees would be impacted. Planting of seventy (70) one-gallon saplings and other mitigations for the oaks have been recommended by Spiewak (2006).

The upper rainwater garden will utilize an existing concrete structure as its foundation in its existing location. This garden is proposed to be located in an area of one or more acacia trees. Eucalyptus trees stand in or adjacent to the area proposed for the lower

---

<sup>2</sup> Harrison H. 1979. A Field Guide to Western Birds' Nests. Houghton Mifflin Company, Boston.

rainwater garden next to the Gallery House. No native trees would be impacted by either rainwater garden. No impacts to sensitive wildlife are expected as a result of construction of the rainwater gardens.

The eucalyptus trees in fire zone 1 (30 feet from structures) would be clear of eucalyptus trees. Fire zones 2, 3 and 4 would be thinned to 6 to 8 trees per 1,000 square feet. Eucalyptus in the areas south of the Gallery House and Gallery Guest House beyond the fire zones would remain (Lane Goodkind 2006).

The specific trees used as a great horned owl roost and as an acorn granary by acorn woodpeckers are both located in fire zone 2 illustrated in the landscape plan and tree preservation and removal plan. The tree preservation and removal plan and the landscape plan have been revised to incorporate protection of these two trees; therefore these trees will not be removed as part of the thinning of the trees for the purpose of fire protection (Lane Goodkind, Sheet L1.1 [October 25, 2006] and Sheet L1.2, [October 20, 2006]).

Cooper's hawk, red-tailed hawk, great horned owl, and turkey vulture roost and nest in trees. The hawks and the owl hunt for food and the vulture forages for food in grasslands and other habitats. These species may be adversely impacted by short-term construction noise, removal of trees, and increased human presence during construction.

Implementation of the landscape plan, including retention of the eucalyptus trees (that can be used for nesting and roosting) at the south end of the property and planting the grassland garden and other landscapes on the property is likely to provide foraging habitat for Cooper's hawk, red-tailed hawk, great horned owl, and turkey vulture. Therefore, these species are likely to continue to use the site. The planting and maintenance of 70 1-gallon oak trees in the southerly portion of the property as recommended by Spiewak (2006) is likely to result in a long-term increase of habitat for these and other species. The shift of the project northward provides additional room for these native plantings to occur. If successful, this oak restoration effort is likely to increase the diversity of native plants and animals on the site.

### Recommendations

1. Care should be taken prior to, during, and after construction to protect the mature coast live oaks. Please see Spiewak (2006) and Goodkind (2006) for details.
2. Any coast live oak seedlings that are observed should be attempted to be salvaged and incorporated into the landscape.
3. The eucalyptus tree used as a great horned owl roost (#115) and the dead eucalyptus tree used as an acorn granary (#116) should be retained and protected as part of the landscape as long as they are unlikely to fall and hurt someone. The tree protection and removal plan and the landscape plan clearly note that these trees are to be retained. A qualified biologist should be retained to

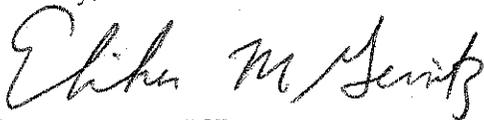
mark these trees in the field prior to limbing branches and tree removal, and to communicate to the tree contractor which trees should be retained. The biologist should monitor the tree work during the time that the tree contractor is working within 50 feet of these trees.

4. If construction and/or tree trimming or removal is planned to occur between February and August, a qualified biologist should be retained to survey the property for nesting raptors prior to the start of construction, tree trimming or tree removal. If nesting raptors are observed, the tree(s) should be marked and a buffer established around the tree(s). The width of the buffer should be recommended by the biologist. The purpose of the buffer would be to protect the nesting birds from disturbance that would cause the adult birds to abandon the eggs or juveniles before they have fledged. Once fledging has occurred and the juveniles are flying and hunting independently, construction could resume close to the tree based on the opinion of the biologist.
5. The oak planting program suggested by Spiewak should be implemented. An arborist should be retained to monitor the oaks for a period of three years and to make suggestions (if necessary) to the property owner or her landscape contractor for modifications to the maintenance regime that would increase the likelihood of success of these plantings. A brief written report of the results and any suggestions should be provided to the City annually during the three-year monitoring period.
6. Wildlife habitat, diversity and abundance would probably increase if the eucalyptus grove was transformed into a native oak woodland. This transition should happen gradually in order to continue to support species such as great horned owl, Cooper's hawk, and acorn woodpecker that are using the grove of tall trees currently. The planting of the 70 coast live oaks as suggested by Spiewak would be a good first step in this direction. As these trees grow and mature over a long period of time, understory plants could be planted under their canopies. Eucalyptus seedlings and saplings should be removed as they appear on the property. When the old eucalyptus trees die they should be replaced with coast live oaks or other appropriate native trees. (Exceptions should be made for acorn granary trees and other dead trees that provide important wildlife habitat.) Thus, over a long period of time, wildlife habitat values would be expected to increase.

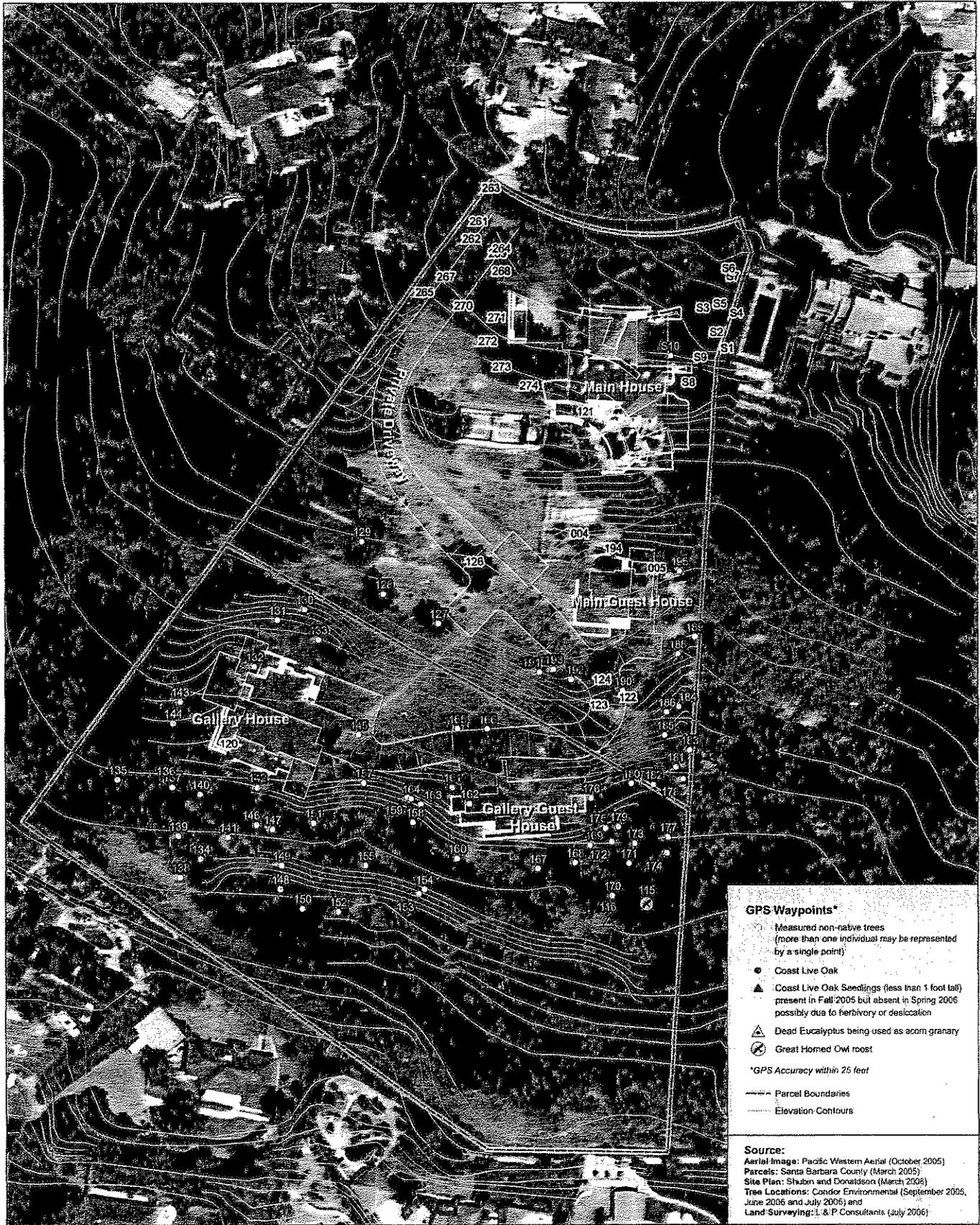
Conclusion

If you have any questions or require additional information, please don't hesitate to call.

Sincerely,



Elihu Gevirtz, AICP



Prepared for:  
 Cyndee Howard

**CONDOR ENVIRONMENTAL**  
 PLANNING SERVICES, INC.

Tel. (805) 898-2000 www.condorenvironmental.com

1:1,200 1 Inch equals 100 Feet

0 25 50 100 150 Feet



**Figure 1: Tree Survey  
 (Revised Site Plan)**

226 & 232 Eucalyptus Hill Drive

August 2006

Appendix 2  
226 and 232 Eucalyptus Hill Drive  
Revised: August 21, 2006

waypoint	genus	species	djbh(in)	dbh(in)	dbh(corrected)(in)	estimated height(ft)	notes
005	Quercus	agrifolia	N/A***	N/A	2.0	10	recorded 6/2/2006, previously included in waypoint 194
115	Eucalyptus	globulus					great horned owl roost
116	Eucalyptus	globulus					acorn granary
120	Quercus	agrifolia					seedling
121	Quercus	agrifolia					seedling
122	Quercus	agrifolia					seedling
123	Quercus	agrifolia					4 seedlings
124	Quercus	agrifolia					seedling
126	Quercus	agrifolia	1.4	16.8	5.6	33	
127	Acacia	pycnantha	0.6/0.7	7.2/8.4	0.2/2.8	40	
127	Acacia	pycnantha	0.7	8.4	2.8	40	
128	Acacia	pycnantha	0.8	9.6	3.2	40	
129	Acacia	baileyana	0.9	10.8	3.6	35	
130	Eucalyptus	globulus	0.9	10.8	3.6	55	
131	Eucalyptus	globulus	0.9/1.0	10.8/12	3.6/4	65	
132	Eucalyptus	globulus	1.1	13.2	4.4	65	
133	Acacia	pycnantha	0.8	9.6	3.2	55	
134	Eucalyptus	globulus	0.8	9.6	3.2	55	
135	Eucalyptus	globulus	1.2	14.4	4.8	63	
136	Acacia	baileyana	1	12	4	16	plus seedling
137	Eucalyptus	globulus	0.7	8.4	2.8	57	
138	Eucalyptus	globulus	0.9	10.8	3.6	50	
139	Eucalyptus	globulus	1.3	15.6	5.2	60	
140	Eucalyptus	globulus	1.1	13.2	4.4	60	
141	Eucalyptus	globulus	1.3	15.6	5.2	60	
142	Eucalyptus	globulus	1.2	14.4	4.8	60	
143	Eucalyptus	globulus	0.9/0.9	10.8/10.8	3.6/3.6	60	
143	Eucalyptus	globulus	0.9	10.8	3.6	60	
144	Eucalyptus	globulus	0.9	10.8	3.6	60	
145	Eucalyptus	globulus	1.1	13.2	4.4	65	
146	Eucalyptus	globulus	0.9	10.8	3.6	55	
147	Eucalyptus	globulus	1.2	14.4	4.8	55	
147	Eucalyptus	globulus	1.2	14.4	4.8	55	
148	Eucalyptus	globulus	1.7	20.4	6.8	65	
149	Eucalyptus	globulus	0.9	10.8	3.6	63	
150	Acacia	baileyana	0.1	1.2	0.4	15	
150	Acacia	baileyana	0.2	2.4	0.8	12	
150	Eucalyptus	globulus	0.8	9.6	3.2	55	
150	Eucalyptus	globulus	0.8	9.6	3.2	55	
150	Eucalyptus	globulus	0.3	3.6	1.2	23-30	plus seedlings
150	Eucalyptus	globulus	0.4	4.8	1.6	25-30	plus seedlings
150	Eucalyptus	globulus	0.1	1.2	0.4	25	plus seedlings
150	Eucalyptus	globulus	1	12	4	60	
150	Eucalyptus	globulus	1.1	13.2	4.4	60	
150	Eucalyptus	globulus	0.8	9.6	3.2	60	
151	Eucalyptus	globulus	1.3	15.6	5.2	55	
151	Eucalyptus	globulus	1.4	16.8	5.6	55	
151	Eucalyptus	globulus	1	12	4	50	
151	Eucalyptus	globulus	0.9	10.8	3.6	50	
151	Eucalyptus	globulus	1.2	14.4	4.8	55	
152	Eucalyptus	globulus	1.3	15.6	5.2	70	
153	Acacia	baileyana	0.6	7.2	2.4	38	
153	Eucalyptus	globulus	0.8	9.6	3.2	63	
154	Eucalyptus	globulus	1.8	21.6	7.2	65	
154	Eucalyptus	globulus	1.6/1.4	19.2/16.8	6.4/5.6	65	
155	Eucalyptus	globulus	0.9	10.8	3.6	50	
156	Eucalyptus	globulus	0.8	9.6	3.2	70	
157	Eucalyptus	globulus	1.8	21.6	7.2	65	
158	Eucalyptus	globulus	1.1	13.2	4.4	65	
159	Eucalyptus	globulus	1.2	14.4	4.8	70	
160	Eucalyptus	globulus	1.7	20.4	6.8	65	
161	Eucalyptus	globulus	0.9	10.8	3.6	60	
162	Acacia	baileyana	0.8	9.6	3.2	40	
162	Acacia	baileyana	0.8	9.6	3.2	35	
163	Eucalyptus	globulus	0.9	10.8	3.6	55	
164	Eucalyptus	globulus	2	24	8	60	
165	Acacia	pycnantha	0.6/0.6	7.2/7.2	2.4/2.4	30	
166	Acacia	baileyana	0.9	10.8	3.6	30	
167	Eucalyptus	globulus	1.1	13.2	4.4	55	
168	Eucalyptus	globulus	0.9	10.8	3.6	50	
169	Eucalyptus	globulus	1.1	13.2	4.4	55	
170	Eucalyptus	globulus	1.5	18	6	65	
171	Eucalyptus	globulus	0.1	1.2	0.4	45	
171	Eucalyptus	globulus	0.9	10.8	3.6	45	

Appendix 2  
226 and 232 Eucalyptus Hill Drive  
Revised: August 21, 2006

Waypoint	genus	species	dbh (in)	dbh (in)	dbh (corrected) (in)	estimated height (ft)	notes
172	Eucalyptus	globulus			0	6	
173	Eucalyptus	globulus	0.7	8.4	2.8	40	plus seedlings
174	Eucalyptus	globulus	0.9	10.8	3.6	40	
174	Eucalyptus	globulus	0.9	10.8	3.6	40	
175	Eucalyptus	globulus	0.8	9.6	3.2	55	
176	Eucalyptus	globulus	1.2/1.3/0.9	14.4/15.6/10.8	4.8/5.2/3.6	60	
177	Eucalyptus	globulus	0.7/0.8	8.4/9.6	2.8/3.2	55	
178	Eucalyptus	globulus			0	5	plus seedlings
179	Eucalyptus	globulus	1.2/0.8/0.9	14.4/9.6/10.8	4.8/3.2/3.6	45	
180	Eucalyptus	globulus	1.2/0.9	14.4/10.8	4.8/3.6	60	
181	Acacia	baileyana	0.6	7.2	2.4	30	
182	Eucalyptus	globulus	1.1	13.2	4.4	50	
183	Eucalyptus	globulus	1.2	14.4	4.8	60	
185	Acacia	baileyana	0.2/0.4	2.4/4.8	0.8/1.6	25	
186	Eucalyptus	globulus			0	5	plus seedlings
186	unknown				0	5	
187	Eucalyptus	globulus	1	12	4	55	
188	Eucalyptus	globulus	1.3	15.6	5.2	60	
188	Eucalyptus	globulus			0	5	plus seedlings
189	Eucalyptus	globulus	1	12	4	60	
190	Eucalyptus	globulus	0.8	9.6	3.2	50	
191	Eucalyptus	globulus	1.6	19.2	6.4	40	
192	Acacia	baileyana	0.7	8.4	2.8	30	
193	Acacia	baileyana	1.1	13.2	4.4	30	
194	Quercus	agrifolia	1.4	16.8	5.6	25	plus seedlings
195	Eucalyptus	globulus			0	5	plus seedlings
261	Quercus	agrifolia		12			
262	Quercus	agrifolia		6/7			
263	Quercus	agrifolia		12			
264	Quercus	agrifolia		10			
265	Quercus	agrifolia		10			
267	Quercus	agrifolia		8			
268	Quercus	agrifolia		11			
269	Quercus	agrifolia		11			
270	Quercus	agrifolia		16			
271	Quercus	agrifolia		12			
272	Quercus	agrifolia		15			
273	Quercus	agrifolia		12			
274	Quercus	agrifolia		19			

\* Diameter is typically measured using a diameter tape. However, initial measurements were collected using a traditional tape measure and converted using this ratio provided by the Division of Forestry, Champion Tree Program in Nashville, TN. (3" on a tape measure = 1" on a diameter tape)

\*\* Source for Oak locations/diameter on waypoints 261-274 from L & P (2005).

\*\*\* Diameter was measured using a diameter tape, therefore no conversion is necessary.

Natural Diversity Database  
 Plants, Animals, and Communities: Quad-Santa Barbara

Scientific Name/Common Name	Element Code	Federal Status	State Status	GRank	SRank	CDFG or CNPS/R-E-D
• 1 <i>Accipiter cooperii</i> Cooper's hawk	ABNKC12040			G5	S3	SC
2 <i>Atriplex coulteri</i> Coulter's saltbush	PDCHE040E0			G2	S2.2	1B/2-2-2
3 <i>Atriplex serenana</i> var. <i>davidsonii</i> Davidson's saltscale	PDCHE041T1			G5T2?	S2?	1B/3-2-2
4 <i>Calochortus weedii</i> var. <i>vestus</i> late-flowered mariposa lily	PMLIL0D1J2			G3?T2	S2.2	1B/2-2-3
5 <i>Calystegia sepium</i> ssp. <i>binghamiae</i> Santa Barbara morning-glory	PDCON040E6			G5TH	SH	1A/ *
6 <i>Charadrius alexandrinus nivosus</i> western snowy plover	ABNNB03031	Threatened		G4T3	S2	SC
7 <i>Coelus globosus</i> globose dune beetle	IICOL4A010			G1	S1	
• 8 <i>Danaus plexippus</i> monarch butterfly	IILEPP2010			G5	S3	
9 <i>Delphinium umbracolorum</i> umbrella larkspur	PDRAN0B1W0			G2G3	S2S3.3	1B/2-1-3
10 <i>Emys (=Clemmys) marmorata pallida</i> southwestern pond turtle	ARAAD02032			G3G4T2T3 Q	S2	SC
11 <i>Eucyclogobius newberryi</i> tidewater goby	AFCQN04010	Endangered		G3	S2S3	SC
12 <i>Horkelia cuneata</i> ssp. <i>puberula</i> mesa horkelia	PDROS0W045			G4T2	S2.1	1B/2-3-3
13 <i>Lonicera subspicata</i> var. <i>subspicata</i> Santa Barbara honeysuckle	PDCPR030R3			G5T2	S2.2	1B/2-2-3
• 14 <i>Nyctinomops macrotis</i> big free-tailed bat	AMACD04020			G5	S2	SC
15 <i>Quercus dumosa</i> Nuttall's scrub oak	PDFAG050D0			G2	S1.1	1B/2-3-2
16 <i>Rana aurora draytonii</i> California red-legged frog	AAABH01022	Threatened		G4T2T3	S2S3	SC
17 <i>Riparia riparia</i> bank swallow	ABPAU08010		Threatened	G5	S2S3	
18 <i>Thamnophis hammondii</i> two-striped garter snake	ARADB36160			G3	S2	SC
19 <i>Thelypteris puberula</i> var. <i>sonorensis</i> Sonoran maiden fern	PPTHE05192			G5T3	S2.2?	2/2-2-1
20 <i>Thermopsis macrophylla</i> Santa Ynez false lupine	PDFAB3Z0E0		Rare	G1	S1.3	1B/3-1-3

Scientific Name/Common Name	Element Code	Federal Status	State Status	GRank	SRank	CDFG or CNPS/R-E-D
1 <i>Arctostaphylos refugioensis</i> Refugio manzanita	PDERI041B0			G2	S2?	1B/2-2-3
2 <i>Astragalus pycnostachyus</i> var. <i>lanosissimus</i> Ventura Marsh milk-vetch	PDFAB0F7B1	Endangered	Endangered	G2T1	S1.1	1B/3-3-3
3 <i>Atriplex coulteri</i> Coulter's saltbush	PDCHE040E0			G2	S2.2	1B/2-2-2
4 <i>Atriplex serenana</i> var. <i> davidsonii</i> Davidson's saltscale	PDCHE041T1			G5T2?	S2?	1B/3-2-2
5 <i>Bufo californicus</i> arroyo toad	AAABB01111	Endangered		G2G3	S2S3	SC
6 <i>Calochortus weedii</i> var. <i>vestus</i> late-flowered mariposa lily	PMLILOD1J2			G3?T2	S2.2	1B/2-2-3
7 <i>Calystegia sepium</i> ssp. <i>binghamiae</i> Santa Barbara morning-glory	PDCON040E6			G5TH	SH	1A/ *
8 <i>Centromadia parryi</i> ssp. <i>australis</i> southern tarplant	PDAST4R0P4			G4T2	S2.1	1B/3-3-2
9 <i>Charadrius alexandrinus nivosus</i> western snowy plover	ABNNB03031	Threatened		G4T3	S2	SC
10 <i>Chorizanthe polygonoides</i> var. <i>longispina</i> long-spined spineflower	PDPGN040K1			G5T3	S2.2	1B/2-2-2
11 <i>Cicindela hirticollis gravida</i> sandy beach tiger beetle	IICOL02101			G5T2	S1	
12 <i>Coelus globosus</i> globose dune beetle	IICOL4A010			G1	S1	
13 <i>Cordylanthus maritimus</i> ssp. <i>maritimus</i> salt marsh bird's-beak	PDSCR0J0C2	Endangered	Endangered	G4?T2	S2.1	1B/2-2-2
14 <i>Danaus plexippus</i> monarch butterfly	IILEPP2010			G5	S3	
15 <i>Delphinium umbraculorum</i> umbrella larkspur	PDRAN0B1W0			G2G3	S2S3.3	1B/2-1-3
16 <i>Empidonax traillii extimus</i> southwestern willow flycatcher	ABPAE33043	Endangered	Endangered	G5T1T2	S1	
17 <i>Emys (=Clemmys) marmorata pallida</i> southwestern pond turtle	ARAAD02032			G3G4T2T3 Q	S2	SC
18 <i>Eucyclogobius newberryi</i> tidewater goby	AFCQN04010	Endangered		G3	S2S3	SC
19 <i>Fritillaria ojaiensis</i> Ojai fritillary	PMLILOV0N0			G1	S1.2	1B/3-2-3
20 <i>Gymnogyps californianus</i> California condor	ABNKA03010	Endangered	Endangered	G1	S1	
21 <i>Horkelia cuneata</i> ssp. <i>puberula</i> mesa horkeia	PDROS0W045			G4T2	S2.1	1B/2-3-3
22 <i>Lasthenia conjugens</i> Contra Costa goldfields	PDAST5L040	Endangered		G1	S1.1	1B/3-3-3
23 <i>Lasthenia glabrata</i> ssp. <i>coulteri</i> Coulter's goldfields	PDAST5L0A1			G4T3	S2.1	1B/2-3-2
24 <i>Lonicera subspicata</i> var. <i>subspicata</i> Santa Barbara honeysuckle	PDCPR030R3			G5T2	S2.2	1B/2-2-3

Natural Diversity Database

Quads Surrounding Santa Barbara Quad: Goleta, San Marcos Pass, Little Pine Mtn., Hildreth Peak, and Carpinteria

Scientific Name/Common Name	Element Code	Federal Status	State Status	GRank	SRank	CDFG or CNPS/R-E-D
25 <i>Malacothrix saxatilis</i> var. <i>arachnoidea</i> Carmel Valley malacothrix	PDAST660C2			G5T2	S2.2	1B/3-2-3
26 <i>Oncorhynchus mykiss irideus</i> southern steelhead - southern California esu	AFCHA0209J	Endangered		G5T2Q	S2	SC
27 <i>Passerculus sandwichensis beldingi</i> Belding's savannah sparrow	ABPBX99015		Endangered	G5T3	S3	
28 <i>Quercus dumosa</i> Nuttall's scrub oak	PDFAG050D0			G2	S1.1	1B/2-3-2
29 <i>Rallus longirostris levipes</i> light-footed clapper rail	ABNME05014	Endangered	Endangered	G5T1T2	S1	
30 <i>Rana aurora draytonii</i> California red-legged frog	AAABH01022	Threatened		G4T2T3	S2S3	SC
31 <i>Scrophularia atrata</i> black-flowered figwort	PDSCR1S010			G2	S2.2	1B/2-2-3
32 <i>Southern Coastal Salt Marsh</i>	CTT52120CA			G2	S2.1	
33 <i>Suaeda esteroa</i> estuary seablite	PDCHE0P0D0			G4	S3.2	1B/2-2-2
34 <i>Thamnophis hammondi</i> two-striped garter snake	ARADB36160			G3	S2	SC
35 <i>Thelypteris puberula</i> var. <i>sonorensis</i> Sonoran maiden fern	PPTHE05192			G5T3	S2.27	2/2-2-1
36 <i>Thermopsis macrophylla</i> Santa Ynez false lupine	PDFAB3Z0E0		Rare	G1	S1.3	1B/3-1-3
37 <i>Tryonia imitator</i> mimic tryonia (=California brackishwater snail)	IMGASJ7040			G2G3	S2S3	
38 <i>Vireo bellii pusillus</i> least Bell's vireo	ABPBW01114	Endangered	Endangered	G5T2	S2	

**ENGINEERING GEOLOGY  
AND  
GEOTECHNICAL ENGINEERING REPORT  
FOR  
226 & 232 EUCALYPTUS HILL DRIVE  
PROPOSED 2-LOT RESIDENTIAL SUBDIVISION  
SANTA BARBARA, CALIFORNIA**

VT-23720-01  
JULY 14, 2006

PREPARED FOR  
CYNDEE HOWARD

BY  
**EARTH SYSTEMS  
SOUTHERN CALIFORNIA  
1731-A WALTER STREET  
VENTURA, CALIFORNIA**

**RECEIVED**  
AUG 10 2006  
CITY OF SANTA BARBARA  
PLANNING DIVISION

**EXHIBIT G**

EARTH SYSTEMS SOUTHERN CALIFORNIA



**Earth Systems**  
**Southern California**

1731-A Walter Street  
Ventura, CA 93003  
(805) 642-6727  
FAX (805) 642-1325

July 14, 2006

VT-23720-01  
06-7-48

Cyndee Howard  
Classic Properties  
232 Eucalyptus Hill Drive  
Santa Barbara, California 93108

Project: 226 and 232 Eucalyptus Hill Drive  
Proposed Two-Lot Residential Subdivision  
Santa Barbara, California

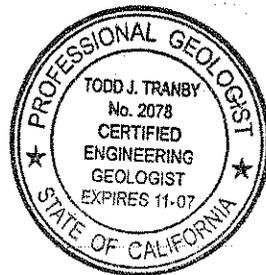
As authorized, we have performed an engineering geology and geotechnical engineering study for a proposed two-lot residential subdivision to be located at 226 and 232 Eucalyptus Hill Drive in Santa Barbara, California. The accompanying Engineering Geology and Geotechnical Engineering Report presents the results of our research, as well as our conclusions and recommendations pertaining to geotechnical aspects of project design.

We have appreciated the opportunity to be of service to you on this project. Please call if you have any questions, or if we can be of further service.

Respectfully submitted,

**EARTH SYSTEMS SOUTHERN CALIFORNIA**

Todd J. Tranby  
Engineering Geologist



Reviewed and Approved

Richard M. Beard  
Geotechnical Engineer



- Copies:
- 1 - Cyndee Howard
  - 5 - Shubin + Donaldson Architects; Attention: Kim Maciorowski
  - 1 - VTA File

## TABLE OF CONTENTS

<b>INTRODUCTION</b> .....	1
PROJECT DESCRIPTION.....	1
PURPOSE AND SCOPE OF WORK .....	1
SITE SETTING.....	2
<b>REGIONAL GEOLOGY</b> .....	2
<b>STRUCTURE</b> .....	2
<b>GEOLOGIC HAZARDS</b> .....	3
SEISMIC SHAKING.....	3
FAULT RUPTURE.....	5
LIQUEFACTION.....	6
LANDSLIDING.....	6
ROCKFALL.....	7
FLOODING .....	7
<b>SOIL/BEDROCK CONDITIONS</b> .....	7
<b>CONCLUSIONS AND RECOMMENDATIONS</b> .....	8
GRADING .....	8
General Grading.....	8
Site Grading/Development.....	9
Slope Construction.....	10
Utility Trenches.....	11
STRUCTURAL DESIGN.....	11
Foundations.....	11
Slabs-on-Grade .....	12
Frictional and Lateral Coefficients.....	13
Retaining Walls.....	13
Settlement Considerations .....	14
<b>ADDITIONAL SERVICES</b> .....	14
<b>LIMITATIONS AND UNIFORMITY OF CONDITIONS</b> .....	15
<b>BIBLIOGRAPHY</b> .....	16

## **APPENDIX A**

- Field Study
- Vicinity Map
- Site Map
- Satellite Site Image
- Regional Geology Map (Dibblee)
- Regional Geology Map (Gurrola)
- Trench Location Map
- Test Pit Logs
- Symbols Commonly Used on Boring Logs
- Unified Soil Classification

## **APPENDIX B**

- Laboratory Testing
- Tabulated Test Results
- Individual Test Results
- Soil Chemistry Results
- Table 18-I-D (Rev.)

## **APPENDIX C**

- California Fault Map
- Attenuation Plot for Strike Slip Faults
- Attenuation Plot for Dip Slip Faults
- Attenuation Relation for Blind Thrust Faults
- Earthquake Magnitudes
- Maximum Earthquakes
- Probability of Exceedance for SR-1
- Probability of Exceedance for SR-2
- Design Response Spectrum

## INTRODUCTION

### Project Description

This report presents results of an Engineering Geology and Geotechnical Engineering study performed for a proposed two-lot residential subdivision to be located at 226 and 232 Eucalyptus Hill Drive in Santa Barbara, California. The site is currently occupied by an existing residence that will be demolished. The lot line between the two addresses will be realigned from a north-south direction to a east-west direction. It is proposed to construct a main residence, guest house, and detached garage on each of the two new lots. It is assumed herein that the proposed structures will be one- to two-story, wood-framed and/or masonry/concrete construction with raised and/or slab-on-grade floors. Structural considerations for building column loads of up to 25 kips with maximum wall loads of 2.0 kips per lineal foot were used as a basis for the recommendations of this report. If actual loads vary significantly from these assumed loads, Earth Systems Southern California should be notified since reevaluation of the recommendations contained in this report may be required.

### Purpose and Scope of Work

The purpose of the geotechnical study that led to this report was to analyze the geology and soil conditions of the site with respect to the proposed construction. These conditions include potential geohazards, surface and subsurface soil/bedrock types, expansion potential, settlement potential, bearing capacity, and the presence or absence of subsurface water. The scope of our work included:

1. Reconnaissance of the site.
2. Reviewing pertinent geologic literature.
3. Excavating, logging and sampling of seven backhoe test pits to study bedrock, soil and groundwater conditions.
4. Laboratory testing of bedrock/soil samples obtained from the subsurface exploration to determine their physical and engineering properties.
5. Consulting with owner representatives.
6. Analyzing the geotechnical data.
7. Preparing this report.

Contained in this report are:

1. Descriptions and results of field and laboratory tests that were performed.

2. Discussions pertaining to the local bedrock, soil and groundwater conditions.
3. Conclusions and recommendations pertaining to site grading and structural design.

### Site Setting

The site of the proposed improvements is located at 226 and 232 Eucalyptus Hill Drive in Santa Barbara, California (see Vicinity Map and Site Map in Appendix A). An existing residence occupies the northeast corner of the site. The site lies near the top of slope on a east-west trending ridge spur. The northern portion of the site (about 100 to 150 feet south of Eucalyptus Hill Road) has a south-facing descending slope gradient of about 7:1. Below this the slope gradient steepens to about 5:1 with isolated areas of slope gradient up to 2.5:1. The site is covered with a growth of Eucalyptus trees. Dirt access roads have been graded on the site with minor cuts and fills. The slope is covered with sparse annual grasses and brush. The site is bound by Eucalyptus Hill Road to the north, and residential lots to the east, west, and south.

## **REGIONAL GEOLOGY**

The proposed road lies within the Santa Barbara foothills in the western portion of the Transverse Ranges geologic province. Numerous east-west trending folds and reverse faults indicative of active north-south transpressional tectonics characterize the region. The ongoing regional compression produces the east-west trending faults which deforms early Pleistocene to Tertiary aged marine and non-marine sedimentary bedrock units. These sedimentary bedrock units underlie the property (see Regional Geologic Maps by Dibblee and Gurrola in Appendix A). The site does not lie within any study zones for fault rupture hazard or landslides. No faults or landslides were encountered during field studies.

## **STRUCTURE**

The subject site is underlain by areas of artificial fill over topsoil/colluvium over Monterey Formation bedrock. Bedrock units encountered within the exploratory test pits had strikes of bedding ranging from about N89°W to N75°E and dips ranging from 53° to the north and 73° to the south forming a synclinal structure across the site. These strikes appear to be consistent with the regional strikes of other bedrock units in the general area of the subject site according to Dibblee (Geologic Map of the Santa Barbara Quadrangle, 1986).

## GEOLOGIC HAZARDS

Geologic hazards that may impact a site include seismic shaking, fault rupture, landsliding, liquefaction and flooding.

### Seismic Shaking

The site is located in an active seismic region where large numbers of earthquakes are recorded each year. Historically, major earthquakes felt in the vicinity of the subject site have originated from faults outside the area. These include the December 21, 1812 "Santa Barbara Region" earthquake, that was presumably centered in the Santa Barbara Channel (CDMG, 1975), the 1857 Fort Tejon earthquake, the 1872 Owens Valley earthquake, and the 1952 Arvin-Tehachapi earthquake.

Table No. 1, Summary of Deterministic Site Parameters, presents approximate distance, maximum earthquake magnitude  $M_w$ , peak site acceleration and estimated site intensity according modified Mercalli scale for seismic events which could be initiated by various nearby active faults.

Fault Name	Approximate Distance mi (km)	Estimated Maximum Earthquake Event		
		Maximum Earthquake Magnitude ( $M_w$ )	Peak Site Acceleration (g)	Estimated Site Intensity Modified Mercalli
M.RIDGE-ARROYO PARIDA-SANTA ANA	2.58 (4.5)	6.7	0.628	X
RED MOUNTAIN	4.3 (6.9)	6.8	0.545	X
SANTA YNEZ (West)	4.8 (7.7)	6.9	0.416	X
SANTA YNEZ (East)	4.8 (7.8)	7.0	0.426	X
NORTH CHANNEL SLOPE	6.6 (10.6)	7.1	0.467	X
MONTALVO-OAK RIDGE TREND	9.1 (14.6)	6.6	0.302	IX
VENTURA - PITAS POINT	10.7 (17.2)	6.8	0.285	IX
CHANNEL IS. THRUST (Eastern)	14.5 (23.4)	7.4	0.286	IX
OAK RIDGE(Blind Thrust Offshore)	18.1 (29.2)	6.9	0.167	VIII
BIG PINE	22.1 (35.6)	6.7	0.104	VII

As with most of Southern California, the site is within a highly active seismic area. As a result, the proposed development may be subject to severe seismically induced ground shaking from any of a number of regional and local faults during its design life.

According to the California Building Code, the proposed site is located in Seismic Zone 4. Seismic Zone 4 includes those areas of California that have experienced major (Richter magnitude greater than eight) historic earthquakes and high levels of recent seismicity. As noted above, the site is located about 2.58 miles (4.5 km) southeast of the active Mission Ridge-Arroyo Parida-Santa Ana Fault (Seismic Source Type B). The program EQFAULT indicated that the Mission Ridge-Arroyo Parida-Santa Ana Fault is closest to the site and can generate earthquake with magnitude 6.7M and peak ground acceleration of 0.6282g (EQFAULT, Blake, 2004).

