county of ventura

PUBLIC WORKS
VENTURA COUNTY

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NOTICE OF AVAILABILITY AND INTENT TO ADOPT A MITIGATED NEGATIVE DECLARATION

The County of Ventura Public Works Agency (PWA) Engineering Services Division, as the designated Lead Agency, has reviewed the following project:

1. **Entitlement:** Grading Permit, GP17-0019
2. **Applicant:** Charles Pinneo
3. **Location:** The project is located at 15498 Lapeyre Court, in the unincorporated area of Ventura County.
4. **Assessor's Parcel Nos.:** 594-0-030-110 and 594-0-030-125
5. **Parcel Size:** 2.90 acres and 7.39 acers respectively
6. **General Plan Designation:** Open Space
7. **Zoning Designation:** OS-10
8. **Responsible and/or Trustee Agencies:** County of Ventura Public Works Agency – Development and Inspection Services, and California Department of Fish and Wildlife (CDFW).
9. **Project Description:** The project consists of cut and fill grading, as well as importing operations in order to fill in an existing ravine with certified compacted fill. A graded 2:1 (H:V) will be created along the southern portion and a level pad area at the northern portion of the site. The proposed improvements will be for equestrian purposes. Import operations will allow up to 40 round trip truck trips (maximum) per day, Monday through Friday.

POSTED
JAN 18 2019
MARK A. LUNN
Ventura County Clerk and Recorder
By: _____, Deputy

In accordance with Section 15070 of the California Code of Regulations, the PWA Engineering Services Division determined that this proposed project may have a significant effect on the environment, however mitigation measures are available that would reduce the impacts to less than significant levels. As such, a Mitigated Negative Declaration has been prepared and the applicant has agreed to implement the mitigation measures.

List of Potentially Significant Environmental Impacts Identified:

Section 4B, Biological Resources, Ecological Communities – Sensitive Plant Communities: The Initial Study found that the proposed project would have potentially significant impacts to sensitive plant communities. Impacts will be less than significant with the implementation of Mitigation Measure BIO-1, which will require a restoration plan. Mitigation measures have been identified to mitigate potentially significant impacts to the mixed coastal sage scrub plant community.

The public review period is from January 25th, 2019 to February 25th, 2019. The Initial Study/Mitigated Negative Declaration is available for public review on-line at http://vcpublicworks.org/esd/developmentinspection/information or at the County of Ventura, Public Works Agency Public Front Counter, 800 South Victoria Avenue, L#1670, Ventura, California 93009, from 8:00 am to 5:00 pm Monday through Friday. The public is encouraged to submit written comments to Kenji Miyata, no later than 5:00 p.m. on February 25th, 2019 to the address listed above. Alternatively, You may also e-mail the case planner at kenji.miyata@ventura.org.

Following the review period, consideration of the project will be given at a Public Works public hearing to be held to be held at a date to be determined in a room to be determined, 800 South Victoria Avenue, Ventura, CA 93009.

Raymond Gutierrez, Jr., Manager
Development and Inspection Services
Engineering Services Department
Public Works Agency

1-18-2019
Date

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MITIGATED NEGATIVE DECLARATION

A. PROJECT DESCRIPTION:

Entitlement: Grading Permit, GP17-0019

Applicant: Charles Pinneo

Location: The project is located at 15498 Lapeyre Court, in the unincorporated area of Ventura County.

Assessor's Parcel Nos.: 594-0-030-110 and 594-0-030-125

Parcel Size: 2.90 acres and 7.39 acers respectively

General Plan Designation: Open Space

Zoning Designation: OS-10

Responsible and/or Trustee Agencies: County of Ventura Public Works Agency – Development and Inspection Services, and California Department of Fish and Wildlife (CDFW).

Project Description: The project consists of cut and fill grading, as well as importing operations in order to fill in an existing ravine with certified compacted fill. A graded 2:1 (H:V) will be created along the southern portion and a level pad area at the northern portion of the site. The proposed improvements will be for equestrian purposes. Import operations will allow for up to 40 round trip truck trips (maximum) per day, Monday through Friday.

B. STATEMENT OF ENVIRONMENTAL FINDINGS:

State law requires the Resource Management Agency, Planning Division, as the lead agency for the proposed project, to prepare an Initial Study (environmental analysis) to determine if the proposed project could significantly affect the environment. Based on the findings contained in the attached Initial Study, it has been determined that the proposed project may have a significant effect on the environment; however, mitigation measures are available that would reduce the impacts to less than significant levels. Therefore, a Mitigated Negative Declaration

has been prepared and the applicant has agreed to implement the mitigation measures.

C. LISTING OF POTENTIALLY SIGNIFICANT ENVIRONMENTAL IMPACTS IDENTIFIED:

Section 4B, Biological Resources, Ecological Communities – Sensitive Plant Communities: The Initial Study found that the proposed project would have potentially significant impacts to sensitive plant communities. Impacts will be less than significant with the implementation of Mitigation Measure BIO-1, which will require a restoration plan. Mitigation measures have been identified to mitigate potentially significant impacts to the mixed coastal sage scrub plant community.

D. PUBLIC REVIEW:

Legal Notice Method: Direct mailing to property owners within 300 feet of the property on which the proposed project is located, and a legal notice in the *Ventura County Star*.

Document Posting Period: January 25th, 2019 to February 25th, 2019

Public Review: The Initial Study/Mitigated Negative Declaration is available for public review at the County of Ventura, Public Works Public Counter, 800 South Victoria Avenue, Ventura, California, from 8:00 am to 5:00 pm, Monday through Friday. It is also available on the County of Ventura Public Works Website at the following address: http://vcpublicworks.org/esd/developmentinspection /information.

Comments: The public is encouraged to submit written comments regarding this Initial Study/Mitigated Negative Declaration no later than 5:00 p.m. on the last day of the document posting period to Kenji Miyata, the case planner, at the County of Ventura Public Works Agency, Engineering Services Division, 800 South Victoria Avenue L#1670, Ventura, CA 93009. You may also e-mail the case planner at kenji.miyata@ventura.org.

D. CONSIDERATION AND APPROVAL OF THE MITIGATED NEGATIVE DECLARATION:

Prior to approving the project, the decision-making body of the Lead Agency must consider this Mitigated Negative Declaration and all comments received on the Mitigated Negative Declaration. That body may approve the Mitigated Negative Declaration if it finds that all the significant effects have been identified and that the proposed mitigation measures will reduce those effects to less than significant levels.

Prepared by:

Kenji Miyata, Public Works Inspector
Development and Inspection Services
Engineering Services Department
Public Works Agency

Reviewed for Release to the Public by:

Raymond Gutierrez, Jr., Manager
Development and Inspection Services
Engineering Services Department
Public Works Agency

Recommended for Approval by Lead Agency by:

Christopher E. Cooper
Director Engineering Services
Public Works Agency

JEFF PRATT
Agency Director

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Initial Study for Pinneo Grading Permit GP17-0019

Section A – Project Description

1. **Project Case Number:** GP17-0019

2. **Name of Applicant:** Charles Pinneo

3. **Project Location and Assessor's Parcel Number:**
This project is located at 15498 Lapeyre Court, in the unincorporated area of Ventura County as shown in the attached Attachment 1. The Tax Assessor's parcel numbers are 594-0-030-110 and 594-0-030-125.

4. **General Plan Land Use Designation and Zoning Designation of the Project Site:**

   a. **General Plan Land Use Designation:** Open Space (See Attachment 2)

   b. **Zoning Designation:** OS-10 ac

5. **Description of the Environmental Setting:** The project site is located in the Tierra Rejada Valley on the eastern side of the Moorpark area of the unincorporated area of Ventura County. It is designated Open Space and zoned OS-10 (Open Space, 10 acre minimum lot size).

   The subject property has south and southeast facing slopes that are relatively steep. The slopes are dominated by native coast prickly pear cactus and sagebrush scrub plant communities that gradually transition to sparsely vegetated and barren disturb areas of non-native grasses, and cleared or developed areas to the north. The Arroyo Santa Rosa, a "blue-line" stream, is located approximately 130 south of existing graded areas of the parcel, and runs in an east to west trend. The stream indicates that this drainage is ephemeral in nature per Envicom (Envicom Corporation Initial Study Biological Assessment, October 1st, 2018, Attachment 3).

6. **Project Description:** The project consists of cut and fill grading, as well as importing operations in order to fill in an existing ravine with certified compacted fill. A graded 2:1 (H:V) will be created along the southern portion and a level pad area at the northern portion of the site. The proposed improvements will be for equestrian purposes. Import operations will allow up to 40 round trip truck trips (maximum) per day, Monday through Friday.

7. List of Responsible and Trustee Agencies: County of Ventura Public Works Agency – Development and Inspection Services and California Department of Fish and Wildlife (CDFW).

8. Methodology for Evaluating Cumulative Impacts: Pursuant to the California Environmental Quality Act (CEQA) Guidelines [§ 15064(h)(1)], this Initial Study evaluates the cumulative impacts of the project, by considering the incremental effects of the proposed project in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.

The plans approach was utilized to evaluate cumulative impacts of the proposed grading project to fill in a ravine. The plans approach involves the analysis of whether the proposed project will comply with the requirements of a plan, regulation, or program specified by law or adopted by a public agency with jurisdiction over the affected resource. There are no recent or pending discretionary grading permits in the vicinity of this proposed project.

Section B – Initial Study Checklist and Discussion of Responses[1]

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
RESOURCES:								
1. Air Quality (VCAPCD)								
Will the proposed project:								
a) Exceed any of the thresholds set forth in the air quality assessment guidelines as adopted and periodically updated by the Ventura County Air Pollution Control District (VCAPCD), or be inconsistent with the Air Quality Management Plan?		X				X		
b) Be consistent with the applicable General Plan Goals and Policies for Item 1 of the Initial Study Assessment Guidelines?		X				X		

Impact Discussion:

1a. Based on information provided by the applicant, air quality impacts will be below the 25 pounds per day threshold for reactive organic compounds and oxides of nitrogen as described in the Ventura County Air Quality Assessment Guidelines. Therefore, the project will not have a significant impact in regional air quality.

1b. Based on information in the project application, the subject project will generate local air quality impacts, but those impacts are not likely to be significant. Because the project is temporary, short-term, local air quality impacts are not counted toward the thresholds of significance as described above.

Mitigation/Residual Impact(s): None.

[1] The threshold criteria in this Initial Study are derived from the *Ventura County Initial Study Assessment Guidelines* (April 26, 2011). For additional information on the threshold criteria (e.g., definitions of issues and technical terms, and the methodology for analyzing each impact), please see the *Ventura County Initial Study Assessment Guidelines*.

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
2A. Water Resources – Groundwater Quantity (WPD)								
Will the proposed project:								
1) Directly or indirectly decrease, either individually or cumulatively, the net quantity of groundwater in a groundwater basin that is overdrafted or create an overdrafted groundwater basin?		X			X			
2) In groundwater basins that are not overdrafted, or are not in hydrologic continuity with an overdrafted basin, result in net groundwater extraction that will individually or cumulatively cause overdrafted basin(s)?		X			X			
3) In areas where the groundwater basin and/or hydrologic unit condition is not well known or documented and there is evidence of overdraft based upon declining water levels in a well or wells, propose any net increase in groundwater extraction from that groundwater basin and/or hydrologic unit?		X			X			
4) Regardless of items 1-3 above, result in 1.0 acre-feet, or less, of net annual increase in groundwater extraction?		X			X			
5) Be consistent with the applicable General Plan Goals and Policies for Item 2A of the Initial Study Assessment Guidelines?		X			X			

Impact Discussion:

2A-1 thru 4. The proposed project involves a grading project in order to improve an existing equestrian operation. Construction activities will require water to be used for controlling dust and achieving proper compaction and soil moisture content, and will not exceed 1.0-acre feet of water of groundwater. This will be a temporary use and will not decrease the net quantity of groundwater in a groundwater basin. As there are no new wells proposed, no plugging up of groundwater recharge areas, and no use of surface water, there will be no increase in water use expected from this project.

2A-5. The proposed project is consistent with the applicable General Plan Goals and Policies for ISAG Item 2A.

Mitigation/Residual Impact(s): None.

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
2B. Water Resources - Groundwater Quality (WPD)								
Will the proposed project:								
1) Individually or cumulatively degrade the quality of groundwater and cause groundwater to exceed groundwater quality objectives set by the Basin Plan?	X				X			
2) Cause the quality of groundwater to fail to meet the groundwater quality objectives set by the Basin Plan?	X				X			
3) Propose the use of groundwater in any capacity and be located within two miles of the boundary of a former or current test site for rocket engines?	X				X			
4) Be consistent with the applicable General Plan Goals and Policies for Item 2B of the Initial Study Assessment Guidelines?	X				X			

Impact Discussion:

2B-1 and 2B-2. The proposed project is a grading project and therefore will not individually or cumulatively degrade the quality of groundwater and cause groundwater to exceed groundwater quality objectives set by the Basin Plan.

2B-3. The proposed project is not located within two miles of the boundary of a former or current test site for rocket engines.

2B-4. The proposed project is consistent with the applicable General Plan Goals and Policies for ISAG Item 2B.

Mitigation/Residual Impact(s): None.

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
2C. Water Resources - Surface Water Quantity (WPD)								
Will the proposed project:								
1) Increase surface water consumptive use (demand), either individually or cumulatively, in a fully appropriated stream reach as designated by SWRCB or where unappropriated surface water is unavailable?		X				X		
2) Increase surface water consumptive use (demand) including but not limited to diversion or dewatering downstream reaches, either individually or cumulatively, resulting in an adverse impact to one or more of the beneficial uses listed in the Basin Plan?		X				X		
3) Be consistent with the applicable General Plan Goals and Policies for Item 2C of the Initial Study Assessment Guidelines?		X				X		

Impact Discussion:

2C-1. The proposed project consists of cut/fill grading and import operations in order to fill in a ravine to create a level pad for equestrian use. A culvert will be installed in a episodic drainage with a grouted rip-rap pad on the down-slope side to retain existing flows. No surface water will be consumed during, or as a result of, this project. Therefore, it will not increase the surface water consumptive use (demand), either individually or cumulatively, in a fully appropriated stream reach as designated by SWRCB or where unappropriated surface water is unavailable.

2C-2. The proposed project does not increase surface water consumptive use (demand) including but not limited to diversion or dewatering downstream reaches, either individually or cumulatively, resulting in an adverse impact to one or more of the beneficial uses listed in the Basin Plan.

2C-3. The proposed project is consistent with the applicable General Plan Goals and Policies for ISAG Item 2C.

Mitigation/Residual Impact(s): None.

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
2D. Water Resources - Surface Water Quality (WPD)								
Will the proposed project:								
1) Individually or cumulatively degrade the quality of surface water causing it to exceed water quality objectives as contained in Chapter 3 of the three Basin Plans?		X				X		
2) Directly or indirectly cause storm water quality to exceed water quality objectives or standards in the applicable MS4 Permit or any other NPDES Permits?		X				X		
3) Be consistent with the applicable General Plan Goals and Policies for Item 2D of the Initial Study Assessment Guidelines?		X				X		

Impact Discussion:

2D-1. The proposed project will not individually or cumulatively degrade the quality of surface water causing it to exceed water quality objectives as contained in Chapter 3 of the Los Angeles Basin Plan as applicable for this area. Surface Water Quality is deemed Less than Significant (LS) because the proposed project is not expected to result in a violation of any surface water quality standards as defined in the Los Angeles Basin Plan.

2D-.2 The project is located at 15498 Lapeyre Court, in the non-urban unincorporated area between Moorpark and Simi Valley. The project will disturb about 3 acres and create about 15,000 square feet of new impervious surfaces. The project proposes import and grading to create an area for an equestrian arena, a barn with a lounge, and a caretaker's residence.

The proposed construction project involves soil disturbance of more than 1 acre within an area deemed to be high risk. As per the Ventura Countywide Municipal Stormwater NPDES Permit CAS004002, "Development Construction Program" Subpart 4.F, the applicant will be required to include Best Management Practices (BMPs) designed to ensure compliance and implementation of an effective combination of erosion and sediment control measures for a disturbed site greater than 1 acre within a high-risk area to protect surface water quality during construction (Tables 6, 7, 8 and 9 in Subpart 4.F). The proposed construction activities are also subject to coverage under the

NPDES General Construction Permit (No. CAS000002). As such, neither the individual project nor the cumulative threshold for significance would be exceeded and the project is expected to have a Less than Significant (LS) impact related to water quality objectives or standards in the applicable MS4 Permit or any other NPDES Permits.

2D-3. The proposed project is consistent with the applicable General Plan Goals and Policies for ISAG Item 2d.

Mitigation/Residual Impact(s): None.