It is the standard of practice, when evaluating the seismicity of residential type development, to consider the design basis (10% probability of exceedance in 50 years) accelerations. The California Division of Mines and Geology, in concert with the U.S. Geological Survey and the scientific community, has recently presented results of a statewide probabilistic seismic hazard assessment (CDMG, Seismic Shaking Map Sheets, Map Sheet 48, 1999). The focus of the assessment was to generate a seismic hazard map showing zones of estimated peak ground accelerations at a hazard level of 10% probability of exceedance in 50 years. The site location plots between 0.50 g to 0.60 g acceleration potential. A contour map of the estimated magnitude of earthquake that causes the dominant hazard for peak ground acceleration at 10% probability of exceedance in 50 years with alluvial site conditions was also prepared as part of the statewide seismic hazard assessment survey. The site location plots within a zone of magnitude 6.5 to 7.0 that were estimated by using the program FRISKSP (FRISKSP, Blake, 2004), the revised faults systems provided by CAO, TIANQING, et. al., 2003 (see publication CAO, TIANQING, et. al., 2003, and the Revised 2002 California Probabilistic Seismic Hazard Maps, June 2003, pp. 1-11, Appendix A.).

For the project site the 2001 California Building Code (CBC) Seismic Design Parameters are:

<u>Parameter</u>	<u>Table No.</u>	<u>Value</u>
Seismic Zone Factor (Z)	16-I	0.40
Soil Type Profile	16-J	S <sub>c</sub>
Seismic Coefficient (C <sub>a</sub> )	16-Q	0.40N <sub>a</sub>
Seismic Coefficient (C <sub>v</sub> )	16-R	0.56N <sub>v</sub>
Near Source Factor (N <sub>a</sub> )	16-S	1.3
Near Source Factor (N <sub>v</sub> )	16-T	1.6
Seismic Source Type	16-U	B

These values are based on a distance of less than 2 kilometers from the Red Mountain fault as determined from the 1997 Uniform Building Code (UBC) Maps of Known Active Fault Near-Source Zones in California and Adjacent Portions of Nevada.

Where  $N_a$  is greater than 1.0, the vertical ground acceleration cannot be taken as two-thirds of the horizontal ground acceleration. CBC Section 1631.2 recommends conducting a site-specific vertical spectra analysis. This analysis was not included as part of the scope of work. The results of our seismic analyses include preparing a 1) a California Fault Map, 2) graphs of probability of exceedance, 3) graphs of attenuation relation for different faults, 4) graph of earthquake magnitude & distance, 5) graph of maximum earthquakes, and 6) design response spectrum (presented in Appendix C).

#### Fault Rupture

The parcel does not lie within a State of California designated fault hazard zone. Dibblee (1986) does not map a fault crossing the subject site. Gurrola (2004) indicates an approximately located fault crossing the site near its southernmost property line. The fault is located where the Monterey Formation bedrock abuts an Older Fanglomerate unit. The City of Santa Barbara Geologic Map (prepared by Mike Hoover, 1982) does show a fault crossing the site, but does show a fault trending towards the site from the west. Test pits excavated across the site in a north-south direction (perpendicular to the fault trend) encountered Monterey Formation bedrock but no Older Fanglomerate units. Therefore, it appears the faulting is located south of the subject site and thus the potential for fault rupture hazard on the subject site is considered low.

Table No. 2, Summary of Regional Faults, presents nearest distances of the site to various nearby active faults. Of those listed in Table No. 1, the nearest known active fault is the Mission Ridge-Arroyo Parida-Santa Ana Fault, located about 1 mile (1.6 km) away of the site. Ground shaking from earthquakes associated with both nearby and more distant faults is expected to occur during the lifetime of the project.

Fault Name	Closest Distance To The Site (km)	Seismic Source Type (A, B, C)	Maximum Magnitude (Mw)	Slip Rate (mm/yr)	Fault Type (SS, DS, BT)
M.RIDGE-ARROYO PARIDA-SANTA ANA	1.6	B	6.7	0.4	DS
RED MOUNTAIN	2.3	B	6.8	2.0	DS
SANTA YNEZ (West)	5.8	B	6.9	2.0	SS

SANTA YNEZ (East)	6.0	B	7.0	2.0	SS
VENTURA - PITAS POINT	15.5	B	6.8	1.0	DS
BIG PINE	35.5	B	6.7	0.8	SS

SS - Strike-Slip Fault; DS - Dip-Slip Fault; BT -- Buried Thrust Fault

### Liquefaction

A major cause of damage during earthquakes is a significant reduction of soil strength or stiffness, generally referred to as liquefaction. Liquefaction can cause translational instability, bearing failure, settlement, ground loss, and other related phenomena. Translational instabilities can be slope failures or lateral spreading. Bearing failure can occur when soil strength loss is near a foundation. Settlement can occur when bearing failure is precluded, but volumetric compression occurs. Ground loss results from sand boils and is usually very localized. Liquefaction is typically a design problem only if it occurs in the upper 50 feet of the subsurface soils. However, on sloping ground or when foundations reach beyond that depth, liquefaction should be considered to a greater depth.

The soils most susceptible to liquefaction are sandy soils and silty soils of low plasticity. Cohesive soils with fines content greater than 30% are generally not susceptible to liquefaction if their fines classify as clays, or they have a plasticity index greater than 30%. Generally, if a soil has a clay content greater than 20%, or the water content is less than 0.9 times the liquid limit, liquefaction can be ruled out. However, cohesive soils, if sensitive, can lose significant strength even if they cannot liquefy, and there may be a need to address this problem. Although widely believed to be non-liquefiable, gravelly soils can be susceptible to liquefaction if internal drainage is impeded. In order for liquefaction to occur, a potentially liquefiable soil must be saturated and subjected to rapid cyclic loading that is sufficiently intense to overcome a soil's internal resistance to liquefaction.

Because the site lies stiff to hard, clayey colluvium over dense Monterey Formation bedrock, liquefaction is not considered a potential hazard at the subject site.

### Landsliding

No existing landslides were observed on, or trending into the site. In addition, regional dips of bedding in the Monterey Formation bedrock units are not dipping out of slope (based on test pits data, Dibblee mapping, and Gurrola mapping) and this is typically considered to be a relatively stable geologic condition.

Rockfall

The slope above the site was traversed by a representative of this office. No potential rockfall hazard was observed.

Flooding

Earthquake-induced flooding types include tsunamis, seiches, and reservoir failure. Due to the inland location of the site, hazards from tsunamis and seiches are considered extremely unlikely. Any nearby reservoir that may fail would normally drain into established major drainage channels, and away from the site; therefore, flooding should not be considered a potential hazard.

**SOIL/BEDROCK CONDITIONS**

Near-surface soils underlying the proposed building areas generally consist of artificial fill over topsoil/colluvium over Monterey Formation bedrock. About 1 to 5 feet of artificial fill was encountered in Test Pits Nos. 1 to 4. The artificial fill consisted of clayey silts to silty clays with common construction debris. In Test Pit No. 3 organic yard cutting were found to a depth of about 2 to 3 feet below the existing grade. In Test Pit No. 4 about 5 feet of trash debris (i.e. bottles, ceramics, etc.) was encountered. Below the artificial fill was topsoil/colluvium consisting of clayey silt to silty clay with common angular clasts of shale. The topsoil/colluvium varied in thickness from 2 to 9 feet. Monterey Formation bedrock was encountered below the topsoil/colluvium. The Monterey Formation bedrock consisted of diatomaceous shale that is bedded to laminated and moderately to highly weathered. The generally east-west striking bedrock units dipped steeply to the south along the northern portion of the site and dipped to north along the southern portion of the site forming a synclinal structure. Testing indicates that anticipated bearing soils lie in the "very low" expansion range of Table 18-I-B of the 2001 California Building Code.

Samples of near-surface soils were tested for pH, resistivity, soluble sulfates and soluble chlorides. Testing indicates that anticipated bearing soils lie within the "negligible" sulfate exposure range in Table 19-A-4 of the 2001 California Building Code. Hence, special concrete designs do not appear necessary to combat sulfate attack. A soil resistivity measurement indicates that the soil is "corrosive" to ferrous metals in the bedrock units and "mildly corrosive" in the topsoil/colluvial units. The test results provided in Appendix B should be provided to the project designers for their interpretations pertaining to the corrosivity or reactivity of various construction materials (such as concrete and piping) with the soils.

## CONCLUSIONS AND RECOMMENDATIONS

The site is suitable for the proposed development from an Engineering Geology and Geotechnical Engineering standpoint provided that the recommendations contained in this report are successfully implemented into the project.

### A. Grading

#### 1. General Grading

- a. Grading at a minimum should conform to Chapter 33 of the 2001 California Building Code.
- b. The existing ground surface should be initially prepared for grading by removing vegetation, debris piles, large roots, any other organics, and any noncomplying fill. All organics and vegetation should be removed from the site to preclude their incorporation in site fills. Voids created by removing such material should be properly backfilled and compacted. No compacted fill should be placed unless a representative of the Geotechnical Engineer has observed the underlying soil.
- c. Fill and backfill placed at near optimum moisture in layers with loose thickness not greater than 8 inches should be compacted to a minimum of 90% of the maximum dry density obtainable by the ASTM D 1557 test method unless otherwise recommended or specified. Random compaction tests by Earth Systems Southern California can assist the Grading Contractor in evaluating whether the Grading Contractor is meeting compaction requirements. Compaction tests pertain only to a specific location, however, and do not guaranty that all fill has been compacted to the prescribed percentage of maximum density. It is the ultimate responsibility of the Grading Contractor to achieve uniform compaction in accordance with the requirements of this report and the grading ordinance.
- d. Shrinkage of soils that will be affected by compaction and from rock removal is about 5%.
- e. Import soils used to raise site grade should be equal to, or better than, on-site soils in strength, expansion, and compressibility characteristics. Import soil can be evaluated, but will not be prequalified by the Geotechnical Engineer. Final

comments on the characteristics of the import will be given after the material is at the project site.

- f. Roof draining systems should be designed so that water is not discharged into bearing soils or near the structures. Final site grade could be such that all water is diverted away from the structures, and is not allowed to pond. In landscape areas adjacent to the buildings we recommend a minimum gradient of 2% toward either hardscapes or drain inlets.
- g. Earth Systems Southern California should be retained to provide Geotechnical Engineering services during site development and grading, and foundation construction phases of the work to observe compliance with the design concepts, specifications and recommendations. This will allow for timely design changes in the event that subsurface conditions differ from those anticipated prior to the start of construction.
- h. Plans and specifications should be provided to Earth Systems Southern California prior to grading. Plans should include the grading plans, foundation plans, and foundation details. Earth Systems Southern California will review these plans only for conformity with geotechnical parameters not including drainage. It is the responsibility of the Client and other Engineers to review and approve designs and plans for conformity with all engineering and design requirements necessary to the proper function and performance of the structures.

2. Site Grading/Development

- a. Overexcavation and recompaction of soils in the building areas will be necessary to decrease the potential for differential settlement and provide more uniform bearing conditions. Soils should be overexcavated throughout the building areas to the deeper depth of either: 1) through the existing uncertified fill and topsoil/colluvium (approximately 2 to 9 feet thick), 2) to a depth of 5 feet below finish pad grade throughout the building areas, or 3) 2 feet below the bottom of the footings and to a distance of at least 5 feet, but not less than the depth of overexcavation relative to the final grading, beyond the perimeter of the buildings. The resulting surface should then be scarified an additional 1 foot, moisture conditioned and recompacted to at least 90% of maximum density.
- b. Areas outside of the building areas to receive fill, exterior slabs-on-grade, sidewalks or paving should be overexcavated through the artificial fill and topsoil, scarified to a depth of 1 foot, moisture conditioned and recompacted.

The overexcavation should be performed to a distance equal to the depth of overexcavation relative to the final grading

- c. On-site soils may be used for fill once they are cleaned of all organic material, rock, debris and irreducible material larger than 8 inches. Alternately, import soils meeting the criteria previously discussed can be used.
- d. If pumping soils or otherwise unstable soils are encountered, stabilization of the excavation bottom will be required prior to placing fill. This can be accomplished by drying the soils, working thin lifts of 1-1/2 inch (minimum size) float rock into the excavation bottom until stabilization is achieved, or by lime or cement treatment of the soils. Use of geotextiles in combination with rock is another possibility.

3. Slope Construction

- a. Any construction of fill slopes should conform to the minimum standards listed in Chapter 33 of the 2001 California Uniform Building Code. It is recommended that the Geotechnical Engineer and Engineering Geologist review the grading plans prior to grading and site development.
- b. Fill slopes should be keyed and benched through the existing artificial fill and topsoil/colluvium into dense bedrock when the existing slope to receive fill is 5:1 or steeper, horizontal to vertical. The keys should be tilted into the slope, should be a minimum of 12 feet wide, should be a minimum of 2 feet deep on their outside edge, and should be into firm, natural materials.
- c. Fill slopes should be overfilled, compacted, and then cut back to the planned configurations. This will yield better compaction on the slope faces than other methods.
- d. Backdrains should be placed within fill slopes to minimize the potential of seepage of water from the fill slope faces. A backdrain should consist of a minimum of 1 cubic foot of Class 2 permeable Filter Material per lineal foot of pipe surrounding a 4-inch diameter perforated PVC pipe (holes down). As an alternative to the filter material, 3/4 -inch gravel can be used surrounded by a drain filter fabric. The drain should have a solid pipe extending out of the slope face to a concrete swale or a non-erosive surface. The backdrains should be placed at 10-foot vertical intervals in order to provide sufficient drainage.
- e. Fill and cut slopes are anticipated to be less than 10 feet in height.

#### 4. Utility Trenches

- a. The provisions of this report relating to minimum compaction standards should govern utility trench backfill. In general, on-site service lines may be backfilled with native soils compacted to 90% of maximum density. Backfill of offsite service lines will be subject to the specifications of the jurisdictional agency or this report, whichever are greater. Oversized rocks should not be used in the backfill.
- b. Jetting of native soils is not recommended.

### B. Structural Design

#### 1. Foundations:

- a. An expansion index test was found to be in the "low" expansion range.
- b. A combination of conventional continuous footings and isolated pad footings bearing into recompacted fill may be used to support the structures. Isolated footings should be tied together with grade beams or by the slab-on-grade floors.
- c. Foundation excavations should be observed by a representative of Earth Systems Southern California after excavation, but prior to placing of reinforcing steel or concrete, to verify bearing conditions.
- d. Conventional continuous footings may be designed based on an allowable bearing value of 1,500 psf for an assumed footing size of 12 inches wide (18 inches wide for two-story) and a minimum of 15 inches deep for one-story and 18 inches deep for two-story construction.
- e. Isolated pad footings interior to perimeter continuous footings may be designed based on an allowable bearing value of 2,000 psf for an assumed square footing size of 24 inches by 24 inches by a minimum of 15 inches deep for one-story and 18 inches deep for two-story construction.
- f. Allowable bearing values are net (weight of footing and soil surcharge may be neglected) and are applicable for dead plus reasonable live loads.
- g. Bearing values may be increased by one-third when transient loads such as wind and/or seismicity are included.
- h. Lateral loads may be resisted by soil friction on floor slabs and foundations and by passive resistance of the soils acting on foundation stem walls. Lateral capacity is based on the assumption that any required backfill adjacent to foundations and grade beams is properly compacted.

- i. Conventional continuous footings for buildings where the ground surface slopes at 10:1 horizontal to vertical or steeper should be level or should be stepped so that both the top and the bottom are level.
  - j. For structures to be constructed above slopes that are steeper than 3:1 (horizontal to vertical), the outside faces at the bottom of the footings should be at a minimum horizontal distance from the slope face equal to the complete height of the slope divided by three, unless stated otherwise herein. This distance should not be less than 10 feet, but need not exceed 40 feet. For structures constructed below slopes, the outside faces of the structures should be at a minimum horizontal distance from the slope face equal to the complete height of the slope divided by two, unless stated otherwise herein. This distance need not exceed 15 feet.
  - k. The information that follows regarding reinforcement and premoistening for footings is the same as that given in Table 18-I-D (Rev.) for the "low" expansion range. Actual footing designs should be provided by the Structural Engineer, but the dimensions and reinforcement recommended should not be less than the criteria set forth in Table 18-I-D (Rev.) for the appropriate expansion range.
  - l. Continuous footings bottomed in soils in the "low" expansion range should be reinforced, at a minimum, with one No. 4 bar along the bottom and one No. 4 bar along the top.
  - m. Bearing soils in the "low" expansion range should be premoistened to 120% of optimum moisture content to a depth of 21 inches below lowest adjacent grade. Premoistening should be confirmed by testing.
2. Slabs-on-Grade
- a. Concrete slabs should be supported by compacted structural fill.
  - b. It is recommended that perimeter slabs (walks, patios, etc.) be designed relatively independent of footing stems (i.e., free floating) so foundation adjustment will be less likely to cause cracking.
  - c. The slab designs should be provided by the project Structural Engineer.
  - d. Slabs should be underlain with a minimum of 4 inches of sand. Areas where floor wetness would be undesirable should be underlain with a vapor retarder or barrier (as specified by the project Architect or Civil Engineer) to reduce moisture transmission from the subgrade soils to the slab. The retarder/barrier

should be placed per the recommendations of the project Architect or Manufacturer.

- e. Slabs should at a minimum be reinforced at mid-slab with No. 3 bars on 24-inch centers, each way.
- f. Soils underlying slabs that are in the "low" expansion range should be premoistened to 120% of optimum moisture content to a depth of 21 inches below lowest adjacent grade. Premoistening should be confirmed by testing.

3. Frictional and Lateral Coefficients

- a. Resistance to lateral loading may be provided by friction acting on the base of foundations. A coefficient of friction of 0.5 may be applied to dead load forces. This value does not include a factor of safety.
- b. Passive resistance acting on the sides of foundation stems equal to 206 pcf of equivalent fluid weight may be included for resistance to lateral load. This value does not include a factor of safety.
- c. A minimum factor of safety of 1.5 should be incorporated into designs for sliding or overturning.
- d. Passive resistance may be combined with frictional resistance provided that a one-third reduction in the coefficient of friction is used.

4. Retaining Walls

- a. Conventional cantilever retaining walls should not be backfilled with onsite expansive soils. Retaining walls backfilled with compacted imported granular soils may be designed for active pressures of 35 pcf of equivalent fluid weight for well-drained, level backfill, and 46 pcf for 2:1 sloping backfill. This backfill should comprise an envelope defined by a 1:1 upward projection from the heel of the retaining wall foundation to the ground surface, and the back of the wall.
- b. The pressures listed above were based on the assumption that backfill soils will be compacted to 90% of maximum dry density as determined by the ASTM D 1557 Test Method.
- c. The lateral earth pressure to be resisted by the retaining walls or similar structures should be increased to allow for surcharge loads. The surcharge considered should include the loads from any structures or temporary loads that would influence the wall design.

- d. A system of backfill drainage and waterproofing should be incorporated into the retaining wall designs. Backfill comprising the drainage system immediately behind the retaining structures should be a free-draining granular material with a filter fabric between it and the rest of the backfill soils. As an alternative, the back of the wall could be lined with a geodrain system. The backdrain should extend from the bottom of the wall to about 18 inches from finished backfill grade. In addition to waterproofing retaining walls that are a part of the buildings, waterproofing of exterior retaining walls should be considered to help mitigate efflorescence on wall faces.
  - e. Compaction on the uphill side of the wall within a horizontal distance equal to one wall height should be performed by hand-operated or other light weight compaction equipment. This is intended to reduce potential "locked-in" lateral pressures caused by compaction with heavy grading equipment.
  - f. Water should not be allowed to pond near the top of the wall. To accomplish this the final backfill site grade should be such that all water is diverted away from the retaining wall.
5. Settlement Considerations

Maximum expected settlement of less than 1 inch is anticipated for foundations and floor slabs designed as recommended and subjected to static loading. Differential settlement between adjacent load bearing members should be less than one-half the total settlement.

#### ADDITIONAL SERVICES

This report is based on the assumption that an adequate program of monitoring and testing will be performed by Earth Systems Southern California during construction to check compliance with the recommendations given in this report. The recommended tests and observations include, but are not necessarily limited to the following:

1. Review of the building and grading plans during the design phase of the project.
2. Observation and testing during site preparation, grading, placing of engineered fill, and foundation construction.
3. Consultation as required during construction.

## LIMITATIONS AND UNIFORMITY OF CONDITIONS

The analysis and recommendations submitted in this report are based in part upon the data obtained from the test pits excavated on the site. The nature and extent of variations between and beyond the pits may not become evident until construction. If variations then appear evident, it will be necessary to reevaluate the recommendations of this report.

The scope of our services did not include any environmental assessment or investigation for the presence or absence of wetlands, hazardous or toxic materials in the soil, surface water, groundwater or air, on, below, or around this site. Any statements in this report or on the soil test pit logs regarding odors noted, unusual or suspicious items or conditions observed, are strictly for the information of our client.

Findings of this report are valid as of this date; however, changes in conditions of a property can occur with passage of time whether they be due to natural processes or works of man on this or adjacent properties. In addition, changes in applicable or appropriate standards may occur whether they result from legislation or broadening of knowledge. Accordingly, findings of this report may be invalidated wholly or partially by changes outside our control. Therefore, this report is subject to review and should not be relied upon after a period of 1 year.

In the event that any changes in the nature, design, or location of the construction and other improvements are planned, the conclusions and recommendations contained in this report shall not be considered valid unless the changes are reviewed and conclusions of this report modified or verified in writing.

This report is issued with the understanding that it is the responsibility of the Owner, or of his representative to insure that the information and recommendations contained herein are called to the attention of the Architect and Engineers for the project and incorporated into the plan and that the necessary steps are taken to see that the Contractor and Subcontractors carry out such recommendations in the field.

As the Geotechnical Engineers for this project, Earth Systems Southern California strives to provide our services in accordance with the generally accepted geotechnical engineering practices in this community at this time. No warranty or guarantee is expressed or implied. This report was prepared for the exclusive use of the Client and their authorized agents.

It is recommended that Earth Systems Southern California be provided the opportunity for a general review of final design and specifications in order that earthwork and foundation recommendations may be properly interpreted and implemented in the design and specifications. If Earth Systems Southern California is not accorded the privilege of making this recommended review, we can assume no responsibility for misinterpretation of our recommendations.

### BIBLIOGRAPHY

- Blake, T., 2004, EQFAULT, Version 3.0, A Computer Program for the Determination of Deterministic Fault Characteristics, Computer Services and Software, Newbury Park, California.
- Blake, T., 2004, FRISKSP, Version 4.00, A Computer Program for the Probabilistic Earthquake Hazard Analyses using multiple forms of ground-motion-attenuation relations, Computer Services and Software, Newbury Park, California.
- California Building Code (CBC), 2001.
- Cao, T., Bryant, W. A., Rowshandel, B., Branum, D., and Wills, C. J. (2003), The Revised 2002 California Probabilistic Seismic Hazard Maps, June 2003, California Geological Survey.
- Cao, Tianqing, et. al., 2003, The Revised 2002 California Probabilistic Seismic Hazard Maps, June 2003, pp. 1-11, Appendix A.
- CDMG, 1972 (Revised 1994), Fault Rupture Hazard Zones In California, Special Publication 42.
- CDMG, 1997, Special Publication 117 Guidelines for Evaluating and Mitigating Seismic Hazards in California.
- CDMG, 1998, Maps of Known Active Fault Near-Source Zones in California and Adjacent Portions of Nevada.
- CDMG, 1999, Map Sheet 48, Seismic Shaking Hazard Map of California.
- Dibblee, Thomas W., Jr., 1986, Geologic Map of the Santa Barbara Quadrangle, Santa Barbara County, California.

- El-Ehwany, M., and S. L. Houston, 1990, Settlement and Moisture Movement in Collapsible Soils, ASCE Journal of Geotechnical Engineering, Vol. 116, No. 10, October.
- Gurrola, Larry D., 2004, Geologic Map of the Eastern Fold Belt, Santa Barbara, California.
- Houston, S. L., W. N. Houston, and D. J. Spadola, 1988, Prediction of Field Collapse of Soils Due to Wetting, ASCE Journal of Geotechnical Engineering, Vol. 114, No. 1, January.
- Ishahara, K., 1985, Stability of Natural Deposits During Earthquakes, Proceedings of the International Conference on Soil Mechanics and Foundation Engineering.
- Jennings, J. E., and Knight, K., 1956, Recent Experiences with the Consolidation Test as a Means of Identifying Conditions of Heaving or Collapse of Foundations on Partially Saturated Soils, Transactions, South African Institution of Civil Engineers, August.
- Martin, G. R. and M. Lew, 1999, Recommended Procedures for Implementation of DMG Special Publication 117, Guidelines for Analyzing and Mitigating Liquefaction Hazards in California, Southern California Earthquake Center, March.
- Pradel, D., 1998, Procedure to Evaluate Earthquake-Induced Settlements in Dry Sandy Soils, Journal of Geotechnical and Geoenvironmental Engineering, ASCE, Vol. 124, No. 4, April.
- Pyke, R., H. B. Seed, and C. K. Chan, 1975, Settlement of Sands Under Multidirectional Shaking, ASCE, Journal of Geotechnical Engineering, Vol. 101, No. 4, April.
- Seed, H. B., and M. L. Silver, 1972, Settlement of Dry Sands During Earthquakes, ASCE, Journal of Geotechnical Engineering, Vol. 98, No. 4, April.
- Tokimatsu, K., and H. B. Seed, 1987, Evaluation of Settlements in Sands Due to Earthquake Shaking, ASCE, Journal of Geotechnical Engineering, Vol. 113, No. 8, August.
- Youd, T. L., and I. M. Idriss, 1997, Proceedings of the NCEER Workshop on Evaluation of Liquefaction Resistance of Soils, Salt Lake City, Utah, National Center for Earthquake Engineering Research, December.

## **APPENDIX A**

Field Study

Vicinity Map

Site Map

Satellite Site Image

Regional Geology Map (Dibblee)

Regional Geology Map (Gurrola)

Trench Location Map

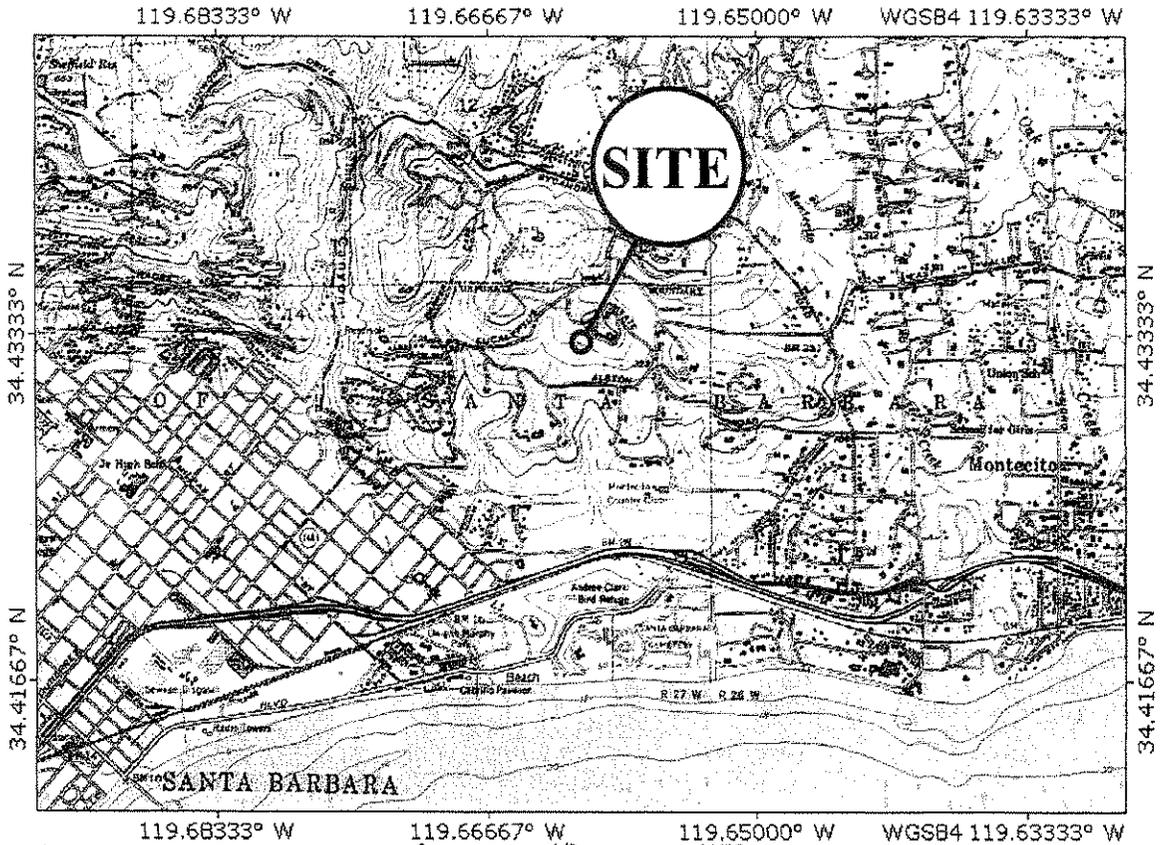
Test Pit Logs

Symbols Commonly Used on Boring Logs

Unified Soil Classification

**FIELD STUDY**

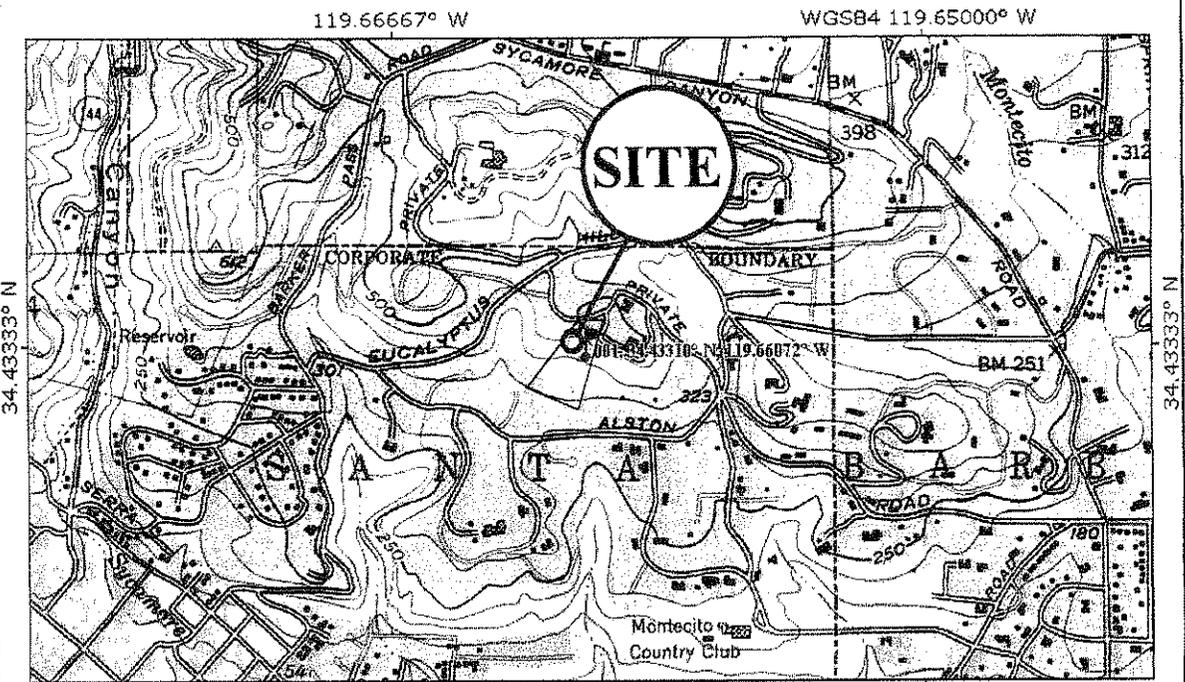
- A. On June 12, 2006, seven backhoe test pits were excavated with a subcontracted backhoe to a depth range of about 5 to 12 feet below the existing grade in the general area of the proposed construction. The test pits were performed to observe the soil/bedrock profile and to obtain samples for laboratory analysis. The approximate locations of the pits were determined in the field by pacing and sighting, and are shown on the Trench Location Map in this appendix.
- B. Samples were obtained within the test pits with a Modified California (M.C.) ring sampler (ASTM D 3550 with shoe similar to ASTM D 1586). The M.C. sampler has a 3-inch outside diameter and a 2.37-inch inside diameter. The samples in the test pits were obtained by driving the sampler with a lightweight hand operated slide hammer.
- C. A bulk sample of the soils encountered was gathered from the excavation cuttings.
- D. The final logs of the pits represent our interpretations of the contents of the field logs and the results of laboratory testing performed on the samples obtained during the subsurface study. The final logs are included in this Appendix.



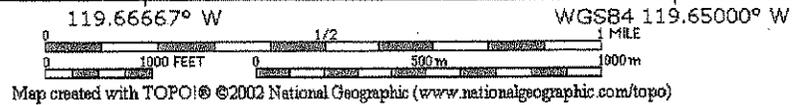
TN\*/MN  
1:4°

Map created with TOPO!® ©2002 National Geographic (www.nationalgeographic.com/topo)

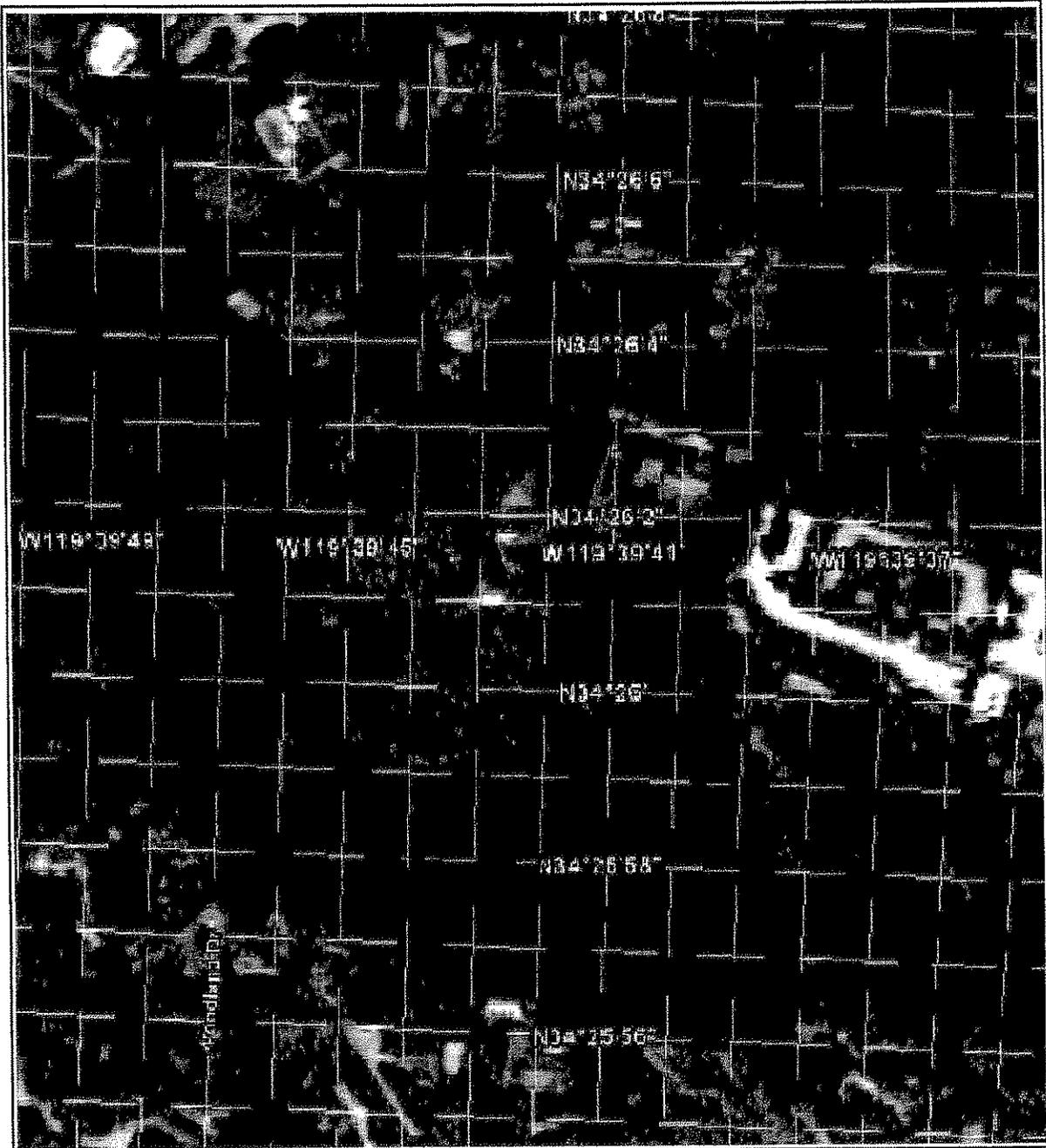
<b>VICINITY MAP</b>	
226 & 232 EUCALYPTUS HILL DRIVE, SANTA BARBARA, CALIFORNIA	
	<b>Earth Systems</b> Southern California
July, 2006	VT-23720-01



TN 14° /MN



<b>SITE MAP</b>	
226 & 232 EUCALYPTUS HILL DRIVE, SANTA BARBARA, CALIFORNIA	
 <b>Earth Systems</b> Southern California	
July, 2006	VT-23720-01



**SATELLITE SITE IMAGE**

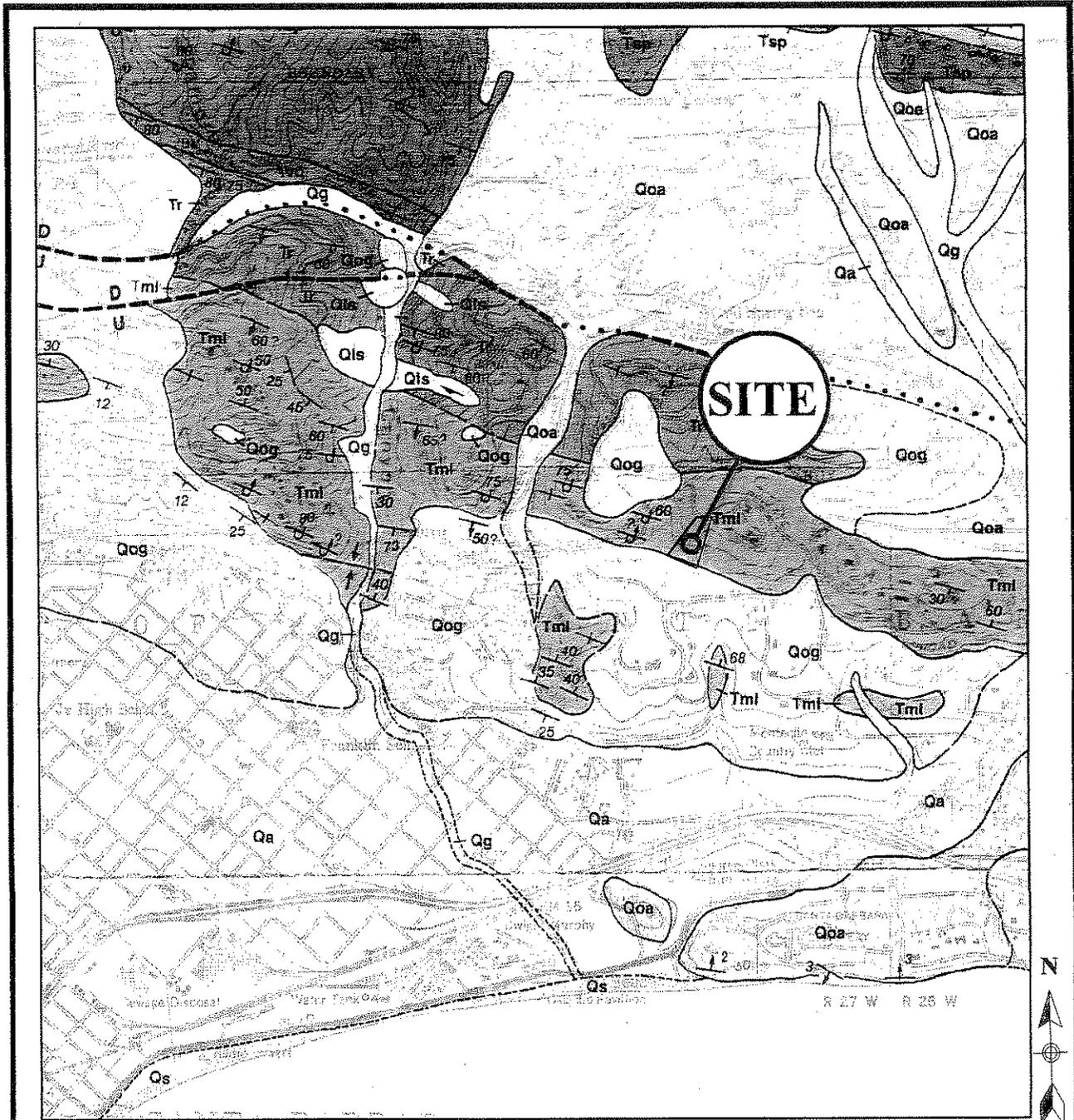
226 & 232 EUCALYPTUS HILL DRIVE,  
SANTA BARBARA, CALIFORNIA



**Earth Systems**  
**Southern California**

July, 2006

VT-23720-01



\*Taken from T.W. Dibblee, Jr., Geologic Map of the Santa Barbara County Quadrangle, 1986

## REGIONAL GEOLOGY

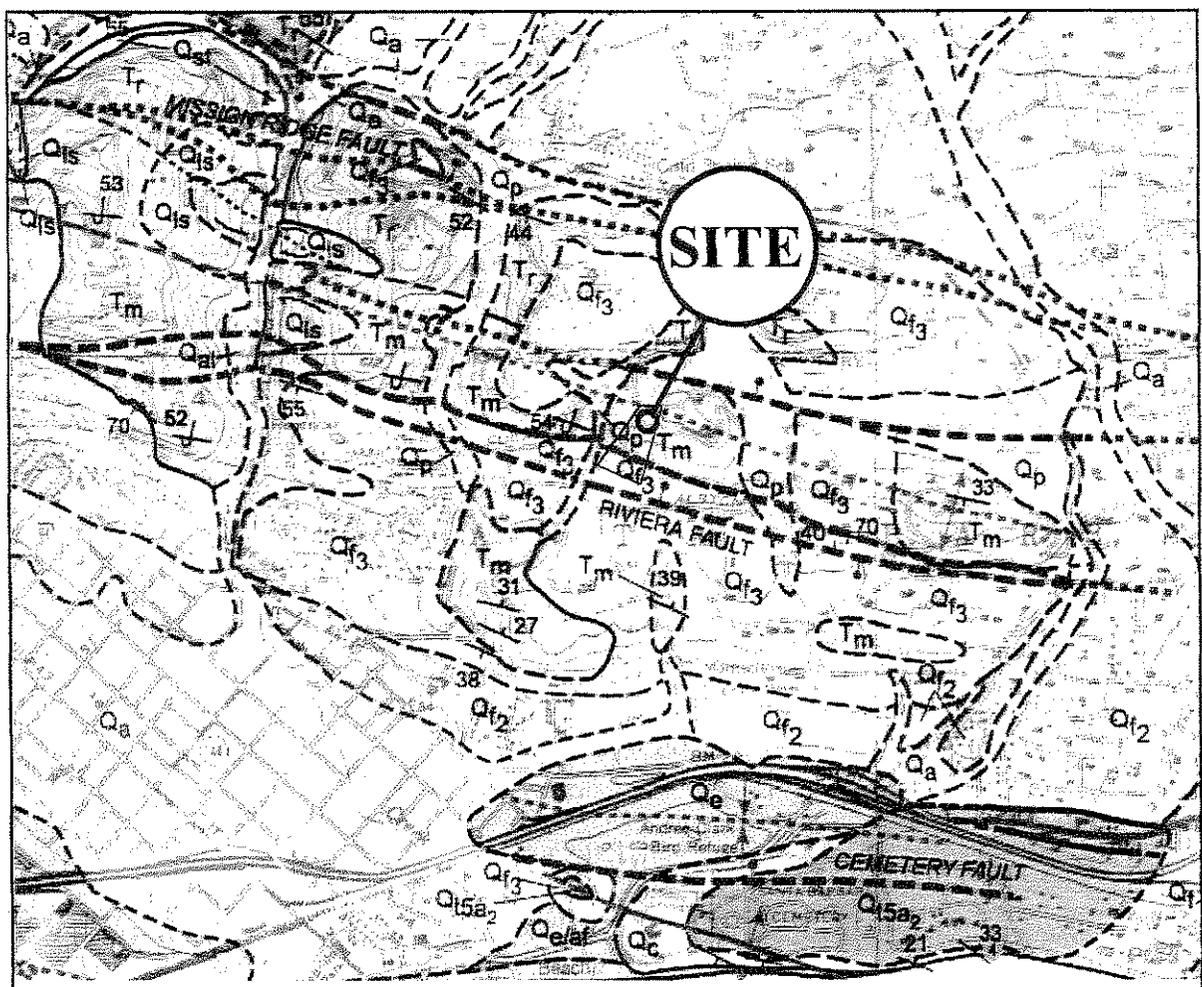
226 & 232 EUCALYPTUS HILL DRIVE  
 SANTA BARBARA, CALIFORNIA



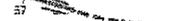
**Earth Systems**  
**Southern California**

July, 2006

VT-23720-01

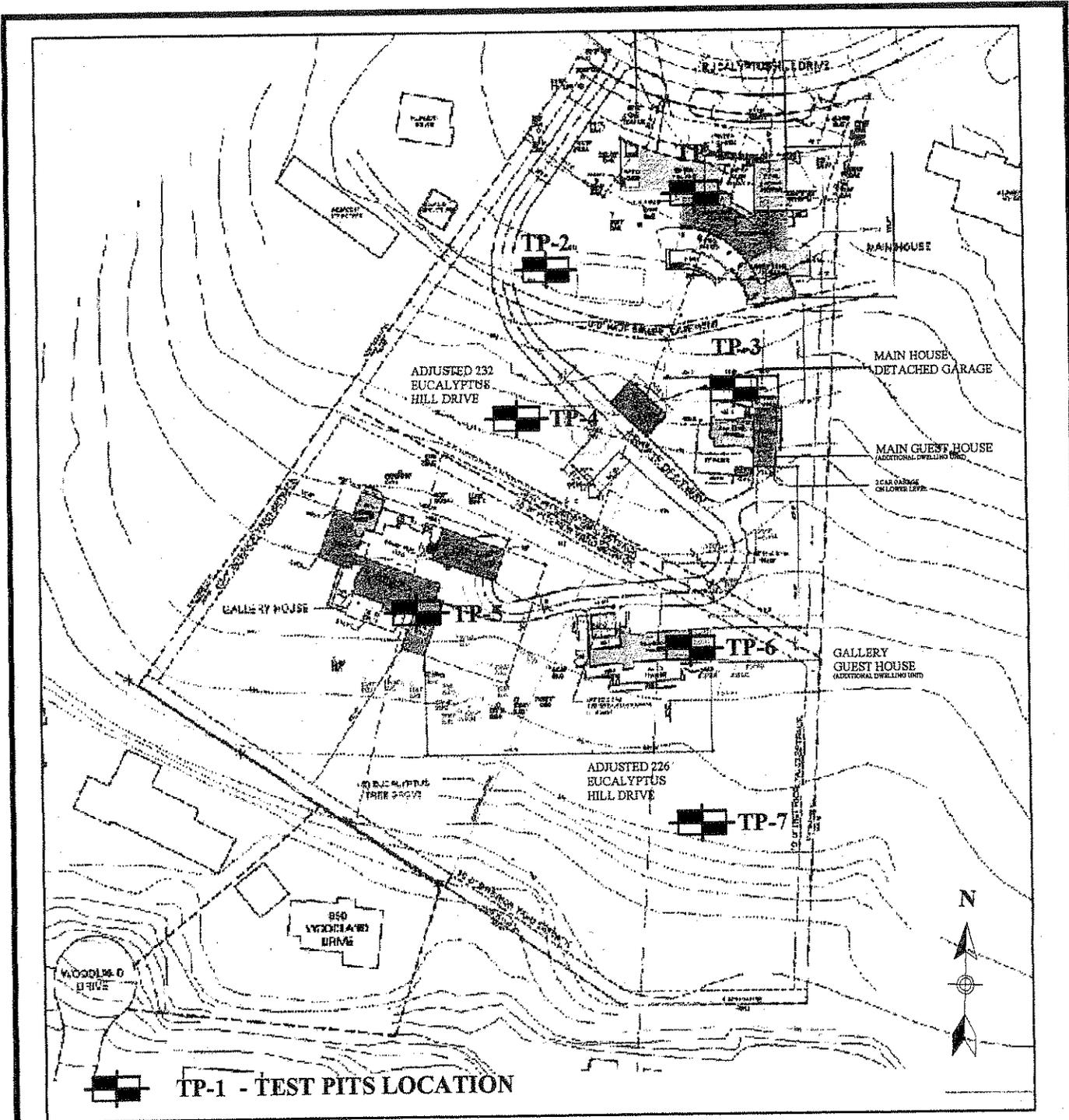


**EXPLANATION**

-  Geologic contact, location approximate, concealed or inferred
-  Fault, location approximate where dashed, location concealed (blind) or inferred where dotted; ball and bar on downthrown side, tic indicates dip of fault; single arrow indicates minor component of strike-slip, double arrows indicate strike-slip fault
-  Anticline, location approximate where dashed, inferred where dotted; plunge direction indicated
-  Syncline, location approximate where dashed, inferred where dotted; plunge direction indicated
-  Marine terrace shoreline or strandline, location approximate
-  Strike and dip of inclined beds

\*Taken from Larry D. Gurrola Geologic Map of the Eastern Santa Barbara Fold Belt, Santa Barbara, 2004

<b>TECTONIC MAP</b>	
226 & 232 EUCALYPTUS HILL DRIVE SANTA BARBARA, CALIFORNIA	
	<b>Earth Systems</b> Southern California
July, 2006	VT-23720-01



### TRENCH LOCATION MAP

226 & 232 EUCALYPTUS HILL DRIVE,  
SANTA BARBARA, CALIFORNIA



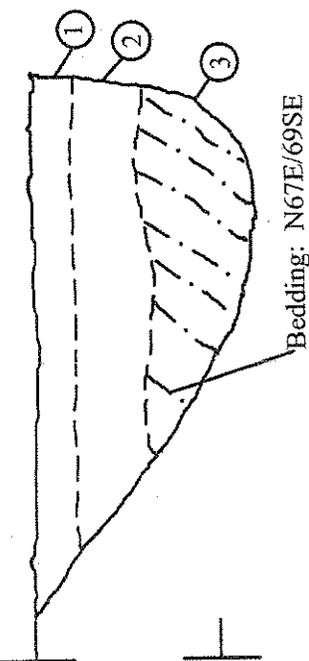
**Earth Systems**  
Southern California

July, 2006

VT-23720-01



TREND: N30E



FINAL DEPTH: 6.0 FEET  
BULK SAMPLE TAKEN FROM 3-6 FEET

**DESCRIPTIONS**

1. **ARTIFICIAL FILL (ML):** Very fine sandy silt with fine gravel, occasional fine cobble and clay with fine gravel, some construction debris, many roots in upper 3' ranging from 1/4" to 2" in diameter, slightly moist, stiff to medium stiff, pale orangish brown to black.
2. **SOIL (CL):** Clay with fine gravel, plastic, roots ranging from 1/2" to 2" in diameter, moist, stiff, black.
3. **MONTEREY FORMATION (Tm):** Diatomaceous shale, highly weathered, bedded to laminated, 1/16" to 1/4" fractures along bedding with black clay, stiff, pale olive.

RING SAMPLE @ 5 FEET: IN-PLACE DENSITY 60.7 pcf, IN-PLACE MOISTURE 52.7%



**EARTH SYSTEMS  
SOUTHERN CALIFORNIA**

1731-A Walter Street, Ventura, CA. 93003  
Phone: 805-642-6727 Fax: 805-642-1325

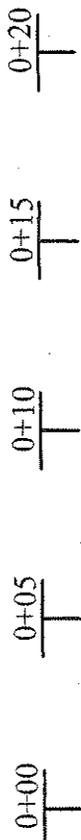
**TEST PIT #1**

226 & 236 Eucalyptus Hill Drive

SCALE: 1" = 5' (VERTICAL & HORIZONTAL)

June 12, 2006

VT-23720-01



TREND: N28E

**DESCRIPTIONS**

1. **ARTIFICIAL FILL (ML):** Very fine sandy silt, decaying wood debris, fine roots in upper 6", slightly moist, medium stiff to stiff, pale brown.
2. **SOIL (CL):** Silty clay, some fine gravel, many roots ranging from 1/4" to 2" in diameter, occasional cobble up to 4" in diameter, moist, medium stiff, black.
3. **MONTEREY FORMATION (Tm):** Diatomaceous shale, highly weathered to slightly clayey silt, bedded to laminated, pale olive to orangish brown.

RING SAMPLE@ 2.5 FEET: IN-PLACE DENSITY 66.6 pcf; IN-PLACE MOISTURE 47.6%



**EARTH SYSTEMS  
SOUTHERN CALIFORNIA**

1731-A Walter Street, Ventura, CA. 93003  
Phone: 805-642-6727 Fax: 805-642-1325

**TEST PIT #2**  
226 & 236 Eucalyptus Hill Drive

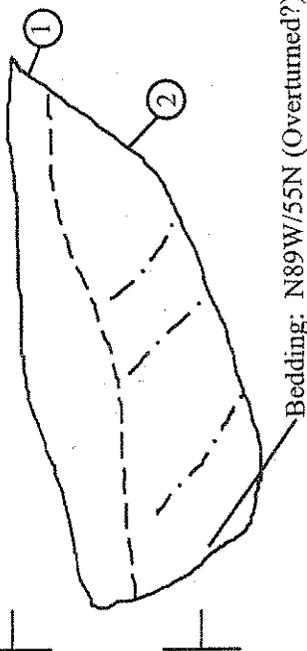
SCALE: 1" = 5' ( VERTICAL & HORIZONTAL)

June 12, 2006

VT-23720-01

0+00      0+05      0+10      0+15      0+20

TREND: N33E



FINAL DEPTH: 6.5 FEET  
BULK SAMPLE TAKEN FROM 3-5 FEET

**DESCRIPTIONS**

1. **ARTIFICIAL FILL (OL):** Sandy silt with gravels and cobbles, collapsing into test pit, abundant decaying leaf/grass cuttings, many fine roots, some construction debris, dry, very soft, dark brown.
2. **MONTEREY FORMATION (Tm):** Diatomite, laminated, highly fractured with black clay in fractures that are 1/16" to 1/4" wide, pale olive to whitish olive.



**EARTH SYSTEMS  
SOUTHERN CALIFORNIA**

1731-A Walter Street, Ventura, CA. 93003  
Phone: 805-642-6727 Fax: 805-642-1325

**TEST PIT #3**

226 & 236 Eucalyptus Hill Drive

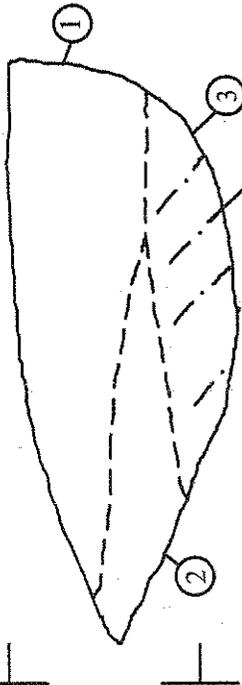
SCALE: 1" = 5' ( VERTICAL & HORIZONTAL)

June 12, 2006

VT-23720-01

0+00      0+05      0+10      0+15      0+20

TREND: N27E



FINAL DEPTH: 6.0 FEET

Bedding: N87W/53NE

**DESCRIPTIONS**

1. **TRASH DEBRIS:** Buried trash debris consisting of bottles, ceramics, etc. with artificial fill matrix, slightly moist, loose.
2. **ARTIFICIAL FILL (ML/CL):** Clayey silt to silty clay, trace fine gravel, scattered trash debris, roots up to 1/16" in diameter, locally soft to stiff, black.
3. **MONTEREY FORMATION (Tm):** Diatomaceous shale, highly weathered to clayey silt, laminated, low density, pale olive.

RING SAMPLE @ 2 FEET: IN-PLACE DENSITY 63.7 pcf; IN-PLACE MOISTURE 27.6%



**EARTH SYSTEMS  
SOUTHERN CALIFORNIA**

1731-A Walter Street, Ventura, CA. 93003  
Phone: 805-642-6727 Fax: 805-642-1325

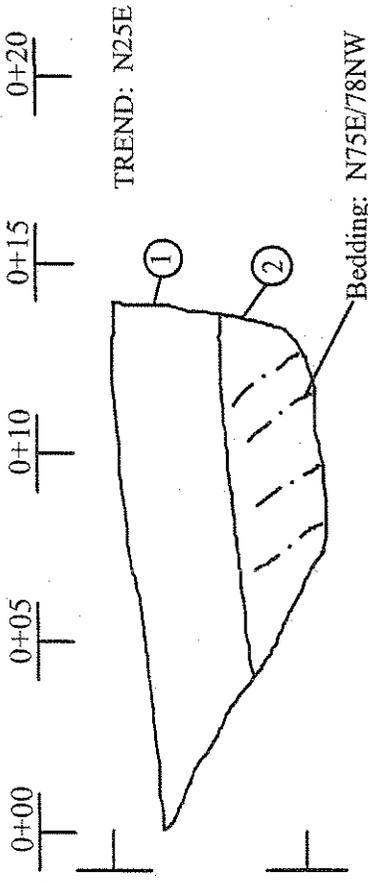
**TEST PIT #4**

226 & 236 Eucalyptus Hill Drive

SCALE: 1" = 5' ( VERTICAL & HORIZONTAL)

June 12, 2006

VT-23720-01



FINAL DEPTH: 5.5 FEET  
 BULK SAMPLE TAKEN FROM 0-3 FEET  
 BULK SAMPLE TAKEN FROM 3-5.5 FEET

**DESCRIPTIONS**

1. SOIL (ML): Slightly clayey silt, many roots ranging from 1/4" to 2" in diameter, very few pores up to 1/32" in diameter, sharp contact to shale, moist, stiff, black.
2. MONTEREY FORMATION (Tm): Diatomaceous shale, weathers to silty gravel, fractures with black clay 1/8" to 1/2" wide, discontinued faatures across and along bedding, bedded to laminated, low density shale, olive.

RING SAMPLE @ 5 FEET: IN-PLACE DENSITY 52.1 pcf; IN-PLACE MOISTURE 39.0%



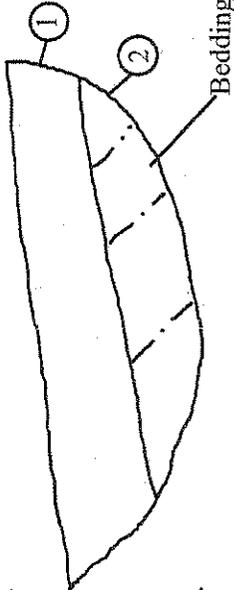
**EARTH SYSTEMS  
 SOUTHERN CALIFORNIA**  
 1731-A Walter Street, Ventura, CA. 93003  
 Phone: 805-642-6727 Fax: 805-642-1325

**TEST PIT #5**  
 226 & 236 Eucalyptus Hill Drive  
 June 12, 2006  
 VT-23720-01

SCALE: 1" = 5' ( VERTICAL & HORIZONTAL)

0+00 0+05 0+10 0+15 0+20

TREND: N22E



FINAL DEPTH: 5 FEET

### DESCRIPTIONS

1. SOIL (ML/CL): Clayey silt to silty clay, plastic, many fine roots in upper 1.5' to 1" in diameter, some roots ranging from 1.5" to 3" in diameter, moist, medium stiff to stiff, dark brown to black. Sharp contact to shale.
2. MONTEREY FORMATION (Tm): Shale, well cemented, laminated, hard, pale olive.



**EARTH SYSTEMS  
SOUTHERN CALIFORNIA**

1731-A Walter Street, Ventura, CA. 93003  
Phone: 805-642-6727 Fax: 805-642-1325

### TEST PIT #6

226 & 236 Eucalyptus Hill Drive

June 12, 2006

VT-23720-01

SCALE: 1" = 5' ( VERTICAL & HORIZONTAL)



**DESCRIPTIONS**

1. **COLLUVIUM (CL):** Slightly silty clay with gravel, occasional cobbles, plastic, subangular to angular clasts, many roots to 2" in diameter, moist, medium stiff to stiff, black. Gradational contact to next layer.
2. **COLLUVIUM (CL):** Gravelly clay to locally clayey gravels, some fine roots, moist, stiff to medium dense, black to pale olive.
3. **MONTEREY FORMATION (Tm):** Shale, laminated, moderately hard, pale olive to gray.



**EARTH SYSTEMS  
SOUTHERN CALIFORNIA**

1731-A Walter Street, Ventura, CA. 93003  
Phone: 805-642-6727 Fax: 805-642-1325

**TEST PIT #7**

226 & 236 Eucalyptus Hill Drive

SCALE: 1" = 5' ( VERTICAL & HORIZONTAL)

MAJOR DIVISIONS			GRAPH SYMBOL	LETTER SYMBOL	TYPICAL DESCRIPTIONS			
COARSE GRAINED SOILS	GRAVEL AND GRAVELLY SOILS	CLEAN GRAVELS (LITTLE OR NO FINES)		GW	WELL-GRADED GRAVELS, GRAVEL-SAND MIXTURES, LITTLE OR NO FINES			
				GP	POORLY-GRADED GRAVELS, GRAVEL-SAND MIXTURES, LITTLE OR NO FINES			
		GRAVELS WITH FINES (APPRECIABLE AMOUNT OF FINES)		GM	SILTY GRAVELS, GRAVEL-SAND-SILT MIXTURES			
				GC	CLAYEY GRAVELS, GRAVEL-SAND-CLAY MIXTURES			
	SAND AND SANDY SOILS	CLEAN SAND (LITTLE OR NO FINES)		SW	WELL-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES			
				SP	POORLY-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES			
		SAND WITH FINES (APPRECIABLE AMOUNT OF FINES)		SM	SILTY SANDS, SAND-SILT MIXTURES			
				SC	CLAYEY SANDS, SAND-CLAY MIXTURES			
			FINE GRAINED SOILS	SILTS AND CLAYS	LIQUID LIMIT LESS THAN 50		ML	INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS OR CLAYEY SILTS WITH SLIGHT PLASTICITY
							CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
SILTS AND CLAYS	LIQUID LIMIT GREATER THAN 50		OL		ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY			
			MH		INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SAND OR SILTY SOILS			
		CH	INORGANIC CLAYS OF HIGH PLASTICITY, FAT CLAYS					
		OH	ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS					
HIGHLY ORGANIC SOILS				PT	PEAT, HUMUS, SWAMP SOILS WITH HIGH ORGANIC CONTENTS			

NOTE: DUAL SYMBOLS ARE USED TO INDICATE BORDERLINE SOIL CLASSIFICATIONS.



Earth Systems So. Calif.

1731-A Walter Street, Ventura, California 93003  
 PH: (805) 642-6727 FAX: (805) 642-1325

Unified Soil  
 Classification  
 System (USCS)



**Modified California Split Barrel Sampler**



**Modified California Split Barrel Sampler - No Recovery**



**Standard Penetration Test (SPT) Sampler**



**Standard Penetration Test (SPT) Sampler - No Recovery**



**Perched Water Level**



**Water Level First Encountered**



**Water Level After Drilling**



**Pocket Penetrometer (tsf)**



**Vane Shear (ksf)**

1. The approximate locations of borings were determined by sighting and pacing from nearby prominent topographic or cultural features. Borehole elevations were estimated by interpolating between available plan contour intervals. The location and elevation of each boring should be considered accurate only to the degree implied by this method.

2. Stratification lines represent the approximate boundary between soil and/or rock types. The transition between stratigraphic units may be gradual.

3. Water level readings taken in boreholes are approximate and apply only to the time and date of drilling. Fluctuations in the level of groundwater from the time of initial measurement may occur due to variations in rainfall, tides, barometric pressure, temperature, or other factors.



**Earth Systems So. Calif.**

1731-A Walter Street, Ventura, California 93003  
PH: (805) 642-6727 FAX: (805) 642-1325

**Symbols  
Commonly Used  
on Boring Logs**

## **APPENDIX B**

Laboratory Testing  
Tabulated Test Results  
Individual Test Results  
Soil Chemistry Results  
Table 18-I-D (Rev.) with Footnotes

## LABORATORY TESTING

- A. Samples were reviewed along with field logs to determine which would be analyzed further. Those chosen for laboratory analysis were considered representative of soils that would be exposed and/or used during grading, and those deemed to be within the influence of proposed structures. Test results are presented in graphic and tabular form in this Appendix.
- B. In-situ moisture content and unit dry weight for the ring samples were determined in general accordance with ASTM D 2937.
- C. The relative strength characteristics of the soils were determined from the results of direct shear tests on undisturbed and remolded samples. Shear specimens were placed in contact with water at least 24 hours before testing, and were then sheared under normal loads ranging from 1 to 3 kips per square foot in general accordance with ASTM D 3080.
- D. Settlement characteristics were developed from the results of one dimensional consolidation tests performed in general accordance with ASTM D 2435. The samples were loaded to 0.125, 0.25 and 0.5, then flooded with water, and then incrementally loaded to 1.0, 2.0 and 4.0 ksf. The samples were allowed to consolidate under each load increment. Rebound was measured under reverse alternate loading. Compression was measured by dial gauges accurate to 0.0001 inch. Results of the consolidation tests in the form of percent consolidation versus log of pressure curves are presented in this Appendix.
- E. Expansion index tests were performed on the bulk soil samples in accordance with ASTM D 4829. The samples were surcharged under 144 pounds per square foot at moisture content of near 50% saturation. The samples were then submerged in water for 24 hours and the amount of expansion was recorded with a dial indicator.
- F. Maximum density tests were performed to estimate the moisture-density relationship of typical soil materials. The tests were performed in accordance with ASTM designation D 1557.
- G. The gradation characteristics of the bulk samples were made by hydrometer (in accordance with ASTM D 422) and sieve analysis procedures. The samples were soaked in water until individual soil particles were separated and then washed on the No. 200 mesh sieve, oven dried, weighed to calculate the percent passing the No. 200 sieve and then mechanically sieved.

H. Concrete and metal corrosion potential of the near surface soil was determined by measuring pH, resistivity, and soluble sulfate and soluble chloride contents. The tests were performed Capco Analytical.

### TABULATED TEST RESULTS

#### REMOLDED SAMPLE

TEST PIT AND DEPTH DESCRIPTION	TP-2 @ 0.5-2.5' Topsoil	TP-5 @ 3-5.5' Monterey Formation
SOIL TYPE	CL	--
MAXIMUM DENSITY (pcf)	86	57.5
OPTIMUM MOISTURE (%)	27	50.5
PEAK COHESION (psf)	320	660
PEAK ANGLE OF INTERNAL FRICTION	27°	31°
ULTIMATE COHESION (psf)	220	270
ULTIMATE ANGLE OF INTERNAL FRICTION	28°	32°
EXPANSION INDEX	21	0
GRAIN SIZE DISTRIBUTION (%)		
GRAVEL	0.1	0
SAND	28.8	58.4
SILT	20.6	13.9
CLAY	50.5	27.7
CHLORIDE (mg/Kg)	BQL	430
pH (S.U.)	5.9	4.4
RESISTIVITY (ohms-cm)	19,600	1,820
SULFATE (mg/Kg)	BQL	120

#### RELATIVELY UNDISTURBED SAMPLES

BORING AND DEPTH	TP-1 @ 5'	TP-5 @ 5'
SOIL TYPE	ML	--
IN-PLACE DENSITY (pcf)	60.7	52.1
IN-PLACE MOISTURE (%)	52.7	39
PEAK COHESION (psf)	560	920
PEAK ANGLE OF INTERNAL FRICTION	48°	34°
ULTIMATE COHESION (psf)	380	1,040
ULTIMATE ANGLE OF INTERNAL FRICTION	33°	29°

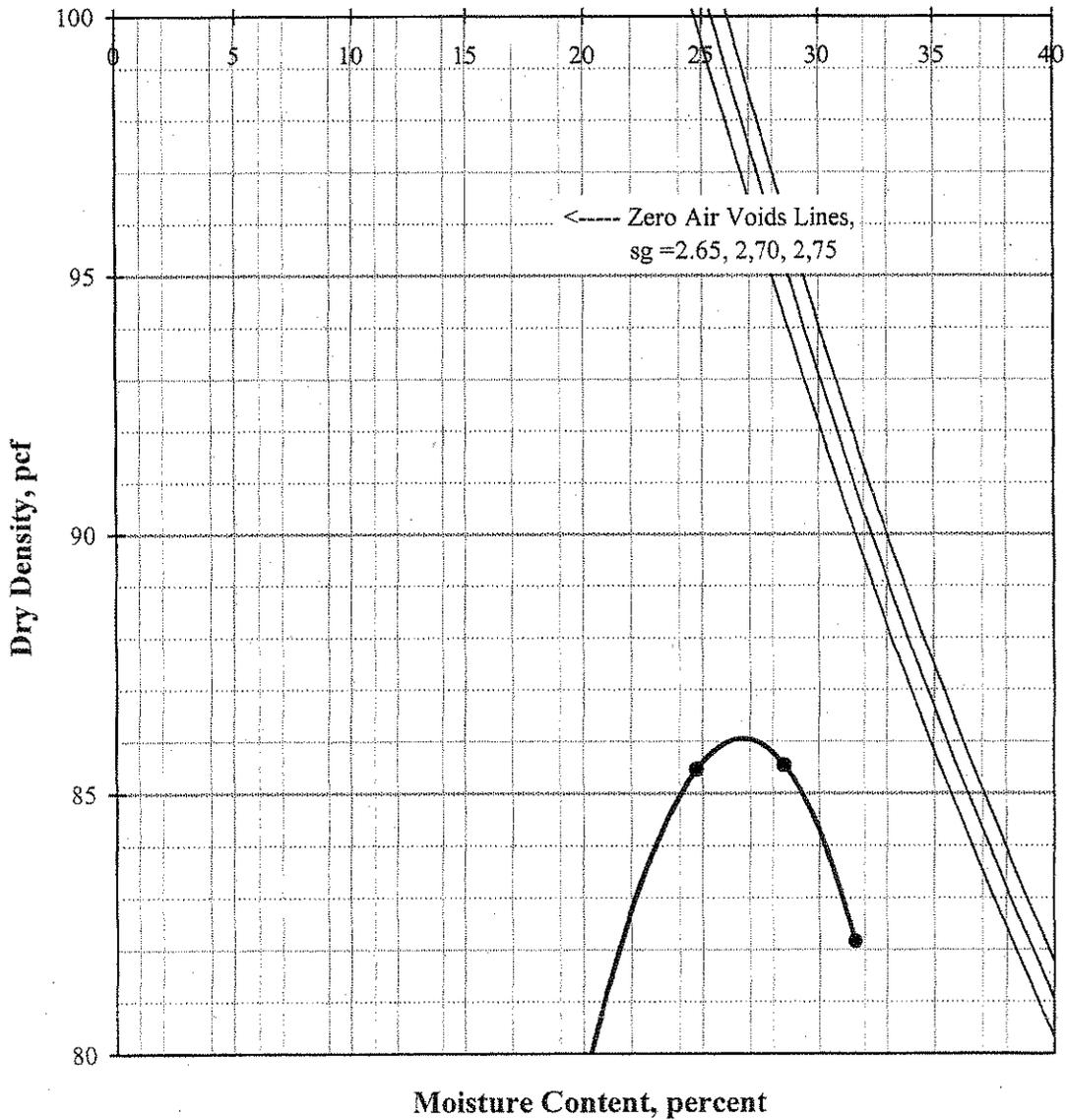
**MAXIMUM DENSITY / OPTIMUM MOISTURE**

ASTM D 1557-91 (Modified)

Job Name: Eucalyptus Hill Drive  
 Sample ID: T P 2 @ 0.5-2.5  
 Location: 0.5-2.5  
 Description: Silty Sandy Clay

Procedure Used: A  
 Prep. Method: Moist  
 Rammer Type: Automatic

<b>Maximum Density:</b>	<b>86 pcf</b>	<u>Sieve Size</u>	<u>% Retained</u>
<b>Optimum Moisture:</b>	<b>27%</b>	3/4"	0.0
		3/8"	0.0
		#4	0.0