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
3A. Mineral Resources – Aggregate (Plng.)								
Will the proposed project:								
1) Be located on or immediately adjacent to land zoned Mineral Resource Protection (MRP) overlay zone, or adjacent to a principal access road for a site that is the subject of an existing aggregate Conditional Use Permit (CUP), and have the potential to hamper or preclude extraction of or access to the aggregate resources?	X				X			
2) Have a cumulative impact on aggregate resources if, when considered with other pending and recently approved projects in the area, the project hampers or precludes extraction or access to identified resources?					X			
3) Be consistent with the applicable General Plan Goals and Policies for Item 3A of the Initial Study Assessment Guidelines?	X				X			

Impact Discussion:

3A-1. The proposed project is not located on or immediately adjacent to land zoned Mineral Resource Protection (MRP) overlay zone, or adjacent to a principal access road for a site that is the subject of an existing aggregate Conditional Use Permit (CUP), and does not have the potential to hamper or preclude extraction of or access to the aggregate resources.

3A-2. The proposed project will not have a cumulative impact on aggregate resources if, when considered with other pending and recently approved projects in the area, the project hampers or precludes extraction or access to identified resources.

3A-3. The proposed project is consistent with the applicable General Plan Goals and Policies for ISAG Item 3A.

Mitigation/Residual Impact(s): None.

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
3B. Mineral Resources – Petroleum (Plng.)								
Will the proposed project:								
1) Be located on or immediately adjacent to any known petroleum resource area, or adjacent to a principal access road for a site that is the subject of an existing petroleum CUP, and have the potential to hamper or preclude access to petroleum resources?	X				X			
2) Be consistent with the applicable General Plan Goals and Policies for Item 3B of the Initial Study Assessment Guidelines?	X				X			

Impact Discussion:

3B-1. The proposed project is not located on or immediately adjacent to any known petroleum resource area, or adjacent to a principal access road for a site that is the subject of an existing petroleum CUP and have the potential to hamper or preclude access to petroleum resources.

3B-2. The proposed project is consistent with the applicable General Plan Goals and Policies for ISAG Item 3B.

Mitigation/Residual Impact(s): None.

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
4. Biological Resources								
4A. Species								
Will the proposed project, directly or indirectly:								
1) Impact one or more plant species by reducing the species' population, reducing the species' habitat, fragmenting its habitat, or restricting its reproductive capacity?		X				X		
2) Impact one or more animal species by reducing the species' population, reducing the species' habitat, fragmenting its habitat, or restricting its reproductive capacity?			X			X		

Impact Discussion:

The proposed project includes the expansion of two barns, construction of a new barn, a covered arena, and hay barn, and installation of a double-wide modular building located within an existing equestrian facility. The project and 100-feet fuel modification are approximately 7.3 acres. The majority of the proposed development would be located on existing graded and disturbed areas of the parcel.

An Initial Study Biological Assessment (ISBA) was prepared by Envicom (dated December 1, 2017; revised on October 1, 2018). The ISBA survey area included both developed and undeveloped areas on APN 594-0-030-125 and on APN 594-0-030-110. Table 1 below provides the percent of various vegetation cover that exist within the ISBA survey area.

Table 1
Vegetation Community Cover

Vegetation	Acreage	Percent Cover
Cleared Land	3.49	19.62%
Urban or Disturbed	3.88	21.80%
Undifferentiated Exotic Vegetation	1.95	10.95%
Native and Non-Native Grasses and Forbes	4.68	26.27%
Artemisia californica (California sagebrush scrub) Alliance, Disturbed	0.60	3.38%
Opuntia littoralis (Coast prickly pear scrub) Alliance	2.40	13.46%

Brassica nigra and other mustards (Upland mustards) Semi-natural Stands	0.80	4.51%
Total	**17.81**	**100.00%**

The Coast Prickly Pear Scrub Alliance is considered a sensitive plant community. It is assigned a “G2S1.1” rarity ranking by the California Department of Fish and Wildlife (CDFW). The Coast Prickly Pear Scrub Alliance occurs in two areas within the parcel, the majority of the Alliance extends from the eastern portion of the project site to the southeast and southwest of the project site, as well as adjacent parcels located to the east of the project site; a smaller area is located immediately north of the subject property.

The Arroyo Santa Rosa, a USGS-designated “Blue-line” Stream passes through the southeastern portion of the site and traverses east to west. Peruvian peppertree and eucalyptus (*Eucalyptus* sp.) trees are located in the southeastern portion of the parcel.

4A-1. No federal or state listed endangered, threatened, or California Endangered Species Act (CESA) rare plant species were observed during the biological survey of the property. Envicom also conducted a review of the CDFW Biogeographic Information and Observation System (BIOS); which revealed multiple special-status plant species occurrences located within one mile from the project site. The nearest occurrences from the project site include Conejo dudleya (*Dudleya parva*) located approximately 0.37 miles southeast, California Orcutt grass (*Orcuttia californica*) approximately 0.65 miles southwest and Lyon's Pentachaeta (*Pentachaeta lyonii*) located approximately 0.62 miles northwest. None of these special-status species, which are known to occur in the region, have the potential to occur on the parcel due to lack of suitable habitat or because the site is outside of the species known range or distribution. Previously disturbed areas and existing equestrian activities preclude special-status plant species from occurring within the development footprint. In addition, a review of the Critical Habitat spatial data provided by the U.S. Fish and Wildlife Service shows no critical habitat for sensitive plant species within one mile of the project site. Due to these conditions, implementation of the project is not expected to result in either direct or indirect impacts to one or more plant species by reducing the species’ population, reducing the species’ habitat, fragmenting its habitat, or restricting its reproductive capacity. No direct, indirect, or cumulatively considerable impacts to plant species are anticipated.

4A-2. During the biological assessment of the parcel, a total of 18 species of birds, one reptile, and six mammals were observed. Observed species were common species or relatively common to the region and represent only a sample of the species that can be expected to utilize habitats at or in the vicinity of the site for cover, foraging, and reproduction. No federal or state listed endangered or threatened wildlife species were observed during field surveys of the property. However, a review of the Critical Habitat spatial data provided by the U.S. Fish and Wildlife Service indicates designated critical habitat for the coastal California gnatcatcher surrounding the parcel. The nearest designated critical habitat is located within approximately 800 feet south of the parcel. However, given the fact that the proposed project is located within a disturbed area, and

there is little to no suitable habitat located within the project site, the project site is unlikely to support special-status species.

Birds that are protected by the California Department of Fish and Game (CDFG) Code and the Federal Migratory Bird Treaty Act (MBTA) could nest within the project site or adjacent landscaped areas in native and non-native habitats, including ornamental trees and shrubs. It is expected that some birds would nest in areas outside of the development envelope, including locations within the cactus scrub, sagebrush scrub, and exotic trees. Nesting is expected to be less frequent within the areas proposed for grading, due to the fact that a majority of the vegetation is exposed and disturbed. Special-status bird species, including those recognized on the CDFW's Special Animals list, that are known to occur in the area, include the Allen's hummingbird (*Selasphorus sasin*), Cooper's hawk (*Accipiter cooperii*), oak titmouse (*Baeolophus inornatus*), and southern California rufous-crowned sparrow (*Aimophila ruficeps*).

Based on the potential for nesting birds to occur in areas adjacent to the proposed project, construction activities may result in indirect impacts, primarily associated with construction noise and vibration. Noise and vibration may lead to abandonment of nests, changes in feeding, and disrupt breeding behavior and reproductive success. These impacts to nesting birds would therefore be considered potentially significant. In accordance with the Migratory Bird Treaty Act and CDFG Code, the proposed project would be subject to a condition of approval requiring the Applicant to forestall land clearing activities during the breeding and nesting season (January 1 - September 1), or retain a County-approved biologist to conduct site-specific surveys prior to land clearing activities during the breeding and nesting season (January 1 - September 1) and to submit a Survey Report documenting the results of the initial nesting bird survey and a plan for continued surveys and avoidance of nests.

Mitigation/Residual Impact(s)

None.

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
4B. Ecological Communities - Sensitive Plant Communities								
Will the proposed project:								

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
1) Temporarily or permanently remove sensitive plant communities through construction, grading, clearing, or other activities?			X				X	
2) Result in indirect impacts from project operation at levels that will degrade the health of a sensitive plant community?			X				X	

Impact Discussion:

4B-1 and 4B-2. As depicted in Figure 3 of the ISBA, project grading is expected to permanently remove approximately 0.41 acres (17,859 square feet) of the coast prickly pear – mixed coastal sage scrub plant community (G2S1.1), which is considered a natural community of special concern by CDFW. The project's grading would directly impact approximately 0.15 acres (approximately 6,534 square feet) of the vegetation community, and fuel modification would result in additional impacts of approximately 0.26 acres (approximately 11,326 square feet). These impacts to this sensitive plant community would be considered significant. Recommended Mitigation Measure (MM) BIO-1 requires a 2:1 mitigation to impact ratio, resulting in 0.82 acres of Coast Prickly Pear-Mixed Coastal Sage Scrub restoration, which would reduce potentially significant impacts to this sensitive plant community to less-than-significant.

Mitigation Measure BIO-1: Compensatory Mitigation for the Loss of Prickly Pear Cactus Scrub

Purpose: To mitigate potentially significant impacts to coast prickly pear – mixed coastal sage scrub vegetation communities at a 2:1 mitigation to impact ratio for the loss of 0.41 acres.

Requirement: At least 0.82 acres of prickly pear cactus scrub shall be restored and permanently protected on-site. The areas selected to be restored on-site (Restoration Areas) shall be located outside of development and fuel modification areas and shall be permanently maintained in open space through a deed restriction. The Restoration Plan shall be prepared by a County-approved qualified biologist. The Restoration Plan shall include the following:

1. Restoration of prickly pear cactus scrub and the establishment of prickly pear cactus scrub and its ecosystem's functions and values.

2. A site plan showing the location of the designated Restoration Area(s). To ensure the restoration site meets or exceeds the success criteria, the location of a

reference site for prickly pear cactus scrub shall be described by an address, Assessor's Parcel Number, or other distinguishing characteristics whereby the reference site can be found. The following data for the reference site shall include:

a. An ecologically intact example of the alliance with minimal disturbance;

b. Total percent cover by native plant species;

c. Species richness; and

d. Total percent cover by non-native plant species.

The above-referenced data should be based on at least 30 data points collected within the proposed reference site in order to base a through d on a statistically defensible value. The data collection method should be specified (e.g. point intercept, line intercept, quadrats, or some other valid method of determining cover values).

3. Success Criteria - Restoration shall accomplish a target survivorship of 80%-90% of transplanted individuals in excellent or good health, <1% of non-native herbaceous species after five years, and 0% for other invasive plants that are ranked high or moderate on the California Invasive Plant Council (Cal-IPC) list within the restoration area.

4. Identification of the name, address, phone number, email address, and the responsibilities of the individuals responsible for implementing the plan, including, but not limited to, the Biological Monitor (who must be a Qualified Biologist) and Restoration Contractor. The Permittee shall notify the Planning Division if any changes or additions occur to the designated Responsible Parties.

5. Condition Criteria - Prior to earth disturbing activities, cactus pads intended for propagation will be collected. Collected material shall be in condition without excessive blemishes, abnormalities, and pest infestation. To ensure suitable salvaged material is collected and propagated the following activities shall be implemented:

   a. On the first day of grubbing activities the Responsible Parties will identify material that meets the salvage criteria identified in the Restoration Plan including techniques for cactus pad collection;

   b. The Responsible Parties shall conduct a pre-construction meeting with the contractors, construction workers and other consultants, for the purpose of identifying biological resources to avoid, including but not limited to, prickly pear cactus scrub areas designated for restoration; and

   c. Prior to the propagation of the salvaged cactus pads, the Biological Monitor will inspect the salvaged material to ensure it meets the criteria established in the Restoration Plan.

6. A description of the methods for extraction, stockpiling, transplanting, and seeding.

7. A Maintenance and Monitoring Plan to ensure that the restored plant communities meet the success criteria by Year 5. The Maintenance and Monitoring Program shall include, but not be limited to, Quantitative and Qualitative Monitoring Methods, Adaptive Management and Contingency Measures, weed control and Best Management Practices to avoid impacting the prickly pear cactus scrub, including the remaining prickly pear cactus scrub adjacent to impact areas and the Restoration Areas, during grading and construction activities.

The Permittee shall record the site plan that graphically shows the Restoration Areas with the Conditions of Approval for Case No. GP17-0019 in the Office of County Recorder. The recordation of the approved Restoration Site Plan and conditions of approval serve as notification that future development will be prohibited in the Restoration Areas and that the Restoration areas shall remain preserved.

Documentation: The Permittee shall provide the Planning Division with a Restoration Plan prepared by a County-approved qualified biologist that meets the requirements of this condition. The Permittee shall submit a copy of the recorded conditions of approval and Restoration Site Plan to the Planning Division. The Permittee shall submit a report with photographs of the restoration area and a description of the restoration work to demonstrate to the Planning Division that implementation of the Restoration Plan has commenced. The Permittee shall provide annual reports prepared by a County-approved qualified biologist on the progress of the restoration area for five years (or more, if the success criteria have not been met by Year 5).

Timing: Prior to issuance of a Zoning Clearance for construction, the Permittee shall (1) submit the Restoration Plan to the Planning Division for review and approval; (2) record the conditions of approval and the approved Restoration Site Plan; and, (3) provide a copy of the recorded conditions of approval and Restoration Site Plan to the Planning Division. Implementation of the Restoration Plan shall commence prior to occupancy. The annual reports must be provided to the Planning Division by December 31st of each year during the monitoring period.

Monitoring and Reporting: The Planning Division shall review the Permittee's description of the restoration work performed, photographs of the restoration area, and conduct a site visit, to confirm that implementation of the Restoration Plan has commenced prior to occupancy. The restoration area must be monitored by a County-approved qualified biologist for at least five years (or more, if the success criteria have not been met by Year 5). The biologist shall provide an annual report on the status of the restoration area, including results of qualitative monitoring (i.e., photographs taken at permanent photo-points, observations of the health and condition of plantings and wildlife use of the restoration area, if feasible) and quantitative monitoring (i.e., randomly placed transects to estimate cover and richness), to the Planning Division for the length of the monitoring period. The Permittee shall submit the annual reports to the Planning Division

to demonstrate compliance with this condition and the success criteria. The release of the requirement for monitoring the restoration area may occur when the Planning Division determines that the success criteria have been met by Year 5 or later, based on the annual reports and a Planning Division staff site inspection.

Residual Impacts:

With the implementation of the above mitigation measure, direct and indirect project-specific and cumulative impacts to sensitive plant communities will be less than significant.

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
4C. Ecological Communities - Waters and Wetlands								
Will the proposed project:								
1) Cause any of the following activities within waters or wetlands: removal of vegetation; grading; obstruction or diversion of water flow; change in velocity, siltation, volume of flow, or runoff rate; placement of fill; placement of structures; construction of a road crossing; placement of culverts or other underground piping; or any disturbance of the substratum?			X				X	
2) Result in disruptions to wetland or riparian plant communities that will isolate or substantially interrupt contiguous habitats, block seed dispersal routes, or increase vulnerability of wetland species to exotic weed invasion or local extirpation?			X				X	
3) Interfere with ongoing maintenance of hydrological conditions in a water or wetland?			X				X	
4) Provide an adequate buffer for protecting the functions and values of existing waters or wetlands?			X				X	

Impact Discussion:

4C-1 through 4C-4. Arroyo Santa Rosa, a “blue-line” stream, is located approximately 130

feet south of existing graded areas of the parcel. A field examination of the stream by Envicom (ISBA, 2018) indicates that this drainage is ephemeral in nature. This drainage flows from east to west, originating east of LaPeyre Road. Water is conveyed under LaPeyre Road via a culvert and continues west to southwest through the southeastern portion of parcel (ISBA, Figure 3, 2018) and then off-site to the southwest. Arroyo Santa Rosa is subject to the jurisdictional authority of CDFW, pursuant to CDFG Code Section 1600.

At the time of the survey, this drainage supported an incised channel, but lacked indicators of hydric vegetation or soils (Envicom, 2018). In addition, this drainage lacked other indicators commonly associated with wetland hydrology (e.g., drift deposits, surface water, and water marks). A drainage pattern was the only indicator of wetland hydrology, which was observed during the survey. Vegetation associated with this drainage is predominantly disturbed, consisting of coastal sagebrush scrub and non-native grasses and forbs. No riparian trees are associated with the drainage traversing the parcel or adjacent to the parcel. The segment of the drainage adjacent to the parcel closely resembles a grassy swale with emergent coastal scrub species along the upland margins. The portion of the stream nearest the planned development consists of primarily non-native grasses, upland mustards, and non-native castor bean (*Ricinus communis*).