VT-23720-01

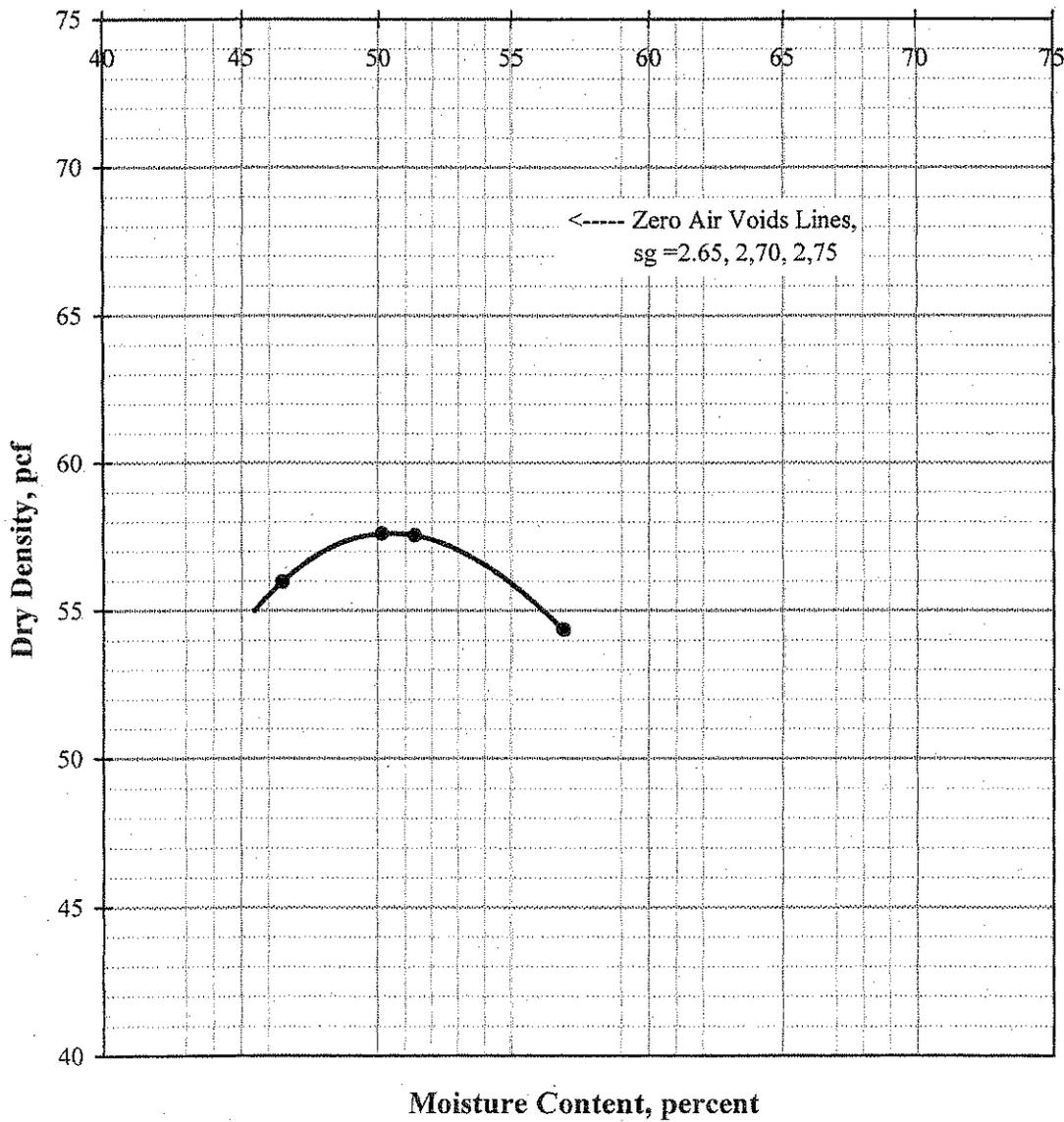
**MAXIMUM DENSITY / OPTIMUM MOISTURE**

ASTM D 1557-91 (Modified)

Job Name: Eucalyptus Hill Rd  
Sample ID: TP 5 @ 3-5.5  
Location:  
Description: Silt Clay Sand/ Pale Yellowish Grey Brown

Procedure Used: A  
Prep. Method: Moist  
Rammer Type: Automatic

<b>Maximum Density:</b>	<b>57.5 pcf</b>	<u>Sieve Size</u>	<u>% Retained</u>
<b>Optimum Moisture:</b>	<b>50.5%</b>	3/4"	0.0
		3/8"	0.0
		#4	0.0



# SHORT HYDRO

Job Name: Eucalyptus Hill Drive  
Job No.: VT-23720-01  
Sample ID: **TP2 @ .5-2.5**  
Soil Description: **Silty sandy clay**

## Hydroscopic Moisture

Air Dry Wt, g: 100.0  
Oven Dry Wt, g: 98.0  
% Moisture: 2.0  
  
Air Dry Sample Wt., g: 406.5  
Corrected Wt., g: 398.4

## Sieve Analysis for + #10 Material

Sieve Size	Wt Ret	% Ret	% Passing
1/2 inch	0.0	0.00	100.00
3/8 inch	0.0	0.00	100.00
#4	0.3	0.07	99.93
#8	3.0	0.74	99.26
#10	6.0	1.48	98.52

Air Dry Hydro Sample Wt., g: 63.5  
Corrected Wt., g: 62.2  
Calculation Factor: 0.6316

## Hydrometer Analysis for < #10 Material

Start time: 7:39:00 AM

Short Hydro	Time of Reading	Hydro Reading	Temp. at Reading, °C	Correction Factor	Corrected Hydro Reading
20 sec	7:39:20 AM	53	21	8.1	44.9
1 hour	8:39:00 AM	40	21	8.1	31.9

% Gravel:	0.1
% Sand:	28.8
% Silt:	20.6
% Clay:	50.5

# SHORT HYDRO

Job Name: Eucalyptus Hill Drive  
Job No.: VT-23720-01  
Sample ID: **TP5 @ 3-5.5'**  
Soil Description: **Silty clayey sand**

## Hydroscopic Moisture

Air Dry Wt, g: 100.0  
Oven Dry Wt, g: 98.0  
% Moisture: 2.0  
  
Air Dry Sample Wt., g: 406.1  
Corrected Wt., g: 398.0

## Sieve Analysis for + #10 Material

Sieve Size	Wt Ret	% Ret	% Passing
1/2 inch	0.0	0.00	100.00
3/8 inch	0.0	0.00	100.00
#4	0.0	0.00	100.00
#8	0.0	0.00	100.00
#10	0.1	0.02	99.98

Air Dry Hydro Sample Wt., g: 66.1  
Corrected Wt., g: 64.8  
Calculation Factor: 0.6479

## Hydrometer Analysis for < #10 Material

Start time:	7:24:00 AM				
Short Hydro	Time of Reading	Hydro Reading	Temp. at Reading, °C	Correction Factor	Corrected Hydro Reading
20 sec	7:24:20 AM	35	21	8.1	26.9
1 hour	8:24:00 AM	26	21	8.1	17.9

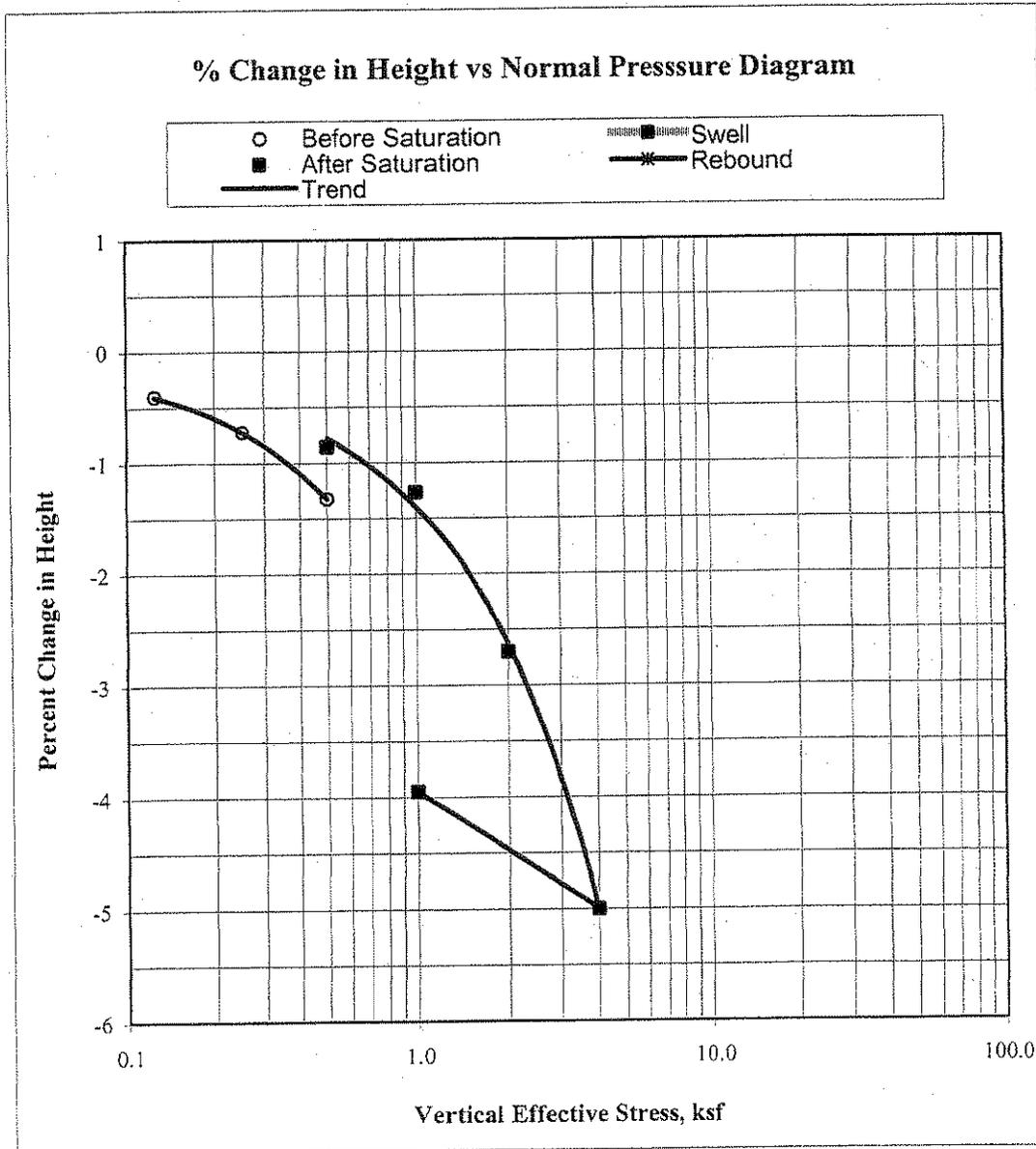
% Gravel:	0.0
% Sand:	58.4
% Silt:	13.9
% Clay:	27.7

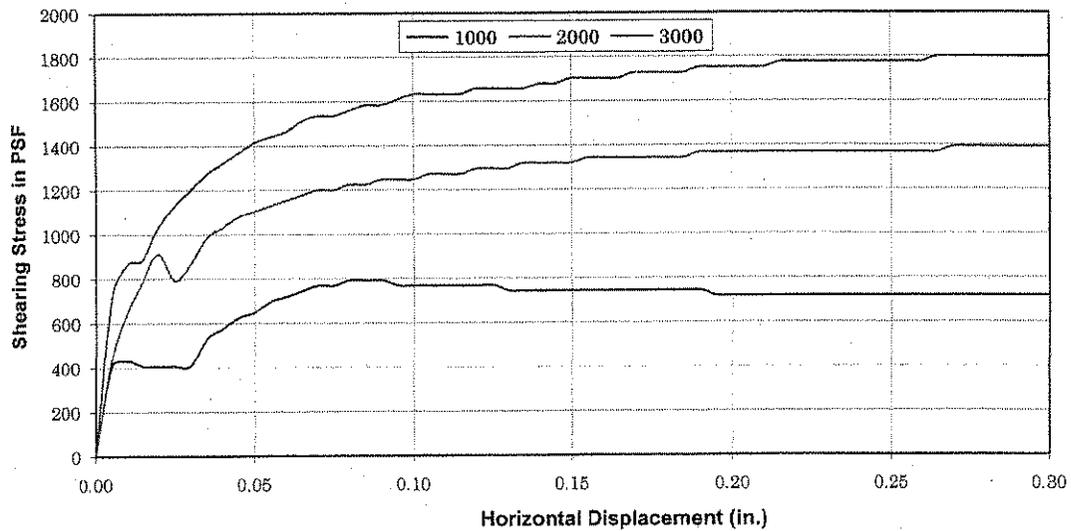
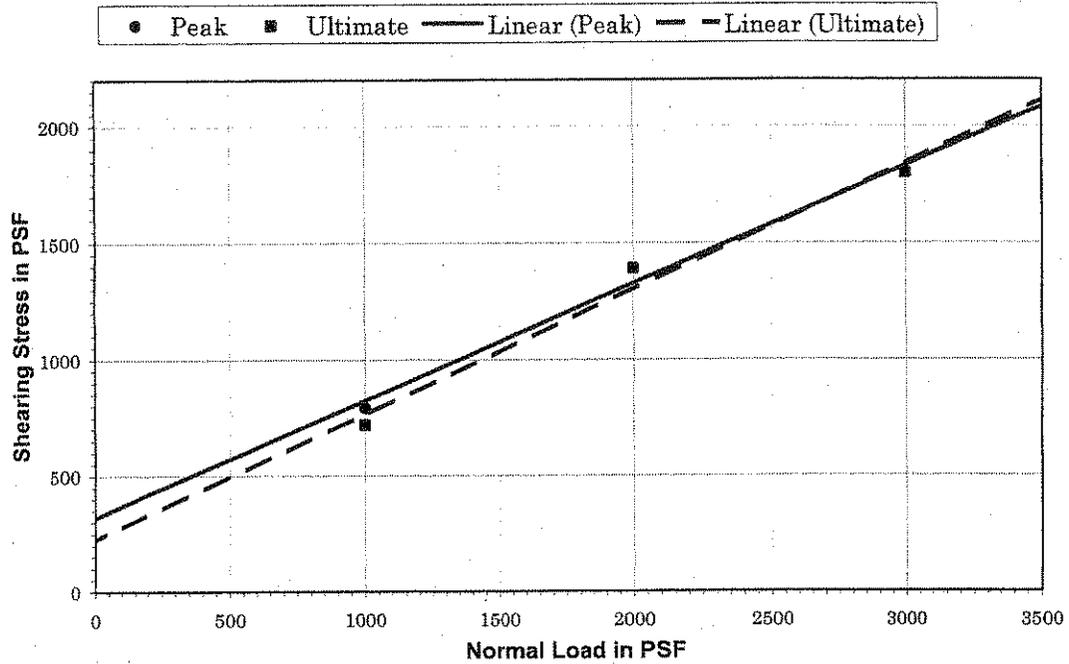
**CONSOLIDATION TEST**

ASTM D 2435-90

Eucalyptus Hill Dr  
TP 2 @ 2.5  
OL  
Ring Sample

Initial Dry Density: 66.6 pcf  
Initial Moisture, %: 47.6%  
Specific Gravity: 2.67 (assumed)  
Initial Void Ratio: 1.503





**DIRECT SHEAR DATA\***

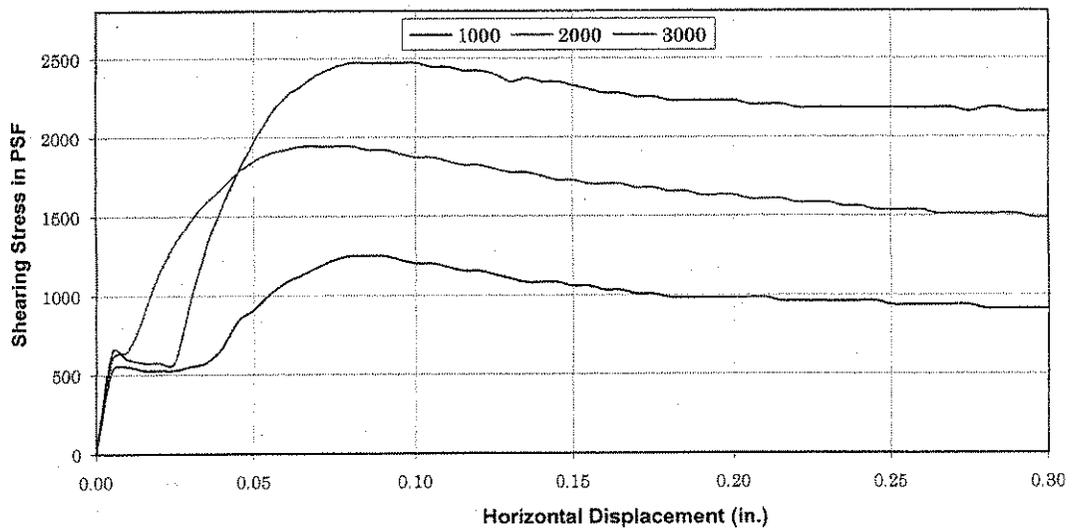
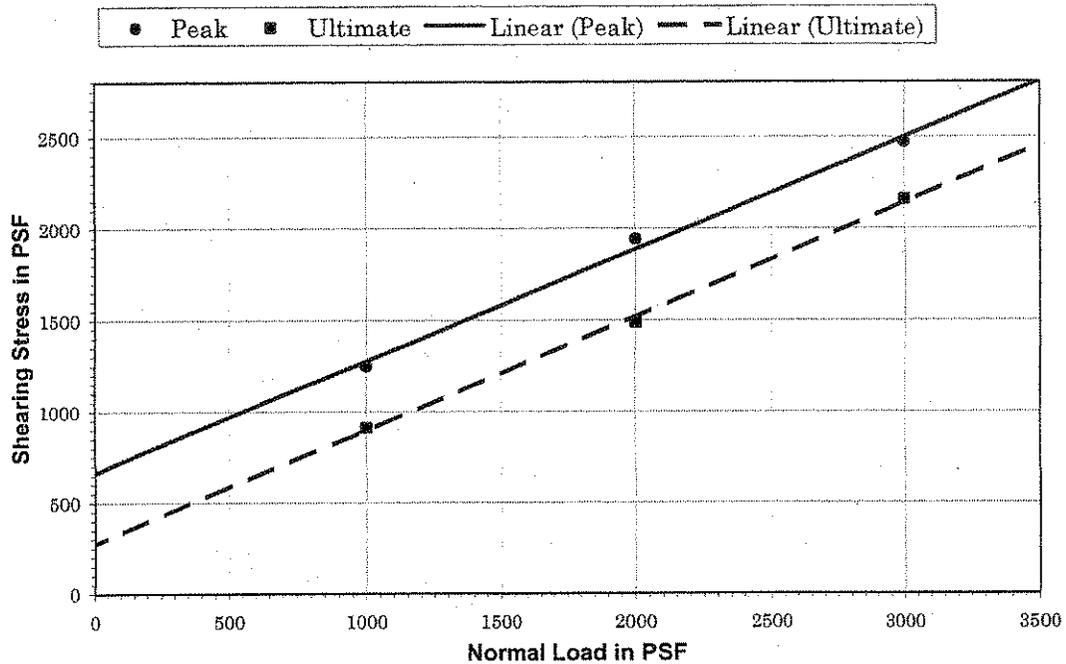
Sample Location: T P 2 @ 0.5-2.5  
 Sample Description: Silty Sandy Clay  
 Dry Density (pcf): 77.0  
 Initial % Moisture: 26.8  
 Average Degree of Saturation: 90.3  
 Shear Rate (in/min): 0.018 in/min

Normal stress (psf)	1000	2000	3000
Peak stress (psf)	792	1392	1800
Ultimate stress (psf)	720	1392	1800

	Peak	Ultimate
$\phi$ Angle of Friction (degrees):	27	28
c Cohesive Strength (psf):	320	220
Test Type: Peak,Ultimate		

\* Test Method: ASTM D-3080

<b>DIRECT SHEAR TEST</b>	
<b>Eucalyptus Hill Drive</b>	
	Earth Systems Southern California
7/14/2006	VT-23720-01



**DIRECT SHEAR DATA\***

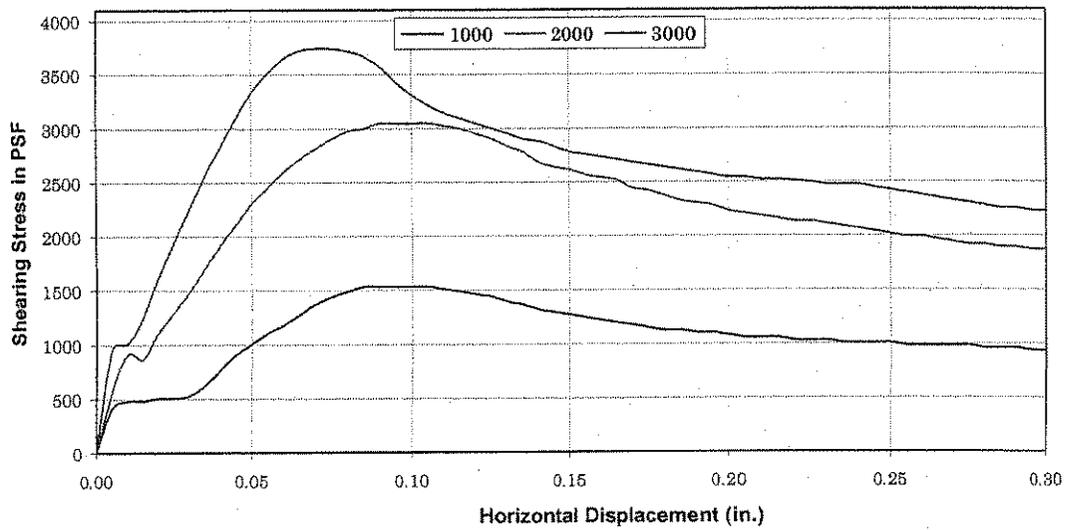
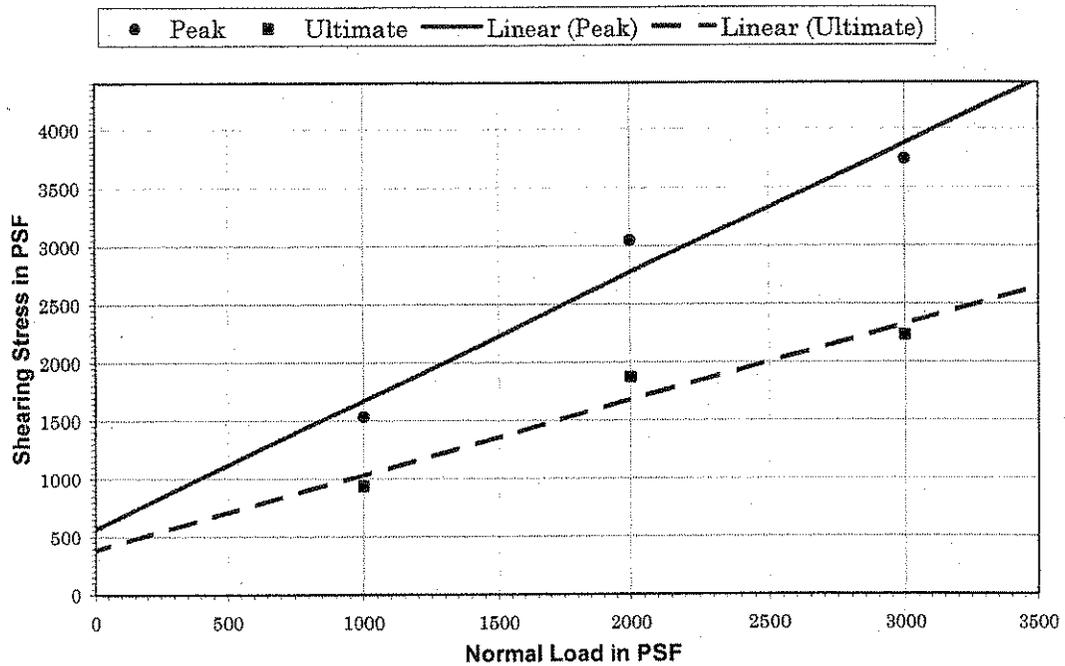
Sample Location: TP 5 @ 3-5.5  
 Sample Description: Silty Clayey Sand  
 Dry Density (pcf): 51.5  
 Initial % Moisture: 55  
 Average Degree of Saturation: 93.5  
 Shear Rate (in/min): 0.0327 in/min

Normal stress (psf)	1000	2000	3000
Peak stress (psf)	1248	1944	2472
Ultimate stress (psf)	912	1488	2160

	Peak	Ultimate
$\phi$ Angle of Friction (degrees):	31	32
c Cohesive Strength (psf):	660	270
Test Type: Peak, Ultimate		

\* Test Method: ASTM D-3080

<b>DIRECT SHEAR TEST</b>	
Eucalyptus Hill Drive	
 Earth Systems Southern California	
7/14/2006	VT-23720-01



**DIRECT SHEAR DATA\***

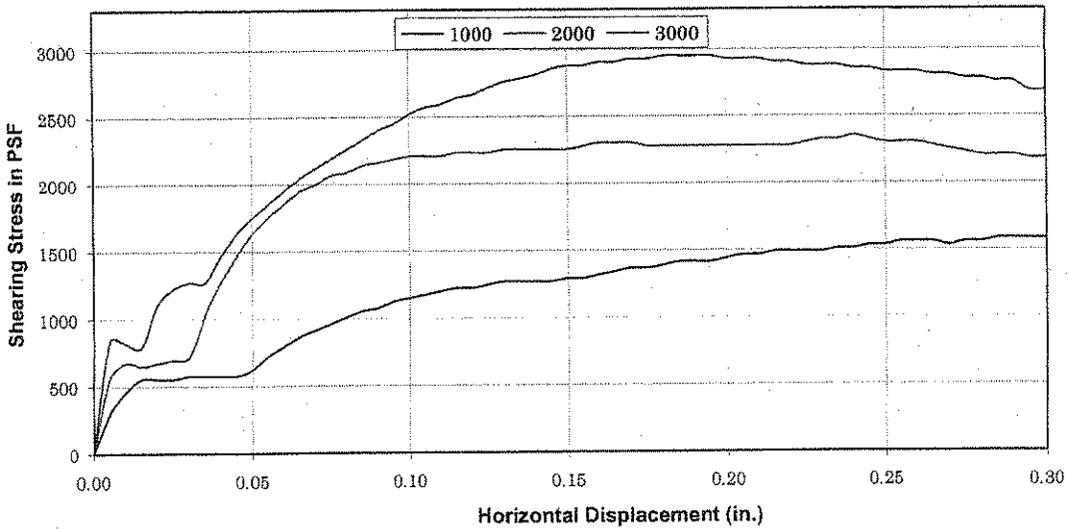
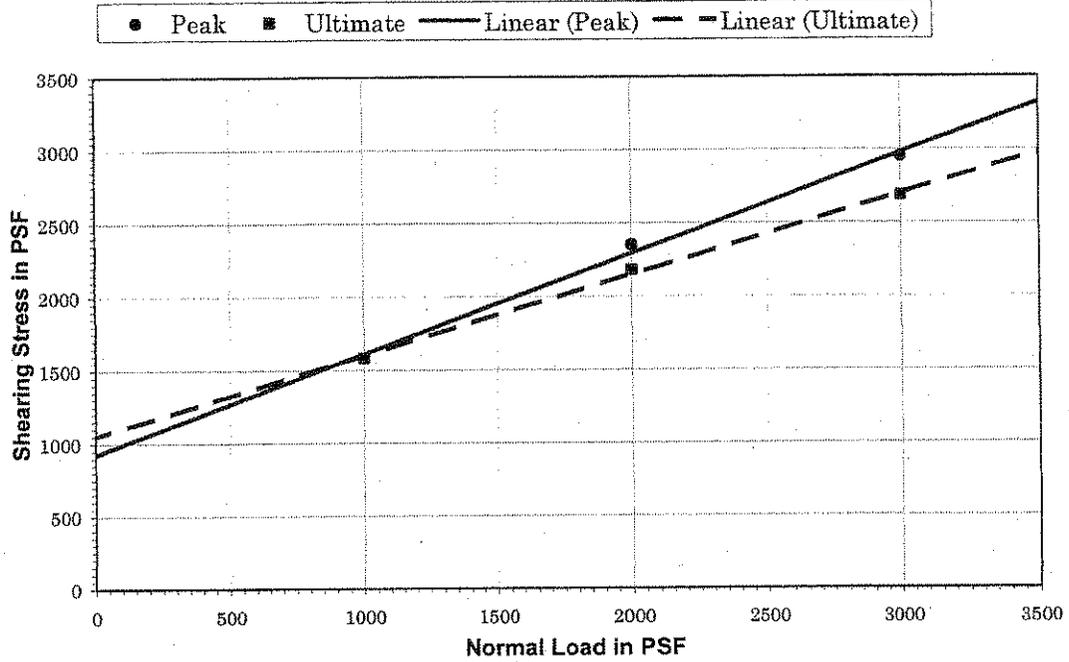
Sample Location: T P 1 @ 5  
 Sample Description: Sandt Clayey Silt (Diatomaceous)  
 Dry Density (pcf): 60.7  
 Initial % Moisture: 52.7  
 Average Degree of Saturation: 96.8  
 Shear Rate (in/min): 0.02 in/min

Normal stress (psf)	1000	2000	3000
Peak stress (psf)	1536	3048	3744
Ultimate stress (psf)	936	1872	2232

	Peak	Ultimate
$\phi$ Angle of Friction (degrees):	48	33
c Cohesive Strength (psf):	560	380
Test Type: Peak,Ultimate		

\* Test Method: ASTM D-3080

DIRECT SHEAR TEST	
Eucalyptus Hill Drive	
	Earth Systems Southern California
	7/14/2006
VT-23720-01	



**DIRECT SHEAR DATA\***

Sample Location: T P 5 @ 5  
 Sample Description: Diatomaceous Silty Gravel  
 Dry Density (pcf): 52.1  
 Initial % Moisture: 39  
 Average Degree of Saturation: 88.0  
 Shear Rate (in/min): 0.024 in/min

Normal stress (psf)	1000	2000	3000
Peak stress (psf)	1584	2352	2952
Ultimate stress (psf)	1584	2184	2688

	Peak	Ultimate
$\phi$ Angle of Friction (degrees):	34	29
c Cohesive Strength (psf):	920	1040
Test Type: Peak,Ultimate		

\* Test Method: ASTM D-3080

DIRECT SHEAR TEST	
Eucalyptus Hill Drive	
	Earth Systems Southern California
7/14/2006	VT-23720-01

Capco Analytical Services, INC. (CAS)  
1536 Eastman Avenue, Suite B  
Ventura CA 93003  
(805) 644-1095

Client: Earth Systems Southern CA  
Sample ID: TP-2 @ .5-2.5  
Date Received: 06/16/06

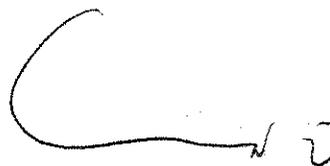
Sample Matrix: Soil  
CAS LAB NO: 06131302  
Date Sampled: 06/16/06

WET CHEMISTRY ANALYSIS SUMMARY

COMPOUND	RESULT	UNITS	DF	PQL	METHOD	ANALYZED
*Chloride	BQL	mg/Kg	1	10	300.0M	06/22/06
pH	5.9	S.U.	1	--	9045	06/21/06
*Resistivity	19600	ohms-cm	1	3	CA Test 424	06/22/06
*Sulfate	BQL	mg/Kg	1	10	300.0M	06/22/06

\*Sample was extracted using a 1:3 ratio of soil and DI water.  
Results were based on the original sample weight.

PQL: Practical Quantitation Limit  
BQL: Below Practical Quantitation Limit



Principal Analyst

Capco Analytical Services, INC. (CAS)  
1536 Eastman Avenue, Suite B  
Ventura CA 93003  
(805) 644-1095

Client: Earth Systems Southern CA  
Sample ID: TP-5 @ 3-5.5  
Date Received: 06/16/06

Sample Matrix: Soil  
CAS LAB NO: 06131301  
Date Sampled: 06/15/06

WET CHEMISTRY ANALYSIS SUMMARY

COMPOUND	RESULT	UNITS	DF	PQL	METHOD	ANALYZED
*Chloride	430	mg/Kg	1	10	300.0M	06/22/06
pH	4.4	S.U.	1	--	9045	06/21/06
*Resistivity	1820	ohms-cm	1	3	CA Test 424	06/22/06
*Sulfate	120	mg/Kg	1	10	300.0M	06/22/06

\*Sample was extracted using a 1:3 ratio of soil and DI water.  
Results were based on the original sample weight.

PQL: Practical Quantitation Limit  
BQL: Below Practical Quantitation Limit

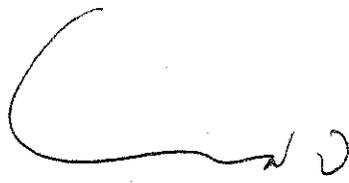
  
Principal Analyst

TABLE 18-1-D (REV.)  
MINIMUM FOUNDATION REQUIREMENTS\*

WEIGHTED EXPANSION INDEX	FOUNDATION FOR SLAB & RAISED FLOOR SYSTEM (4) (8)										CONCRETE SLABS (8)		PREMOISTENING OF SOILS UNDER FOOTINGS, PIERS AND SLABS (4) (5)	RESTRICTION ON PIERS UNDER RAISED FLOORS
	NUMBER OF STORIES	STEM THICKNESS	FOOTING WIDTH	FOOTING THICKNESS	ALL PERIMETER FOOTINGS (5)		INTERIOR FOOTINGS FOR SLAB AND RAISED FLOORS (5)	REINFORCEMENT FOR CONTINUOUS FOUNDATIONS (2)	3-1/2" MINIMUM THICKNESS		TOTAL THICKNESS OF SAND (10)			
					DEPTH BELOW NATURAL SURFACE OF GROUND AND FINISH GRADE	DEPTH BELOW NATURAL SURFACE OF GROUND AND FINISH GRADE			REINFORCEMENT (3)	REINFORCEMENT (3)				
0 - 20 Very Low (non-expansive)	1	6	12	6	12	12	12	1-#4 top and bottom	#4 @ 48" o.c. each way, or #3 @ 36" o.c. each way	2"	Moistening of ground recommended prior to placing concrete	Piers allowed for single floor loads only		
	2	8	15	7	18	18	18							
	3	10	18	8	24	24	24							
21-50 Low	1	6	12	6	15	12	12	1-#4 top and bottom	#4 @ 48" o.c. each way, or #3 @ 36" o.c. each way	4"	120% of optimum moisture required to a depth of 21" below lowest adjacent grade. Testing required.	Piers allowed for single floor loads only		
	2	8	15	7	18	18	18							
	3	10	18	8	24	24	24							
51-90 Medium	1	6	12	6	21	12	12	1-#4 top and bottom	#3 @ 24" o.c. each way	4"	130% of optimum moisture required to a depth of 27" below lowest adjacent grade. Testing required.	Piers not allowed		
	2	8	12	8	21	18	18							
	3	10	15	8	24	24	24	#3 bars @ 24" in ext. footing Bend 3' into slab (7)						
91-130 High	1	6	12	8	27	12	12	2-#4 Top and Bottom	#3 @ 24" o.c. each way	4"	140% of optimum moisture required to a depth of 33" below lowest adjacent grade. Testing required.	Piers not allowed		
	2	8	12	8	27	18	18							
	3	10	15	8	27	24	24	#3 bars @ 24" in ext. footing Bend 3' into slab (7)						
Above 130 Very High	Special design by licensed engineer/architect													

\*Refer to next page for footnotes (1) through (11).

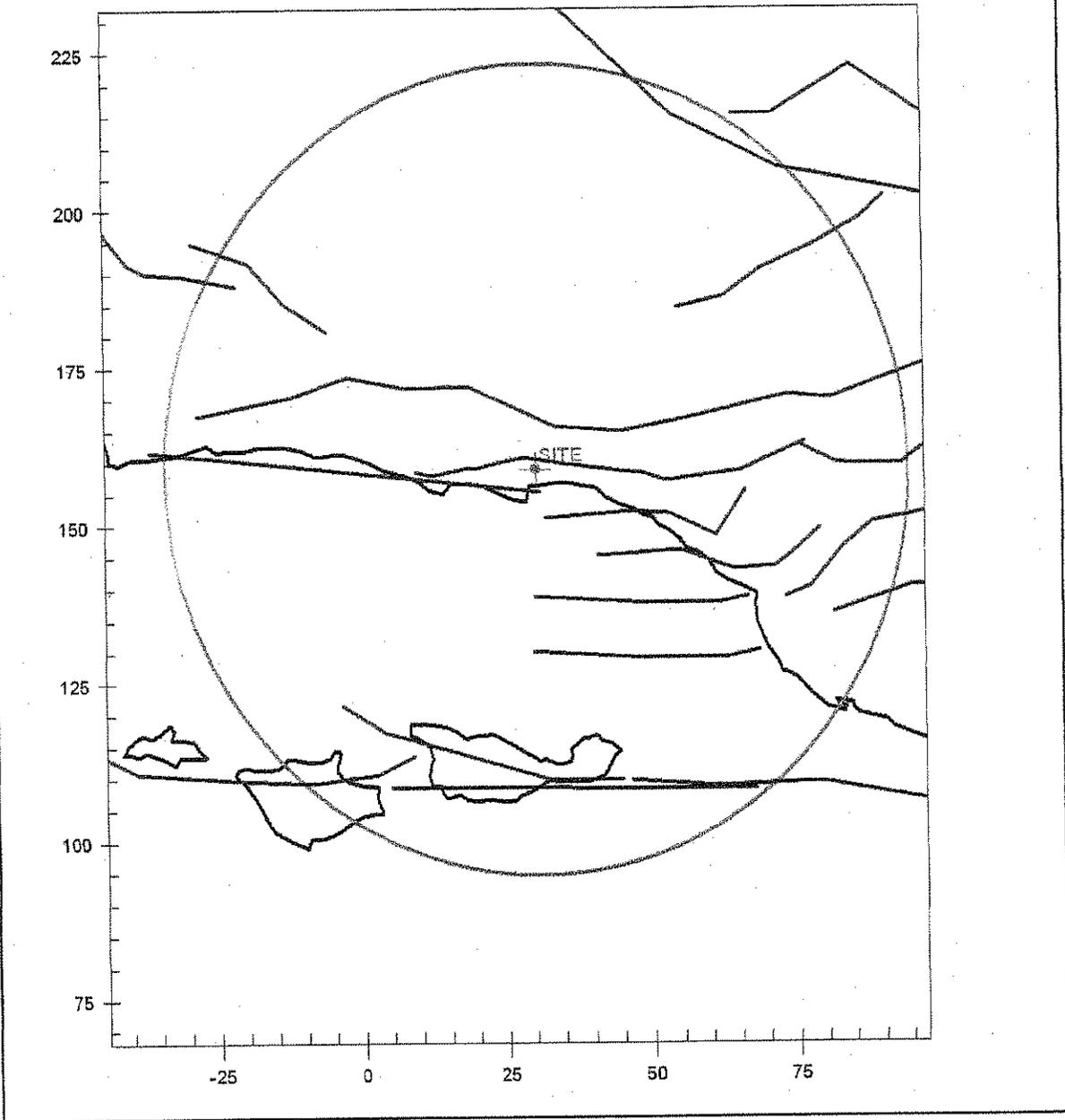
## FOOTNOTES TO TABLE UBC 18-1-D (Rev)

1. Premoistening is required where specified in Table UBC 18-1-D in order to achieve maximum and uniform expansion of the soil prior to construction and thus limit structural distress caused by uneven expansion and shrinkage. Other systems which do not include premoistening may be approved by the Building Official when such alternatives are shown to provide equivalent safeguards against the adverse effects of expansive soil.
2. Reinforcement for continuous foundations shall be placed not less than 3" above the bottom of the footing and not less than 3" below the top of the stem.
3. Reinforcement shall be placed at mid-depth of slab.
4. After premoistening, the specified moisture content of soils shall be maintained until concrete is placed. Required moisture content shall be verified by an approved testing laboratory not more than 24 hours prior to placement of concrete.
5. Crawl spaces under raised floors need not be premoistened except under interior footings. Interior footings which are not enclosed by a continuous perimeter foundation system or equivalent concrete or masonry moisture barrier complying with UBC 1804.7.3 in this ordinance shall be designed and constructed as specified for perimeter footings in Table UBC 18-1-D (Rev.).
6. Foundation stem walls which exceed a height of three times the stem thickness above lowest adjacent grade shall be reinforced in accordance with Chapter 21 and Sec. 1914 in the UBC, or as required by engineering design, whichever is more restrictive.
7. Bent reinforcing bars between exterior footing and slab shall be omitted when floor is designed as an independent, "floating" slab.
8. Where frost conditions or unusual conditions beyond the scope of this table are found, design shall be in accordance with recommendations of a foundation investigation. Concrete slabs shall have a minimum thickness of 4 inches when the expansion index exceeds 50.
9. The ground under a raised floor system may be excavated to the elevation of the top of the perimeter footing, except where otherwise required by engineering design or to mitigate groundwater conditions.
10. When subsoil drainage is required by the building official, refer to Sec. UBC APPENDIX 18.
11. Where a post-tensioning slab system is used, the width and depth of the perimeter footings shall meet the requirements of this table.

## APPENDIX C

California Fault Map  
Attenuation Plot for Strike Slip Faults  
Attenuation Plot for Dip Slip Faults  
Attenuation Relation for Blind Thrust Faults  
Earthquake Magnitudes  
Maximum Earthquakes  
Probability of Exceedance for SR-1  
Probability of Exceedance for SR-2  
Design Response Spectrum

CALIFORNIA FAULT MAP  
226 & 232 EUCALYPTUS HILL DRIVE, SANTA BARBARA



**CALIFORNIA FAULT MAP**

226 & 232 EUCALYPTUS HILL DRIVE,  
SANTA BARBARA, CALIFORNIA



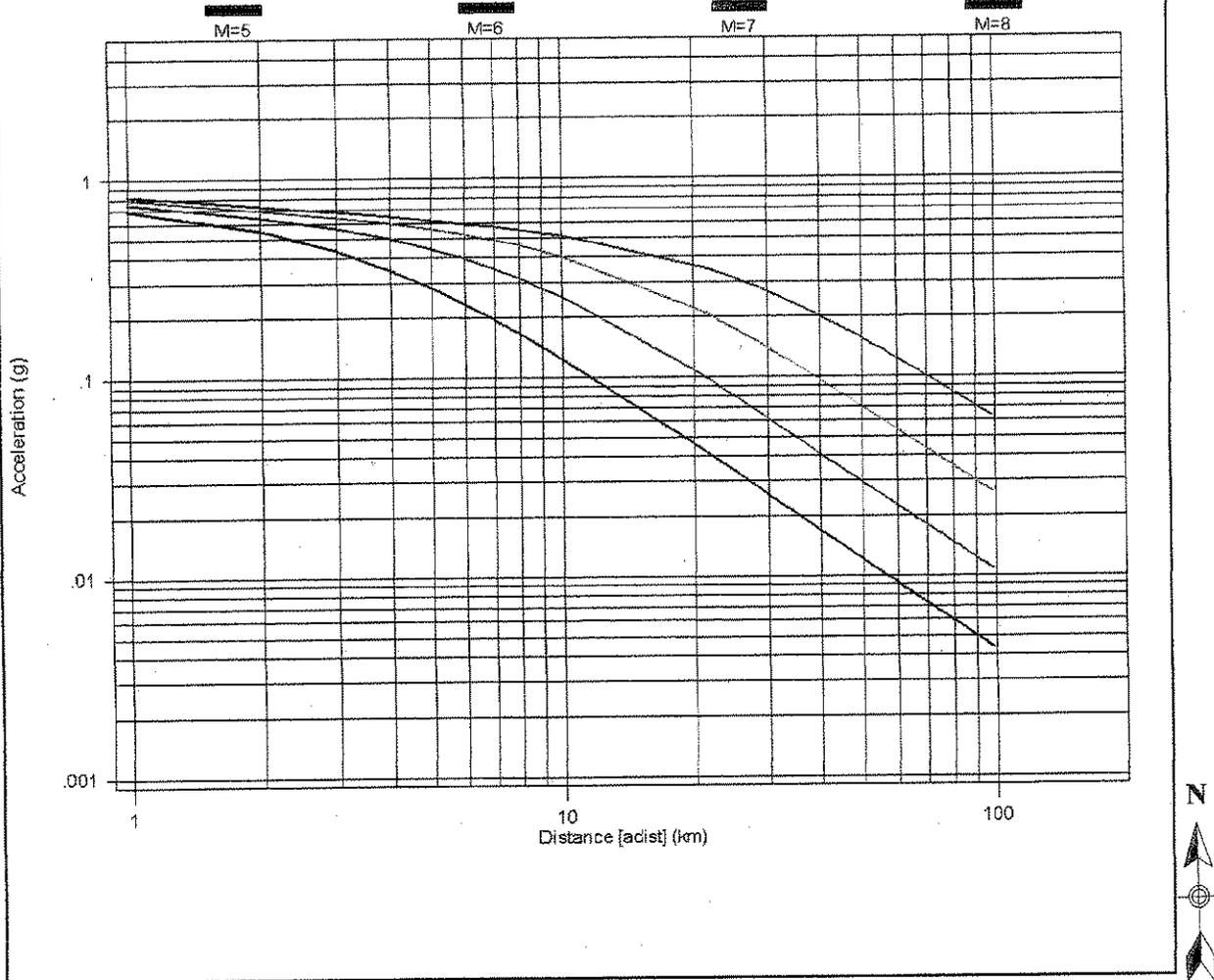
**Earth Systems**  
**Southern California**

July, 2006

VT-23720-01

### STRIKE-SLIP FAULTS

ATTENUATION RELATION FOR 226&232 EUCALYPTUS HILL DRIVE (Campbell & Bozorgnia (1994/1997) - Soft Rock)



#### ATTENUATION RELATION FOR SS FAULTS

226 & 232 EUCALYPTUS HILL DRIVE,  
SANTA BARBARA, CALIFORNIA



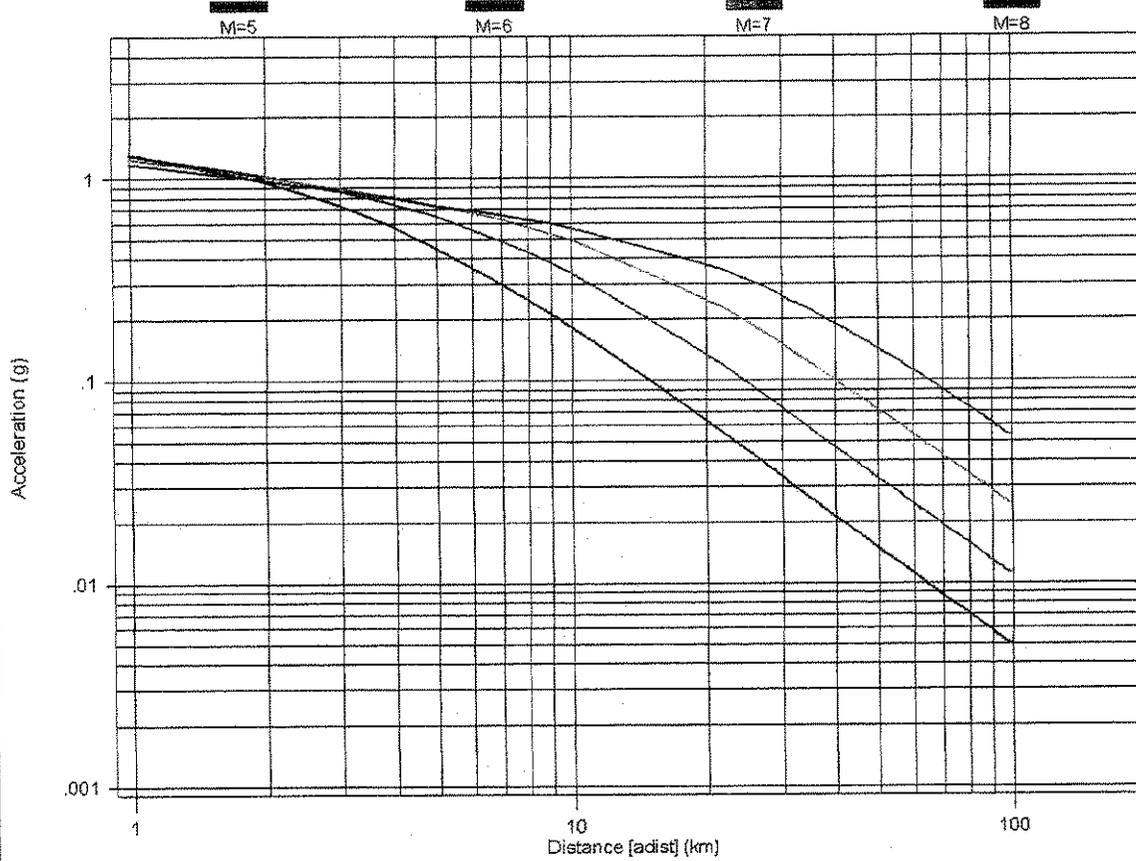
**Earth Systems**  
**Southern California**

July, 2006

VT-23720-01

### DIP-SLIP FAULTS

ATTENUATION RELATION FOR 226&232 EUCALYPTUS HILL DRIVE (Campbell & Bozorgnia (1994/1997) - Soft Rock)



#### ATTENUATION RELATION FOR DS FAULTS

226 & 232 EUCALYPTUS HILL DRIVE,  
SANTA BARBARA, CALIFORNIA



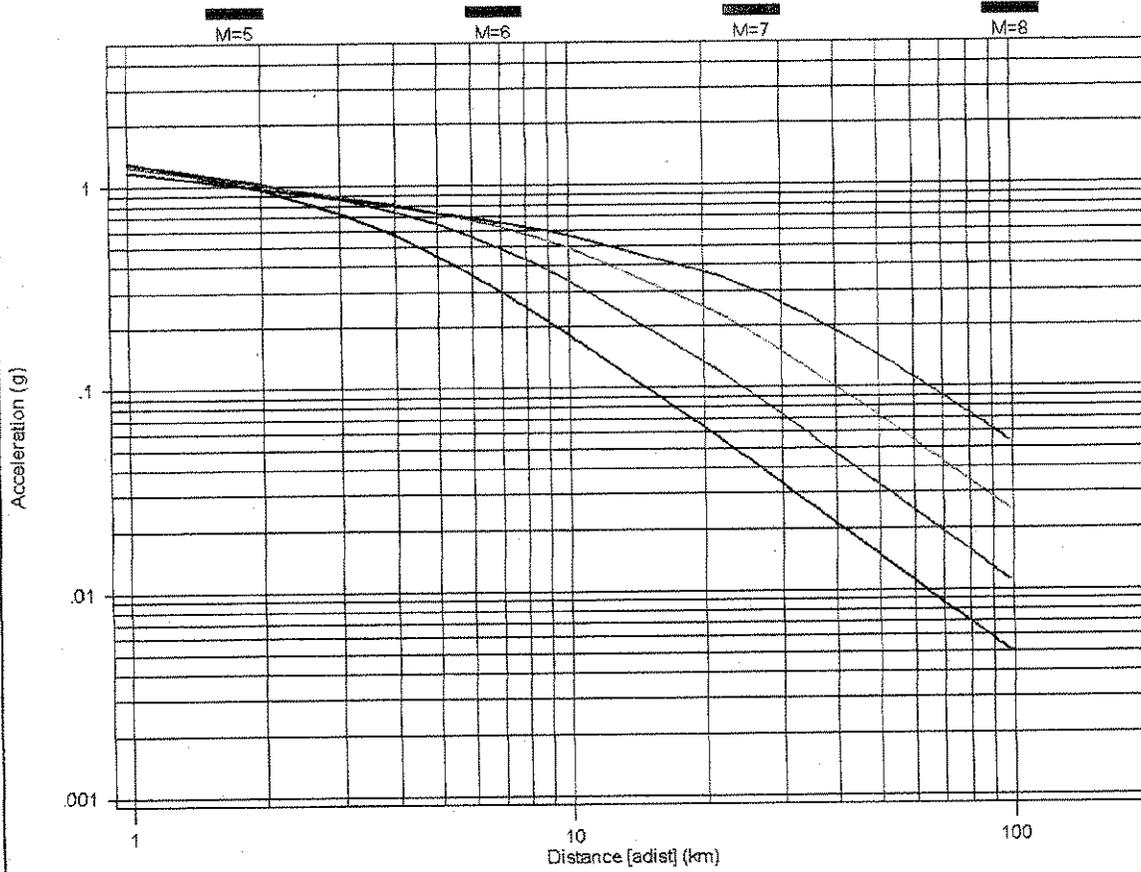
**Earth Systems**  
Southern California

July, 2006

VT-23720-01

### BLIND-THRUST FAULTS

ATTENUATION RELATION FOR 226&232 EUCALYPTUS HILL DRIVE (Campbell & Bozorgnia (1994/1997) - Soft Rock)



#### ATTENUATION RELATION FOR BT FAULTS

226 & 232 EUCALYPTUS HILL DRIVE,  
SANTA BARBARA, CALIFORNIA

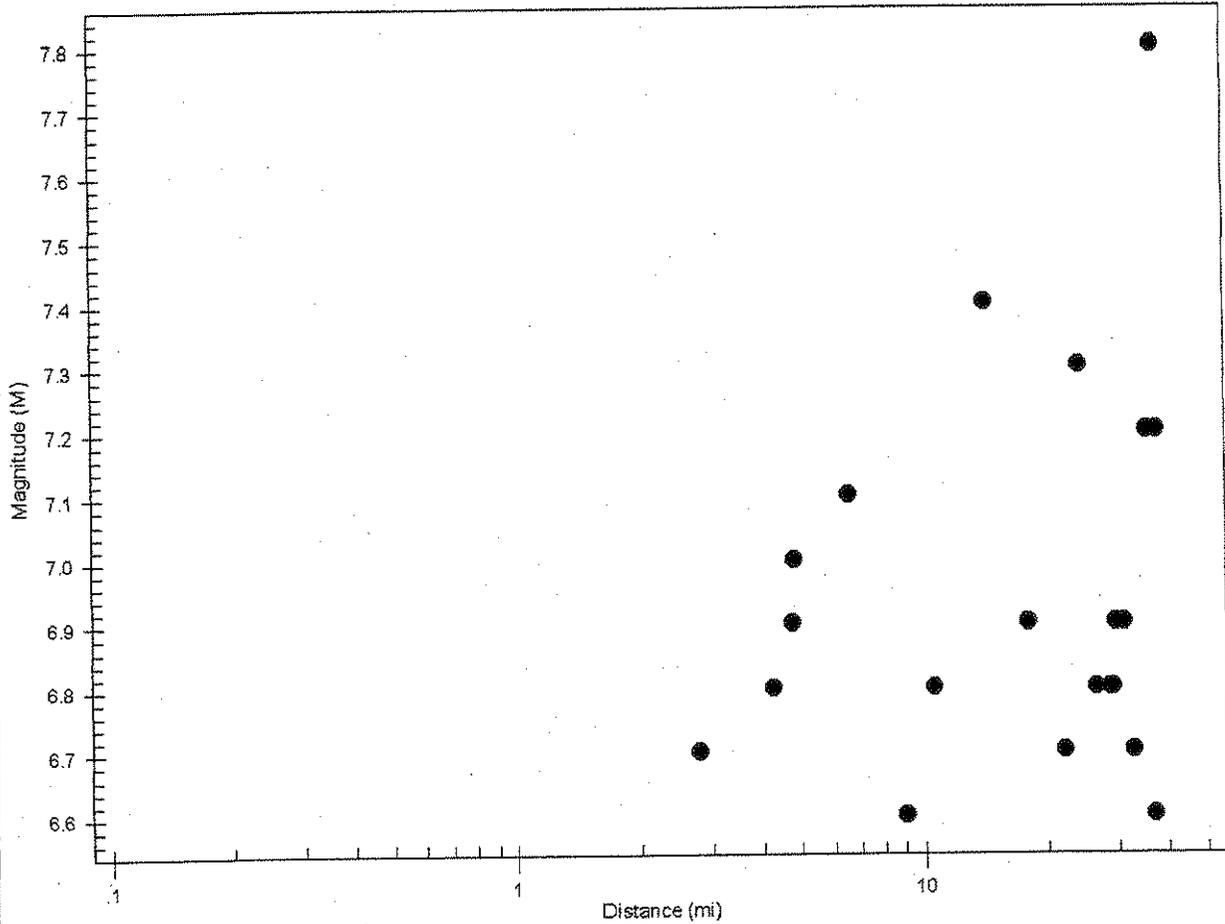


**Earth Systems**  
Southern California

July, 2006

VT-23720-01

EARTHQUAKE MAGNITUDES & DISTANCES  
 226 & 232 EUCALYPTUS HILL DRIVE, SANTA BARBARA, CALIFORNIA



**EARTHQUAKE MAGNITUDES**

226 & 232 EUCALYPTUS HILL DRIVE,  
 SANTA BARBARA, CALIFORNIA

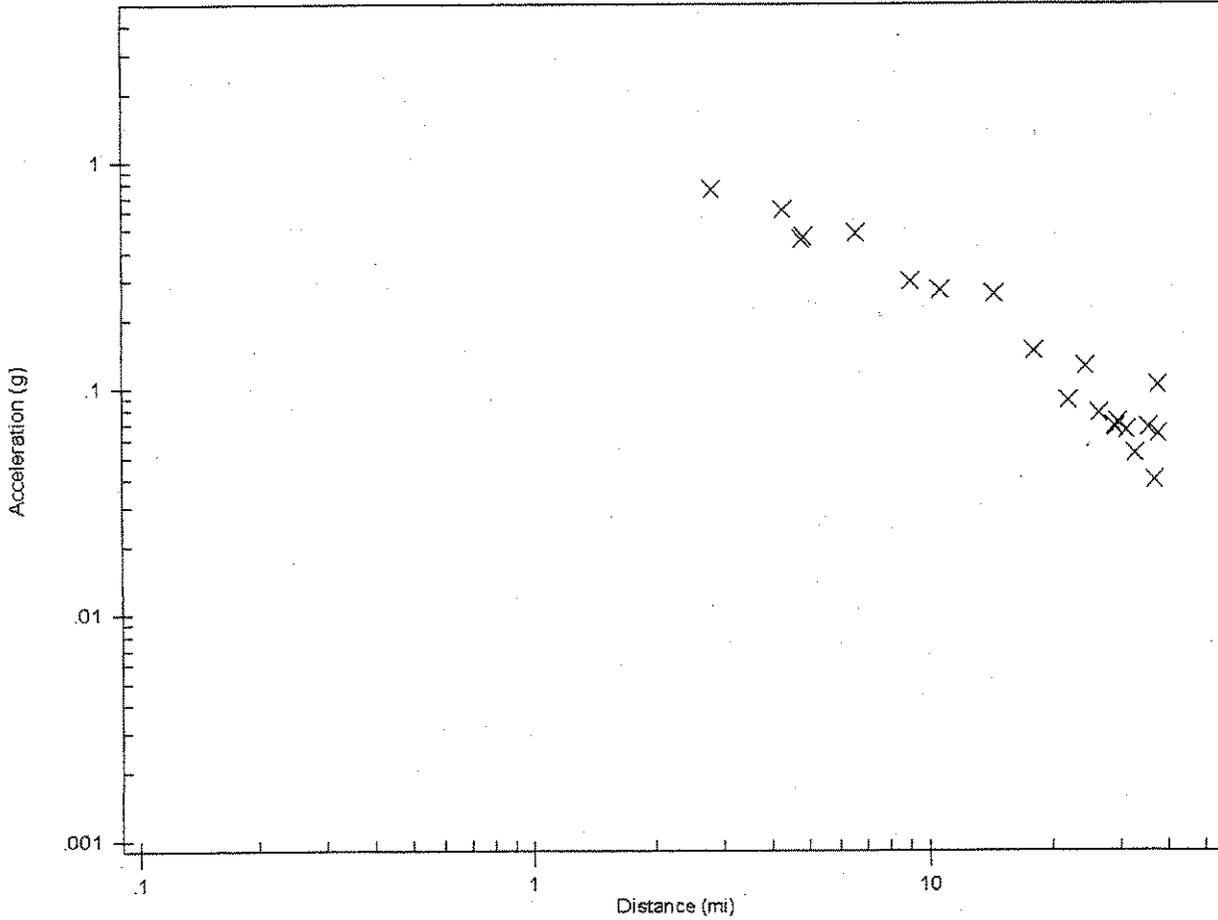


**Earth Systems**  
**Southern California**

July, 2006

VT-23720-01

MAXIMUM EARTHQUAKES  
226 & 232 EUCALYPTUS HILL DRIVE, SANTA BARBARA, CALIFORNIA



MAXIMUM EARTHQUAKES

226 & 232 EUCALYPTUS HILL DRIVE,  
SANTA BARBARA, CALIFORNIA



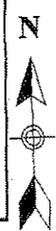
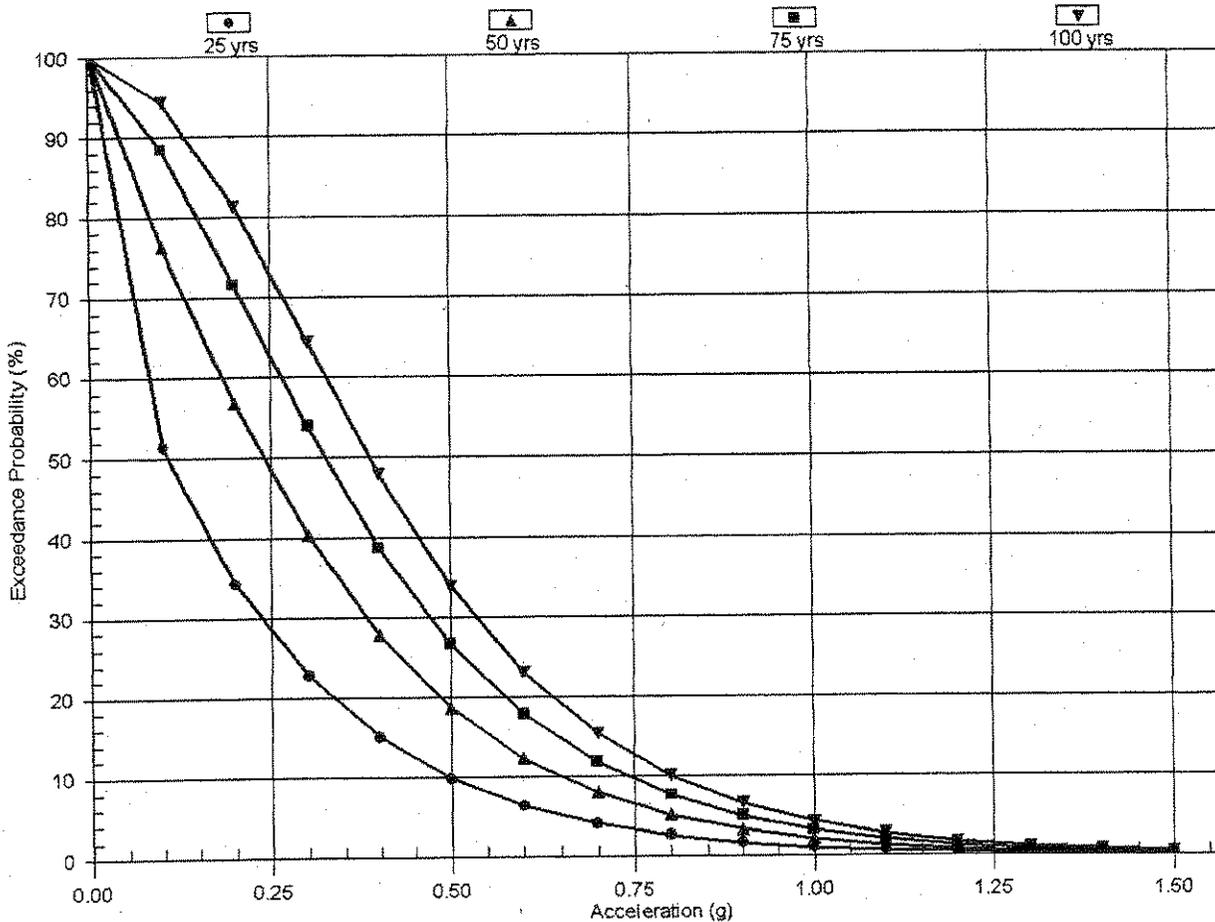
**Earth Systems**  
Southern California

July, 2006

VT-23720-01

PROBABILITY OF EXCEEDANCE

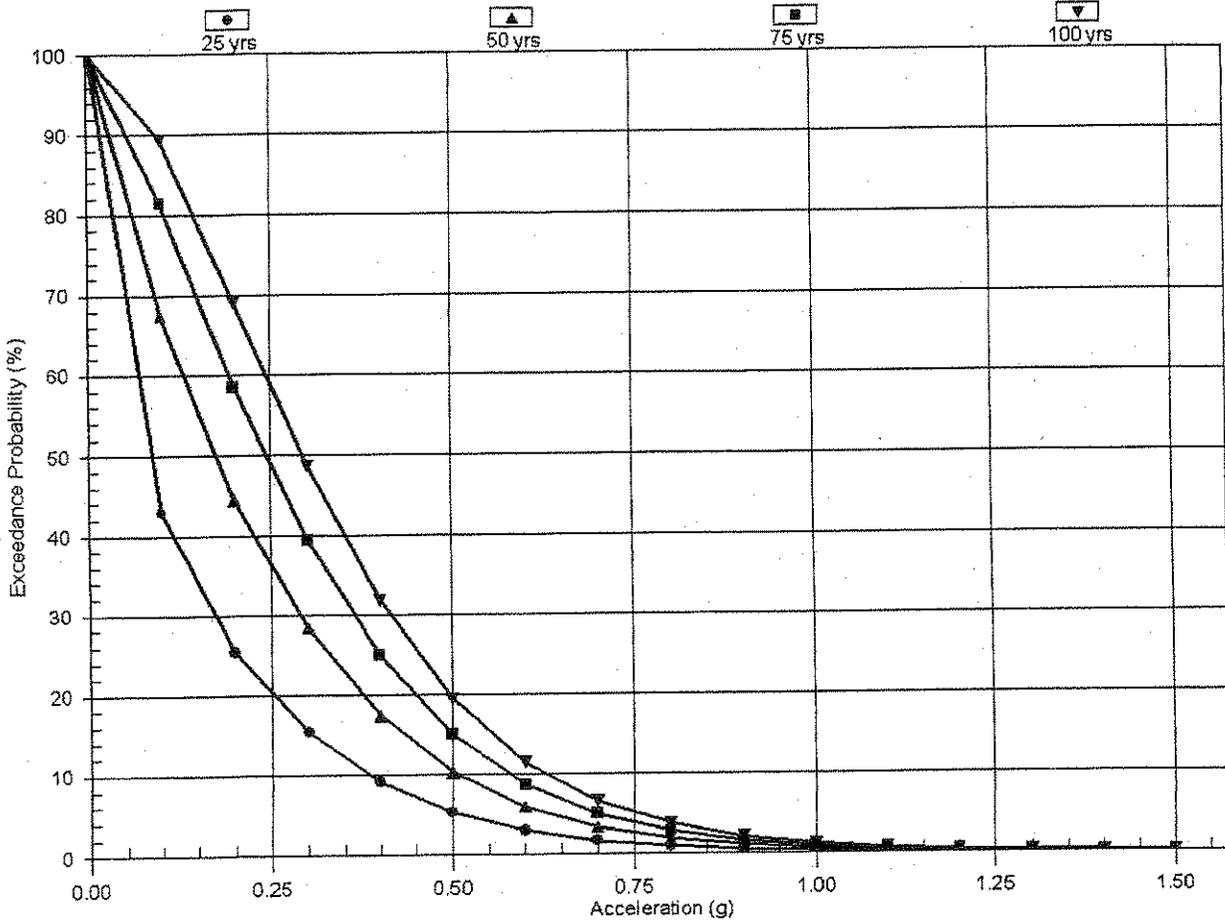
226 & 232 EUCALYPTUS HILL DRIVE, SANTA BARBARA, CALIFORNIA (CAMP. & BOZ. (1994/1997) SOFT ROCK 1)



PROBABILITY OF EXCEEDANCE FOR SR-1	
226 & 232 EUCALYPTUS HILL DRIVE, SANTA BARBARA, CALIFORNIA	
 <b>Earth Systems</b> Southern California	
July, 2006	VT-23720-01

### PROBABILITY OF EXCEEDANCE

226 & 232 EUCALYPTUS HILL DRIVE, SANTA BARBARA, CALIFORNIA (CAMP. & BOZ. (1994/1997) SOFT ROCK 2)



PROBABILITY OF EXCEEDANCE FOR SR-2

226 & 232 EUCALYPTUS HILL DRIVE,  
SANTA BARBARA, CALIFORNIA



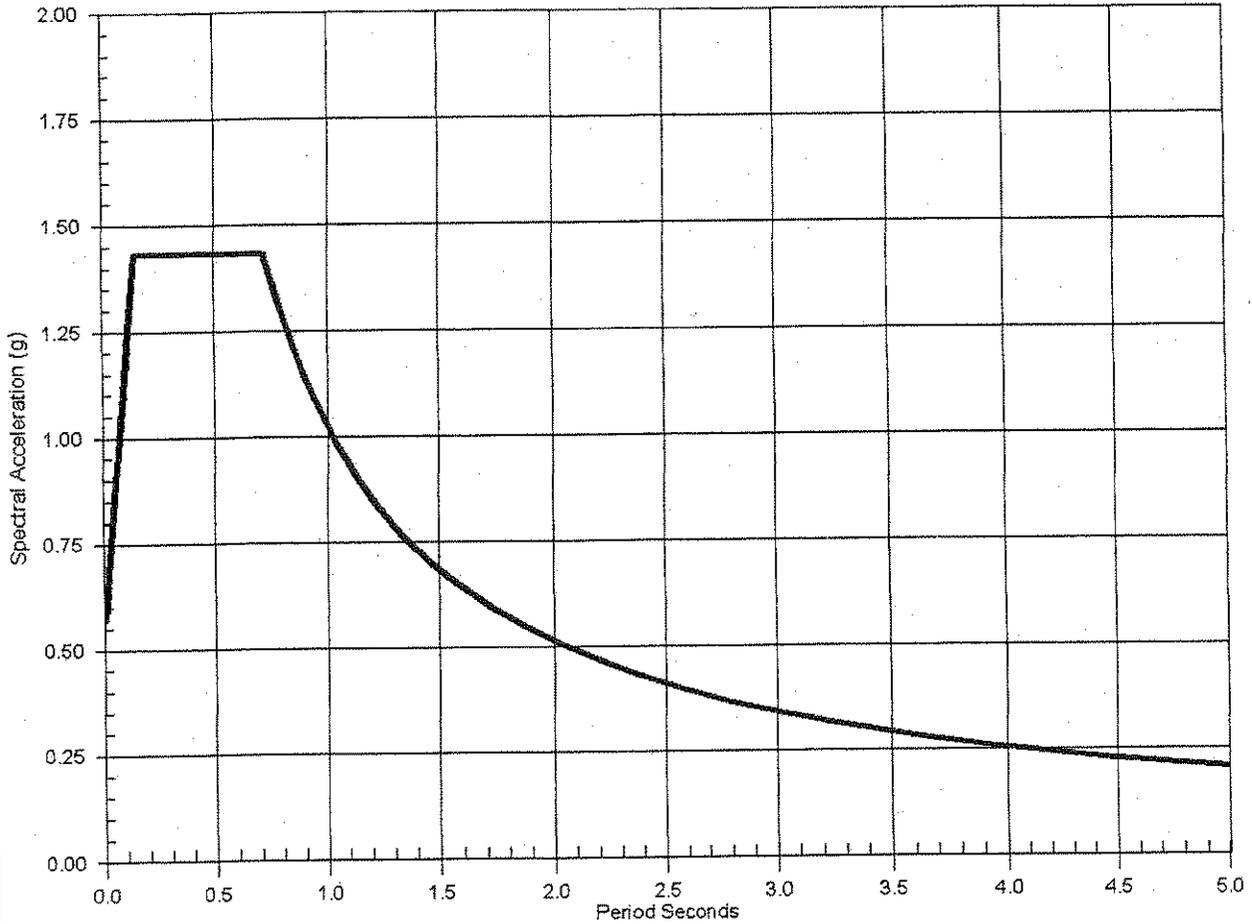
**Earth Systems**  
Southern California

July, 2006

VT-23720-01

### DESIGN RESPONSE SPECTRUM

226 & 232 EUCALYPTUS HILL DRIVE, SANTA BARBARA, CALIFORNIA (Seismic Zone: 0.4 Soil Profile: SD)



### DESIGN RESPONSE SPECTRUM

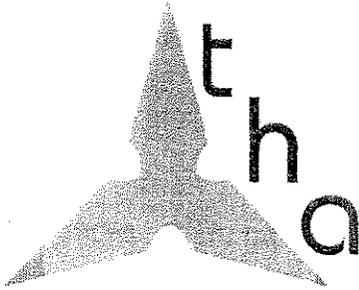
226 & 232 EUCALYPTUS HILL DRIVE,  
SANTA BARBARA, CALIFORNIA



**Earth Systems**  
**Southern California**

July, 2006

VT-23720-01



triad/holmes associates

civil engineering  
land surveying

mammoth lakes • bishop • redwood city • napa  
san luis obispo • pleasanton

**PRELIMINARY STORMWATER STUDY**

**FOR**

Multi-House Residential Project  
226, 228, 232 & 234 Eucalyptus Hill Drive  
Santa Barbara, California  
July, 2006

Prepared For: Cyndee Howard  
c/o Classic Properties

Prepared By: THA  
555 Chorro Street, Suite A  
San Luis Obispo, CA 93405



**RECEIVED**

AUG 10 2006

CITY OF SANTA BARBARA  
PLANNING DIVISION



## Table of Contents

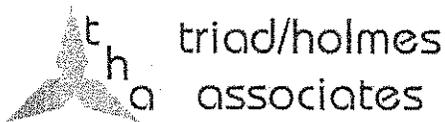
Introduction	Page 1
Project Description	Page 1
Runoff Calculations	Page 3
Retention Volume Calculations	Page 6
100 Year Storm Overland Flow Calculation	Page 6
Conclusion	Page 6

### Figures

Figure 1	Existing Stormwater Runoff	Page 2
Figure 2	Proposed Stormwater Runoff	Page 4

### Appendix

Proposed Building and Hardscape Area Calcs (provided by Architect)  
SLO County Standard D-2



Multi-House Residential Project  
226 & 232 Eucalyptus Hill Drive  
Santa Barbara, California

## Introduction

This study was done to show how existing and proposed stormwater runoff transmits through the property to the public right of way. Hydraulic calculations for 25-year and 100-year storm events were done following the County of Santa Barbara Engineering Design Standards, 1987. Exhibits were prepared to show both the existing and proposed conditions and conveyance systems, and the 100-year storm event overland escape route and inundation areas.