Ventura County General Plan (Policy 1.5.2- 4) requires that discretionary development be located a minimum of 100 feet from significant wetland habitats. Buffer areas may be increased or decreased upon evaluation and recommendation by a qualified biologist and approval by the decision-making body. Factors to be used in determining an adjustment of the 100-foot buffer include soil type, slope stability, drainage patterns, presence or absence of endangered, threatened or rare plants or animals, and compatibility of the proposed development with the wildlife use of the wetland habitat area. The channel of the Arroyo Santa Rosa is located approximately 100 feet from the edge of the existing graded area of the project site. The Applicant is requesting a reduction in the buffer to 50 feet in order to accommodate the proposed structures.

The following section discribes the characteristics of the Arroyo Santa Rosa, which were evaluated in making a decision to accommodate a reduction of the buffer to 50 feet, pursuant to Ventura County Policy 1.5.2-4:

The segment of the stream, located next to the parcel, is disturbed, incised, and does not support distinct bed, bank and channel features. Rather, the channel is shallow and resembles a swale or agricultural ditch. No strong wetland features are evident with this drainage, except for drainage patterns. The proposed project plans do not include encroachment into the Arroyo Santa Rosa. Therefore, proposed project development would not result in direct impacts to this drainage. The drainage does not support fish or wildlife. Based on these factors, the reduction of the buffer to 50 feet from the edge of the development envelope to the stream channel would not result in significant impacts to the Arroyo Santa Rosa.

While proposed project implementation would not result in direct impacts to the Arroyo Santa Rosa, the increase in impervious surfaces, resulting in increased runoff from the project site, has the potential to adversely impact downstream aquatic habitat within the drainage (downstream of the parcel). Stormwater runoff from the site could transport excessive sediment or nutrients (e.g. fertilizers and manure), toxic pesticides or herbicides. Although the drainage segment adjacent to the southern portion of the parcel does not support sensitive wetlands and riparian habitats, contaminants conveyed by stormwater runoff could impair downstream water quality and adversely impact sensitive communities associated with the wet environments. Therefore, these potential impacts are considered potentially significant. A Hydrology and Hydraulics study was prepared for the project (LC Engineering Group, Inc, 2018).[2] Hydrologic calculations indicates that there is only a one percent increase in impervious surfaces from project development resulting in a negligible increase of discharge from the pre- to post-development scenario. The Ventura County Watershed Protection District has conditioned the project to comply with the Stormwater Development Construction Program to ensure compliance with the Los Angeles Regional Water Quality Control Board NPDES Municipal Stormwater Permit. The Permittee will be required to implement Best Management Practices (BMPs) during construction. Additionally, there is a berm located at the top of the slope of the proposed grading pad that will prevent stormwater from sheet flowing off of the property. All runoff from the proposed developed area will be collected in a small onsite detention basin located near the southern portion of the project site. There will also be a small catch basin that will trap sediment from entering the proposed 24-inch pipe, which will be located adjacent to the driveway in the northern portion of the project site. The pipe receives and conveys runoff from onsite flows and offsite flow from the north. Based on these requirements, the stormwater runoff during and after development, is not expected to result in significant water quality impacts to Arroyo Santa Rosa. There are no impacts anticipated to any wetlands and waters and no cumulatively considerable impacts as a result of the proposed project.

Mitigation/Residual Impact(s)

None.

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
4D. Ecological Communities - ESHA (Applies to Coastal Zone Only)								
Will the proposed project:								

[2] Hydrology and Hydraulics Study, 15498 LaPeyre Court, Moorpark, California, prepared by LC Engineering Group, Inc., dated May 23, 2018.

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
1) Temporarily or permanently remove ESHA or disturb ESHA buffers through construction, grading, clearing, or other activities and uses (ESHA buffers are within 100 feet of the boundary of ESHA as defined in Section 8172-1 of the Coastal Zoning Ordinance)?	X				X			
2) Result in indirect impacts from project operation at levels that will degrade the health of an ESHA?	X				X			

Impact Discussion:

4D-1 and 4D-2. The project site is not located in the Coastal Zone; therefore, there will be no impacts to ESHA.

Mitigation/Residual Impact(s)

None.

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
4E. Habitat Connectivity								
Will the proposed project:								
1) Remove habitat within a wildlife movement corridor?		X				X		
2) Isolate habitat?	X				X			
3) Construct or create barriers that impede fish and/or wildlife movement, migration or long term connectivity or interfere with wildlife access to foraging habitat, breeding habitat, water sources, or other areas necessary for their reproduction?		X				X		

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
4) Intimidate fish or wildlife via the introduction of noise, light, development or increased human presence?		X				X		

Impact Discussion:

4E1-4. The project site is located within a documented wildlife corridor and landscape linkage known as the South Coast Missing Linkages Santa Monica - Sierra Madre Connection. The Santa Monica-Sierra Madre Connection is a chain of linkages that connect the Santa Monica, Simi, Santa Susana, and Sierra Madre ranges, addressing two of the 15 landscape linkages identified as irreplaceable and imminently threatened. However, no existing roadway crossing structures were detected within or adjacent to the survey area and no proposed roadway crossings are known at this time (Envicom, 2018). The subject property is developed with an equestrian facility and does not provide high quality habitat for wildlife species to move through. While the project site is not anticipated to support a substantial amount of wildlife movement, the additional structures and horse operations could contribute additional noise, light, and human presence. With the inclusion of a condition of approval requiring the Permittee to submit a Lighting Plan that includes the manufacturer's specifications that limit the light intensity, and provided the lights are shielded, and cast down and away from any adjacent habitat areas, potentially significant impacts to wildlife movement and habitat connectivity would be less than significant.

Arroyo Santa Rosa, an ephemeral drainage feature that traverses along the southern portion of parcel is a potential route for movement of wildlife through the project area, connecting the large areas of scrub and agricultural open space to the southwest of the project site (west of State Route 23) with larger patches of habitat to the north, east, and west of the project area. No habitat within the drainage channel would be removed. No structures within the drainage are proposed that would impede fish and/or wildlife movement, migration or long-term connectivity or interfere with wildlife access to foraging habitat, breeding habitat, water sources, or other areas necessary for their reproduction. Residential development and residential roads in the surrounding area may act as barriers or impediments to movement between the natural scrub habitats to the south and west.

Therefore, direct, indirect, and cumulatively considerable impacts to wildlife movement and habitat connectivity are anticipated to be less-than-significant.

Mitigation/Residual Impact(s)

None.

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
4F. Will the proposed project be consistent with the applicable General Plan Goals and Policies for Item 4 of the Initial Study Assessment Guidelines?			X				X	

Impact Discussion:

4F. The project was reviewed and found to be consistent with the Ventura County General Plan *Goals, Programs and Policies*. General Plan Policy 1.5.2.1 requires discretionary development which could potentially impact biological resources to be evaluated by a qualified biologist to assess impacts and, if necessary, develop mitigation measures. Envicom prepared an Initial Study Biological Assessment (ISBA) dated December 1, 2017 and Revised October 1, 2018, for the proposed project (Attachment 3). The project will impact approximately 0.41 acres of prickly pear cactus resulting in a mitigation-to-impact ratio of 2:1 or 0.82 acres of restoration. With implementation of Mitigation Measures BIO-1, the proposed project will be consistent with General Plan Policy 1.5.2.1.

County General Plan Policy 1.5.2-4 requires a setback of at least 100 feet from significant wetland habitats. The applicant is seeking a reduction of the buffer to 50 feet. An evaluation of the Arroyo Santa Rosa, per the provisions stated in Policy 1.5.2-4 indicate that the segment of the Arroyo Santa Rosa within and adjacent to the parcel, does not support significant wetlands. Therefore, a reduction of the buffer would not result in the project being found inconsistent with General Plan Policy 1.5.2-4.

Mitigation/Residual Impact(s)

With implementation of MM BIO-1, the proposed project will be consistent with the applicable General Plan Goals and Policies for Item 4 of the Initial Study Assessment Guidelines.

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
5A. Agricultural Resources – Soils (Plng.)								
Will the proposed project:								
1) Result in the direct and/or indirect loss of soils designated Prime, Statewide Importance, Unique or Local Importance, beyond the threshold amounts set forth in Section 5a.C of the Initial Study Assessment Guidelines?	X				X			
2) Involve a General Plan amendment that will result in the loss of agricultural soils?	X				X			
3) Be consistent with the applicable General Plan Goals and Policies for Item 5A of the Initial Study Assessment Guidelines?	X				X			

Impact Discussion:

5a-1 and -2. The proposed project would not result in the direct and/or indirect loss of soils classified as Prime, Unique, or having Statewide or Local Importance pursuant to the Important Farmland Inventory, beyond the threshold amounts set forth in Section 5a.C of the Ventura County Initial Study Assessment Guidelines. The proposed project would only impact soils designated as Other Land. Furthermore, the proposed project does not involve a General Plan amendment. Therefore, the proposed project will not have a project-specific impact or make a cumulatively considerable contribution to a significant impact on agricultural soils.

5a-3. The proposed project is consistent with the applicable General Plan Goals and Policies for Item 5a of the Ventura County Initial Assessment Guidelines.

Mitigation/Residual Impact(s): None.

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
5B. Agricultural Resources - Land Use Incompatibility (AG.)								
Will the proposed project:								

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
1) If not defined as Agriculture or Agricultural Operations in the zoning ordinances, be closer than the threshold distances set forth in Section 5b.C of the Initial Study Assessment Guidelines?	X				X			
2) Be consistent with the applicable General Plan Goals and Policies for Item 5b of the Initial Study Assessment Guidelines?	X				X			

Impact Discussion:

5B-1. The proposed project is not defined as Agriculture or Agricultural Operations in the zoning ordinances, but be closer than the threshold distances set forth in Section 5b.C of the Initial Study Assessment Guidelines.

5B-2. The proposed project is consistent with the applicable General Area Plan Goals and Policies for ISAG Item 5B.

Mitigation/Residual Impact(s): None.

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
6. Scenic Resources (Plng.)								
Will the proposed project:								

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
a) Be located within an area that has a scenic resource that is visible from a public viewing location, and physically alter the scenic resource either individually or cumulatively when combined with recently approved, current, and reasonably foreseeable future projects?	X				X			
b) Be located within an area that has a scenic resource that is visible from a public viewing location, and substantially obstruct, degrade, or obscure the scenic vista, either individually or cumulatively when combined with recently approved, current, and reasonably foreseeable future projects?	X				X			
c) Be consistent with the applicable General Plan Goals and Policies for Item 6 of the Initial Study Assessment Guidelines?	X				X			

Impact Discussion:

6a. The project is not located within an area that has a scenic resource that is visible from a public viewing location, and physically alter the scenic resource either individually or cumulatively when combined with recently approved, current, and reasonably foreseeable future projects.

6b. The project is not located within an area that has a scenic resource that is visible from a public viewing location, and substantially obstruct, degrade, or obscure the scenic vista, either individually or cumulatively when combined with recently approved, current, and reasonably foreseeable future projects.

6c. The proposed project is consistent with the applicable General Area Plan Goals and Policies for ISAG Item 6.

Mitigation/Residual Impact(s): None.

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
7. Paleontological Resources								
Will the proposed project:								
a) For the area of the property that is disturbed by or during the construction of the proposed project, result in a direct or indirect impact to areas of paleontological significance?	X				X			
b) Contribute to the progressive loss of exposed rock in Ventura County that can be studied and prospected for fossil remains?	X				X			
c) Be consistent with the applicable General Plan Goals and Policies for Item 7 of the Initial Study Assessment Guidelines?	X				X			

Impact Discussion:

7a. The proposed project will not result in a direct or indirect impact to areas of paleontological significance for the area of the property that is disturbed by or during the construction of the proposed project.

7b. The proposed project will not contribute to the progressive loss of exposed rock in Ventura County that can be studied and prospected for fossil remains.

7c. The proposed project is consistent with the applicable General Plan Goals and Policies for Item 7 of the Initial Study Assessment Guidelines.

Mitigation/Residual Impact(s): None.

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
8A. Cultural Resources - Archaeological								
Will the proposed project:								
1) Demolish or materially alter in an adverse manner those physical characteristics that account for the inclusion of the resource in a local register of historical resources pursuant to Section 5020.1(k) requirements of Section 5024.1(g) of the Public Resources Code?	X				X			
2) Demolish or materially alter in an adverse manner those physical characteristics of an archaeological resource that convey its archaeological significance and that justify its eligibility for inclusion in the California Register of Historical Resources as determined by a lead agency for the purposes of CEQA?	X				X			
3) Be consistent with the applicable General Plan Goals and Policies for Item 8A of the Initial Study Assessment Guidelines?	X				X			

Impact Discussion:

8A-1. A Phase 1(a) Cultural Resources Assessment was completed for the project by Envicom Corporation, dated August 27th. 2017. The conclusion in the report found that the cultural resource context of the area was determined to not be significant for prehistoric or historic cultural resources. The report also determined that the site was negative for cultural resources. Also, the proposed project is underlain by Conejo Volcanics and it is highly unlikely that any archaeological components exist in the project area. Therefore, it will not demolish or materially alter in an adverse manner those physical characteristics that account for the inclusion of the resource in a local register of historical resources pursuant to Section 5020.1(k) requirements of Section 5024.1(g) of the Public Resources Code.

8A-2. The proposed project will not demolish or materially alter in an adverse manner those physical characteristics of an archaeological resource that convey its archaeological significance and that justify its eligibility for inclusion in the California Register of Historical Resources as determined by a lead agency for the purposes of CEQA.

8A-3. The proposed project is consistent with the applicable General Plan Goals and Policies for Item 8A of the Initial Study Assessment Guidelines.

Mitigation/Residual Impact(s): None.

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
8B. Cultural Resources – Historic (Plng.)								
Will the proposed project:								
1) Demolish or materially alter in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its inclusion in, or eligibility for, inclusion in the California Register of Historical Resources?	X				X			
2) Demolish or materially alter in an adverse manner those physical characteristics that account for its inclusion in a local register of historical resources pursuant to Section 5020.1(k) of the Public Resources Code or its identification in a historical resources survey meeting the requirements of Section 5024.1(g) of the Public Resources Code?	X				X			
3) Demolish or materially alter in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its eligibility for inclusion in the California Register of Historical Resources as determined by a lead agency for purposes of CEQA?	X				X			
4) Demolish, relocate, or alter an historical resource such that the significance of the historical resource will be impaired [Public Resources Code, Sec. 5020(q)]?	X				X			

Impact Discussion:

8B-1. No historic resources included on the California Register of Historical Resources exist within the proposed project site. Therefore, the proposed project would not demolish or materially alter in an adverse manner a historic resource on the California

Register of Historical Resources. Furthermore, there are no pending or approved projects located within one quarter mile of the proposed project site, which is the area for analyzing cumulative impacts to historic resources (Ventura County Initial Study Assessment Guidelines, 72). Therefore, the proposed project will not have a project-specific impact or make a cumulatively considerable contribution to a significant cumulative impact to historic resources.

8b-2. The nearest historic structures to the project site that are included on the list of Ventura County Historic Landmarks and Points of Interest can be found at Strathearn Historical Park, which are located over to miles from the proposed project area (Ventura County Historic Landmarks & Points of Interest, Third Edition, 2016). At that distance from the project site, the proposed project does not have the potential to demolish or materially alter in an adverse manner any physical characteristics that account for these historic structures inclusion in the list of Ventura County Historic Landmarks and Points of Interest. Furthermore, as stated above, there are no pending or approved projects located within one quarter mile of the proposed project site, which is the area for analyzing cumulative impacts to historic resources. Therefore, the proposed project will not have a project-specific impact or make a cumulatively considerable contribution to a significant cumulative impact to historic resources.
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8b-3. No historic resources included on the California Register of Historical Resources exist within the proposed project site. Therefore, the proposed project would not demolish or materially alter in an adverse manner those physical characteristics of an historic resource that convey its historic significance and that justify its eligibility for inclusion in the California Register of Historic Resources. Furthermore, as stated above, there are no pending or approved projects located within one quarter mile of the proposed project site, which is the area for analyzing cumulative impacts to historic resources. Therefore, the proposed project will not have a project-specific impact or make a cumulatively considerable contribution to a significant cumulative impact to historic resources.

8b-4. As stated above, the proposed project would not demolish or alter an historic resource such that the significance of the historic resource will be impaired. Furthermore, there are no pending or approved projects located within one quarter mile of the proposed project site, which is the area for analyzing cumulative impacts to historic resources. Therefore, the proposed project will not have a project-specific impact or make a cumulatively considerable contribution to a significant cumulative impact to historic resources.

Mitigation/Residual Impact(s): None.