## Project Description

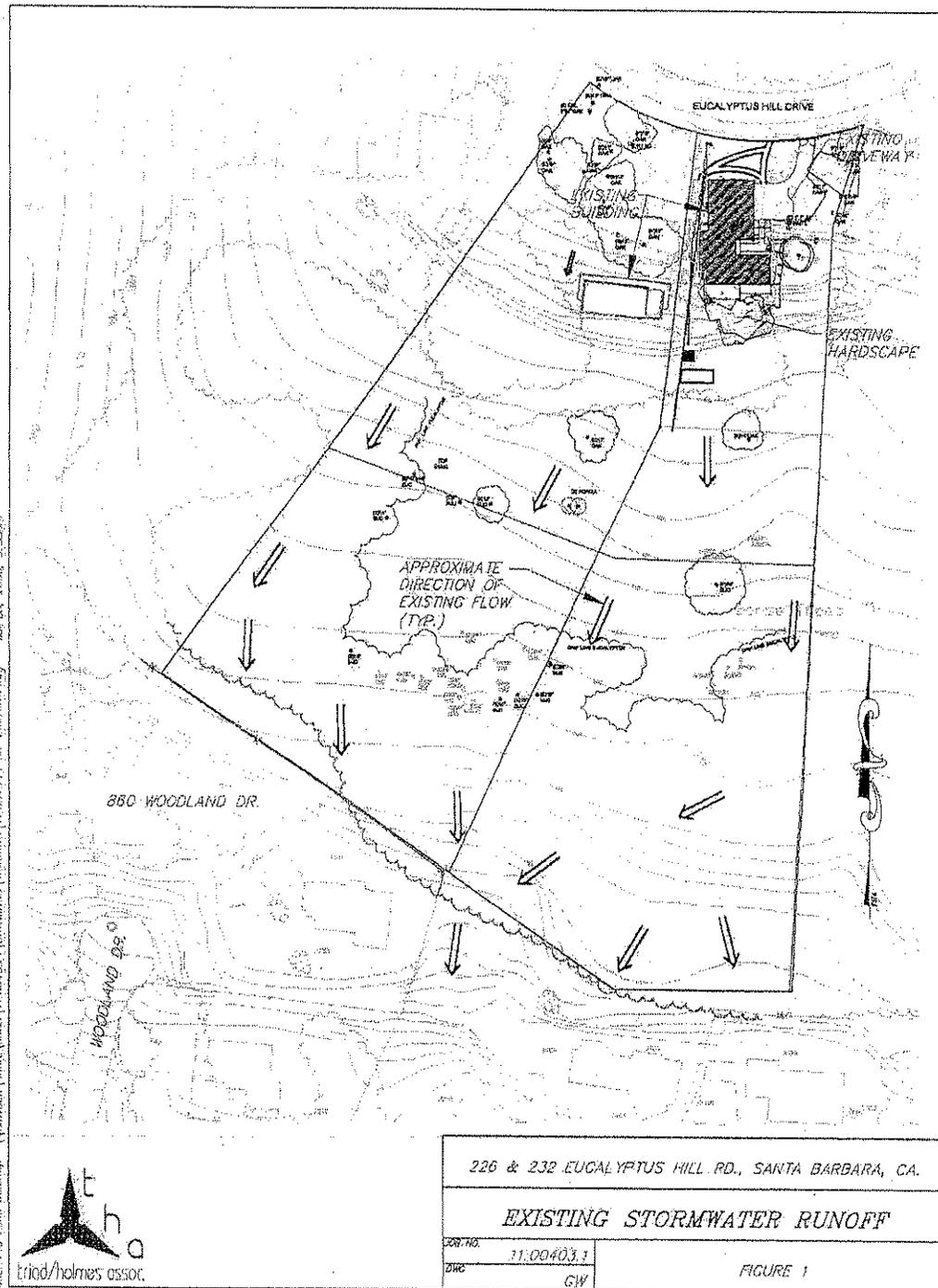
The two existing lots, totaling 234,392 sq. ft., presently have a single family residence and out buildings with approximately 11,500 sq. ft. of impervious area (including buildings, hardscape, and driveway) with the remaining area landscaped, wooded or open ground. The topography slopes approximately 25% from north to south. Stormwater presently sheet flows off the southern boundary of the property into neighboring properties, and eventually into the public right-of-way (see Figure 1).

The project proposes to demolish the existing buildings and hardscape, and construct two new residences with two guesthouses and new driveways. Per quantities provided by the architect, the project proposes approximately 26,000 sq. ft. under roof and hardscape, approximately 23,000 sq. ft. of paved driveway, with the remaining area to be landscaped or left wooded (see appendix). This is an increase of approximately 37,500 sq. ft. of impervious surface from the existing stormwater runoff conditions.

The proposed upper lot of 107,510 sq. ft. (226&228 Eucalyptus Hill Drive) contains all of the existing impervious area (11,500 sq. ft.) and proposes a new total impervious area of approximately 32,500 sq. ft. The difference between existing and proposed impervious area is approximately 21,000 sq. ft.

The proposed lower lot of 134,882 sq. ft. (232&234 Eucalyptus Hill Drive) has no impervious area and proposes a new total impervious area of approximately 15,200 sq. ft.

It is our understanding stormwater from the impervious areas of the proposed project is proposed to be collected in a detention pond and in landscaped bioswales (designed by others). At the lower portion of the property it is proposed that stormwater runoff from within the boundary of channelized flow (the area influenced by the proposed impervious areas) be directed to the public right-of-way on Woodland Dr. through the private property at 860 Woodland Drive. Runoff from areas outside of the influence of the



C:\Users\jholmes\Documents\11.00403.1\11.00403.1\11.00403.1\_P1R-EXISTING.dwg Jul 03 2006 9:35am



226 & 232 EUCALYPTUS HILL RD., SANTA BARBARA, CA.	
<b>EXISTING STORMWATER RUNOFF</b>	
DATE:	11.00403.1
DWG:	GW

FIGURE 1

proposed impervious areas and where the existing runoff patterns are not modified are proposed to remain flowing in the historical direction (see Figure 2).

### Runoff Calculations

The Rational Method was used to estimate the runoff rate for a 25-year storm for retention volume calculations and for a 100-year storm for overland flow calculations.

$Q=CIA$  Rational Method       $I = \text{intensity}$      $A = \text{area}$

$C = \text{Runoff Coefficient}$       Ref. Santa Barbara County Engineering Design Standard  
Appendix 12, Figure 2 Curve 1 and 2 (see note below).

Intensity,  $I$       Calculated  $T_c < 12$  minutes , therefore use 12 min.

$I = 2.9$  in/hr      Ref. Santa Barbara County Engineering Design Standard Appendix 12, Figure 1.  
Storm event = 25-year @ 12 minutes.

$I = 3.7$  in/hr      Ref. Santa Barbara County Engineering Design Standard Appendix 12, Figure 1.  
Storm event = 100-year @ 12 minutes.

Note: The Santa Barbara County Engineering Design Standard does not contain estimated  $C$  values for individual components of a watershed which is needed to compare the small difference between existing and proposed runoff quantities. A more detailed analysis using San Luis Obispo County Standard  $C$  values was done to more accurately show the impact of the increased impermeable area.

$C$  Values from SLO County Standard D-2, see appendix:

Roof and Hardscape Runoff:       $C=0.90$  – Impervious 2% to 10% slope

Driveway Runoff:       $C=0.95$  – Impervious >10% slope

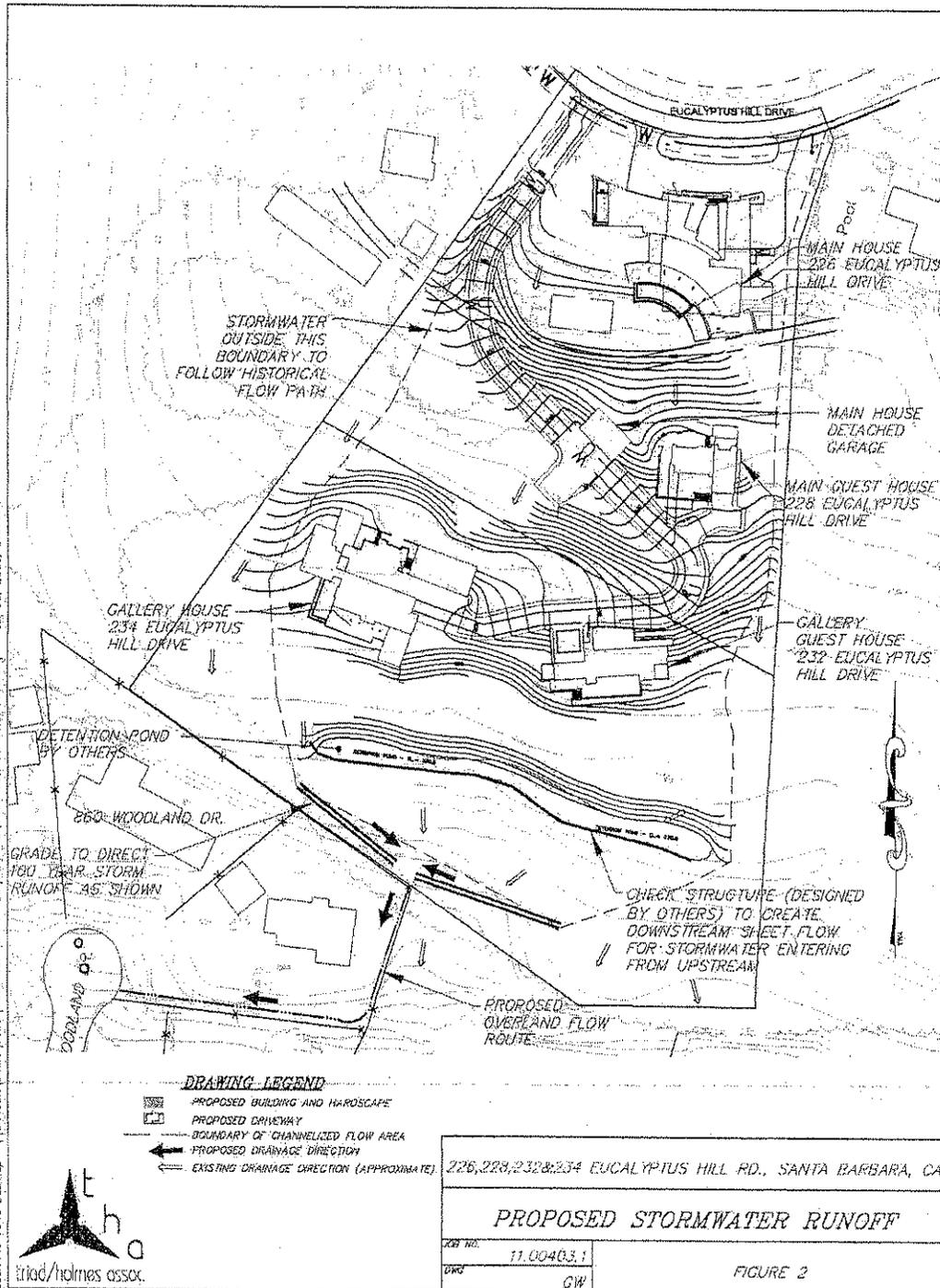
Landscape Runoff:       $C=0.35$  – >10% slope, dense vegetation

#### Runoff for the Existing Condition (based on the proposed lot configuration)

The existing condition for 232 Eucalyptus Hill Drive (based on proposed 226 & 228 Eucalyptus Hill Dr) is:

Roof and Hardscape:	9,500 sq. ft
Driveway:	2,000 sq. ft
Landscape:	96,010 sq. ft.

$$Q_{\text{existing, 25 yr.}} = 2.9[0.9(9,500)+0.95(2,000)+0.35(96,010)] / [(12)(3600)] = \underline{\underline{3.0 \text{ CFS}}}$$



user:149 | and Desktop | \\server\share\JOBS\11.00403.1\REPORTS\11.00403.1 Stormwater Calcs Revised-07-03-06.doc | Jul 03, 2006, 9:20am

$$Q_{\text{existing, 100 yr.}} = 3.7[0.9(9,500)+0.95(2,000)+0.35(96,010)] / [(12)(3600)] = \underline{\underline{3.8 \text{ CFS}}}$$

The existing condition for 226 Eucalyptus Hill Drive (based on the proposed 232 & 234 Eucalyptus Hill Dr.) is:

Roof and Hardscape:	0 sq. ft
Driveway:	0 sq. ft
Landscape:	134,882 sq. ft.

$$Q_{\text{existing, 25 yr.}} = 2.9[0.35(134,882)] / [(12)(3600)] = \underline{\underline{3.2 \text{ CFS}}}$$

$$Q_{\text{existing, 100 yr.}} = 3.7[0.35(134,882)] / [(12)(3600)] = \underline{\underline{4.0 \text{ CFS}}}$$

Runoff for the Proposed Condition (based on the proposed lot configuration)

The proposed condition for 226&228 Eucalyptus Hill Drive is:

Roof and Hardscape:	13,952 sq. ft
Driveway:	18,580 sq. ft
Landscape:	74,978 sq. ft.

$$Q_{\text{proposed, 25 yr.}} = 2.9[0.9(13,952)+0.95(18,580)+0.35(74,978)] / [(12)(3600)] = \underline{\underline{3.8 \text{ CFS}}}$$

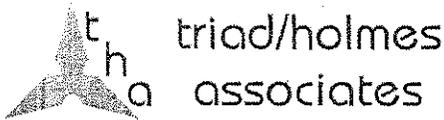
$$Q_{\text{proposed, 100 yr.}} = 3.7[0.9(13,952)+0.95(18,580)+0.35(74,978)] / [(12)(3600)] = \underline{\underline{4.8 \text{ CFS}}}$$

The proposed condition for 232&234 Eucalyptus Hill Drive is:

Roof and Hardscape:	11,701 sq. ft
Driveway:	4,350 sq. ft
Landscape:	119,647 sq. ft.

$$Q_{\text{proposed, 25 yr.}} = 2.9[0.9(11,701)+0.95(4,350)+0.35(118,831)] / [(12)(3600)] = \underline{\underline{3.8 \text{ CFS}}}$$

$$Q_{\text{proposed, 100 yr.}} = 3.7[0.9(11,701)+0.95(4,350)+0.35(118,831)] / [(12)(3600)] = \underline{\underline{4.8 \text{ CFS}}}$$



### Retention Volume Calculation

#### 226&228 Eucalyptus Hill Drive

The difference between  $Q_{\text{existing, 25 yr.}}$  of 3.0 CFS and  $Q_{\text{proposed, 25 yr.}}$  of 3.8 CFS is **0.8 CFS** using the San Luis Obispo County C values. The equivalent rainfall intensity for the proposed project to match the existing conditions would be approximately 80% of the peak intensity of 2.9 in/hr, or 2.3 in/hr  $((2.8/3.6) \times 100)$ . Based on curve 6 on the Santa Barbara County Engineering Design Standard Appendix 12, Figure 1, it would take 19 minutes for a 25 year storm to decrease in intensity to 2.3 in/hr. It would take 900 Cu. ft. of storage to store the excess runoff until the rainfall intensity decreased to 2.3 in/hr:

$$\text{Retention Volume} = 0.8 \text{ CFS} * 19 \text{ Minutes} * 60 \text{ Seconds per minute} \approx \underline{900 \text{ Cu. ft.}}$$

*(0.8)* *= 684 \approx 700*

#### 232&234 Eucalyptus Hill Drive

The difference between  $Q_{\text{existing, 25 yr.}}$  of 3.2 CFS and  $Q_{\text{proposed, 25 yr.}}$  of 3.8 CFS is **0.6 CFS** using the San Luis Obispo County C values with  $Q_{\text{existing, 25 yr.}}$  approximately 85% of  $Q_{\text{proposed, 25 yr.}}$ . The equivalent rainfall intensity for the proposed project to match the existing conditions would be approximately 85% of the peak intensity of 2.9 in/hr, or 2.45 in/hr. Based on curve 6 on the Santa Barbara County Engineering Design Standard Appendix 12, Figure 1, it would take 17 minutes for a 25 year storm to decrease in intensity to 2.45 in/hr. It would take approximately 600 Cu. ft. of storage to store the excess runoff until the rainfall intensity decreased to 2.3 in/hr:

$$\text{Retention Volume} = 0.6 \text{ CFS} * 17 \text{ Minutes} * 60 \text{ Seconds per minute} \approx \underline{600 \text{ cu. ft.}}$$

*0.6* *= 612 \approx 600*

### 100 Year Storm Overland Flow Calculation

The potential total overland flow for a 100-year storm from the proposed project is estimated as a total of 9.4 CFS as compared to the existing conditions estimate of 7.8 CFS. Of the estimated 9.4 CFS from the proposed project, approximately 1.8 CFS from approximately 65,000 sq. ft. of existing vegetated areas along the eastern and western boundaries sheet flows to the south and is not planned to be redirected as part of the proposed project. The remaining 7.6 CFS from the proposed projects will be directed to an existing drainage course through the property located at 860 Woodland Drive and then to Woodland Drive. A swale should be sized through 860 Woodland Drive to safely convey 7.6 CFS to Woodland Drive.

### Conclusions

The Santa Barbara County method for determining the C value for the rational equation would be too general for such a large parcel. A more detailed analysis using the San Luis Obispo County C values incorporates the difference in impervious area when determining the design runoff for the existing and proposed conditions. It was determined that the proposed project would increase peak

runoff for a 25 year storm event by 1.3 CFS, resulting in a total retention volume of 1,400 cu. ft. required for both parcels. Potential peak overland flow from a 100 year storm event is estimated at 9.5 CFS for both parcels. The retention volume for each parcel (shown above) was determined.

The following recommendations should be incorporated into the final grading and drainage design:

1. Based on an analysis of pre-development and proposed post-development conditions, a combined total of 1,500 cu. ft. of stormwater retention would be required to maintain the peak runoff flow rate at present conditions. The project proposes to incorporate a detention pond. The use of multiple bioswales may also be part of the stormwater retention design by incorporating check structures in the bioswales. To eliminate standing water, the pond and bioswales should be free-draining by having a small orifice (such as with a short 1 inch pipe section) at the low point of the detention pond or at the check structure in the bioswale. The drains will need to be maintained on a regular basis to ensure they are not clogged.
2. Stormwater runoff should be directed to sheet flow over vegetated ground as much as possible. The proposed detention pond at the lower end of the property should be constructed with a non-eroding level top that would allow runoff from uphill areas to sheet flow over as wide an area as possible prior to being redirected to concentrated flow and leaving the property.
3. The stormwater runoff from the area influenced by the proposed project (not following the historical flow path) should be directed away from the proposed structures and to a drainage easement (to be obtained as part of this project) on 860 Woodland Drive. Overland flow for a 100-year storm event of 7.6 CFS should also be provided by constructing a swale across 860 Woodland Drive onto Woodland Drive. The swale will need to be designed based on the slope and material of construction.



triad/holmes  
associates

Job # 11.00403.1  
Preliminary Stormwater Study  
July 2006

## Appendix

EUCALYPTUS HILL DRIVE  
SITE DATA

232&234 EUCALYPTUS HILL DRIVE (SOUTH LOT)

**LOT AREA:** 134,882 3.10 acres  
 Impervious Driveway 3,260  
 Pervious Driveway (crushed stone or perm. Paver) 1,090  
 total driveway 4,350 s.f.

	Building Area	Hardscape Area
<b>GALLERY HOUSE:</b> Gallery House Total Building coverage:	4,905 s.f.	
Gallery House Hardscape		
courtyard		2217 s.f.
south patio & reflecting pool		1255 s.f.
m. bedroom s. patio		176 s.f.
total hardscape		3,648 s.f.
<b>GALLERY GUEST HOUSE:</b> Gallery Guest House Total Building coverage: Gallery Guest House Patio	1,805	
entry patio		75 s.f.
south patio		1147 s.f.
west bedroom patio		121 s.f.
		1,343 s.f.

**TOTAL** 6,710 s.f. 4,991 s.f.

**TOTAL BUILDING AND HARDSCAPE** 11,701 s.f.

Total Building, Hardscape, and Driveway 16,051

EUCALYPTUS HILL DRIVE  
SITE DATA

226&228 EUCALYPTUS HILL DRIVE (NORTH LOT)

**LOT AREA:** 107,510 2.47 acres  
 Impervious Driveway@Euc. Hill Drive (easement) 2,752  
 Impervious Driveway 8,843  
 Pervious Driveway (crushed stone or perm. Paver total driveway) 6,985  
 18,580 s.f.

	Building area	Hardscape Area
<b>MAIN HOUSE:</b>		
Main House Total Building coverage:	6,395 s.f.	
Main House Hardscape		
main level south patio		2722 s.f.
lower level south patio		178 s.f.
West patio (off M. Bed)		447 s.f.
Kitchen ramp & studio west		231 s.f.
Entry courtyard (open above)		450 s.f.
total hardscape		4,028 s.f.

<b>DETACHED GARAGE:</b>		
Total Building coverage:	814	

<b>MAIN GUEST HOUSE:</b>		
Total Building coverage:	1,675	
Main Guest House Patio		1040 s.f.

**TOTAL** 8,884 s.f. 5,068 s.f.

**TOTAL BUILDING AND HARDSCAPE** 13,952 s.f.

Total Building, Hardscape, and Driveway 32,532

Revisions		APPROVALS		
Description	Approved	Date	County Engineer	
			<i>G. C. [Signature]</i>	2-3-75
			Recommended by Deputy Co. En.	<i>Winton [Signature]</i> 3/28/75

### TABLE OF COEFFICIENT RUNOFF CHART

TYPE OF DEVELOPMENT	TYPE OF SOIL**	COEFFICIENT OF RUNOFF FOR*			
		SLOPE <2%	2% to 10%	>10%	
URBAN	20,000 sq. ft.	C	.35	.40	.45
	"	S	.25	.35	.40
	10,000 sq. ft.	C	.40	.45	.55
	"	S	.30	.40	.45
	6,000 sq. ft.	C	.45	.55	.65
	"	S	.35	.40	.50
	APARTMENTS	C	.50	.60	.70
	"	S	.40	.50	.60
	INDUSTRIAL	C	.55	.65	.75
	"	S	.45	.55	.65
	COMMERCIAL	C	.75	.80	.85
	"	S	.70	.75	.80
RURAL	DENSE VEGETATION	C	.15	.25	.35
	"	S	.10	.15	.20
	MODERATE VEGETATION	C	.20	.30	.40
	"	S	.15	.20	.25
	SPARSE VEGETATION	C	.25	.35	.45
"	S	.20	.25	.30	
IMPERVIOUS; PAVED, ETC.			.85	.90	.95

\* Note: These values are intended to be a minimum; higher values may be required by the County Engineer.

\*\* Note: Soil Type

- C = Clay, Adobe, Rock or Impervious Material
- S = Sand, Gravel, Loam or Pervious Material

Specification Ref.	COUNTY OF SAN LUIS OBISPO ENGINEERING DEPARTMENT <b>TABLE OF COEFFICIENT          RUNOFF CHART</b>	Scale:
		Drawing No.
		D-2
Drawn: <i>lr</i> Date: <i>5-5-75</i>		

## NATIVE AMERICAN HERITAGE COMMISSION

915 CAPITOL MALL, ROOM 364  
 SACRAMENTO, CA 95814  
 (916) 653-4082  
 (916) 657-5390 - Fax



April 11, 2007

Ms. Chelsey Swanson, Assistant Planner  
 City of Santa Barbara  
 P.O. Box 1990  
 Santa Barbara, CA

RE: SCH# 2007041038- 226 & 232 Eucalyptus Hill Drive; Santa Barbara County.

Dear Ms. Swanson:

The Native American Heritage Commission (NAHC) has reviewed the Notice of Preparation (NOP) referenced above. The California Environmental Quality Act (CEQA) states that any project that causes a substantial adverse change in the significance of an historical resource, which includes archeological resources, is a significant effect requiring the preparation of an EIR (CEQA Guidelines 15064(b)). To comply with this provision the lead agency is required to assess whether the project will have an adverse impact on historical resources within the area of project effect (APE), and if so to mitigate that effect. To adequately assess and mitigate project-related impacts to archaeological resources, the NAHC recommends the following actions:

- ✓ Contact the appropriate Information Center for a record search to determine:
  - If all or a part of the APE has been previously surveyed for cultural resources.
  - If any known cultural resources have already been recorded on or adjacent to the APE.
  - If the probability is low, moderate, or high that cultural resources are located in the APE.
  - If a survey is required to determine whether previously unrecorded cultural resources are present.
- ✓ If an archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.
  - The final report containing site forms, site significance, and mitigation measures should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum, and not be made available for public disclosure.
  - The final written report should be submitted within 3 months after work has been completed to the appropriate regional archaeological Information Center.
- ✓ Contact the Native American Heritage Commission for:
  - A Sacred Lands File Check.
  - Please describe the project's location in terms of USGS quadrangle name, township, range, and section.
  - A list of appropriate Native American Contacts for consultation concerning the project site and to assist in the mitigation measures. **Native American Contact List Attached**

The NAHC makes no recommendation or preference of a single individual, or group over another. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. I suggest you contact all of those indicated, if they cannot supply information, they might recommend other with specific knowledge. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call to ensure that the project information has been received. If you receive notification of change of addresses and phone numbers from any these individuals or groups, please notify me. With your assistance we are able to assure that our lists contain current information.

Lack of surface evidence of archeological resources does not preclude their subsurface existence. Lead agencies should include in their mitigation plan:

- Provisions for the identification and evaluation of accidentally discovered archeological resources, per CEQA Guidelines §15064.5(f).
- Provisions for monitoring all ground-disturbing activities in areas of identified archaeological sensitivity by a archaeologist meeting the professional qualifications as defined in the in the *Secretary of the Interior's Standards and Guidelines* for archaeology and a culturally affiliated Native American monitor.
- Provisions for the curation of recovered artifacts, per CEQA Guidelines 15126.4(5)(b)(3)(C), in consultation with culturally affiliated Native Americans.

- Provisions for discovery of Native American human remains. Health and Safety Code §7050.5, CEQA Guidelines §15064.5(e), and Public Resources Code §5097.98 mandates the process to be followed in the event of an accidental discovery of any human remains in a location other than a dedicated cemetery.

Sincerely,



Katy Sanchez  
Associate Governmental Program Analyst  
(916) 653-4040

CC: State Clearinghouse

**Native American Contacts**  
Santa Barbara County  
April 11, 2007

Ernestine DeSoto  
1027 Cacique Street, #A  
Santa Barbara , CA 93103  
(805) 962-3598

Chumash

Puilulaw Khus  
2001 San Bernardo Creek  
Morro Bay , CA 93442

Chumash

Beverly Salazar Folkes  
1931 Shadybrook Drive  
Thousand , CA 91362  
805 492-7255

Chumash  
Tataviam  
Fernandeño

Julie Lynn Tumamait  
365 North Pole Ave  
Ojai , CA 93023  
jtumamait@hotmail.com  
(805) 646-6214

Chumash

Owl Clan  
Dr. Kote & Lin A-Lul'Koy Lotah  
48825 Sapaque Road  
Bradley , CA 93426  
(805) 472-9536

Chumash

Patrick Tumamait  
992 El Camino Corto  
Ojai , CA 93023  
yanahea2@aol.com  
(805) 640-0481  
(805) 216-1253 Cell

Chumash

Santa Ynez Band of Mission Indians  
Vincent Armenta, Chairperson  
P.O. Box 517  
Santa Ynez , CA 93460  
varmenta@santaynezchumash.org  
(805) 688-7997  
(805) 686-9578 Fax

Chumash

San Luis Obispo County Chumash Council  
Chief Mark Steven Vigil  
1030 Ritchie Road  
Grover Beach , CA 93433  
pshoemaker@santaynezchumash.org  
(805) 481-2461  
(805) 474-4729 - Fax

Chumash

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources for the proposed SCH# 2007041038, 226 & 232 Eucalyptus Hill Drive; Santa Barbara County.

**Native American Contacts**  
Santa Barbara County  
April 11, 2007

Richard Angulo  
P.O. Box 182  
Salome , AZ 85348  
Chumash

Santa Ynez Band of Mission Indians  
Sam Cohen, Tribal Administrator  
P.O. Box 517  
Santa Ynez , CA 93460  
(805) 688-7997  
(805) 686-9578 Fax  
Chumash

Carol A. Pulido  
165 Mountainview Street  
Oak View , CA 93022  
805-649-2743 (Home)  
Chumash

Melissa M. Para-Hernandez  
119 North Balsam Street  
Oxnard , CA 93030  
805-988-9171  
Chumash

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources for the proposed SCH# 2007041038, 226 & 232 Eucalyptus Hill Drive; Santa Barbara County.

## Native American Contacts

Santa Barbara County

April 11, 2007

John Ruiz  
1826 Stanwood Drive  
Santa Barbara , CA 93103  
(805) 965-8983

Chumash

Stephen William Miller  
189 Cartagena  
Camarillo , CA 93010  
(805) 484-2439

Chumash

John Sespe  
P.O. Box 303  
Pala , CA 92059  
(760) 742-2274

Chumash

Santa Ynez Tribal Elders Council  
Adelina Alva-Padilla, Chair Woman  
P.O. Box 365  
Santa Ynez , CA 93460  
elders@santaynezchumash.org  
(805) 688-8446  
(805) 693-1768 FAX

Chumash

Gilbert M. Unzueta Jr.  
571 Citation Way  
Thousand , CA 91320  
(805) 375-7229

Chumash

Randy Guzman - Folkes  
233 Maclay Street, PO BOX 308  
San Fernando , CA 91340  
ndnrandy@hotmail.com  
(805) 501-5279 (cell)

Chumash  
Fernandeño  
Tataviam  
Shoshone Paiute  
Yaqui

Diane Napoleone and Associates  
Diane Napoleone  
6997 Vista del Rincon  
La Conchita , CA 93001  
dnaassociates@sbcglobal.net  
805-643-7492

Chumash

Charles S. Parra  
P.O. Box 6612  
Oxnard , CA 93031  
(805) 340-3134 (Cell)  
(805) 488-0481 (Home)

Chumash

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources for the proposed SCH# 2007041038, 226 & 232 Eucalyptus Hill Drive; Santa Barbara County.

## PUBLIC UTILITIES COMMISSION

320 WEST 4<sup>TH</sup> STREET, SUITE 500  
LOS ANGELES, CA 90013



April 27, 2007

Chelsey Swanson, Assistant Planner  
City of Santa Barbara  
P.O. Box 1990  
Santa Barbara, CA 93101

Dear Ms. Swanson:

Re: SCH# 2007041038; 226 & 232 Eucalyptus Hill Drive

As the state agency responsible for rail safety within California, we recommend that the development project at Eucalyptus Hill Road and Alston Road (lat= 34.433195, long= -119.666584) planned adjacent to or near the Union Pacific Railroad Company right-of-way be planned with the safety of the rail corridor in mind. New developments may increase traffic volumes not only on streets and at intersections, but also at at-grade highway-rail crossings. This includes considering pedestrian circulation patterns/destinations with respect to railroad right-of-way. Commission staff is particularly concerned with increased congestion at these nearby grade crossings:

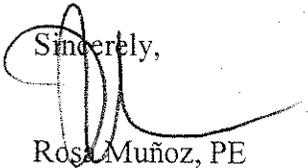
1. Milpas Street (DOT 745614U, lat= 34.419036, long= -119.672592)
2. Calle Cesar Chavez (DOT 745605V, lat= 34.416699, long= -119.680166)
3. Los Patos Way (DOT 745615B, lat= 34.422417, long= -119.656563)

Safety factors to consider include, but are not limited to, the planning for grade separations for major thoroughfares, improvements to existing at-grade highway-rail crossings due to increase in traffic volumes and appropriate fencing to limit the access of trespassers onto the railroad right-of-way.

The above-mentioned safety improvements should be considered when approval is sought for the new development. Working with Commission staff early in the conceptual design phase will help improve the safety to motorists and pedestrians in the City.

Please advise us on the status of the project. If you have any questions in this matter, please contact me at (213) 576-7078 or at [rxm@cpuc.ca.gov](mailto:rxm@cpuc.ca.gov).

Sincerely,

  
Rosa Muñoz, PE  
Utilities Engineer  
Rail Crossings Engineering Section  
Consumer Protection & Safety Division

C: Dan Miller, UP

State of California - The Resources Agency

ARNOLD SCHWARZENEGGER, Governor

**DEPARTMENT OF FISH AND GAME**

<http://www.dfg.ca.gov>  
4949 Viewridge Avenue  
San Diego, CA 92123  
(858) 467-4201



May 8, 2007

Chelsey Swanson, Assistant Planner  
City of Santa Barbara  
P.O. Box 1990  
Santa Barbara, CA 93102-1990  
Fax No.: (805) 897-1904

**Draft Mitigated Negative Declaration for the  
226 & 232 Eucalyptus Drive Project  
SCH #2007041038, Santa Barbara County**

Dear Ms. Swanson,

The Department of Fish and Game (Department), has reviewed the Draft Mitigated Negative Declaration (DMND) reference above, for impacts to biological resources. The project applicant proposes to construct four dwellings with garages on two reconfigured parcels totaling approximately 5.5 acres at the above addresses in the City of Santa Barbara. The project would include construction and installation of driveways and utilities.

Coast live oak woodlands will potentially be impacted by the proposed project. Impacts associated with the proposed project include the removal of 51 non-native trees (predominantly eucalyptus and acacia) and 4 coast live oak (*Quercus agrifolia*). Wildlife with the potential to be impacted by the project includes the State Special Concern Species Cooper's hawk (*Accipiter cooperi*). Measures proposed to mitigate impacts include an oak tree protection and replacement plan, including the planting of 70 one-gallon oak trees.

We prepared the following statements and comments pursuant to our authority as Trustee Agency with jurisdiction over natural resources affected by the project (CEQA Guidelines §15386(a)). As trustee for the State's fish and wildlife resources, we have jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species.

**Impacts to Nesting Birds**

All migratory nongame native bird species are protected by international treaty under the Federal Migratory Bird Treaty Act (MBTA) of 1918 (50 C.F.R. Section 10.13). Sections 3503, 3503.5 and 3513 of the California Fish and Game Code prohibit take of birds and their active nests, including raptors and other migratory nongame birds listed under the MBTA. Proposed project activities (including tree removal and other disturbances to vegetation) should therefore take place outside of the breeding bird season (February 1- August 15) to avoid take (including disturbances which would cause abandonment of active nests containing eggs and/or young). If project activities cannot feasibly be avoided during the breeding bird season, the Department recommends that beginning thirty days prior to the disturbance of suitable nesting habitat the

Ms. Chelsey Swanson  
May 8, 2007  
Page 2 of 3

project proponent should conduct weekly bird surveys to detect protected native birds in the habitat to be removed and other such habitat within 300 feet of the construction work area (within 500 feet for raptors) as access to adjacent properties allow. The surveys should be conducted by a qualified biologist with experience in conducting breeding bird surveys. The surveys should continue on a weekly basis with the last survey being conducted no more than three days prior to the initiation of clearance/construction work. If an active nest is located, clearing and construction within 300 feet of the nest (within 500 feet for raptor nests) or as determined by a biological monitor, must be postponed until the nest is vacated and juveniles have fledged and when there is no evidence of a second attempt at nesting.