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
9. Coastal Beaches and Sand Dunes								
Will the proposed project:								
a) Cause a direct or indirect adverse physical change to a coastal beach or sand dune, which is inconsistent with any of the coastal beaches and coastal sand dunes policies of the California Coastal Act, corresponding Coastal Act regulations, Ventura County Coastal Area Plan, or the Ventura County General Plan Goals, Policies and Programs?	X				X			
b) When considered together with one or more recently approved, current, and reasonably foreseeable probable future projects, result in a direct or indirect, adverse physical change to a coastal beach or sand dune?					X			
c) Be consistent with the applicable General Plan Goals and Policies for Item 9 of the Initial Study Assessment Guidelines?	X				X			

Impact Discussion:

9a. The proposed project is not located near a coastal beach or sand dune and will therefore not cause a direct or indirect adverse physical change to a coastal beach or sand dune, which is inconsistent with any of the coastal beaches and coastal sand dunes policies of the California Coastal Act, corresponding Coastal Act regulations, Ventura County Coastal Area Plan, or the Ventura County General Plan Goals, Policies and Programs.

9b. The proposed project is not located near a coastal beach or sand dune and will therefore not When considered together with one or more recently approved, current, and reasonably foreseeable probable future projects, result in a direct or indirect, adverse physical change to a coastal beach or sand dune.

9c. The proposed project is consistent with the applicable General Plan Goals and Policies for Item 9 of the Initial Study Assessment Guidelines.

Mitigation/Residual Impact(s): None.

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
10. Fault Rupture Hazard (PWA)								
Will the proposed project:								
a) Be at risk with respect to fault rupture in its location within a State of California designated Alquist-Priolo Special Fault Study Zone?	X							
b) Be at risk with respect to fault rupture in its location within a County of Ventura designated Fault Hazard Area?	X							
c) Be consistent with the applicable General Plan Goals and Policies for Item 10 of the Initial Study Assessment Guidelines?	X				X			

Impact Discussion:

10a and 10b. Any discussion of potential impacts of seismic and geologic hazards to the proposed project is provided for informational purposes only and is neither required by CEQA nor subject to its requirements. There are no known active or potentially active faults extending through the proposed project based on State of California Earthquake Fault Zones in accordance with the Alquist-Priolo Earthquake Fault Zoning Act, and Ventura County General Plan Hazards Appendix –Figure 2.2.3b. Furthermore, no proposed habitable structures are within 50 feet of a mapped trace of an active fault. There is no impact (N) from potential fault rupture hazard.

There is no known cumulative fault rupture hazard impact that will occur as a result of other approved, proposed, or probable projects.

10c. The proposed project is consistent with the applicable General Plan Goals and Policies for Item 10 of the Initial Study Assessment Guidelines.

Mitigation/Residual Impact(s): None.

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
11. Ground Shaking Hazard (PWA)								
Will the proposed project:								
a) Be built in accordance with all applicable requirements of the Ventura County Building Code?		X				X		
b) Be consistent with the applicable General Plan Goals and Policies for Item 11 of the Initial Study Assessment Guidelines?		X				X		

Impact Discussion:

11a. The proposed agricultural road will be built in accordance with all applicable requirements of the 2016 Ventura County Building Code. No structures or facilities will be constructed at this time. Any discussion of potential impacts of seismic and geologic hazards to the proposed project is provided for informational purposes only and is neither required by CEQA nor subject to its requirements. The property will subject to moderate to strong ground shaking from seismic events on local and regional fault systems. No new structures are proposed as part of this project at this time and the effects of ground shaking are considered less than significant.

The hazards from ground shaking will affect each project individually; and no cumulative ground shaking hazard will occur as a result of other approved, proposed, or probable projects.

11b. The proposed project is consistent with the applicable General Plan Goals and Policies for Item 11 of the Initial Study Assessment Guidelines.

Mitigation/Residual Impact(s): None.

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
12. Liquefaction Hazards (PWA)								
Will the proposed project:								
a) Expose people or structures to potential adverse effects, including the risk of loss, injury, or death involving liquefaction because it is located within a Seismic Hazards Zone?	X							
b) Be consistent with the applicable General Plan Goals and Policies for Item 12 of the Initial Study Assessment Guidelines?	X				X			

Impact Discussion:

12a. Any discussion of potential impacts of seismic and geologic hazards to the proposed project is provided for informational purposes only and is neither required by CEQA nor subject to its requirements. The site is not located within a potential liquefaction zone based on the Ventura County General Plan Hazards Appendix – Figure 2.4b. This map is a compilation of the State of California Seismic Hazards Maps for the County of Ventura and is used as the basis for delineating the potential liquefaction hazards within the County. Consequently, liquefaction is not a factor for the proposed project and the site is not within a State of California Seismic Hazards zone for liquefaction. There is no impact from potential hazards from liquefaction.

The hazards from liquefaction will affect each project individually; and no cumulative liquefaction hazard will occur as a result of other approved, proposed, or probable projects.

12b. The proposed project is consistent with the applicable General Plan Goals and Policies for Item 12 of the Initial Study Assessment Guidelines.

Mitigation/Residual Impact(s): None.

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
13. Seiche and Tsunami Hazards (PWA)								
Will the proposed project:								
a) Be located within about 10 to 20 feet of vertical elevation from an enclosed body of water such as a lake or reservoir?	X							
b) Be located in a mapped area of tsunami hazard as shown on the County General Plan maps?	X							
c) Be consistent with the applicable General Plan Goals and Policies for Item 13 of the Initial Study Assessment Guidelines?	X				X			

Impact Discussion:

13a. Any discussion of potential impacts of seismic and geologic hazards to the proposed project is provided for informational purposes only and is neither required by CEQA nor subject to its requirements. The site is not located adjacent to a closed or restricted body of water based on aerial imagery review and is not subject to seiche hazard.

13b. Any discussion of potential impacts of seismic and geologic hazards to the proposed project is provided for informational purposes only and is neither required by CEQA nor subject to its requirements. The project is not mapped within a tsunami inundation zone based on the Ventura County General Plan, Hazards Appendix Figure 2.6. There is no impact from potential hazards from tsunami.

The hazards from seiche and tsunami will affect each project individually; and no cumulative seiche and tsunami hazard will occur as a result of other approved, proposed, or probable projects.

13c. The proposed project is consistent with the applicable General Plan Goals and Policies for Item 13 of the Initial Study Assessment Guidelines.

Mitigation/Residual Impact(s): None.

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
14. Landslide/Mudflow Hazard (PWA)								
Will the proposed project:								
a) Result in a landslide/mudflow hazard, as determined by the Public Works Agency Certified Engineering Geologist, based on the location of the site or project within, or outside of mapped landslides, potential earthquake induced landslide zones, and geomorphology of hillside terrain?	X							
b) Be consistent with the applicable General Plan Goals and Policies for Item 14 of the Initial Study Assessment Guidelines?	X				X			

Impact Discussion:

14a. Landslides and mudslides are not presently mapped within the property as determined by the Public Works Agency Certified Engineering Geologist, based on the location of the site or project within, or outside of mapped landslides, potential earthquake induced landslide zones, and geomorphology of hillside terrain.

The hazards from landslides/mudslides will affect each project individually; and no cumulative landslide/mudslide hazard will occur as a result of other approved, proposed, or probable projects.

14b. The proposed project is consistent with the applicable General Plan Goals and Policies for Item 14 of the Initial Study Assessment Guidelines.

Mitigation/Residual Impact(s): None.

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
15. Expansive Soils Hazards (PWA)								
Will the proposed project:								
a) Expose people or structures to potential adverse effects, including the risk of loss, injury, or death involving soil expansion because it is located within a soils expansive hazard zone or where soils with an expansion index greater than 20 are present?	X							
b) Be consistent with the applicable General Plan Goals and Policies for Item 15 of the Initial Study Assessment Guidelines?	X				X			

Impact Discussion:

15a. The onsite soil has an expansive index of less than 20 per the Calwest Geotechnical report and the referenced reports in mentioned Geotechnical Reports. The recommendation for any import material per the above mentioned report state the import material should be comparable to the onsite native soil and alluvium.

The hazards from expansive soils will affect each project individually; and no cumulative expansive soils hazard will occur as a result of other approved, proposed, or probable projects.

15b. The proposed project is consistent with the applicable General Plan Goals and Policies for Item 15 of the Initial Study Assessment Guidelines.

Mitigation/Residual Impact(s): None.

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
16. Subsidence Hazard (PWA)								
Will the proposed project:								
a) Expose people or structures to potential adverse effects, including the risk of loss, injury, or death involving subsidence because it is located within a subsidence hazard zone?	X							
b) Be consistent with the applicable General Plan Goals and Policies for Item 16 of the Initial Study Assessment Guidelines?	X				X			

Impact Discussion:

16a. The subject property is not within the probable subsidence hazard zone as delineated on the Ventura County General Plan Hazards Appendix Figure 2.8 (October 22, 2013) and the project is not for oil, gas or groundwater withdrawal, the project is considered to have no impact on the hazard of subsidence.

The hazards from subsidence will affect each project individually; and no cumulative subsidence hazard will occur as a result of other approved, proposed, or probable projects.

16b. The proposed project is consistent with the applicable General Plan Goals and Policies for Item 16 of the Initial Study Assessment Guidelines.

Mitigation/Residual Impact(s): None.

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
17a. Hydraulic Hazards – Non-FEMA (PWA)								
Will the proposed project:								
1) Result in a potential erosion/siltation hazard and flooding hazard pursuant to any of the following documents (individually, collectively, or in combination with one another): • 2007 Ventura County Building Code Ordinance No.4369 • Ventura County Land Development Manual • Ventura County Subdivision Ordinance • Ventura County Coastal Zoning Ordinance • Ventura County Non-Coastal Zoning Ordinance • Ventura County Standard Land Development Specifications • Ventura County Road Standards • Ventura County Watershed Protection District Hydrology Manual • County of Ventura Stormwater Quality Ordinance, Ordinance No. 4142 • Ventura County Hillside Erosion Control Ordinance, Ordinance No. 3539 and Ordinance No. 3683 • Ventura County Municipal Storm Water NPDES Permit • State General Construction Permit • State General Industrial Permit • National Pollutant Discharge Elimination System (NPDES)?		X				X		
2) Be consistent with the applicable General Plan Goals and Policies for Item 17A of the Initial Study Assessment Guidelines?		X				X		

Impact Discussion:

17A-1. The proposed project consists of cut and fill grading to construct a flat pad to improve an existing equestrian operation. The *Hydrology and Hydrologic Study* prepared by LC Engineering Group on May 23, 2018, indicates there will be a very minor increase in impervious surface at 4% to 5%. A detention basin is proposed to mitigate the new impervious area.

17A-2. The proposed project is consistent with the applicable General Plan Goals and Policies for Item 17A of the Initial Study Assessment Guidelines.

Mitigation/Residual Impact(s): None.

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
17b. Hydraulic Hazards – FEMA (WPD)								
Will the proposed project:								
1) Be located outside of the boundaries of a Special Flood Hazard Area and entirely within a FEMA-determined 'X-Unshaded' flood zone (beyond the 0.2% annual chance floodplain: beyond the 500-year floodplain)?	X				X			
2) Be located outside of the boundaries of a Special Flood Hazard Area and entirely within a FEMA-determined 'X-Shaded' flood zone (within the 0.2% annual chance floodplain: within the 500-year floodplain)?	X				X			
3) Be located, in part or in whole, within the boundaries of a Special Flood Hazard Area (1% annual chance floodplain: 100-year), but located entirely outside of the boundaries of the Regulatory Floodway?	X				X			
4) Be located, in part or in whole, within the boundaries of the Regulatory Floodway, as determined using the 'Effective' and latest available DFIRMs provided by FEMA?	X				X			
5) Be consistent with the applicable General Plan Goals and Policies for Item 17B of the Initial Study Assessment Guidelines?	X				X			

Impact Discussion:

17B-1 thru 4. The proposed project is not located within the boundaries of a FEMA regulated Special Flood Hazard Area nor is it in a Regulatory Floodway determined using the most recent DFIRMs provided by FEMA.

17B-5. The project is consistent with the applicable General Plan Goals and Policies for Item 17B of the Initial Study Assessment Guidelines.

Mitigation/Residual Impact(s): None.

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
18. Fire Hazards (VCFPD)								
Will the proposed project:								
a) Be located within High Fire Hazard Areas/Fire Hazard Severity Zones or Hazardous Watershed Fire Areas?		X				X		
b) Be consistent with the applicable General Plan Goals and Policies for Item 18 of the Initial Study Assessment Guidelines?		X				X		

Impact Discussion:

18a. The project is located in a high fire hazard area and will comply with all applicable Federal, State regulations and the requirements of the VCBC and the Fire Code.

18b. The proposed project is consistent with the applicable General Plan Goals and Policies for Item 18 of the Initial Study Assessment Guidelines.

Mitigation/Residual Impact(s): None.

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
19. Aviation Hazards (Airports)								
Will the proposed project:								
a) Comply with the County's Airport Comprehensive Land Use Plan and pre-established federal criteria set forth in Federal Aviation Regulation Part 77 (Obstruction Standards)?	X				X			
b) Will the proposed project impact residential development within the sphere of influence of County airports, as well as churches, schools and high commercial purpose	X				X			
c) Be consistent with the applicable General Plan Goals and Policies for Item 19 of the Initial Study Assessment Guidelines?	X				X			

Impact Discussion:

19a. The proposed project is not located within the sphere of influence of an Airport and therefore, the proposed project complies with the County's Airport Comprehensive Land Use Plan and pre-established federal criteria set forth in Federal Aviation Regulation Part 77 (Obstruction Standards).

19b. The proposed project is located in a sparsely populated area and is not in the sphere of influence of County airports, as well as churches, schools and high commercial purpose. Therefore, there will be no impact.

19c. The proposed project is consistent with the applicable General Plan Goals and Policies for Item 19 of the Initial Study Assessment Guidelines.

Mitigation/Residual Impact(s): None.

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
20a. Hazardous Materials/Waste – Materials (EHD/Fire)								
Will the proposed project:								
1) Utilize hazardous materials in compliance with applicable state and local requirements as set forth in Section 20a of the Initial Study Assessment Guidelines?	X				X			
2) Be consistent with the applicable General Plan Goals and Policies for Item 20a of the Initial Study Assessment Guidelines?	X				X			

Impact Discussion:

20A-1. The proposed project does not involve the use of any hazardous materials. The proposed project will not have any project-specific or cumulative impacts relative to hazardous materials.

20A-2. The proposed project is consistent with the applicable General Plan Goals and Policies for Item 20a of the Initial Study Assessment Guidelines.

Mitigation/Residual Impact(s): None.

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
20b. Hazardous Materials/Waste – Waste (EHD)								
Will the proposed project:								
1) Comply with applicable state and local requirements as set forth in Section 20b of the Initial Study Assessment Guidelines?	X				X			
2) Be consistent with the applicable General Plan Goals and Policies for Item 20b of the Initial Study Assessment Guidelines?	X				X			

Impact Discussion:

20b-1. The proposed project is not considered an activity that produces hazardous waste. The proposed project will not have any project-specific or cumulative impacts relative to hazardous wastes.

20b-2. The proposed project is consistent with the applicable General Plan Goals and Policies for Item 20b of the Initial Study Assessment Guidelines.

Mitigation/Residual Impact(s): None.

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
21. Noise and Vibration								
Will the proposed project:								

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
a) Either individually or when combined with other recently approved, pending, and probable future projects, produce noise in excess of the standards for noise in the Ventura County General Plan Goals, Policies and Programs (Section 2.16) or the applicable Area Plan?		X				X		
b) Either individually or when combined with other recently approved, pending, and probable future projects, include construction activities involving blasting, pile-driving, vibratory compaction, demolition, and drilling or excavation which exceed the threshold criteria provided in the Transit Noise and Vibration Impact Assessment (Section 12.2)?		X				X		
c) Result in a transit use located within any of the critical distances of the vibration-sensitive uses listed in Table 1 (Initial Study Assessment Guidelines, Section 21)?		X				X		
d) Generate new heavy vehicle (e.g., semi-truck or bus) trips on uneven roadways located within proximity to sensitive uses that have the potential to either individually or when combined with other recently approved, pending, and probable future projects, exceed the threshold criteria of the Transit Use Thresholds for rubber-tire heavy vehicle uses (Initial Study Assessment Guidelines, Section 21-D, Table 1, Item No. 3)?		X				X		
e) Involve blasting, pile-driving, vibratory compaction, demolition, drilling, excavation, or other similar types of vibration-generating activities which have the potential to either individually or when combined with other recently approved, pending, and probable future projects, exceed the threshold criteria provided in the Transit Noise and Vibration Impact Assessment [Hanson, Carl E., David A. Towers, and Lance D. Meister. (May 2006) Section 12.2]?		X				X		

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
f) Be consistent with the applicable General Plan Goals and Policies for Item 21 of the Initial Study Assessment Guidelines?		X				X		

Impact Discussion:

21a thru d. The proposed project is located in a sparsely populated, equestrian use and agricultural area that is not in close proximity to any vibration-sensitive uses. Although construction activities will generate noise and will require a temporary, increase in heavy equipment traffic along Tierra Rejada Road, the impact is less than significant due to the remote location and temporary nature.

Construction activities that generate noise and vibrations are limited to Monday through Friday between the hours of 7am and 7pm, Saturdays from 9am to 4pm and no work on Sundays and Holidays. Truck trips are limited to between to 40 (maximum) round trips per day, Monday through Friday.

By following the standards set by the Public Works Agency for construction activities, the impacts from noise and vibrations will be less than significant.

21f. The proposed project is consistent with the applicable General Plan Goals and Policies for Item 21 of the Initial Study Assessment Guidelines.

Mitigation/Residual Impact(s): None.

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
22. Daytime Glare								
Will the proposed project:								
a) Create a new source of disability glare or discomfort glare for motorists travelling along any road of the County Regional Road Network?	X				X			
b) Be consistent with the applicable General Plan Goals and Policies for Item 22 of the Initial Study Assessment Guidelines?	X				X			

Impact Discussion:

22a. The proposed grading project will not create a new source of disability glare or discomfort glare for motorists travelling along any road of the County Regional Road Network, as it is approximately 0.25 miles away from Tierra Rejada off a private road.

22b. The proposed project is consistent with the applicable General Plan Goals and Policies for Item 22 of the Initial Study Assessment Guidelines.

Mitigation/Residual Impact(s): None.

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
23. Public Health (EHD)								
Will the proposed project:								
a) Result in impacts to public health from environmental factors as set forth in Section 23 of the Initial Study Assessment Guidelines?	X				X			
b) Be consistent with the applicable General Plan Goals and Policies for Item 23 of the Initial Study Assessment Guidelines?	X				X			

Impact Discussion:

23a No project-specific or cumulative impacts to public health were identified during the review of the proposed project.

23b. The proposed project is consistent with the applicable General Plan Goals and Policies for Item 23 of the Initial Study Assessment Guidelines.

Mitigation/Residual Impact(s): None.

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
24. Greenhouse Gases (VCAPCD)								
Will the proposed project:								
a) Result in environmental impacts from greenhouse gas emissions, either project specifically or cumulatively, as set forth in CEQA Guidelines §§ 15064(h)(3), 15064.4, 15130(b)(1)(B) and -(d), and 15183.5?		X				X		

Impact Discussion:

24a. The Ventura County Air Pollution Control District has not yet adopted any approach to setting a threshold of significance for land use development projects in the area of project greenhouse gas emissions. The project will generate less than significant impacts to regional and local air quality. Furthermore, the amount of greenhouse gases anticipated from the project will be a small fraction of the levels being considered by the APCD for greenhouse gas significance thresholds and far below those adopted to date by any air district in the state.

Therefore, the project specific and cumulative impacts to greenhouse gases are less than significant.

Mitigation/Residual Impact(s): None.

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
25. Community Character (Plng.)								
Will the proposed project:								
a) Either individually or cumulatively when combined with recently approved, current, and reasonably foreseeable probable future projects, introduce physical development that is incompatible with existing land uses, architectural form or style, site design/layout, or density/parcel sizes within the community in which the project site is located?		X				X		
b) Be consistent with the applicable General Plan Goals and Policies for Item 25 of the Initial Study Assessment Guidelines?		X				X		

Impact Discussion:

25a. The project site and the surrounding area all contain similar land uses, architectural form or style, site design/layout, or density/parcel sizes within the community in which the project site is located. Therefore, there will be a less than significant impact.

25b. The proposed project would be consistent with the applicable General Plan Goals and Policies for Item 25 of the Ventura County Initial Study Assessment Guideline.

Mitigation/Residual Impact(s): None.

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
26. Housing (Plng.)								
Will the proposed project:								
a) Eliminate three or more dwelling units that are affordable to: • moderate-income households that are located within the Coastal Zone; and/or, • lower-income households?	X				X			
b) Involve construction which has an impact on the demand for additional housing due to potential housing demand created by construction workers?		X				X		
c) Result in 30 or more new full-time-equivalent lower-income employees?	X				X			
d) Be consistent with the applicable General Plan Goals and Policies for Item 26 of the Initial Study Assessment Guidelines?	X				X			

Impact Discussion:

26a. The proposed project would not eliminate three or more dwelling units that are affordable to moderate-income households that are located within the Coastal Zone, and/or lower-income households. Therefore, the proposed project will not have a project-specific impact or make a cumulatively considerable contribution to a significant cumulative impact related to the elimination of housing.

26b. As stated in the Ventura County Initial Study Assessment Guidelines (146), any project that involves construction has an impact on the demand for additional housing due to potential housing demand created by construction workers. However, construction work is short-term and there is a sufficient pool of construction workers within Ventura County and the Los Angeles metropolitan regions. Therefore, the proposed project will have a less-than-significant project-specific impact and will not make a cumulatively considerable contribution to a significant cumulative impact related to housing demand for construction workers.

26c. The proposed project consists of a grading project to improve an existing equestrian facility and does not include the introduction of a new use (e.g., establishment of a new business) that will result in 30 or more new full-time-equivalent lower-income employees. Therefore, the proposed project will not have a project-specific impact or make a cumulatively considerable contribution to a significant cumulative impact related to housing demand from lower-income employees.

26d. The proposed project is consistent with the applicable General Plan Goals and Policies for Item 26 of the Ventura County Initial Study Assessment Guidelines.

Mitigation/Residual Impact(s): None.

Issue (Responsible Department)*	**Project Impact Degree Of Effect****				**Cumulative Impact Degree Of Effect****			
	N	LS	PS-M	PS	N	LS	PS-M	PS
27a(1). Transportation & Circulation - Roads and Highways - Level of Service (LOS) (PWA)								
Will the proposed project:								
a) Cause existing roads within the Regional Road Network or Local Road Network that are currently functioning at an acceptable LOS to function below an acceptable LOS?		X				X		

Impact Discussion:

27a(1)-a. Per the approved grading plans creating a flat pad by through cut and fill grading, as well as import operations. Truck trips are limited to a maximum of 40 round trips per day, Monday through Friday. Therefore, the proposed project will not cause existing roads within the Regional Road Network or Local Road Network that are currently functioning at an acceptable LOS to function below an acceptable LOS.

Mitigation/Residual Impact(s): None.

Issue (Responsible Department)*	**Project Impact Degree Of Effect****				**Cumulative Impact Degree Of Effect****			
	N	LS	PS-M	PS	N	LS	PS-M	PS
27a(2). Transportation & Circulation - Roads and Highways - Safety and Design of Public Roads (PWA)								
Will the proposed project:								

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
a) Have an Adverse, Significant Project-Specific or Cumulative Impact to the Safety and Design of Roads or Intersections within the Regional Road Network (RRN) or Local Road Network (LRN)?		X				X		

Impact Discussion:

27a(2)-a. Per the approved grading plans creating a flat pad by through cut and fill grading, as well as import operations. There will be a limited increase in traffic on the Regional and Local Road Network will be for the import of soil, which is limited to 40 (maximum) round trips per day, Monday through Friday. Therefore, there will be no adverse, significant project specific or cumulative impact to the Safety and Design of Roads or Intersections within the Regional Road Network (RRN) or Local Road Network (LRN).

Mitigation/Residual Impact(s): None.

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
27a(3). Transportation & Circulation - Roads & Highways – Safety & Design of Private Access (VCFPD)								
a) If a private road or private access is proposed, will the design of the private road meet the adopted Private Road Guidelines and access standards of the VCFPD as listed in the Initial Study Assessment Guidelines?		X				X		
b) Will the project be consistent with the applicable General Plan Goals and Policies for Item 27a(3) of the Initial Study Assessment Guidelines?		X				X		

Impact Discussion:

27a(3)-a. The proposed project does not include the construction of a private road or access. An existing private road serves the subject property and meet minimum VCFPD access standards. Therefore, there will be a less than significant impact.

27a(3)-b. The proposed project is consistent with the applicable General Plan Goals and Policies for Item 27a(3) of the Initial Study Assessment Guidelines.

Mitigation/Residual Impact(s): None.

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
27a(4). Transportation & Circulation - Roads & Highways - Tactical Access (VCFPD)								
Will the proposed project:								
a) Involve a road or access, public or private, that complies with VCFPD adopted Private Road Guidelines?		X				X		
b) Be consistent with the applicable General Plan Goals and Policies for Item 27a(4) of the Initial Study Assessment Guidelines?		X				X		

Impact Discussion:

27a(4)-a. The proposed project does not include the construction of a private road or access. An existing private road serves the subject property. Therefore, there will be a less than significant impact.

27a(4)-b. The proposed project is consistent with the applicable General Plan Goals and Policies for Item 27a(4) of the Initial Study Assessment Guidelines.

Mitigation/Residual Impact(s): None.

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
27b. Transportation & Circulation - Pedestrian/Bicycle Facilities (PWA/Plng.)								
Will the proposed project:								
1) Will the Project have an Adverse, Significant Project-Specific or Cumulative Impact to Pedestrian and Bicycle Facilities within the Regional Road Network (RRN) or Local Road Network (LRN)?	X				X			
2) Generate or attract pedestrian/bicycle traffic volumes meeting requirements for protected highway crossings or pedestrian and bicycle facilities?	X				X			
3) Be consistent with the applicable General Plan Goals and Policies for Item 27b of the Initial Study Assessment Guidelines?	X				X			

Impact Discussion:

27b-1. The proposed project would not result in actual or potential barriers to existing or planned pedestrian/bike facilities. Therefore, the proposed project will not have a project-specific impact and will not make a cumulatively considerable contribution to a significant cumulative impact on pedestrian/bike facilities.

27b-2. The proposed project is a grading project on private land that would not attract pedestrian/bicycle traffic volumes meeting the requirements for protected highway crossings or pedestrian and bicycle facilities. Therefore, the proposed project would not have a project-specific impact or make a cumulatively considerable contribution to cumulative impacts on pedestrian/bicycle facilities.

27b-3. The proposed project is consistent the applicable General Plan Goals and Policies for Item 27 of the Ventura County Initial Study Assessment Guidelines.

Mitigation/Residual Impact(s): None.

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
27c. Transportation & Circulation - Bus Transit								
Will the proposed project:								
1) Substantially interfere with existing bus transit facilities or routes, or create a substantial increase in demand for additional or new bus transit facilities/services?		X				X		
2) Be consistent with the applicable General Plan Goals and Policies for Item 27c of the Initial Study Assessment Guidelines?		X				X		

Impact Discussion:

27c-1. The proposed project will not generate any long-term additional daily vehicle trips as there are no structures proposed, therefore this project will not substantially interfere with existing bus transit facilities or routes, or create a substantial increase in demand for additional or new bus transit facilities/services.

27c-2. The proposed project is consistent with the applicable General Plan Goals and Policies for Item 27c of the Initial Study Assessment Guidelines.

Mitigation/Residual Impact(s): None.

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
27d. Transportation & Circulation - Railroads								
Will the proposed project:								

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
1) Individually or cumulatively, substantially interfere with an existing railroad's facilities or operations?	X				X			
2) Be consistent with the applicable General Plan Goals and Policies for Item 27d of the Initial Study Assessment Guidelines?	X				X			

Impact Discussion:

27d-1. There are no rail lines in the vicinity of the proposed project and therefore the project would not Individually or cumulatively, substantially interfere with an existing railroad's facilities or operations.

27d-2. The proposed project is consistent with the applicable General Plan Goals and Policies for Item 27d of the Initial Study Assessment Guidelines.

Mitigation/Residual Impact(s): None.

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
27e. Transportation & Circulation – Airports (Airports)								
Will the proposed project:								
1) Have the potential to generate complaints and concerns regarding interference with airports?	X				X			
2) Be located within the sphere of influence of either County operated airport?	X				X			
3) Be consistent with the applicable General Plan Goals and Policies for Item 27e of the Initial Study Assessment Guidelines?	X				X			

Impact Discussion:

27e-1 and 2. There are no airports in the vicinity of the proposed project nor is it located within the sphere of influence of either County Airport. Therefore, the proposed project would not have the potential to generate complaints and concerns regarding interference with airports.

27e-3. The proposed project is consistent with the applicable General Plan Goals and Policies for Item 27e of the Initial Study Assessment Guidelines.

Mitigation/Residual Impact(s): None.

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
27f. Transportation & Circulation - Harbor Facilities (Harbors)								
Will the proposed project:								
1) Involve construction or an operation that will increase the demand for commercial boat traffic and/or adjacent commercial boat facilities?	X				X			
2) Be consistent with the applicable General Plan Goals and Policies for Item 27f of the Initial Study Assessment Guidelines?	X				X			

Impact Discussion:

27f-1. The proposed project is not located near a Harbor and it does not involve commercial boating operations.

27f-2. The proposed project is consistent with the applicable General Plan Goals and Policies for Item 27f of the Initial Study Assessment Guidelines.

Mitigation/Residual Impact(s): None.

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
27g. Transportation & Circulation - Pipelines								
Will the proposed project:								
1) Substantially interfere with, or compromise the integrity or affect the operation of, an existing pipeline?	X				X			
2) Be consistent with the applicable General Plan Goals and Policies for Item 27g of the Initial Study Assessment Guidelines?	X				X			

Impact Discussion:

27g-1. There are no pipelines in the vicinity of the proposed project and therefore it will not Substantially interfere with, or compromise the integrity or affect the operation of, an existing pipeline.

27g-2. The proposed project is consistent with the applicable General Plan Goals and Policies for Item 27g of the Initial Study Assessment Guidelines.

Mitigation/Residual Impact(s): None.

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
28a. Water Supply – Quality (EHD)								
Will the proposed project:								

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
1) Comply with applicable state and local requirements as set forth in Section 28a of the Initial Study Assessment Guidelines?		X				X		
2) Be consistent with the applicable General Plan Goals and Policies for Item 28a of the Initial Study Assessment Guidelines?		X				X		

Impact Discussion:

28a-1. The proposed project will not require a new source of potable quality water. The subject property has an existing water connection through Camrosa Water District.

28a-2. The proposed project is consistent with the applicable General Plan Goals and Policies for Item 28a of the Initial Study Assessment Guidelines.

Mitigation/Residual Impact(s): None.

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
28b. Water Supply – Quantity (WPD)								
Will the proposed project:								
1) Have a permanent supply of water?	X				X			
2) Either individually or cumulatively when combined with recently approved, current, and reasonably foreseeable probable future projects, introduce physical development that will adversely affect the water supply - quantity of the hydrologic unit in which the project site is located?		X				X		
3) Be consistent with the applicable General Plan Goals and Policies for Item 28b of the Initial Study Assessment Guidelines?		X				X		

Impact Discussion:

28b-1. The property is currently served by Camrosa Water District though an existing connection and will not need a new connection.

28b-2. The proposed project is a grading project and will not generate the need for additional water usage. Water used during construction to control dust and achieve proper compaction will be minimal and will not adversely affect the water supply quantity of the hydrologic unit in which the project site is located.

28b-3. The proposed project is consistent with the applicable General Plan Goals and Policies for Item 28b of the Initial Study Assessment Guidelines.

Mitigation/Residual Impact(s) None.

Issue (Responsible Department)*	**Project Impact Degree Of Effect****				**Cumulative Impact Degree Of Effect****			
	N	LS	PS-M	PS	N	LS	PS-M	PS
28c. Water Supply - Fire Flow Requirements (VCFPD)								
Will the proposed project:								
1) Meet the required fire flow?		X				X		
2) Be consistent with the applicable General Plan Goals and Policies for Item 28c of the Initial Study Assessment Guidelines?		X				X		

Impact Discussion:

28c-1. Any future structures shall meet VCFPD fire flow requirements.

28c-2. The proposed project is consistent with the applicable General Plan Goals and Policies for Item 28c of the Initial Study Assessment Guidelines.

Mitigation/Residual Impact(s): None.

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
29a. Waste Treatment & Disposal Facilities - Individual Sewage Disposal Systems (EHD)								
Will the proposed project:								
1) Comply with applicable state and local requirements as set forth in Section 29a of the Initial Study Assessment Guidelines?		X				X		
2) Be consistent with the applicable General Plan Goals and Policies for Item 29a of the Initial Study Assessment Guidelines?		X				X		

Impact Discussion:

29a-1. Proposed project description includes "importing and grading" to create an area for new structures which will require the installation of a new OWTS. The site plan for proposed project shows the proposed seepage pits and sand filter are located within the proposed grading area. An evaluation of the proposed OWTS shall be conducted by this Division prior to construction. Division Liquid Waste staff will determine if the proposed seepage pits are properly designed and sited based on soil conditions after the grading activities have been completed.