Limits of construction to avoid a nest should be established in the field with flagging and stakes or construction fencing, marking the protected areas 300 feet (or 500 feet) from the nest. Construction personnel should be instructed on the sensitivity of the area. The project proponent should record the results of the recommended protective measures described above to document compliance with applicable State and Federal laws pertaining to the protection of native birds.

#### **Impacts to Sensitive Biological Resources**

The Preliminary Grading, Drainage and Utility Plan for the proposed project includes a ten-foot wide easement through the southern portion of the project site for sewer and drainage. The Department assumes this easement will result in ground disturbance for the placement of these utilities. The easement runs through a portion of the project site which appears may contain oak woodland. The potential impact from this action was not evaluated in the DMND, and we recommend biological surveys be conducted along the proposed easement.

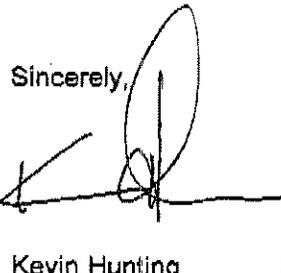
Rare Plants - The DMND checklist for Biological Resources states no special-status plants would be impacted by the proposed project. However, after reviewing the attached biological resources survey reports, we did not find that plant surveys were conducted according to the "Department Guidelines for Assessing the Effects of Proposed Projects on Rare, Threatened, and Endangered Plants and Natural Communities" (Guidelines, attached). The Guidelines give clear instructions on how surveys for rare plants should be conducted. One of the instructions (4a) is to conduct surveys at the proper time of year when rare species are both evident and identifiable. Usually, this is when the plants are flowering. The plant surveys for the proposed project were conducted in September and October, which is problematic for several species of rare plants that can only be reliably identified when flowering in the spring. We recommend surveys for rare plants on the project site be conducted according to the Guidelines.

The Department does not believe a thorough description of the affected environment has been presented in the DMND. The DMND does not adequately evaluate potential project impacts or include appropriate mitigation for those impacts. We recommend re-surveying the site for both plant and animal communities. The discrepancy between information listed in the document and information collected during our review, indicates the DMND is inadequate and should be revised and re-circulated prior to adoption.

Ms. Chelsey Swanson  
May 8, 2007  
Page 3 of 3

Thank you for this opportunity to provide comment. Questions regarding this letter and further coordination on these issues should be directed to Mr. Martin Potter, Wildlife Biologist, at (805) 640-3677.

Sincerely,



Kevin Hunting  
Acting Regional Manager  
South Coast Region

attachment

- cc: Ms. Betty Courtney  
Department of Fish and Game  
Newhall, California
  
- Mr. Martin Potter  
Department of Fish and Game  
Ojai, California
  
- Mr. Scott Morgan  
State Clearinghouse  
Sacramento, California

## Guidelines for Assessing the Effects of Proposed Projects on Rare, Threatened, and Endangered Plants and Natural Communities

State of California  
THE RESOURCES AGENCY  
Department of Fish and Game  
December 9, 1983  
Revised May 8, 2000

The following recommendations are intended to help those who prepare and review environmental documents determine when a botanical survey is needed, who should be considered qualified to conduct such surveys, how field surveys should be conducted, and what information should be contained in the survey report. The Department may recommend that lead agencies not accept the results of surveys that are not conducted according to these guidelines.

1. Botanical surveys are conducted in order to determine the environmental effects of proposed projects on all rare, threatened, and endangered plants and plant communities. Rare, threatened, and endangered plants are not necessarily limited to those species which have been "listed" by state and federal agencies but should include any species that, based on all available data, can be shown to be rare, threatened, and/or endangered under the following definitions:

A species, subspecies, or variety of plant is "endangered" when the prospects of its survival and reproduction are in immediate jeopardy from one or more causes, including loss of habitat, change in habitat, over-exploitation, predation, competition, or disease. A plant is "threatened" when it is likely to become endangered in the foreseeable future in the absence of protection measures. A plant is "rare" when, although not presently threatened with extinction, the species, subspecies, or variety is found in such small numbers throughout its range that it may be endangered if its environment worsens.

Rare natural communities are those communities that are of highly limited distribution. These communities may or may not contain rare, threatened, or endangered species. The most current version of the California Natural Diversity Database's List of California Terrestrial Natural Communities may be used as a guide to the names and status of communities.

2. It is appropriate to conduct a botanical field survey to determine if, or to the extent that, rare, threatened, or endangered plants will be affected by a proposed project when:
  - a. Natural vegetation occurs on the site, it is unknown if rare, threatened, or endangered plants or habitats occur on the site, and the project has the potential for direct or indirect effects on vegetation; or
  - b. Rare plants have historically been identified on the project site, but adequate information for impact assessment is lacking.
3. Botanical consultants should possess the following qualifications:
  - a. Experience conducting floristic field surveys;
  - b. Knowledge of plant taxonomy and plant community ecology;
  - c. Familiarity with the plants of the area, including rare, threatened, and endangered species;
  - d. Familiarity with the appropriate state and federal statutes related to plants and plant collecting; and,
  - e. Experience with analyzing impacts of development on native plant species and communities.
4. Field surveys should be conducted in a manner that will locate any rare, threatened, or endangered species that may be present. Specifically, rare, threatened, or endangered plant surveys should be:
  - a. Conducted in the field at the proper time of year when rare, threatened, or endangered species are both evident and identifiable. Usually, this is when the plants are flowering.

When rare, threatened, or endangered plants are known to occur in the type(s) of habitat present in the project area, nearby accessible occurrences of the plants (reference sites) should be observed to determine that the species are identifiable at the time of the survey.

- b. Floristic in nature. A floristic survey requires that every plant observed be identified to the extent necessary to determine its rarity and listing status. In addition, a sufficient number of visits spaced throughout the growing season are necessary to accurately determine what plants exist on the site. In order to properly characterize the site and document the completeness of the survey, a complete list of plants observed on the site should be included in every botanical survey report.
  - c. Conducted in a manner that is consistent with conservation ethics. Collections (voucher specimens) of rare, threatened, or endangered species, or suspected rare, threatened, or endangered species should be made only when such actions would not jeopardize the continued existence of the population and in accordance with applicable state and federal permit requirements. A collecting permit from the Habitat Conservation Planning Branch of DFG is required for collection of state-listed plant species. Voucher specimens should be deposited at recognized public herbaria for future reference. Photography should be used to document plant identification and habitat whenever possible, but especially when the population cannot withstand collection of voucher specimens.
  - d. Conducted using systematic field techniques in all habitats of the site to ensure a thorough coverage of potential impact areas.
  - e. Well documented. When a rare, threatened, or endangered plant (or rare plant community) is located, a California Native Species (or Community) Field Survey Form or equivalent written form, accompanied by a copy of the appropriate portion of a 7.5 minute topographic map with the occurrence mapped, should be completed and submitted to the Natural Diversity Database. Locations may be best documented using global positioning systems (GPS) and presented in map and digital forms as these tools become more accessible.
5. Reports of botanical field surveys should be included in or with environmental assessments, negative declarations and mitigated negative declarations, Timber Harvesting Plans (THPs), EIR's, and EIS's, and should contain the following information:
- a. Project description, including a detailed map of the project location and study area.
  - b. A written description of biological setting referencing the community nomenclature used and a vegetation map.
  - c. Detailed description of survey methodology.
  - d. Dates of field surveys and total person-hours spent on field surveys.
  - e. Results of field survey including detailed maps and specific location data for each plant population found. Investigators are encouraged to provide GPS data and maps documenting population boundaries.
  - f. An assessment of potential impacts. This should include a map showing the distribution of plants in relation to proposed activities.
  - g. Discussion of the significance of rare, threatened, or endangered plant populations in the project area considering nearby populations and total species distribution.
  - h. Recommended measures to avoid impacts.
  - i. A list of all plants observed on the project area. Plants should be identified to the taxonomic level necessary to determine whether or not they are rare, threatened or endangered.
  - j. Description of reference site(s) visited and phenological development of rare, threatened, or endangered plant(s).
  - k. Copies of all California Native Species Field Survey Forms or Natural Community Field Survey Forms.
  - l. Name of field investigator(s).
  - j. References cited, persons contacted, herbaria visited, and the location of voucher specimens.

## **Christopher Flynn, MD**

---

875 Woodland Drive • Santa Barbara, CA 93108 • Tel 805-565-9078

---

April 18, 2007

City of Santa Barbara Planning Commission  
Attention: Chelsey Swanson, Assistant Planner  
P.O. Box 1990  
Santa Barbara, CA 93102-1990

**RECEIVED**

JUN 11 2007

CITY OF SANTA BARBARA  
PLANNING DIVISION

To: Planning commission regarding 226 and 232 Eucalyptus Hill Project

MST2004-00349

I am a homeowner living directly below the proposed expansion project of 226 and 232 Eucalyptus Hill roads. I am completely opposed to the development and expansion of this property site for several reasons listed below.

1) Environmental concerns;

Water and soil erosion are a large problem in this area. I have spent thousands of dollars this past two years trying to manage the natural seepage of ground water from irrigation, natural moisture, and a small swimming pool in my backyard. The soil in this area is clay and shale, and does not absorb moisture. Any additional water will run or seep directly into my property and further threaten my home foundation. There is no way to engineer the landscape above my property to insure that the water from four homes for irrigation and swimming pools will not directly increase the drainage of water to the homeowners below.

Soil erosion is going to be increased by the expansion of the property and removal of a Eucalyptus tree grove. One of the reasons we moved into this location was the beauty of the natural tree grove behind our property. The owners have already started partial clearing, and completely removing all of these trees would impact wildlife and increase erosion.

2) Privacy concerns:

The proposed plan is to change the alignment of the properties into an upper and lower parcel. I would object to this plan because it imposes on the privacy of my home. Approval of the plan to place four homes on this site will attempt to provide scenic ocean views at the expense of my privacy.

---

---

We are a family of five members, and two of my daughters are teenagers. I would not agree to the plan of breaking the property into an upper and lower arrangement. There is really no way to allow expansion on the lower part of this property without looking directly into my bedroom windows and private backyard. If this property were to be expanded than I would demand that my privacy be respected. I would be opposed to any large bay windows overlooking my property. Decks, pool areas, and other outside areas would have to be positioned away from direct visualization of my home. I would urge the planning commission to really keep in mind that this project is trying to put forth an aggressive, high-density group of homes in an area that is normally single-family homes with large lot sizes.

### 3) Property Value

Encroachment of the privacy and increased housing density above my current home would directly affect the value of my home. When I moved to this area there was a Eucalyptus grove of trees above my home that is now to be expanded into four hillside homes looking into my backyard. This expansion if approved would definitely decrease the value of my home, and possibly force me to move.

In summary, I would urge the planning committee to reject the expansion and development of this property. There are definite environmental problems with ground water and soil erosion affecting my property. There is no way to irrigate four homes, maintain swimming pools, and control the run-off coming directly through my hillside. This project in my mind is overly aggressive and attempts to increase the density of homes in a high fire district with poor soil. The proposed lot line adjustment between the two properties would not be in keeping with the design and planning of the neighborhood. If the lower parcel homes were built they would be placed directly over my backyard and would infringe on my privacy.

Sincerely,

A handwritten signature in black ink, appearing to read "Chris Flynn", with a long horizontal flourish extending to the right.

Chris Flynn, MD

City of Santa Barbara Planning Commission  
Attention: Chelsey Swanson, Assistant Planner  
P.O. Box 1990  
Santa Barbara, CA 93102-1990

To: Planning commission

April 19, 2007

Regarding: 226 and 232 Eucalyptus Hill Project MST2004-00349

The undersigned homeowners on Woodland Drive are opposed to the expansion and development of the hillside property on 226 and 232 Eucalyptus Hill Drive. As neighbors living on a hillside community we are concerned about the health and safety of our homes that may be threatened if this project is approved.

Environmental concerns;

Water and soil erosion are a large problem in this area. Hillside drainage and seepage occurs naturally and is currently under control. This is partly due to lower levels of rainfall, and the sparse number of homes located on Eucalyptus Hill Drive. Any further expansion of the hillside above is going to increase the water runoff from irrigation and drainage from swimming pools. Grading this large area coupled with heavy rainfall and increased moisture could potentially destabilize the hillside resulting in damage to the surrounding neighborhood homes.

The soil in this area is clay and shale, and does not easily absorb moisture. Any additional water will run or seep directly into our properties and further threaten our ground foundations. There is no way to engineer the landscape above Woodland Drive properties to insure that the water from four homes for irrigation and swimming pools will not directly increase the drainage of water our homes.

Soil erosion is going to be increased by the expansion of the property and removal of a Eucalyptus tree grove. The Eucalyptus grove is not only beautiful, but it protects the ridgeline from erosion. The owners have already started partial clearing, and completely removing all of these trees would impact wildlife and increase erosion.

In summary, we urge the planning committee to reject the expansion and development of this property. There are definite environmental problems with ground water and soil erosion affecting this neighborhood hillside. There is no way to irrigate four homes, maintain two swimming pools, and control the run-off coming directly towards the residents of Woodland Drive. This project attempts to increase the density of homes in a high fire district with poor soil. The proposed lot line adjustment between the two properties would not be in keeping with the design and planning of the neighborhood. If the lower parcel homes

were built there would have to be more removal of a natural Eucalyptus grove, and this could potentially cause further erosion or mudslides from the hillside.

If this project is approved and causes subsequent erosion and/or water damage and/or flooding, we shall collectively pursue all legal remedies available to us under the law.

---

Ernest Solomon Date 4-21-07

Ernest Solomon

855 Woodland Drive

Donna L. Solomon Date 4-21-07

Donna L. Solomon

855 Woodland Drive

George Alexiades Date 4-20-07

George Alexiades

845 Woodland Drive

Robert Heavner Date 4/21/07

Robert Heavner

840 Woodland Drive

Elaine Heavner Date 4/21/07

Elaine Heavner

840 Woodland Drive

# RAKE & BUTASH

April 30, 2007

Chelsey Swanson  
Assistant Planner  
City of Santa Barbara Planning Division  
P.O. 1990  
Santa Barbara, California 93102-1990

Dear Ms. Swanson,

I have received notice of the Draft Negative Declaration – MST2004-00349 pertaining to the four new residences and garages to be constructed at 226 and 232 Eucalyptus Hill Drive. As the property owner of 840 Norman Lane, the land directly downhill from the new construction site, I have a few concerns which I hope you will be able to address.

When I purchased my property almost six years ago one of the biggest selling points was the glorious eucalyptus forest behind the land. It was told to me that it was zoned for one home and one guest house on the top of the properties. No development would be permitted as it was an unofficial wildlife sanctuary. Over the years it has been just that. An amazing sanctuary for birds, deer, butterflies and other creatures that have been pushed out of their natural habitat because of the continuous development of open land. The birds especially are in danger of losing their nesting sites with the destruction and removal of the large trees where they nest. Please encourage the new owners to be cognizant and conservative.

Drainage is a very large issue. I have a city-maintained drain on my upper terrace that on the occasion of a huge deluge, completely overflows because of an underground stream from the property above, the property in question I believe. I have been hesitant to call attention to this as it occurs two to three times a year and my landscapers are able to handle it as best they can, mostly by cleaning up the mess after the rains. With the enormity of construction proposed however, land being moved, I would expect the property owner could install a large drainage system. This would prevent any possible overload to my already-meager one, causing coursing water and dirt into our back garden and upper terrace.

The last query pertains to our mutual privacy. It is my deep concern that with the large scale of the project, privacy will be impinged upon. As the neighbors above would not like to continually be looking down on my back yard, gardens and home, we would like to maintain the mutual respect each neighbor has afforded each other. Appropriate screening would be appreciated. If story-poles and property lines could be placed to demarcate the areas and height of buildings, property lines and set-backs from each property, it would allow more perspective of the project without further nervous speculation.

It would be a pleasure to meet my new neighbors, their architect and landscapers to discuss these issues further. I have already reviewed the plans so it is my hope that we can work on this together.

Most sincerely,

A handwritten signature in cursive script that reads "Susannah E. Rake". The signature is fluid and elegant, with a large initial 'S' and a long, sweeping tail on the 'e'.

Susannah E. Rake  
840 Norman Lane  
Santa Barbara, California 93108  
969-2763

Comment and Questions pertaining to the Initial Study/ Environmental Checklist for  
MST2004-00349

PROJECT: 226-232 Eucalyptus Hill Road

Deadline for submission: May 7, 2007

RECEIVED

MAY 07 2007

CITY OF SANTA BARBARA  
PLANNING DIVISION

LEGAL ISSUE WITH PUBLIC NOTICES:

My wife and I own the property located at 850 Woodland Drive, a property we intend for retirement. Could you please check your public notice records on this project to see if past notices were sent to us, as we have no record of them?

The first notice we are aware of pertaining to this matter is the "Notice of Intent to Adopt the Draft Negative Declaration for -MST2004-00349", postmarked April 5, 2007. In light of this absence of prior notice we feel we have had no opportunity to speak in connection with a matter which went before the Architectural Review Board and has been tentatively approved. And now we understand that the property located at 860 Woodland Dr. has been added to the project but that this information may not have been made a part of the previous legal notice. Our first question then is whether or not the Architectural Review Board members were aware of this information? More pointedly, did they review the proposal to provide drainage piping through 860 Woodland Dr. to outflow onto Woodland Drive as a solution to the drainage development needs? If 860 Woodland Dr. was not part of the original reviews, shouldn't the public notice be amended to include it now and such notice be served again to all effected property owners in order to clarify this oversight? This would give the Architectural Review Board a complete picture of the project and presumably meet city legal notice requirements.

In light of this confusion would you please explain to us as owners of 850 Woodland Dr. what our legal rights to notice are in a matter such as this? We certainly had no idea that 860 Woodland Dr. was part of the project and we wonder if any project reviewing body was aware of this fact or if any other owners on Woodland Drive and Norman Lane were privy to this important information affecting our neighborhood?

As a result of not knowing about the project and the fact that 860 Woodland is now part of the project, we feel we have lost an opportunity to comment early about its potential serious drainage implications for down slope properties and the Woodland Dr./Norman Lane/Alston Road area in general.

## ADEQUACY OF THE INITIAL STUDY AND STORM WATER REPORT

Your recently received public notice requested comments and questions regarding the adequacy of both the Initial Study and the attached technical report, including the Preliminary Stormwater Study. A number of serious questions arose from our reviewing these documents. We feel these issues deserve further attention before the reports can be considered complete and final, particularly as they relate to the proposed project drainage solutions since, from our review, the drainage issues have the most significant potentially negative impacts on our neighborhood. We feel that more thought and analysis is needed from a Licensed Civil Engineer who can certify a properly prepared Drainage Plan for the project. Too, we strongly believe that the Civil Engineer should not be associated with this project in order to ensure an arms length analysis for an engineering solution to a serious drainage problem.

Water and Drainage issues are noted in the report as having a significant impact on surrounding properties and we agree but feel the seriousness of the matter is understated and acceptable alternative recommendations are missing from consideration.

### PROPOSED 24 INCH DIAMETER STORM DRAIN PIPE

A 24 inch diameter pipe out-letting on Woodland Drive would be extremely unsightly and create a manmade obstruction to the current aesthetic landscape surroundings of an already completely improved single family residential neighborhood. Just notice the scar on the hillside which can be seen from afar on T V Hill to get an idea of how a drain pipe installation impacts hillside aesthetics. The proposed pipe has a 90 degree bend in it that would necessitate constructing a manhole and major thrust block works to handle the force of the turn and this proposed to be constructed on a steep hillside location, both less than desirable conditions.

Next, and more significant, is that the magnitude of water flow from a 24 inch diameter pipe is potentially horrendous—though it is estimated that this size provides runoff capacity for a 25 year storm. Such major water flows should be assessed from its origin, at the development site, all the way to its termination at some natural watercourse to meet sound engineering standards. Yet, many important considerations such as this do not appear in the report. For example, interestingly, a natural watershed ravine does exist on the other side of Woodland Drive, only two properties from the development.

## ADDITIONAL ALTERNATIVE PROPOSED FOR SERIOUS CONSIDERATION

Based on initial review, and for reasons detailed below, we feel the need to ask, "Wouldn't the consideration of an alternative plan to utilize the above noted *natural water course ravine* for drainage make sense, especially in view of the fact that you can get the water flow traveling to it in a shorter straight line from the development site (by way of easement), use a swale and size it for more than a 25 year storm (the preferred civil engineering approach)?" Such a swale could be hidden from view, easily serviced and, best of all, completely mitigate impacts of direct runoff water flows onto Woodland Drive, thusly preventing neighborhood disruption and potential flooding of downhill properties on Alston Road.

## PROACTIVE METHOD PROPOSED FOR CITY ACTION

Instead of having drawn out contentious Public Hearings over this matter the city can, if it *takes a proactive approach now*, potentially resolve this major impact issue before additional hearings occur. Simply conduct a neighborhood meeting with affected Homeowners together with the Project Developer, their Civil Engineering firm and appropriate City Staff to seriously consider this alternative which is an optimal engineering solution. Who benefits? Everyone, because we believe that the above alternative, if implemented, produces the best engineering solution to drainage runoff with minimal impacts on the Woodland Dr. Neighborhood and the city's infrastructure. While we do not oppose the idea of building new homes, the development site's drainage issues are so problematic, and we believe understated, that serious proactive action by the city is required now to avoid a public fiasco.

Short of the alternative above there are so many questions concerning drainage that strong consideration might well be given now to the preparation of a highly focused Environmental Impact Report, to fully explore the ramifications of less optimal drainage solutions for the project and it's impacts on the Woodland /Norman Lane /Alston Road neighborhood.

## SERIOUS CONCERNS ABOUT PROPOSED DRAINAGE PIPE SOLUTION

Can Woodland Dr. even handle the potential water flows? There are no public storm drains in the 800 block of Woodland Dr and we found no mention in the report about downhill storm drain facilities or their capacities. We had to research that aspect on our own. Having done so, we now feel the street storm drains downhill from Woodland Dr. are questionable as to their carrying capacity for additional flows due to their size, age and poor location. They most certainly are not located in a spot conducive to good engineering drainage principles. How realistic is it to expect, for example, that rushing storm water from the top of Woodland Drive will find existing storm drains two blocks away? Are they adequate to carry the additional volumes? How does storm water travel downhill on Woodland and then turn 90 degrees to get to the public and most likely inadequately sized storm drain at Augusta Lane two blocks away in the first place, far from the runoff point of origin?

Also, how is it proposed to prevent large volumes of water from rushing down Woodland Dr., breaching Alston Road, and flooding residential properties on the other side? Could the final report please address these important considerations in detail?

My wife and I don't claim to be Engineers, but our efforts have put this potential amount of water flow into terms we can understand. One cubic foot per second (1 CFS) of water is equal to 440 gallons of water per minute flowing onto Woodland Drive. Using numbers from the Storm Water Report recommendations (7.6 CFS), as much as 3,344 gallons of water per minute could flow onto Woodland Drive. By comparison, a garden hose releases about 10 gallons of water per minute. Even municipal water wells produce a flow of only about 1/5 of the flows that could result on Woodland Drive from the proposed 24 inch drainage pipe and swale.

So, at this point, we must conclude that that provision of a 24 inch diameter drainage pipe and swale to handle the runoff from the proposed project is a very poor engineering solution. Other more optimal alternatives for a drainage plan should be found, and a though Civil Engineering Plan developed and certified by an engineer (arms length from the project) and bearing the stamp of a Licensed Civil Engineer..

In short, we believe the 24 inch diameter drainage pipe idea should be abandoned as an unacceptable solution not likely to be proposed by a Licensed Civil Engineer.

While much good information is contained in the Preliminary Storm Water Report it seems to now be outdated due to the apparent evolution of this project and the addition of the storm drain pipe idea to the proposed project plans on file at the City. It should be noted that the 24 inch diameter pipe is not a recommend drainage solution proposed by Triad/Holmes Associates, Civil Engineering and Land Surveying Dated July 2006. Civil engineers are unlikely to recommend such a solution. On the other hand, they have recommended the use of a swale but with no engineering details given as to how big it would need to be to handle a 100 year storm (their recommended size) with a carrying capacity of 7.6 CFS.

Though we have no formal engineering background, we do sense that much in the report is understated versus what will in fact occur in real life conditions. This is another reason why we feel it is so necessary to obtain an arms length opinion and recommendation from a Licensed Civil Engineer not associated with the project.

Please understand that my wife and I are doing our best with the technical information provided and are responding to the City within a very short timeframe, as requested. We would like assurance that the City will use Licensed Civil Engineering expertise to formulate a complete drainage plan that utilizes standard Civil Engineering practices and provide an aesthetically acceptable design and a drainage plan that is safe for persons and property downhill from the development. Such assurances could be presented at the above noted Neighborhood Meeting if the city follows through on that idea.

Currently, it is not clear as to how the calculations in the report were established and whether they were done in concert with standard Civil Engineering practices. Please, can the Final Initial Study, or focused Environmental Impact Report, if required, state unequivocally that the engineering analysis put forth conforms to common practices by Licensed Civil Engineers? This is a crucial point for the credibility of public review. We obviously feel that the city must perform additional due diligence on this point for if the method is faulty or not common practice then perhaps the report conclusions are grossly understated as we feel they may be. If true, this could ultimately lead to an engineering disaster in terms of hazardous risk to persons and property, downhill from the development.

We believe further that there are extreme problems with the notion of providing any water storage capacity whatsoever on the hillside portion of the development. We believe the water storage nomenclature in the preliminary reports is inaccurate as it is stated in terms of *rate of flow* when the correct engineering method is to state such information in terms of its *quantity of storage capacity*. We have learned that *rate of flow*, as used in this instance, is an unacceptable standard not used by the County of Santa Barbara for analyzing water storage devices such as detention ponds for development projects. Santa Barbara County has a whole department just for reviewing drainage occurring from proposed new developments, whereas, it is unclear to us as to whether or not the City of Santa Barbara even has a Licensed Civil Engineer on staff to review or develop detailed drainage plans? This is further reason to require that the drainage plan for this project be developed in the most professional and cautious manner possible using outside arms length consultants if necessary. For to us it seems that the City has a great responsibility to all property owners downhill from the proposed development to insure that a safe, aesthetically acceptable drainage solution for the project is achieved.

Kindly address this issue in your final report as we do not want to see approved anything but a *complete and proven Civil Engineering solution* to the drainage issues surrounding this development. But we fear that the outcome we hope for may not occur if standards proposed thus far are accepted.

We believe the current storm water report at hand does not use current County standards in proposing solutions to the drainage problems associated with this development. So a major question to be addressed in the final study is, where did the methodology used come from? It is suspect because we believe it completely underestimates the required storage capacity for water. Can you verify if we may be wrong or misguided about this?

This question of accuracy is certainly important because errors in making determinations can be fatal. Sadly, we all learned this with the La Conchita failure. Storing water on hillsides is, from our point of view, ominous and threatening and, we feel, a poor engineering approach. The capacity to store water on site can super saturate the soil in an area known for its instability, such as the Barker Pass/Eucalyptus Hill areas, & can lead such storage to result in hillside failures. A review of the slope angles involved in this development are enough to lead to the conclusion that the slope can easily become unstable and fail if detention ponds are part of the drainage solution. Such a proposed solution, when you already have a completely built-up residential neighborhood complex down hill, is a situation that is untenable. Everything must be done to assure downhill owners of homes that landslides will not occur and that safety margins are built into the project. The fractured existence of earthquake faults throughout the area only compounds this risk of slope failure.

A more optimal solution to handling the water problem is to get the runoff water from the Eucalyptus Hill development to the *natural water course ravine* behind the properties on the west side of Woodland Drive. As noted above we feel such a solution is the most desirable for all. Something we learned, called a system of "rip-rap" could easily be installed in the natural outflow area in order to slow the water flow, dissipating the energy from the runoff to levels more than satisfactory to control erosion.

But here again the reports do not go far enough in exploring safer alternatives that could properly mitigate the negative environmental impacts associated with this project. As mentioned above, City assistance at a proactive neighborhood meeting could well lead to brokering an acceptable solution to all parties involved.

Of course every opportunity should be given to the developers Civil Engineers to (1) make revisions to the storm water report in light of the questions raised in this document and (2) to provide full exploration of the alternative to move water to the natural ravine which is easily capable of handling additional water flows. This may not only be a better engineering solution but one that just might offset large cost outlays for an unnecessary drainage pipe works.

Holding Public Hearings without first having a neighborhood meeting we think will prove most contentious because we doubt there will be any neighborhood support for the proposal of having drainage water in the force and magnitude proposed to flow onto Woodland Dr. with it's potential to flood downhill properties and overtax existing storm drains.

## REITERATION OF BEST DRAINAGE SOLUTION

My wife and I dislike stating the negatives here without placing emphasis on the positive possibilities. And from what we have ascertained thus far it seems that the best engineering drainage solution appears to be, hands down, the construction of a properly sized and Civil Engineered swale to be built in a short straight line directly from the Eucalyptus Hill development over to the *natural water course ravine* on the west side of Woodland Dr. The swale could carry the water through portions of the hillside where no houses exist; it could be constructed in a manner to be virtually invisible yet constructed to the highest Civil Engineering standards. Such an alternative solution would automatically militate against the hugely negative impacts resulting from the current proposed drainage approach.

Also, such an alternative, if implemented, would serve not only to handle the procedural requirements of CEQA but the substantive requirements as well. After all, it's the substantive aspects of the State Act that are of primary importance from an environmental law standpoint. And neighborhood involvement is a part of that substantive goal. So we hope our comments and idea to conduct a neighborhood meeting on this matter will be carefully considered.

## STEEP SLOPE AND DETENTION POND ISSUES

We cannot close without reiterating that we feel not enough consideration has been given to the steep slopes involved in the development of this project and the increase in impervious areas. It seems to us that, most alarming, little consideration was given to impacts associated with the stability of slopes in the 25% range and the fact that using such slopes to incorporate *steep hillside detention ponds*, is highly suspect and as pointed out potentially calamitous.

The proposed mitigation measures for the project speak mostly about steps to be taken during construction in order to mitigate rising dust from construction and sedimentation activities. Little concern, investigation and analysis has been done to develop serious and important engineering mitigation measures that will guarantee the proper handling of significant storm waters.

The engineering firm that prepared the storm water report may not even be aware of the proposal to utilize a 24 inch drainage pipe and may itself reject this plan as a poor engineering method. That firm should be given the opportunity to study this problem in detail and produce a solution in concert with the highest and most common engineering standards which can be corroborated by other Certified Civil Engineers.

No solution can be deemed adequate if it produces an adverse impact on our existing neighborhood and public storm drain facility—one conceivably never built to accept such large amounts of specifically directed runoff. We have learned that the runoff rates from new developments cannot exceed those that already exist. Perhaps the City could clarify these rules in the development of the final report on this matter. It would be most appreciated.

Lastly, we should mention again the math figures in the report and ask that they be clarified in the report's final version. The *detention ponds* are measured in square feet when such measurement is only calculated by Civil Engineers in cubic feet. Too, it is suggested that the volume of storage recommended for this project is highly questionable and calculated too low as to the real needs for this project. As noted above, the method used to calculate is not easily understood and needs to be put in Civil Engineering standard calculations. In other words, this investigation is putting forth the notion that the matter of the *detention ponds* requires much greater engineering analysis because of the formidable prospect that the parameters of the *detention areas*, as outlined, are inadequate and would need to be much, much larger.

In conclusion, though other issues may surface at Public Hearings about this new development, we certainly hope they will not cloud the seriousness and import of the drainage issue, what with its impact on a large number of nearby properties. Our fear concerning the proposed *detention ponds* is no doubt apparent. The provision of any *detention ponds* against earthquake prone and steeply sloping conditions is dangerous and is not sound engineering. Such conditions were used in the past in Hope Ranch where the hillside became super-saturated and failed. And we all remember the horrors of the La Conchita disaster. A more investigative and serious study concerning drainage for the proposed project is much deserved. Please take all measures to provide the public with a safe and aesthetically pleasing alternative—one to garner neighborhood support.

Caroline and Tony Vassallo  
Owners: 850 Woodland Dr.  
Santa Barbara, Ca.

Caroline and Tony Vassallo  
P.O. Box 50254  
Santa Barbara, Ca 93150  
Tel: 805 965-7729

cc. City Council Members  
Planning Commission Members

**DRAFT MITIGATED NEGATIVE DECLARATION  
COMMENTS AND RESPONSES  
226 AND 232 EUCALYPTUS HILL DRIVE  
MST2004-00349**

## **Aesthetics**

### **Comment**

The proposed 24" drainage line would be visible to neighbors as it heads down the steep slope on the property.

### **Response**

The proposed project would leave a 45 to 150 feet wide swath of existing Eucalyptus trees, that average 52 feet in height, along the southern property boundary. The existing trees would screen the proposed drainage line from views to the south. The project would also include planting approximately 70 Oak trees that would, when they have grown, provide additional screening of the off-site views of the drainage line. Also, the area the drainage line traverses has approximately 21% grade that is not too steep to accommodate the proposed landscaping that would include ground cover over the drainage line excavation further concealing the drainage line. Therefore the proposed drainage line would not likely be visible from off-site.

## **Biological Resources**

### **Comment**

The State of California Department of Fish and Game commented that all migratory non-game native bird species are protected under the Federal Migratory Bird Treaty Act. Taking of birds and their active nests are prohibited. Proposed project activities including tree and vegetation removal should occur outside the breeding bird season (February 1 – August 15). If project activities cannot be feasibly avoided during the bird nesting season, a qualified biologist should conduct weekly bird surveys beginning 30 days prior to the disturbance of suitable nesting habitat to identify protected nesting native birds in the habitat to be removed and other such habitats within 300 feet of the construction work area. The surveys should be conducted on a weekly basis with the last survey conducted no more than three days before construction is initiated. If an active nest is located, construction (vegetation clearing and tree removal) within 500 feet of a raptor nest and 300 feet of any other nesting bird should be postponed until the nest is vacated and juveniles have fledged.

Concern was expressed from adjacent property owner regarding the loss of the tree and nesting habitats for birds.

## **Response**

A Condition of Approval would be applied to this project which would require that construction occur outside the bird nesting season (February 1 – August 15), or that a clearance survey for nesting birds and avoidance of the area be provided if nesting bird species are identified in the project area. The following condition of approval would be applied to the project in order to address concerns related to nesting bird impacts:

**Nesting Native Birds.** Construction activities including tree and vegetation removal shall occur outside the breeding bird season (February 1 – August 15). If project activities cannot be feasibly avoided during the bird nesting season the owner shall conduct a minimum of four weekly bird surveys, using a qualified biologist with experience in conducting breeding bird surveys, approved by the City Environmental Analyst, to detect protected nesting native birds in the vegetation and trees to be removed and within 300 feet of the construction work area. The surveys shall begin 30 days prior to the disturbance of suitable nesting habitat and conducted on a weekly basis with the last survey conducted no more than three days before construction is initiated. If an active nest is located, construction within 500 feet of a raptor nest and 300 feet of any other nesting bird, vegetation clearing and tree removal shall be postponed until the nest is vacated and juveniles have fledged and there is no evidence of a second attempt at nesting. This shall be confirmed by the qualified biologist. Nesting areas to be avoided during construction shall be marked and protected with flagging and stakes or construction fencing at least 300 feet or 500 feet (if applicable) from the nest.

## **Comment**

The easement for sewer and drainage runs through the southern portion of the site that may include Oak Woodland. The potential impact from this action was not evaluated in the draft MND and biological surveys along the easement are recommended.

## **Response**

Biologists from Condor Environmental Planning Services, Inc., revisited the site on May 31, 2007, and confirmed their original conclusion that the project site does not support oak woodland. The southern portion of the property is dominated by a tall forest of Eucalyptus trees. Several coast live oak seedlings, less than one inch in diameter and less than six feet in height were observed beneath the canopy of the Eucalyptus trees. The project proposes to remove four coast live oak trees in the southern portion of the project site and will be required to mitigate their removal with the planting of 70 young oak saplings. Oak woodland does not occur on the property, therefore impacts on oak woodland would not result and further mitigation is not required.

## **Comment**

Plant surveys conducted in the technical report attached to the draft Mitigated Negative Declaration were not conducted during the proper time of the year when rare species are both evident and identifiable. These surveys would usually occur when the plants are flowering.

## **Response**

A Condor Environmental Biologist resurveyed the site on May 31, 2007, which is within the flowering period for most sensitive flowering plants expected to occur on the project site. The biologist specifically looked for rare plants that are reported from the Santa Barbara quad in the California Natural Diversity Database. The survey indicates that no sensitive plants were observed and that the project site does not include suitable habitat for these sensitive species. Since none of these species were identified on the site, project impacts on these species are not anticipated and mitigation is not required.