An OWTS that is improperly installed, failing, damaged, or poorly maintained has the potential to create a public nuisance and/or health concern and contaminate groundwater. Conformance with the Ventura County Building Code, State OWTS policy, and EHD guidelines, as well as proper routine maintenance of OWTS, will reduce any project- specific and cumulative impacts to a level considered less than significant.

29a-2. The proposed project is consistent with the applicable General Plan Goals and Policies for Item 29a of the Initial Study Assessment Guidelines.

Mitigation/Residual Impact(s): None.

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
29b. Waste Treatment & Disposal Facilities - Sewage Collection/Treatment Facilities (EHD)								

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
Will the proposed project:								
1) Comply with applicable state and local requirements as set forth in Section 29b of the Initial Study Assessment Guidelines?	X				X			
2) Be consistent with the applicable General Plan Goals and Policies for Item 29b of the Initial Study Assessment Guidelines?	X				X			

Impact Discussion:

29b-1. The proposed project will not require connection to a public sewer. The proposed project will not have any project-specific or cumulative impacts relative to sewage
collection/treatment facilities.

29b-2. The proposed project is consistent with the applicable General Plan Goals and Policies for Item 29b of the Initial Study Assessment Guidelines.

Mitigation/Residual Impact(s): None.

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
29c. Waste Treatment & Disposal Facilities - Solid Waste Management (PWA)								
Will the proposed project:								
1) Have a direct or indirect adverse effect on a landfill such that the project impairs the landfill's disposal capacity in terms of reducing its useful life to less than 15 years?		X				X		
2) Be consistent with the applicable General Plan Goals and Policies for Item 29c of the Initial Study Assessment Guidelines?		X				X		

Impact Discussion:

29c-1. As required by California Public Resources Code (PRC) 41701, Ventura County's Countywide Siting Element (CSE), adopted in June 2001 and updated annually, confirms Ventura County has at least 15 years of disposal capacity available for waste generated by in-County projects. Because the County currently exceeds the minimum disposal capacity required by state PRC, the proposed project will have less than a significant project-specific impacts upon Ventura County's solid waste disposal capacity.

29c-2. The proposed project is consistent with the applicable General Plan Goals and Policies for Item 29c of the Initial Study Assessment Guidelines.

Mitigation/Residual Impact(s) None.

Issue (Responsible Department)*	**Project Impact Degree Of Effect****				**Cumulative Impact Degree Of Effect****			
	N	LS	PS-M	PS	N	LS	PS-M	PS
29d. Waste Treatment & Disposal Facilities - Solid Waste Facilities (EHD)								
Will the proposed project:								
1) Comply with applicable state and local requirements as set forth in Section 29d of the Initial Study Assessment Guidelines?	X				X			
2) Be consistent with the applicable General Plan Goals and Policies for Item 29d of the Initial Study Assessment Guidelines?	X				X			

Impact Discussion:

29d-1. The proposed project does not include a solid waste facility. The proposed project will not create any adverse project-specific or cumulative impacts relating to solid waste facilities.

29d-2. The proposed project is consistent with the applicable General Plan Goals and Policies for Item 29d of the Initial Study Assessment Guidelines.

Mitigation/Residual Impact(s): None.

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
30. Utilities								
Will the proposed project:								
a) Individually or cumulatively cause a disruption or re-routing of an existing utility facility?	X				X			
b) Individually or cumulatively increase demand on a utility that results in expansion of an existing utility facility which has the potential for secondary environmental impacts?	X				X			
c) Be consistent with the applicable General Plan Goals and Policies for Item 30 of the Initial Study Assessment Guidelines?	X				X			

Impact Discussion:

30a and b. The proposed project does not involve the installation or re-route of any utility, existing or planned as there will be no structures or facilities built.

30c. The proposed project is consistent with the applicable General Plan Goals and Policies for Item 30 of the Initial Study Assessment Guidelines.

Mitigation/Residual Impact(s): None.

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
31a. Flood Control Facilities/Watercourses - Watershed Protection District (WPD)								
Will the proposed project:								
1) Either directly or indirectly, impact flood control facilities and watercourses by obstructing, impairing, diverting, impeding, or altering the characteristics of the flow of water, resulting in exposing adjacent property and the community to increased risk for flood hazards?		X				X		
2) Be consistent with the applicable General Plan Goals and Policies for Item 31a of the Initial Study Assessment Guidelines?		X				X		

Impact Discussion:

31a-1. The proposed project will not result in an increase or change in direction of flow from the existing natural conditions. The project is being designed with an inlet and rip-rap outlet, as well as a detention pond that will maintain the present runoff amounts. Therefore, the project will not directly or indirectly, impact flood control facilities and watercourses by obstructing, impairing, diverting, impeding, or altering the characteristics of the flow of water, resulting in exposing adjacent property and the community to increased risk for flood hazards due to the existing and proposed conditions being similar and runoff will be returned to natural sheet flow conditions.

31a-2. The proposed project is consistent with the applicable General Plan Goals and Policies for Item 31a of the Initial Study Assessment Guidelines.

Mitigation/Residual Impact(s): None.

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
31b. Flood Control Facilities/Watercourses - Other Facilities (PWA)								
Will the proposed project:								
1) Result in the possibility of deposition of sediment and debris materials within existing channels and allied obstruction of flow?		X				X		
2) Impact the capacity of the channel and the potential for overflow during design storm conditions?		X				X		
3) Result in the potential for increased runoff and the effects on Areas of Special Flood Hazard and regulatory channels both on and off site?		X				X		
4) Involve an increase in flow to and from natural and man-made drainage channels and facilities?		X				X		
5) Be consistent with the applicable General Plan Goals and Policies for Item 31b of the Initial Study Assessment Guidelines?		X				X		

Impact Discussion:

31b-1 thru 4. The *Hydrology and Hydraulics Study* prepared by LC Engineering Group, Inc. on May 23rd, 2018, indicates that with the implementation of Best Management Practices per the erosion control plan/SWPPP, in addition to the installation of a detention basin, the erosion potential will not increase from its current condition.

There will be an increase in impervious surfaces, but will be offset by a detention basin, calculated in the above mentioned Hydrology and Hydraulics Study. The overall project will not alter nor increase flow. Therefore, the project will not directly or indirectly, impact flood control facilities and watercourses by obstructing, impairing, diverting, impeding, or altering the characteristics of the flow of water, resulting in exposing adjacent property and the community to increased risk for flood hazards due to the existing and proposed conditions being similar and runoff will be returned to natural sheet flow conditions.

31b-5. The proposed project is consistent with the applicable General Plan Goals and Policies for Item 31b of the Initial Study Assessment Guidelines.

Mitigation/Residual Impact(s): None.

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
32. Law Enforcement/Emergency Services (Sheriff)								
Will the proposed project:								
a) Have the potential to increase demand for law enforcement or emergency services?		X				X		
b) Be consistent with the applicable General Plan Goals and Policies for Item 32 of the Initial Study Assessment Guidelines?		X				X		

Impact Discussion:

32a. The proposed project consists of grading to improve an existing equestrian facility and will not increase the demand for law enforcement or emergency services.

32b. The proposed project is consistent with the applicable General Plan Goals and Policies for Item 32 of the Initial Study Assessment Guidelines.

Mitigation/Residual Impact(s): None.

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
33a. Fire Protection Services - Distance and Response (VCFPD)								
Will the proposed project:								

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
1) Be located in excess of five miles, measured from the apron of the fire station to the structure or pad of the proposed structure, from a full-time paid fire department?	X				X			
2) Require additional fire stations and personnel, given the estimated response time from the nearest full-time paid fire department to the project site?	X				X			
3) Be consistent with the applicable General Plan Goals and Policies for Item 33a of the Initial Study Assessment Guidelines?	X				X			

Impact Discussion:

33a-1 and 2 The project is located within five miles of the nearest fire station and the proposed usage will not require additional fire stations are personnel.

33a-3. The proposed project is consistent with the applicable General Plan Goals and Policies for Item 33a of the Initial Study Assessment Guidelines.

Mitigation/Residual Impact(s): None.

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
33b. Fire Protection Services – Personnel, Equipment, and Facilities (VCFPD)								
Will the proposed project:								
1) Result in the need for additional personnel?	X				X			
2) Magnitude or the distance from existing facilities indicate that a new facility or additional equipment will be required?	X				X			
3) Be consistent with the applicable General Plan Goals and Policies for Item 33b of the Initial Study Assessment Guidelines?	X				X			

Impact Discussion:

33b-1 and 2. No new fire stations, equipment, or personnel are required.

33b-3. The proposed project is consistent with the applicable General Plan Goals and Policies for Item 33b of the Initial Study Assessment Guidelines.

Mitigation/Residual Impact(s): None

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
34a. Education - Schools								
Will the proposed project:								
1) Substantially interfere with the operations of an existing school facility?	X				X			
2) Be consistent with the applicable General Plan Goals and Policies for Item 34a of the Initial Study Assessment Guidelines?	X				X			

Impact Discussion:

34a-1. The proposed project is not located in the vicinity of any school facility.

34a-2. The proposed project is consistent with the applicable General Plan Goals and Policies for Item 34a of the Initial Study Assessment Guidelines.

Mitigation/Residual Impact(s): None.

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
34b. Education - Public Libraries (Lib. Agency)								
Will the proposed project:								
1) Substantially interfere with the operations of an existing public library facility?	X							
2) Put additional demands on a public library facility which is currently deemed overcrowded?	X							
3) Limit the ability of individuals to access public library facilities by private vehicle or alternative transportation modes?	X							
4) In combination with other approved projects in its vicinity, cause a public library facility to become overcrowded?					X			
5) Be consistent with the applicable General Plan Goals and Policies for Item 34b of the Initial Study Assessment Guidelines?	X							

Impact Discussion:

34b-1 thru 4. The proposed construction of an agricultural access road will support an existing agricultural operation and will have no effect on public library facilities.

34b-5. The proposed project is consistent with the applicable General Plan Goals and Policies for Item 34b of the Initial Study Assessment Guidelines.

Mitigation/Residual Impact(s): None.

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
35. Recreation Facilities (GSA)								
Will the proposed project:								
a) Cause an increase in the demand for recreation, parks, and/or trails and corridors?	X				X			
b) Cause a decrease in recreation, parks, and/or trails or corridors when measured against the following standards: • Local Parks/Facilities - 5 acres of developable land (less than 15% slope) per 1,000 population; • Regional Parks/Facilities - 5 acres of developable land per 1,000 population; or, • Regional Trails/Corridors - 2.5 miles per 1,000 population?	X				X			
c) Impede future development of Recreation Parks/Facilities and/or Regional Trails/Corridors?	X				X			
d) Be consistent with the applicable General Plan Goals and Policies for Item 35 of the Initial Study Assessment Guidelines?	X				X			

Impact Discussion:

35a and b. The proposed grading project to improve an existing equestrian facility will not generate a demand for new recreational facilities and will not cause a decrease in recreation, parks, and/or trails or corridors.

35c. The proposed project will not impede future development of Recreation Parks/Facilities and/or Regional Trails/Corridors.

35d. The proposed project is consistent with the applicable General Plan Goals and Policies for Item 35 of the Initial Study Assessment Guidelines.

Mitigation/Residual Impact(s): None.

***Key to the agencies/departments that are responsible for the analysis of the items above:**

Airports - Department Of Airports	AG. - Agricultural Department	VCAPCD - Air Pollution Control District
EHD - Environmental Health Division	VCFPD - Fire Protection District	GSA - General Services Agency
Harbors - Harbor Department	Lib. Agency - Library Services Agency	Plng. - Planning Division
PWA - Public Works Agency	Sheriff - Sheriff's Department	WPD – Watershed Protection District

****Key to Impact Degree of Effect:**

N – No Impact
LS – Less than Significant Impact
PS-M – Potentially Significant but Mitigable Impact
PS – Potentially Significant Impact

Section C – Mandatory Findings of Significance

Based on the information contained within Section B:		
	Yes	**No**
1. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?		X
2. Does the project have the potential to achieve short-term, to the disadvantage of long-term, environmental goals? (A short-term impact on the environment is one that occurs in a relatively brief, definitive period of time while long-term impacts will endure well into the future).		X
3. Does the project have 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 effect of other current projects, and the effect of probable future projects. (Several projects may have relatively small individual impacts on two or more resources, but the total of those impacts on the environment is significant.)		X
4. Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?		X

Findings Discussion:

Findings Discussion:

1. As stated in Section B, Items 4B of the Initial Study above, the proposed project would potentially have significant impacts to biological resources. However, with mitigation and avoidance measures listed in the preceding document above, it would mitigate potential impacts to less-than significant and would not adversely affect populations of plants and animals, nor degrade the environment.

2. The project does not involve the potential to achieve short-term, to the disadvantage of long-term, environmental goals.

3. As stated in Section B, with the implementation of mitigation and avoidance measures (above) and the conditions of approval, the proposed project does not have the potential to create a cumulatively considerable contribution to a significant cumulative impact.

4. The proposed project is a grading project intended to support an existing equestrian facility. As stated in Section B, the proposed project will have at most a less-than significant impact with regard to adverse effects, either directly or indirectly, on human beings.

Section D – Determination of Environmental Document

Based on this initial evaluation:

[ ]	I find the proposed project **could not** have a significant effect on the environment, and a **Negative Declaration** should be prepared.
[X]	I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because the mitigation measure(s) described in Section B of the Initial Study will be applied to the project. A **Mitigated Negative Declaration** should be prepared.
[ ]	I find the proposed project, individually and/or cumulatively, MAY have a significant effect on the environment and an **Environmental Impact Report** (EIR) is required.*
[ ]	I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An **Environmental Impact Report** is required, but it must analyze only the effects that remain to be addressed.*
[ ]	I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or Negative Declaration pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or Negative Declaration, including revisions or mitigation measures that are imposed upon the proposed project, **nothing further is required.**

1-18-2019

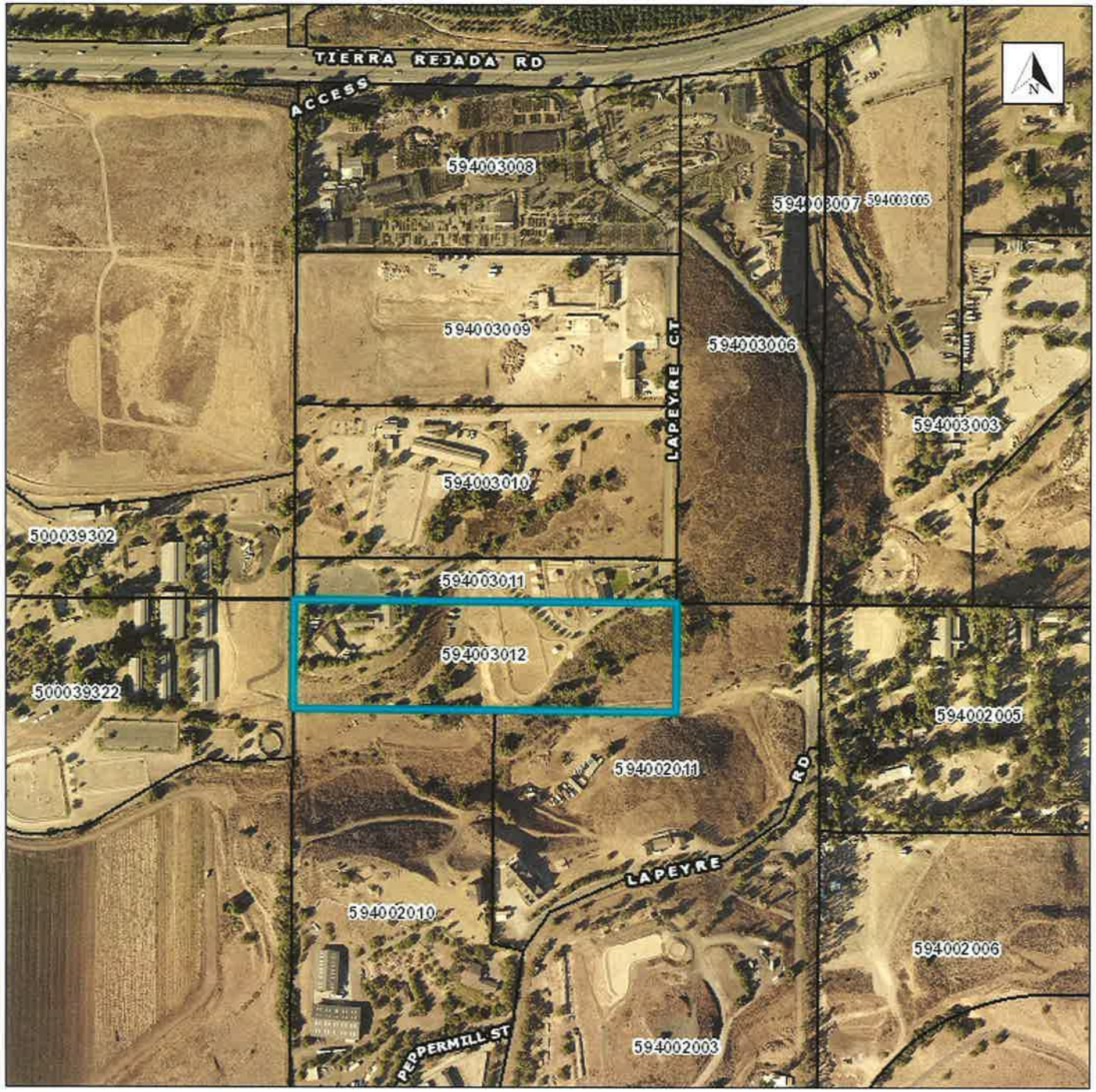
Raymond Gutierrez, Jr, Manager
Development and Inspection Services
Engineering Services Department
Ventura County Public Works Agency

DATE

Attachments:

Attachment 1 – Site Plan/Aerial Location Map
Attachment 2 – Project Grading Plans, LC Engineering
Attachment 3 – Initial Study Biological Assessment, Envicom Corp, October 1st, 2018
Attachment 4 – Geotechnical Engineering Reports, CalWest Geotechnical
Attachment 5 – Hydrology and Hydraulics Study, LC Engineering Group
Attachment 6 – Works Cited

ATTACHMENT 1



RMA GIS

RMAgis

Pinneo Discretionary Grading Permit, GP17-0019

Legend

Parcels

County of Ventura – PWA
Mitigated Negative Declaration
GP17-0019
Attachment 1 – Site Plan / Aerial Location Map

0 400.00 800.0 Feet

1: 4,800

ATTACHMENT 2

COUNTY OF VENTURA
PUBLIC WORKS AGENCY

GENERAL GRADING NOTES:

1. GRADING ACTIVITIES SHALL BE IN ACCORDANCE WITH THE VENTURA COUNTY BUILDING CODE APPENDIX J GRADING, LATEST EDITION.
2. THE GRADING PERMIT AND WORK SHOWN IN THESE PLANS IS VALID ONLY TO THE EXTENT OF THE VENTURA COUNTY BUILDING CODE APPENDIX J - GRADING. PERMITS OR PERMISSIONS THAT MAY BE REQUIRED BY OTHER REGULATORY AGENCIES OR INTERESTED PARTIES ARE THE RESPONSIBILITY OF THE PERMITTEE.
3. A PRECONSTRUCTION MEETING SHALL BE HELD AT THE SITE PRIOR TO ANY GRADING ACTIVITY OR LAND DISTURBANCES WITH THE FOLLOWING PARTIES PRESENT: OWNER, GRADING CONTRACTOR, DESIGN CIVIL ENGINEER, SOILS ENGINEER, COUNTY GRADING INSPECTORS, AND OTHER JURISDICTIONAL AGENCIES WHEN REQUIRED.
4. HEAVY EQUIPMENT NOISE & TRUCK DELIVERIES SHALL NOT BEGIN UNTIL AFTER 7:30 A.M. NO WORK SHALL BE DONE & NO PERSONS SHALL BE ALLOWED ON THE PROJECT SITE BEFORE 7:30 A.M. NO HEAVY EQUIPMENT SHALL BE OPERATED AFTER 4:30 P.M. NO GRADING SHALL BE DONE & NO EQUIPMENT SHALL BE OPERATED ON SATURDAYS, SUNDAYS OR HOLIDAYS UNLESS APPROVED BY PWA.
5. NO GRADING ACTIVITY SHALL OCCUR IN ANY WETLAND, BLUE-LINE STREAM, RED-LINE CHANNEL, OR FLOODPLAIN WITHOUT THE PROPER PERMITS & PERMISSION FROM THE PWA & RESOURCE MANAGEMENT AGENCY (RMA), OR OTHER AUTHORITIES HAVING JURISDICTION.
6. RETAINING WALLS AND BRIDGES REQUIRE A SEPARATE PERMIT FROM BUILDING AND SAFETY.
7. ALL RECOMMENDATIONS MADE BY THE SOILS ENGINEER AND ENGINEERING GEOLOGIST WHERE EMPLOYED CONTAINED IN THE REPORTS AS APPROVED BY THE COUNTY SHALL BE A PART OF THIS GRADING PLAN.
8. ALL DISTURBED SURFACES SUBJECT TO EROSION SHALL BE PROTECTED IN ACCORDANCE WITH THE VENTURA COUNTYWIDE MUNICIPAL STORMWATER NPDES PERMIT SEDIMENT AND EROSION CONTROL MEASURES SHALL BE INSTALLED AND MAINTAINED FULLY FUNCTIONAL.
9. ALL UNSUITABLE MATERIAL (F LUMBER, LOOSE BRUSH, COMPRESSIBLE SOILS OR ANY ORGANIC MATERIALS OR RUBBISH) SHALL BE REMOVED AS REQUIRED BY THE SOILS ENGINEER AND ENGINEERING GEOLOGIST FROM ALL AREAS TO RECEIVE FILL.
10. ALL AREAS TO RECEIVE FILL SHALL BE INSPECTED AND APPROVED BY THE SOILS ENGINEER (AND ENGINEERING GEOLOGIST WHERE EMPLOYED) AFTER REMOVAL OF UNSUITABLE MATERIAL AND EXCAVATION OF KEYWAYS AND BENCHES, AND PRIOR TO PLACEMENT OF SUBSURFACE DRAINAGE SYSTEMS OR FILL.
11. ALL MATERIALS DEEMED UNSUITABLE FOR PLACEMENT IN COMPACTED FILL SHALL BE REMOVED FROM THE SITE. MATERIALS SUCH AS CONSTRUCTION DEBRIS, OR IMPORTED MATERIALS SHALL BE APPROVED BY THE SOILS ENGINEER AND COUNTY PRIOR TO USE IN COMPACTED FILL. WHERE EXCAVATED MATERIAL IS LARGER THAN TWELVE INCHES IN LARGEST DIMENSION, IT MUST BE BROKEN INTO SMALLER PARTICLE SIZE BEFORE BEING USED AS FILL.
12. THE SOILS ENGINEER SHALL DIRECT THE REMOVAL OF ANY EXISTING UNDERGROUND STRUCTURES SUCH AS SEPTIC TANKS, IRRIGATION LINES, ETC.
13. ANY WATER WELL LOCATED WITHIN THE AREA OF DISTURBANCE SHALL BE REVORTED TO THE WATER RESOURCES DIVISION, WATERSHED PROTECTION DISTRICT PRIOR TO ITS MODIFICATION, ABANDONMENT, OR DESTRUCTION.
14. ANY OIL WELL LOCATED WITHIN THE AREA OF DISTURBANCE SHALL BE REPORTED TO THE STATE OF CALIFORNIA, DIVISION OF OIL, GAS AND GEOTHERMAL RESOURCES PRIOR TO ITS MODIFICATION, ABANDONMENT, OR DESTRUCTION.
15. ALL TEMPORARY EXCAVATED SLOPES OR BENCHES AND PAYS FOR BUTTRESS OR STABILIZATION FILLS MUST BE EXAMINED BY THE ENGINEERING GEOLOGIST AND SOILS ENGINEER TO ENSURE THAT ALL POTENTIAL PLANES OF FAILURE HAVE BEEN EXPOSED IN THE EXCAVATION AND WILL BE ADEQUATELY SUPPORTED BY THE PROPOSED BUTTRESS. FIELD CERTIFICATION MUST BE FURNISHED BY THE CONSULTANTS PRIOR TO PLACING FILL.
16. THE SOILS ENGINEER AND ENGINEERING GEOLOGIST (WHERE EMPLOYED) SHALL PROVIDE RECOMMENDATIONS AND APPROVE CORRECTIVE WORK TO INSURE SLOPE STABILITY WHERE UNSTABLE MATERIAL IS EXPOSED AT THE TOP OF CUTS AND EXCAVATIONS.
17. THE USE OF CORRUGATED STEEL PIPE IS NOT ALLOWED IN ANY COUNTY RIGHTS OF WAY. THE USE OF GALVANIZED STEEL PIPE ON PRIVATE PROPERTY SHOULD BE MINIMIZED. HOWEVER, IF USED SHOULD BE COATED TO MINIMIZE CORROSION AND TO EXTEND SERVICE TIME.
18. PRELIMINARY SOILS AND GEOLOGIC REPORTS SHALL BE SUBMITTED TO THE COUNTY AS REQUIRED BY THE BUILDING OFFICIAL.
19. ROUGH GRADE SOILS ENGINEERING AND (IF APPLICABLE) ENGINEERING GEOLOGY REPORTS SUMMARIZING ALL EARTHWORK PERFORMED AND CONCLUDING THAT THE WORK HAS BEEN COMPLETED ACCORDING TO THE APPROVED REPORTS SHALL BE SUBMITTED TO THE COUNTY FOR APPROVAL OF THE ROUGH GRADING BY THE BUILDING OFFICIAL PRIOR TO CALLING FOR BUILDING AND SAFETY INSPECTION.
20. FINAL SOILS ENGINEERING AND (IF APPLICABLE) ENGINEERING GEOLOGY REPORTS SUMMARIZING ALL EARTHWORK PERFORMED SINCE ROUGH GRADING AND CONCLUDING THAT THE WORK HAS BEEN COMPLETED ACCORDING TO THE APPROVED REPORTS SHALL BE SUBMITTED WITH THE AS-BUILT PLANS (RECORD DRAWING) TO THE COUNTY PRIOR TO FINAL INSPECTION BY THE BUILDING OFFICIAL.

EARTHWORK QUANTITIES

CUT: 15,400 CU YDS. EXPORT: 0 CU YDS DISPOSAL SITE: N/A

FILL: 30,438 CU YDS IMPORT: 15,038 CU YDS SOURCE: TBD

THIS PROJECT INCLUDES POST CONSTRUCTION BMPS: X YES ____ NO

THE TOTAL ESTIMATED DISTURBED AREA OF GRADING AND CONSTRUCTION IS 3.12 ACRES. PROJECTS THAT ARE 1.0 ACRE OR GREATER IN DISTURBED AREA WILL REQUIRE A STORM WATER POLLUTION PREVENTION PLAN (SWPPP) AND NOTICE OF INTENT (NOI) AS APPROVED BY THE STATE REGIONAL WATER QUALITY CONTROL BOARD AS DESCRIBED ABOVE.

AVERAGE NATURAL SLOPE IN THE AREA OF GRADING: 22.7 %

THE TOTAL AMOUNT OF IMPERVIOUS AREA TO BE CONSTRUCTED AS PART OF THIS PROJECT IS 13706 SQ FT

TOTAL PROPOSED LANDSCAPED AREA ____ SQ FT TOTAL WATER EFFICIENT LANDSCAPE AREA ____ % PERCENT OF TOTAL LANDSCAPE AREA

LAND DEVELOPMENT & INSPECTION SERVICES MUST BE NOTIFIED (72H) (48) WORKING DAYS PRIOR TO ANY LAND DISTURBANCE TO SCHEDULE THE PROJECT SITE.

PERMITS

COUNTY ENCROACHMENT PERMIT NO ____ DATE ____

VENTURA COUNTY WATERSHED PROTECTION DISTRICT WATERCOURSE PERMIT NO ____ DATE ____

STATE ENCROACHMENT PERMIT NO ____ DATE ____

FLOODPLAIN DEVELOPMENT PERMIT ____ DATE ____

LOCATION & VICINITY MAP

APPROVAL BY CONSULTANTS

THIS GRADING PLAN IS ACCEPTABLE IN REGARD TO SOILS (AND GEOLOGIC - IF APPLICABLE) CONDITIONS AND CONFORMS TO THE RECOMMENDATION OF THE SUPERVISOR REPORT(S) DATED: MARCH 23, 17

SOILS ENGINEERING REPORTS: ____ DATED ____

(SOILS ENGINEER'S SIGNATURE)

LEONARD LISTON (PRINT NAME) 31902 (RCE#)

CIVIL WEST OF STOCKWELL 999 PARKER CT, SUITE 101 THOUSAND OAKS, CA 91320 805-497-1344

ENGINEERING GEOLOGY REPORTS: N/A DATED ____

N/A (ENGINEERING GEOLOGIST SIGNATURE)

N/A (PRINT NAME) N/A (CERT NO)

I HEREBY STATE THAT THESE PLANS ARE IN COMPLIANCE WITH THE ADOPTED COUNTY ORDINANCES, AND THAT I HAVE EXERCISED RESPONSIBLE CHARGE OVER THE DESIGN OF THE PROJECT AS DEFINED IN THE PROFESSIONAL ENGINEERS ACT. I UNDERSTAND THAT THE CHECK OF PROJECT DRAWINGS BY THE COUNTY OF VENTURA IS CONFINED TO A REVIEW ONLY AND DOES NOT RELIEVE ME, AS ENGINEER OF RECORD, OF MY RESPONSIBILITIES FOR PROJECT DESIGN.

SIGNATURE

LEONARD LISTON (PRINT NAME) 31902 (RCE#)

LC ENGINEERING GROUP, INC 999 PARKER CT, SUITE 101 THOUSAND OAKS, CA 91320 805-497-1344

ENGINEERED GRADING INSPECTION CERTIFICATES

JOB ADDRESS OR LOT AND TRACT NO: 15498 LAPEYRE COURT

ROUGH GRADING CERTIFICATION

(A) BY SOILS ENGINEER

I CERTIFY THAT THE ROUGH GRADING WORK INCORPORATED ALL RECOMMENDATIONS CONTAINED IN THE REPORT OR REPORTS FOR WHICH I AM RESPONSIBLE AND ALL RECOMMENDATIONS THAT I HAVE MADE BASED ON FIELD INSPECTION OF THE WORK AND TESTING DURING GRADING. I FURTHER CERTIFY THAT ANY/ANY RPE REPORTS OF AN ENGINEERING GEOLOGIST, RELATIVE TO THIS SITE, HAVE RECOMMENDED THAT INSTALLATION OF BUTTRESS FILLS OR OTHER SIMILAR STABILIZATION MEASURES, SUCH EARTHWORK CONSTRUCTION HAS BEEN COMPLETED IN ACCORDANCE WITH THE APPROVED DESIGN

LOT NO(S) 15498 LAPEYRE COURT

TRACT NO(S) ____

FOR TEST DATA, RECOMMENDED ALLOWABLE SOIL BEARING VALUES & OTHER SPECIAL RECOMMENDATIONS

SOILS ENGINEER ____ REG NO 31902 DATE ____

(SIGNATURE)

SEAL

(B) BY ENGINEERING GEOLOGIST

I CERTIFY THAT THE ROUGH GRADING WORK INCORPORATED ALL OF THE RECOMMENDATIONS CONTAINED IN THE REPORT OR REPORTS FOR WHICH I AM RESPONSIBLE AND ALL RECOMMENDATIONS THAT I HAVE MADE DATED ON FIELD INSPECTION OF THE WORK DURING GRADING.

LOT NO(S) 15498 LAPEYRE COURT

ENGINEERING GEOLOGIST ____ CERT NO ____ DATE ____

(SIGNATURE)

SEAL

(C) BY CIVIL ENGINEER

I CERTIFY TO THE SATISFACTORY COMPLETION OF ROUGH GRADING INCLUDING GRADING TO APPROXIMATE FINAL ELEVATIONS, PROPERTY LINES LOCATED AND STAKED, CUT AND FILL SLOPES CORRECTLY GRADED AND LOCATED IN ACCORDANCE WITH THE APPROVED DESIGN. SWALES AND TERRACES GRADED READY FOR PAVING. RIPRAP INSTALLED, AND REQUIRED DRAINAGE SLOPES PROVIDED ON THE BUILDING PADS. I FURTHER CERTIFY THAT WHERE REPORT OR REPORTS OF AN ENGINEERING GEOLOGIST AND/OR SOILS ENGINEER HAVE BEEN PREPARED RELATIVE TO THIS SITE, THE RECOMMENDATIONS CONTAINED IN SUCH REPORTS HAVE BEEN INCORPORATED IN THE DESIGN.