## **Comment**

A thorough description of the environment was not provided in the draft MND. Therefore the project does not provide an adequate impact analysis or provide adequate mitigation.

## **Response**

The Biological survey includes a more detailed description of the affected environment that is summarized in the draft MND on page 12. The draft MND indicates that according to the City Master Environmental Assessment there could be oak woodland on the site. This information is general data for the entire City that was collected some time ago. The recent biological survey for the property attached to the draft MND and the follow up survey on May 31, 2007 provides more recent and accurate data that is applicable to the required analysis. The two surveys provide sufficient data on the existing flora and fauna on the site to provide a CEQA level analysis and the analysis indicates that the project would not have any impacts not already identified in the Initial Study.

## **Cultural Resources**

### **Comment**

The Native American Heritage Commission recommends that the appropriate Information Center be contacted for a records search to determine if previous surveys have been conducted, any known resources have been recorded in the area, the probability for finding archaeological resources is low or otherwise, and if a survey is required to identify archaeological resources. If an archaeological resource survey is required a report documenting the findings would be required. The Native American Heritage Commission should be contacted to a Sacred Lands File check.

Lack of surface evidence of archaeological resources does not preclude their subsurface existence. Provisions must be made for accidentally discovered archaeological resources.

### **Response**

The city of Santa Barbara uses mapping from the Master Environmental Assessment to determine if there is a potential for archaeological resources to be present on a project site. As indicated on Page 15 of the draft MND the project is not within any archaeologically sensitive zone. Since the sensitivity mapping was prepared using

available archaeological data and consultation with professional archaeologists the potential for archaeological resources to occur in the project area is very low. A City standard Condition of Approval that would be imposed on this project would require monitoring of the initial ground disturbance on the site to ensure that any archaeological resource accidentally found during construction would be protected. The condition of approval states:

**Unanticipated Archaeological Resources Contractor Notification.** Prior to the start of any vegetation or paving removal, demolition, trenching or grading, contractors and construction personnel shall be alerted to the possibility of uncovering unanticipated subsurface archaeological features or artifacts associated with past human occupation of the parcel. If such archaeological resources are encountered or suspected, work shall be halted immediately, the City Environmental Analyst shall be notified and an archaeologist from the most current City Qualified Archaeologists List shall be retained by the applicant. The latter shall be employed to assess the nature, extent and significance of any discoveries and to develop appropriate management recommendations for archaeological resource treatment, which may include, but are not limited to, redirection of grading and/or excavation activities, consultation and/or monitoring with a Barbareño Chumash representative from the most current City qualified Barbareño Chumash Site Monitors List, etc.

If the discovery consists of possible human remains, the Santa Barbara County Coroner shall be contacted immediately. If the Coroner determines that the remains are Native American, the Coroner shall contact the California Native American Heritage Commission. A Barbareño Chumash representative from the most current City Qualified Barbareño Chumash Site Monitors List shall be retained to monitor all further subsurface disturbance in the area of the find. Work in the area may only proceed after the Environmental Analyst grants authorization.

If the discovery consists of possible prehistoric or Native American artifacts or materials, a Barbareño Chumash representative from the most current City Qualified Barbareño Chumash Site Monitors List shall be retained to monitor all further subsurface disturbance in the area of the find. Work in the area may only proceed after the Environmental Analyst grants authorization.

## **Geophysical Conditions**

### **Comment**

Detention ponds proposed on earthquake prone and steeply sloping conditions are dangerous and do not follow sound engineering practice.

### **Response**

As stated on page 15 of the draft MND, the City's Master Environmental Assessment (MEA) map indicates that the project site is located in an area that has low seismic hazard damage to all structures. The map shows no fault crossing the project site, but does identify a fault trending towards the site from the west. According to the geologic report prepared for the project, the closest active fault is the Mission Ridge Arroyo Parida-Santa

Ana Fault, located approximately one mile away and the potential for fault rupture hazard is considered low. The site is subject to ground shaking due to an earthquake. The probability of an earthquake during a major storm event when the retention basins are full is quite low. Additionally, the project site is minimally susceptible to liquefaction in the event of a strong earthquake. Therefore, impacts related to fault rupture and liquefaction associated with ground shaking are not expected to occur. The retention basins would be designed to withstand anticipated ground shaking. Therefore, the potential for earthquake induced flooding of downstream properties is low.

## **Transportation**

### **Comment**

The State of California Public Utilities Commission recommends that the proposed project be planned with the safety of the rail corridor in mind. Pedestrian circulation patterns/destinations with respect to railroad right-of-way should be considered. The Commission is concerned with increase traffic at the at-grade highway-railroad crossings located at Milpas Street, Calle Cesar Chavez, and Los Patos Way.

### **Response**

Pedestrian circulation patterns associated with the proposed project are not expected to result in increased activity at the identified highway-railroad crossings because they are a considerable distance from the project site. As indicated on Page 26 of the draft MND, the project would generate an estimated 30 average daily vehicular trips per day including 3 afternoon peak hour trips per day. The project site is located a considerable distance away from the railroad crossings. By the time project traffic has been distributed on the street system less than five peak hour trips would be expected at any intersection in the city including railroad intersections. Therefore, the project would not result in a substantial or significant increase in traffic at the railroad crossings identified.

## **Water Environment**

### **Comment**

Grading of the project site coupled with heavy rainfall could potentially destabilize the hillside resulting in damage to the surrounding neighborhood properties. Increased runoff from proposed homes and swimming pools will increase drainage to Woodland Drive homes below and other adjacent properties. Soil erosion would be increased due to the proposed homes and removal of the Eucalyptus trees. Provide additional analysis from a licensed Civil Engineer to certify a properly prepared drainage plan. The seriousness of drainage issues has been understated. Consider redirecting runoff by using the natural water course ravine and swale as a drainage solution. Woodland Drive cannot accommodate additional stormwater flows.

The 24 inch drainage pipe and swale is a poor engineering solution to handle the runoff from the proposed project, and should be abandoned and an acceptable manner to drain the project site should be developed. The use of the proposed 24 inch diameter storm drain pipe is not an appropriate drainage solution for the project. The proposed 24 inch

pipe with a 90 degree bend on a steep slope is not a desirable condition. The magnitude of stormwater flows has the potential to breach Alston Road and flood residential properties in area.

## **Response**

As indicated on page 28 of the draft MND, the project proposes two stormwater retention areas designed to retain the increased runoff for a 25-year storm event. Additionally, a 24 inch storm drain is proposed which would direct the flow from the project site across the property located at 860 Woodland Drive and into the public right-of-way. The Preliminary Stormwater Study was prepared specifically to identify increases in stormwater runoff resulting from the proposed development and to show adequacy and feasibility of the preliminary drainage design for the purpose of mitigating that increase. In the final design, the basin's outlet pipe will be sized to meter the outflow to the pre-development runoff rate as required by the City. The difference between the post-development and pre-development runoff would be detained on-site in the retention basins. The City's Building and Safety Division has reviewed the Preliminary Stormwater Study and project's drainage design and has found it to meet the City's standards.

The proposed drainage facilities are expected to improve the existing conditions. The project would establish landscaping or cover disturbed soils with structures or hardscape ensuring that operational erosion does not increase substantially. Mitigation measures that require any increase in runoff to be retained on site as well as the installation of appropriate erosion/sedimentation control devices during construction will be imposed on the project to ensure adequate drainage facilities that do not cause substantial erosion.

A detailed Erosion Control Plan will be required by the City of Santa Barbara to ensure that appropriate erosion/sediment control devices between the construction zone and adjacent areas are installed prior to grading or construction activities. The applicant will be required to submit and obtain Building Division and Public Works Department approval of a detailed erosion control plan prepared by a licensed or certified professional. The plan shall include Best Management Practices approved by the City and Regional Water Quality Control Board. Permanent sedimentation and erosion control measures will also be addressed in the Grading and Drainage Plan and Landscape Plan of the final construction documents. Therefore the project would not result in significant impacts associated with stormwater runoff and soil erosion and further mitigation is not required.

As part of the Preliminary Stormwater Study prepared by Triad/Holmes Associates, a site visit was conducted to assess and verify the topographic features of the site. Also, observed as part of the field investigation was the potential stormwater drainage path from the southerly boundary of the site to the discharge location at Woodland Drive. The project's post-development runoff rate, from a 100-year design storm was estimated to be 7.6 cubic feet per second (cfs). Based on the steepness of Woodland Drive (over 10%) and a depth of flow in the gutter of four inches, the capacity of the street would be approximately 20 cfs. Therefore, Woodland Drive could handle stormwater runoff from both the project site and existing homes on Woodland Drive.

The 24 inch drain pipe is considered a reasonable and acceptable drainage solution by both the project's registered civil engineer and City Building and Safety staff. The final grading and drainage plan would detail the storm drain pipe to ensure proper construction and calculation would be required to substantiate that the size of the drain pipe is adequate.

Although the Preliminary Stormwater Study did not specifically recommend a 24 inch storm drain pipe, it did not exclude one. The preliminary nature of the report was to show the magnitude of the stormwater runoff and the detention volume required so that a reasonable conclusion could be reached regarding the project's ability to adequately address stormwater runoff.

Concern was expressed about the proposed 24 inch pipe and the thrust forces associated with it. Thrust forces would not be a concern for the 24 inch drainage pipe proposed by the project. Thrust forces are typically only a concern in pressurized pipes such as water systems, and not for a gravity flow pipe such as storm drain and sewer systems. In a gravity flow system, the pipe material itself will withstand any minor momentum forces exerted by the flow and accordingly its analysis is not necessary.

The final design of the storm drain would be expected to include provisions for a cleanout/drop inlet structure at the 90 degree bend. Although not necessary for stability, the installation of a structure would add strength and provide lateral support to the storm drain pipe at that location.

Regarding the "magnitude of water flow," while it is true that the capacity of a 24 inch diameter pipe flow is quite large, the runoff from the developed project site is not expected to require a 24 inch storm drain pipe. The proposed 24 inch pipe was not sized as a part of the study and is shown on the Preliminary Grading and Drainage Plan simply as a means to convey stormwater to the public right-of-way in a non-erosive manner. The pipe could be substantially smaller and still be able to handle the required flow volumes associated with the project. However, it should be noted that larger systems tend to be easier to maintain and have a reduced chance of becoming clogged and operate more properly. Prior to the issuance of building permits, the applicant will be required to submit a final grading and drainage plan prepared by a licensed civil engineer. The final grading and drainage plan will be required to provide calculations that support the final sizing of the drainage facilities.

The project proposes to redirect the drainage to curb inlets in Alston Road via the property located at 860 Woodland Drive instead of through the previous receiving downstream properties, thus reducing drainage impacts previously experienced by downhill neighbors. Additionally, check dams are proposed downhill of the detention basin to assist in intercepting drainage from the development. The southeast corner of the site will remain undisturbed and runoff from that portion of the site will continue to be tributary to the portion of Alston Road sloping to the east. Stormwater runoff resulting from the proposed project and breaching Alston Road and flooding adjacent properties is not expected to occur.

### **Comment**

Consider the natural watercourse ravine as an alternative drainage solution.

## **Response**

Using the natural watercourse ravine and swale to redirect stormwater runoff would be problematic. This alternative solution would require that the swale intercept drainage from all the properties uphill and between the project site and the ravine. The swale would have to be sized to not only transmit stormwater from the proposed project site, but also for all stormwater runoff that would cross the path of the proposed swale. Additionally, discharging directly into the natural ravine would pose environmental and regulatory issues including additional disruption of vegetation and grading requirements. Further, obtaining easements from the affected property owners to allow construction of a swale through their properties is not assured.

## **Comment**

The Preliminary Stormwater Study analysis has understated project impacts. The study uses water storage nomenclature that is inaccurate and unacceptable as it is stated in terms of *rate of flow*, rather than *quantity of storage capacity*

## **Response**

The Preliminary Stormwater Study used design storm criteria developed by the County of Santa Barbara and accepted by the City of Santa Barbara. In addition, the study was prepared by a registered civil engineer. By stamping and signing the report the engineer has accepted responsibility that the report was properly prepared in accordance with Civil Engineering practices.

With respect to the comment that the water storage nomenclature is inaccurate and unacceptable as it is stated in terms of *rate of flow*, rather than *quantity of storage capacity*, in the Preliminary Stormwater Study the *rate of flow* is used as a method of sizing the required detention volume, as explained on page 6 of the report (Retention of Volume Calculation). The sizing of the detention volume followed a method accepted by the City. As previously indicated, City staff has reviewed the Preliminary Stormwater Study prepared for the project and has found it acceptable. The project will be required to retain any increased runoff on site. Final project plans for grading, drainage, stormwater facilities and project development will be reviewed and approved by the Building and Safety Division and Public Works Department to ensure compliance with City regulations. The City will require that sufficient engineered design and adequate measures be implemented to avoid construction related and long-term drainage and water quality impacts.

## **Alternatives**

### **Comment**

The review of the project did not include a discussion of alternatives. The existing lot configuration should be compared to the proposed configuration and should consider runoff potential, loss of habitat, expansive soils and slope, fire and safety access and grading and debris removal.

## **Response**

Mitigated Negative Declarations are not required to evaluate alternatives. This is because all of the project impacts either do not rise to the level that they are significant or they do rise above the level of significance and have been reduced to below that level with the application of mitigation measures.

H:\Group Folders\PLAN\Environ. Review\Initial Studies\226 & 232 Eucalyptus Hill Drive Response to Comments for MND.doc

226 & 232 EUCALYPTUS HILL DRIVE  
MST2004-00349

MITIGATION MONITORING AND REPORTING PROGRAM

PURPOSE

The purpose of the 226 & 232 Eucalyptus Hill Drive Project Mitigation Monitoring and Reporting Program (MMRP) is to ensure compliance with all mitigation measures identified in the Final Mitigated Negative Declaration to mitigate or avoid potentially significant adverse environmental impacts resulting from the proposed project. The implementation of this MMRP shall be accomplished by the Applicant and their representatives. The MMRP program shall apply to all of the actions occurring under the Permit for the 226 & 232 Eucalyptus Hill Drive project.

I. RESPONSIBILITIES AND DUTIES

A qualified representative from the Applicant, approved by the City Planning Division and paid for by the Applicant shall be designated as the Project Environmental Coordinator (PEC). The PEC shall be responsible for assuring full compliance with the provisions of this mitigation monitoring and reporting program to the City for actions undertaken under the 226 & 232 Eucalyptus Hill Drive Project. The PEC shall have authority over all other monitors/specialists, the contractor, and all construction personnel for those actions that relate to the items listed in this program.

It is the responsibility of the Applicant to comply with all mitigation measures listed in the attached MMRP matrix table. Any problems or concerns between monitors and construction personnel shall be addressed by the PEC. Staff and/or contractors hired to do work under the 226 & 232 Eucalyptus Hill Drive Project shall provide a schedule of activities for review and approval of the PEC. The staff or contractor shall inform the PEC of any major revisions to the construction schedule at least 48 hours in advance. The PEC, staff, and contractor shall meet on a weekly basis in order to assess compliance and review future activities anticipated under the construction of the 226 & 232 Eucalyptus Hill Drive Project.

A PRE-IMPLEMENTATION BRIEFING

The PEC shall prepare a pre-implementation briefing report. The report shall include a list of all mitigation measures and a plot plan delineating all sensitive areas to be avoided. This report shall be provided to all personnel performing work under this permit.

The pre-implementation briefing shall be conducted by the PEC. The briefing shall be attended by the PEC, supervisors of staff working on the project, necessary consultants, Planning Division Case Planner, and all contractors and subcontractors associated with the project. Additional pre-construction briefings shall be conducted when changes in the PEC, staff working on the project and a change in contractor occurs.

This MMRP shall be presented to those in attendance at the meeting. The briefing presentation shall include project background, the purpose of the MMRP,

duties and responsibilities of each participant, communication procedures, monitoring procedures, filling out of the mitigation monitoring matrix and summary reports, and duties and responsibilities of the PEC, staff, contractors, and project consultants.

It shall be emphasized at this briefing that the PEC and project consultants have the authority to stop construction and redirect construction equipment in order to comply with all mitigation measures.

## II. IMPLEMENTATION PROCEDURES

### A. REPORTING PROCEDURES

The PEC for shall utilize the MMRP Matrix Table, attached to the Addendum to the Mitigated Negative Declaration, as the basis for daily monitoring of activities approved as a part of the project. As long as no compliance with mitigation measure issues is identified on the completed matrix table, the MMRP forms shall be kept on file by the PEC. If the PEC identifies non-compliance or other problems with mitigation measure issues, the completed forms shall be forwarded to the Environmental Analyst in the Planning Division. In addition, monthly summary reports and annual summary reports on the mitigation monitoring program shall be submitted to the Planning Division by the PEC.

### A. MMRP MATRIX

The following MMRP Matrix Table provides each mitigation measure, identifies the responsible party, and allows the monitor to indicate the date monitoring occurred, whether the mitigation measure has been implemented, and comments on activities, if necessary. .

The MMRP Matrix Table is intended to be used by all parties involved in monitoring the project mitigation measures, as well as project contractors and others working in the field. The Matrix Table shall be used as a compliance checklist to aid in compliance verification and monitoring requirements for all activities conducted under the 226 & 232 Eucalyptus Hill Drive Project, whenever activities authorized under this permit are conducted. A copy of the MMRP matrix table shall be kept in the project file by the PEC as verification that compliance with all mitigation measures has occurred.

**226 & 232 EUCALYPTUS HILL DRIVE (MST2004-00349)  
MITIGATION MONITORING AND REPORTING PROGRAM MATRIX TABLE**

MITIGATION MEASURE	PARTY RESPONSIBLE FOR IMPLEMENTATION	VERIFICATION		
		Date	Accomplished?	Comments
<p>Oak Tree Protection. Tree protection measures for oaks, as recommended in the Oak Tree Protection Plan dated September 21, 2006, shall be followed for the duration of all grading and construction activities associated with the project. (B-1)</p>				
<p>Habitat Protection. The two eucalyptus trees identified as a great horned owl roost and an acorn granary, shall be retained and protected per the recommendations of the Biological Assessment dated October 26, 2006, and as noted on the Tree Preservation Plan. (B-3)</p>				
<p>High Fire Vegetation Management. Residences located in the High Fire Hazard area are required to maintain vegetation to create an effective fuel break by thinning dense vegetation (mosaic style) and removing dry brush, flammable vegetation and combustible growth from areas within 100 feet of all buildings or structures. The owner(s) shall perform the following maintenance annually for the life of the project:</p> <ol style="list-style-type: none"> <li>Cut and remove hazardous brush, shrubs, and flammable vegetation such as dry grass and weeds within 100 feet of any structure and within 2 inches of the ground.</li> <li>Thin brush from streets and driveways both horizontally and vertically along the property. Flammable vegetation must be cleared on each side of the street or driveway for a distance of 10 feet and a vertical distance of 13 feet, 6 inches. Vegetation must be cut to within 2 inches of the ground. This applies to the public or private driveway and any public or private streets that border the property.</li> <li>Remove dead wood, trim the lower branches, and limb all live trees to 6 feet above the ground (or as much as possible with younger, smaller trees), especially trees adjacent to buildings.</li> <li>Trim tree limbs back a minimum distance of 10 feet from any chimney opening.</li> <li>Remove all dead trees from the property.</li> <li>Maintain the roof of all structures free of leaves, needles or other vegetative debris.</li> <li>Legally dispose of all cut vegetation, including any debris left from previous tree trimming and brush removal. Cut vegetation may be chipped and spread throughout the property as a ground cover, up to 12 inches in depth, and at least 30 feet from any structure. (H-1)</li> </ol>				

**226 & 232 EUCALYPTUS HILL DRIVE (MST2004-00349)  
MITIGATION MONITORING AND REPORTING PROGRAM MATRIX TABLE**

MITIGATION MEASURE	PARTY RESPONSIBLE FOR IMPLEMENTATION	VERIFICATION		
		Date	Accomplished?	Comments
<p>Drainage and Water Quality. Any increase in runoff above existing conditions shall be retained on site, consistent with the City's NPDES Guidelines. Project plans for grading, drainage, stormwater facilities, and project development, shall be subject to review and approval by City Building Division and Public Works Department per City regulations. Sufficient engineered design and adequate measures shall be employed to ensure that no significant construction-related or long-term effects from increased runoff, erosion and sedimentation, urban water quality pollutants, or groundwater pollutants would result from the project. The Owner shall maintain the storm drain and retention areas consistent with an approved maintenance plan. This plan shall be provided with the building plan submittal for review and approval by Community Development prior to approval of building permits. (W-1)</p>				
<p>Storm Water Pollution Control Systems Maintenance. The Owner(s) shall maintain the drainage system, storm drain and other storm water pollution control devices in accordance with the Operations and Maintenance Procedure Plan approved by the Building Official and/or Public Works Director.</p>				
<p>Participation in the Eucalyptus Hill Vegetation Management Unit. Participation in the Eucalyptus Hill Vegetation Management Unit to reduce fire hazards in the area. If a community project is underway, the Owner would be encouraged to participate in cooperative vegetation management, public education, or other community solutions to reduce hazard and risk.</p>				
<p>Landscape Plan. The landscape plan shall adhere to the Fire Department Landscape Guidelines for properties in the high fire hazard area. These plans shall be reviewed and approved by the Architectural Board of Review, Transportation Planning Division, and the Fire Department. (H-2)</p>				
<p>Oak Tree Replacement. A replacement plan for the four Coast Live Oaks to be removed shall be included in the landscape plans for Parcel 1 and/or Parcel 2, to be reviewed and approved by the Architectural Board of Review. Replacement oaks shall be 70 one-gallon young saplings per the recommendations of the Oak Tree Protection Plan. Final tree size and ratio for replacement to be approved by the ABR.</p>				

**226 & 232 EUCALYPTUS HILL DRIVE (MST2004-00349)  
MITIGATION MONITORING AND REPORTING PROGRAM MATRIX TABLE**

MITIGATION MEASURE	PARTY RESPONSIBLE FOR IMPLEMENTATION	VERIFICATION		
		Date	Accomplished?	Comments
<p>Tree Protection Measures. The landscape plan and grading plan shall include the following tree protection measures:</p> <ul style="list-style-type: none"> <li>a. Fencing. Fencing or protective barriers around the tree(s) during construction.</li> <li>b. Landscaping Under Trees. Landscaping under the tree(s) that is compatible with the preservation of the tree(s).</li> <li>c. Oak Tree Protection Measures. The following provisions shall apply to existing oak trees on site: <ul style="list-style-type: none"> <li>(1) During construction, fencing or protective barriers shall be placed around the dripline of all oak trees located within 25 feet of development.</li> <li>(2) No grading shall occur under any oak tree dripline, except as indicated on the drainage and grading plan. Grading within the dripline of any oak shall be minimized and shall be done with light (one ton or less) rubber-tired equipment or by hand. If use of larger equipment is necessary within the dripline of any oak, it shall only be operated under the supervision and direction of a qualified Arborist.</li> <li>(3) A qualified Arborist shall be present during any grading or excavation adjacent to or beneath the dripline of any oak tree. Any roots encountered shall be cleanly cut and sealed with a tree-seal compound. Any thinning or root pruning and trimming shall be done under the direction of a qualified Arborist.</li> <li>(4) No storage of heavy equipment or materials, or parking shall take place within five (5) feet of the dripline of any oak tree.</li> <li>(5) Landscaping provided under the oak tree(s) shall be compatible with preservation of the trees as determined by the Architectural Board of Review (ABR). No irrigation system shall be installed under the dripline of any oak tree.</li> </ul> </li> </ul> <p>Existing Tree Preservation. The existing tree(s) shown on the approved Tree Preservation and Removal Plan to be retained shall be preserved and protected and fenced during construction.</p> <p>Irrigation System. The irrigation system shall be designed and maintained with the most current technology to prevent a system failure and shall be kept to the minimum necessary for plant survival.</p>				

**226 & 232 EUCALYPTUS HILL DRIVE (MST2004-00349)  
MITIGATION MONITORING AND REPORTING PROGRAM MATRIX TABLE**

MITIGATION MEASURE	PARTY RESPONSIBLE FOR IMPLEMENTATION	VERIFICATION		
		Date	Accomplished?	Comments
Permeable Paving. Permeable/porous paving materials shall be utilized where possible to reduce the impermeability of hardscape surfaces. (W-3)				
Landscape Plan Approval Required. The landscape plan shall be reviewed and approved by the Transportation Planning Division to ensure compliance with sight visibility requirements.				
Nesting Native Birds. Construction activities including tree and vegetation removal shall occur outside the breeding bird season (February 1 – August 15). If project activities cannot be feasibly avoided during the bird nesting season the owner shall conduct a minimum of four weekly bird surveys, using a qualified biologist with experience in conducting breeding bird surveys, approved by the City Environmental Analyst, to detect protected nesting native birds in the vegetation and trees to be removed and within 300 feet of the construction work area. The surveys shall begin 30 days prior to the disturbance of suitable nesting habitat and conducted on a weekly basis with the last survey conducted no more than three days before construction is initiated. If an active nest is located, construction within 500 feet of a raptor nest and 300 feet of any other nesting bird, vegetation clearing and tree removal shall be postponed until the nest is vacated and juveniles have fledged and there is no evidence of a second attempt at nesting. This shall be confirmed by the qualified biologist. Nesting areas to be avoided during construction shall be marked and protected with flagging and stakes or construction fencing at least 300 feet or 500 feet (if applicable) from the nest.				
Neighborhood Notification Prior to Construction. At least twenty (20) days prior to commencement of construction, the contractor shall provide written notice to all property owners, businesses and residents within 450 feet of the project area. The notice shall contain a description of the project, the construction schedule, including days and hours of construction, the name and phone number of the Project Environmental Coordinator (PEC) and Contractor(s), site rules and Conditions of Approval pertaining to construction activities and any additional information that will assist the Building Inspectors, Police Officers and the public in addressing problems that may arise during construction. The language of the notice and the mailing list shall be reviewed and approved by the Planning Division prior to being distributed. An affidavit signed by the person(s) who compiled the mailing list shall be submitted to the Planning Division.				

**226 & 232 EUCALYPTUS HILL DRIVE (MST2004-00349)  
MITIGATION MONITORING AND REPORTING PROGRAM MATRIX TABLE**

MITIGATION MEASURE	PARTY RESPONSIBLE FOR IMPLEMENTATION	VERIFICATION		
		Date	Accomplished?	Comments
Arborist's Monitoring. Submit to the Planning Division a contract with a qualified arborist for monitoring of all work within the dripline of all oak trees during construction. The contract shall include a schedule for the arborist's presence during grading and construction activities, and is subject to the review and approval of the Planning Division.				
Design Review Requirements. Plans shall show all design, landscape and tree protection elements, as approved by the Architectural Board of Review.				
Pre-Construction Conference. No more than twenty days prior to commencement of construction, a conference to review site conditions, construction schedule, construction conditions, and environmental monitoring requirements, shall be held by the General Contractor. The conference shall include representatives from the Public Works Department, Engineering and Transportation Divisions, Building Division, Planning Division, the Property Owner, Landscape Architect, Biologist, Project Engineer, Project Environmental Coordinator, Mitigation Monitors, Contractor and each Subcontractor.				
Construction-Related Truck Trips. Construction-related truck trips shall not be scheduled during peak hours (7:00 a.m. to 9:00 a.m. and 4:00 p.m. to 6:00 p.m.). The purpose of this condition is to help reduce truck traffic and noise on adjacent streets and roadways. (T-1)				
Construction Related Traffic Routes. The route of construction-related traffic shall be established to minimize trips through surrounding residential neighborhoods, subject to approval by the Public Works Director. (T-1)				
Haul Routes. The haul route(s) for all construction-related trucks, three tons or more, entering or exiting the site, shall be approved by the Transportation Engineer. (T-1)				

**226 & 232 EUCALYPTUS HILL DRIVE (MST2004-00349)  
MITIGATION MONITORING AND REPORTING PROGRAM MATRIX TABLE**

MITIGATION MEASURE	PARTY RESPONSIBLE FOR IMPLEMENTATION	VERIFICATION		
		Date	Accomplished?	Comments
<p>Construction Hours. Construction (including preparation for construction work) is prohibited Monday through Friday before 8:00 a.m. and after 5:00 p.m., and all day on Saturdays, Sundays and holidays observed by the City of Santa Barbara, as shown below:</p> <p>New Year's Day January 1st*</p> <p>Martin Luther King's Birthday 3rd Monday in January</p> <p>Presidents' Day 3rd Monday in February</p> <p>Memorial Day Last Monday in May</p> <p>Independence Day July 4th*</p> <p>Labor Day 1st Monday in September</p> <p>Thanksgiving Day 4th Thursday in November</p> <p>Following Thanksgiving Day Friday following Thanksgiving Day</p> <p>Christmas Day December 25th*</p> <p>*When a holiday falls on a Saturday or Sunday, the preceding Friday or following Monday, respectively, shall be observed as a legal holiday.</p> <p>When, based on required construction type or other appropriate reasons, it is necessary to do work outside the allowed construction hours, contractor shall contact the Chief of Building and Safety to request a waiver from the above construction hours, using the procedure outlined in Santa Barbara Municipal Code §9.16.015 Construction Work at Night. Contractor shall notify all residents within 300 feet of the parcel of intent to carry out night construction a minimum of 48 hours prior to said construction. Said notification shall include what the work includes, the reason for the work, the duration of the proposed work and a contact number. (N-1)</p>				

**226 & 232 EUCALYPTUS HILL DRIVE (MST2004-00349)  
MITIGATION MONITORING AND REPORTING PROGRAM MATRIX TABLE**

MITIGATION MEASURE	PARTY RESPONSIBLE FOR IMPLEMENTATION	VERIFICATION		
		Date	Accomplished?	Comments
<p>Construction Parking/Storage. Construction parking and storage shall be provided as follows:</p> <p>a. During construction, free parking spaces for construction workers shall be provided on-site.</p> <p>b. On-site or off-site storage shall be provided for construction materials, equipment, and vehicles. Storage of construction materials within the public right-of-way is prohibited. (T-2)</p> <p>Construction Dust Control. Minimize amount of disturbed area and reduce on site vehicle speeds to 15 miles per hour or less. (AQ-1)</p>				
<p>Water Sprinkling During Grading. During site grading and transportation of fill materials, regular water sprinkling shall occur using reclaimed water whenever the Public Works Director determines that it is reasonably available. During clearing, grading, earth moving or excavation, sufficient quantities of water, through use of either water trucks or sprinkler systems, shall be applied to prevent dust from leaving the site. Each day, after construction activities cease, the entire area of disturbed soil shall be sufficiently moistened to create a crust.</p> <p>Throughout construction, water trucks or sprinkler systems shall also be used to keep all areas of vehicle movement damp enough to prevent dust raised from leaving the site. At a minimum, this will include wetting down such areas in the late morning and after work is completed for the day. Increased watering frequency will be required whenever the wind speed exceeds 15 mph. (AQ-2)</p>				
<p>Covered Truck Loads. Trucks transporting fill material to and from the site shall be covered from the point of origin. (AQ-3)</p>				
<p>Gravel Pads. Gravel pads shall be installed at all access points to the project site to prevent tracking of mud on to public roads. (AQ-4)</p>				

**226 & 232 EUCALYPTUS HILL DRIVE (MST2004-00349)  
MITIGATION MONITORING AND REPORTING PROGRAM MATRIX TABLE**

MITIGATION MEASURE	PARTY RESPONSIBLE FOR IMPLEMENTATION	VERIFICATION		
		Date	Accomplished?	Comments
<p>Disturbed Area Treatment. After clearing, grading, earth moving or excavation is complete, the entire area of disturbed soil shall be treated to prevent wind pickup of soil. This may be accomplished by:</p> <ol style="list-style-type: none"> <li>Seeding and watering until grass cover is grown.</li> <li>Spreading soil binders.</li> <li>Sufficiently wetting the area down to form a crust on the surface with repeated soakings as necessary to maintain the crust and prevent dust pickup by the wind.</li> <li>Other methods approved in advance by the Air Pollution Control District. (AQ-5)</li> </ol>				
<p>Construction Equipment Requirements. The following shall be adhered to during project grading and construction to reduce NOx and particulate emissions from construction equipment:</p> <ol style="list-style-type: none"> <li>Heavy-duty diesel-powered construction equipment manufactured after 1996 (with federally mandated "clean" diesel engines) shall be utilized wherever feasible.</li> <li>The engine size of construction equipment shall be the minimum practical size.</li> <li>The number of construction equipment operating simultaneously shall be minimized through efficient management practices to ensure that the smallest practical number is operating at any one time.</li> <li>Construction equipment shall be maintained in tune per the manufacturer specifications.</li> <li>Catalytic converters shall be installed on gasoline-powered equipment, if feasible.</li> <li>Diesel powered equipment shall be replaced by electric equipment whenever feasible. (AQ-6)</li> </ol> <p>Construction Best Management Practices (BMPs). Construction activities shall address water quality through the use of BMPs, as approved by the Building and Safety Division.</p>				

**226 & 232 EUCALYPTUS HILL DRIVE (MST2004-00349)  
MITIGATION MONITORING AND REPORTING PROGRAM MATRIX TABLE**

MITIGATION MEASURE	PARTY RESPONSIBLE FOR IMPLEMENTATION	VERIFICATION		
		Date	Accomplished?	Comments
Construction Contact Sign. Immediately after Building permit issuance, signage shall be posted at the points of entry to the site that list the contractor(s) and Project Environmental Coordinator's (PEC's) name, contractor(s) and PEC's telephone number, work hours, site rules, and construction-related conditions, to assist Building Inspectors and Police Officers in the enforcement of the conditions of approval.				
Tree Protection. All trees not indicated for removal on the site plan shall be preserved, protected and maintained.				
Tree Protection. Notes on the grading plan that specify the following: a. No grading shall occur under the driplines of the existing tree(s). b. A qualified Arborist shall be present during any excavation adjacent to or beneath the dripline of the tree(s) which are required to be protected. c. All excavation within the dripline of the tree(s) shall be done with hand tools. d. Any roots encountered shall be cleanly cut and sealed with a tree-seal compound. e. No heavy equipment, storage of materials or parking shall take place under the dripline of the tree(s). f. Any root pruning and trimming shall be done under the direction of a qualified Arborist.				
Construction Equipment Maintenance. All construction equipment, including trucks, shall be professionally maintained and fitted with standard manufacturers' muffler and silencing devices. (N-2)				
Graffiti Abatement Required. Owner and Contractor shall be responsible for removal of all graffiti as quickly as possible. Graffiti not removed within 24 hours of notice by the Building and Safety Division may result in a Stop Work order being issued, or may be removed by the City, at the Owner's expense, as provided in SBMC Chapter 9.66.				

**226 & 232 EUCLYPTUS HILL DRIVE (MST2004-00349)  
MITIGATION MONITORING AND REPORTING PROGRAM MATRIX TABLE**

MITIGATION MEASURE	PARTY RESPONSIBLE FOR IMPLEMENTATION	VERIFICATION		
		Date	Accomplished?	Comments
<p>Unanticipated Archaeological Resources Contractor Notification. Prior to the start of any vegetation or paving removal, demolition, trenching or grading, contractors and construction personnel shall be alerted to the possibility of uncovering unanticipated subsurface archaeological features or artifacts associated with past human occupation of the parcel. If such archaeological resources are encountered or suspected, work shall be halted immediately, the City Environmental Analyst shall be notified and an archaeologist from the most current City Qualified Archaeologists List shall be retained by the applicant. The latter shall be employed to assess the nature, extent and significance of any discoveries and to develop appropriate management recommendations for archaeological resource treatment, which may include, but are not limited to, redirection of grading and/or excavation activities, consultation and/or monitoring with a Barbareño Chumash representative from the most current City qualified Barbareño Chumash Site Monitors List, etc.</p> <p>If the discovery consists of possible human remains, the Santa Barbara County Coroner shall be contacted immediately. If the Coroner determines that the remains are Native American, the Coroner shall contact the California Native American Heritage Commission. A Barbareño Chumash representative from the most current City Qualified Barbareño Chumash Site Monitors List shall be retained to monitor all further subsurface disturbance in the area of the find. Work in the area may only proceed after the Environmental Analyst grants authorization.</p> <p>If the discovery consists of possible prehistoric or Native American artifacts or materials, a Barbareño Chumash representative from the most current City Qualified Barbareño Chumash Site Monitors List shall be retained to monitor all further subsurface disturbance in the area of the find. Work in the area may only proceed after the Environmental Analyst grants authorization.</p>				
<p>Complete Public Improvements. Public improvements, as shown in the improvement plans connecting new private sewer system to existing public 8 inch sewer main on Woodland Drive and storm drain system from the site to the public sewer system on Woodland Drive.</p>				