LOT NO(S) 15498 LAPEYRE COURT

CIVIL ENGINEER ____ REG NO 31902 DATE ____

(SIGNATURE)

SEAL

FINAL GRADING CERTIFICATION

BY CIVIL ENGINEER

I CERTIFY TO THE SATISFACTORY COMPLETION OF GRADING IN ACCORDANCE WITH THE APPROVED PLANS. ALL DRAINAGE DEVICES REQUIRED BY THE GRADING PERMIT, GRADING PLANS AND GRADING ORDINANCE HAVE BEEN INSTALLED. EROSION TREATMENT OF SLOPES AND IRRIGATION SYSTEMS (WHERE REQUIRED) HAVE BEEN INSTALLED. ADEQUATE PROVISIONS HAVE BEEN MADE FOR DRAINAGE OF RUNOFF WATERS FROM EACH BUILDING SITE AS OF THIS DATE.

LOT NO(S) ____

CIVIL ENGINEER ____ REG NO 31902 DATE ____

(SIGNATURE)

SEAL

GRADING CONTRACTOR CERTIFICATION

BY GRADING CONTRACTOR

I CERTIFY THAT THE GRADING WAS DONE IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS, THE GRADING ORDINANCE AND THE RECOMMENDATIONS OF THE CIVIL ENGINEER, SOILS ENGINEER AND ENGINEERING GEOLOGIST. IT IS UNDERSTOOD THAT THIS CERTIFICATION INCLUDES ONLY THOSE ASPECTS OF THE WORK THAT CAN BE OBTAINED BY ME, AS A COMPETENT GRADING CONTRACTOR, WITHOUT SPECIAL EQUIPMENT OR PROFESSIONAL SKILLS.

GRADING CONTRACTOR ____ LICENSE NO ____ DATE ____

(SIGNATURE)

INSTRUCTIONS: THE OWNER MAY SIGN IF THE GRADING WAS NOT DONE BY A LICENSED GRADING CONTRACTOR.

BENCH MARK DATA

DESIGNATION: 15-157
DATUM: NAVD 88
DATE: 1998
HEIGHT: 223.086 (METERS) / 731.84 (FEET)
DESCRIPTION: 1.2 MILES ALONG TIERRA REJADA ROAD FROM ITS INTERSECTION WITH MOORPARK ROAD, 60 FEET NORTHERLY FROM THE CENTER OF TIERRA REJADA ROAD, IN THE CENTER OF A CONCRETE HEADWALL

TOPOGRAPHY DATA

STEVE OPDAHL SURVEYING
751 E. WILSON RD, SUITE 4
THOUSAND OAKS, CA 91360
05-02-17

OWNER/APPLICANT

CHARLES PRINCO
15498 LAPEYRE COURT, MOORPARK, CA 93021
805-482-6469

PRIMARY CONTACT

RALPH ARNOLD
1560 Hendry Ranch Rd
Simi Valley, CA 93063
805-444-7975

No. 31902 Exp. Dec. 2018
REGISTERED PROFESSIONAL ENGINEER
LEONARD LISTON
CIVIL
STATE OF CALIFORNIA

GENERAL STORMWATER NOTES:

THE LEGALLY RESPONSIBLE PERSON OF ANY PROPERTY IN WHICH GRADING ACTIVITIES OR OTHER SOIL DISTURBANCE ACTIVITIES ARE PERFORMED, INCLUDING PERMITTEE, SHALL COMPLY WITH THE LATEST AND APPLICABLE NPDES REQUIREMENTS. EFFECTIVE COMBINATION OF EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES (BMPS) SHALL BE INSTALLED BEFORE GRADING BEGINS. DURING GRADING ACTIVITIES ALL BMPS SHALL BE UPDATED AS NECESSARY TO PREVENT EROSION AND ANY ILLICIT DISCHARGE OF CONSTRUCTION RELATED POLLUTANTS. EROSION CONTROL BMPS ARE LISTED ON COUNTY FORMS SW-1, SW-2, OR SW-4M

1. GENERAL CONSTRUCTION PERMIT. PROJECTS THAT CAUSE SOIL DISTURBANCE OF ONE ACRE OR MORE, OR THAT ARE PART OF A COMMON PLAN OF DEVELOPMENT OR SALE THAT CAUSE SOIL DISTURBANCE OF ONE ACRE OR MORE ARE REQUIRED TO OBTAIN COVERAGE UNDER NPDES CALIFORNIA STATEWIDE GENERAL CONSTRUCTION PERMIT NO CAR000002, AS A MINIMUM ASSIGNED TO THE PROJECT BY THE STATE WATER RESOURCES CONTROL BOARD COMPLETED AND SIGNED NOTICE OF INTENT (NOI) AND PROJECT STORMWATER POLLUTION PREVENTION PLAN (SWPPP) SHALL BE SUBMITTED AND IMPLEMENTED DURING ALL GRADING ACTIVITIES.
2. COUNTY'S STORM DRAIN SYSTEM. ILLICIT DISCHARGES INTO THE COUNTY'S STORM DRAIN SYSTEM IS AS A RESULT OF GRADING, CLEARING, CONSTRUCTION, DEMOLITION AND OTHER SOIL DISTURBANCE ACTIVITIES ARE PROHIBITED.
3. INSPECTIONS. EROSION CONTROL AND PERMANENT STORMWATER TREATMENT BMPS ARE SUBJECT TO INSPECTIONS AS REQUIRED BY THE PERMIT ORDER NO. R4-2010-0108, AS AMENDED FROM TIME TO TIME.
4. PUMPED WATER DISCHARGES. DISCHARGES OF PUMPED GROUND WATER REQUIRE A DISCHARGE PERMIT FROM THE STATE OF CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD (RWQCB).
5. SANITARY FACILITIES. PORTABLE SANITARY FACILITIES SHALL BE LOCATED ON RELATIVELY LEVEL GROUND AWAY FROM TRAFFIC AREAS, DRAINAGE COURSES AND STORMDRAIN INLETS.
6. EMERGENCY WORK. A STANDBY CREW FOR EMERGENCY WORK SHALL BE AVAILABLE AT ALL TIMES DURING THE RAINY SEASON (OCTOBER 1ST TO APRIL 15TH). NECESSARY MATERIALS SHALL BE AVAILABLE ON SITE AND STOCKPILED AT CONVENIENT LOCATIONS TO FACILITATE RAPID CONSTRUCTION OF EMERGENCY DEVICES WHEN RAIN IS IMMINENT.

PROJECT BMP'S

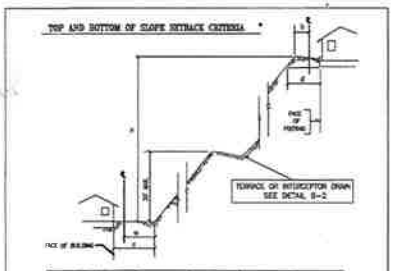
THE FOLLOWING BMPS AS OUTLINED IN, BUT NOT LIMITED TO, THE LATEST EDITION OF THE CASQA CONSTRUCTION BMP ONLINE HANDBOOK, MAY APPLY DURING THE CONSTRUCTION OF THIS PROJECT (ADDITIONAL MEASURES MAY BE REQUIRED IF DEEMED APPROPRIATE BY THE PROJECT ENGINEER, QUALIFIED SWPPP DEVELOPER, PROJECTAPPLICANT OR THE BUILDING OFFICIAL). CERTAIN BMPS ARE REQUIRED AS PART OF THE STORMWATER FORMS SW-1, SW-2 AND SW-4M. THE APPLICANT IS RESPONSIBLE FOR ENSURING THAT THE BMPS LISTED HEREON ARE IMPLEMENTED AND MAINTAINED AT ALL TIMES DURING THE CONSTRUCTION. THE INSPECTOR OR BUILDING OFFICIAL MAY PERFORM UNANNOUNCED SITE INSPECTIONS TO ENSURE THAT THIS PROJECT MAINTAINS THE BMPS AS LISTED BELOW.

BMP DESCRIPTIONS AND DETAILS CAN BE OBTAINED FROM THE CALIFORNIA STORMWATER HANDBOOKS AT WWW.CASQA.ORG

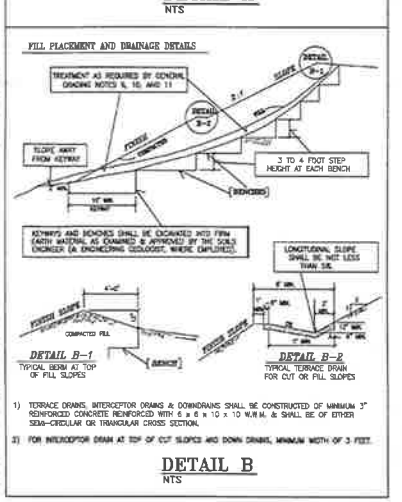
COMPLETE CHECKLIST BELOW FOR APPLICABLE PROJECT BMPS

WIND EROSION CONTROL	
#	EC – EROSION CONTROL
#	EC01 – PRESERVATION EXISTING VEGETATION
	EC03 – HYDRAULIC MULCH
#	EC04 – HYDROSEEDING
	EC05 – SOIL BINDERS
	EC06 – STRAW MULCH
A	EC07 – GEOTEXTILES & MATS
#	EC08 – WOOD MULCHING
	EC09 – EARTH DIKES & DRAINAGE SWALES
	EC10 – VELOCITY DISSIPATION DEVICES
	EC11 – SLOPE DRAINS
	EC12 – STREAMBANK STABILIZATION
	EC14 – COMPOST BLANKETS
	EC15 – SOIL PREPARATION/ROUGHENING
	EC16 – NON-VEGETATED STABILIZATION
	TEMPORARY SEDIMENT CONTROL
#	SE1 – SILT FENCE
	SE2 – SEDIMENT BASIN
	SE3 – SEDIMENT TRAP
	SE4 – CHECK DAM
#	SE5 – FIBER ROLLS
	SE6 – GRAVEL BAG BERM
#	SE7 – STREET SWEEPING AND VACUURING
#	SE8 – SANDBAG BARRIER
	SE9 – STRAW BALE BARRIER
#	SE10 – STORM DRAIN INLET PROTECTION
	SE11 – ACTIVE TREATMENT SYSTEMS
	SE12 – TEMPORARY SILT DIKE
	SE13 – COMPOST SOCKS & BERMS
	SE14 – BIOFILTER BAGS
	WIND EROSION CONTROL
#	TC1 – PREVENTION CONTROL
	EQUIPMENT TRACKING
#	TC1 – STABILIZED CONSTRUCTION ENTRANCE EXIT
	TC2 – STABILIZED CONSTRUCTION ROADWAY
	TC3 – DEWATERING/OUTLET TANK AREAS

NON-STORMWATER MANAGEMENT	
#	NS1 – WATER CONSERVATION PRACTICES
	NS2 – DEWATERING OPERATIONS
	NS3 – PAVING & GRINDING OPERATIONS
	NS4 – TEMPORARY STREAM CROSSING
	NS5 – CLEAR WATER DIVERSION
	NS6 – ILLICIT CONNECTION/DISCHARGE
	NS7 – POTABLE WATER/IRRIGATION
	NS8 – VEHICLE & EQUIPMENT CLEANING
#	NS9 – VEHICLE & EQUIPMENT FUELING
	NS10 – VEHICLE & EQUIPMENT MAINTENANCE
	NS11 – PILE DRIVING OPERATIONS
	NS12 – CONCRETE CURING
	NS13 – CONCRETE FINISHING
	NS14 – MATERIAL & EQUIPMENT USE
	NS15 – DEMOLITION ADJACENT TO WATER
	NS16 – TEMPORARY BATCH PLANTS
WASTE MANAGEMENT & NON-STORMWATER POLLUTION CONTROL	
A	WM1 – MATERIAL DELIVERY & STORAGE
	WM2 – MATERIAL USE
#	WM3 – STOCKPILE MANAGEMENT
#	WM4 – SPILL PREVENTION & CONTROL
#	WM5 – SOLID WASTE MANAGEMENT
	WM6 – HAZARDOUS WASTE MANAGEMENT
	WM7 – CONTAMINATION SOIL MANAGEMENT
#	WM8 – CONCRETE WASTE MANAGEMENT
#	WM9 – SANITARY/SEPTIC WASTE MANAGEMENT
	WM10 – LIQUID WASTE MANAGEMENT
ADDITIONAL BMP'S SELECTED	



DETAIL A
NTS



1) TERRACE DRAINS, INTERCEPTOR DRAINS & DOWNDRAINS SHALL BE CONSTRUCTED OF MINIMUM 3" REINFORCED CONCRETE REINFORCED WITH 6 x 6 x 10 x 10 W.M.M. & SHALL BE OF EITHER SEMI-CIRCULAR OR TRIANGULAR CROSS SECTION.
2) FOR INTERCEPTOR DRAIN AT TOP OF CUT SLOPES AND DOWN DRAINS, MINIMUM WIDTH OF 3 FEET.

DETAIL B
NTS

WAIVER ID: 4 56W003581 APN: 594-0-030-11, 594-0-030-12 GP: 17-0019

	DESCRIPTION OF REVISION	RCE	DATE	APP.	DATE
4					
3					
2					
1					
Δ					

DESIGN ENGINEER
LC ENGINEERING GROUP, INC
CONSULTING ENGINEERS
999 Parker Court, Suite 101, Thousand Oaks, California 91320
805-497-1344 FAX 805-497-1346
AUG 02 2018
LEONARD LISTON 31902 RCE DATE

APPROVED: COUNTY OF VENTURA
DATE: ____
BY ____
DEVELOPMENT SERVICES

COUNTY OF VENTURA
PUBLIC WORKS AGENCY
DEVELOPMENT SERVICES

SPEC. NO. ____
FISCAL NO. ____

COVER SHEET
PARCEL 4 56 PM 84
15498 LAPEYRE CT., MOORPARK, CA. 93021

SHEET 1 OF 5
DRAWING NO. ____

County of Ventura – PWA
Mitigated Negative Declaration
GP17-0019
Attachment 2 – Project Grading Plans, LC Engineering Group, dated August 2018

COUNTY OF VENTURA
PUBLIC WORKS AGENCY

GENERAL GRADING NOTES:

1. GRADING ACTIVITIES SHALL BE IN ACCORDANCE WITH THE VENTURA COUNTY BUILDING CODE APPENDIX J GRADING, LATEST EDITION.
2. THE GRADING PERMIT AND WORK SHOWN IN THESE PLANS IS VALID ONLY TO THE EXTENT OF THE VENTURA COUNTY BUILDING CODE APPENDIX J - GRADING. PERMITS OR PERMISSIONS THAT MAY BE REQUIRED BY OTHER REGULATORY AGENCIES OR INTERESTED PARTIES ARE THE RESPONSIBILITY OF THE PERMITTEE.
3. A PRECONSTRUCTION MEETING SHALL BE HELD AT THE SITE PRIOR TO ANY GRADING ACTIVITY OR LAND DISTURBANCES WITH THE FOLLOWING PARTIES PRESENT: OWNER, GRADING CONTRACTOR, DESIGN CIVIL ENGINEER, SOILS ENGINEER, COUNTY GRADING INPECTOR(S), AND OTHER JURISDICTIONAL AGENCIES WHEN REQUIRED.
4. HEAVY EQUIPMENT NOISE & TRUCK DELIVERIES SHALL NOT BEGIN UNTIL AFTER 7:00 A.M. NO WORK BEYOND 4:30 PM UNLESS APPROVED BY PWA.
5. NO GRADING ACTIVITY SHALL OCCUR IN ANY WETLAND, BLUE-LINE STREAM, RED-LINE CHANNEL, OR FLOODPLAIN WITHOUT THE PROPER PERMITS & PERMISSION FROM THE PWA & RESOURCE MANAGEMENT AGENCY (RMA), OR OTHER AUTHORITIES HAVING JURISDICTION.
6. RETAINING WALLS AND BRIDGES REQUIRE A SEPARATE PERMIT FROM BUILDING AND SAFETY.
7. ALL RECOMMENDATIONS MADE BY THE SOILS ENGINEER (AND ENGINEERING GEOLOGIST, WHERE EMPLOYED) CONTAINED IN THE REPORTS AS APPROVED BY THE COUNTY SHALL BE A PART OF THIS GRADING PLAN.
8. ALL DISTURBED SURFACES SUBJECT TO EROSION SHALL BE PROTECTED IN ACCORDANCE WITH THE VENTURA COUNTYWIDE MUNICIPAL STORMWATER NPDES PERMIT. SEDIMENT AND EROSION CONTROL MEASURES SHALL BE INSTALLED AND MAINTAINED FULLY FUNCTIONAL.
9. ALL UNSUITABLE MATERIAL, I.E. LUMBER, LOGS, BRUSH, COMPRESSIBLE SOILS, OR ANY ORGANIC MATERIALS OR RUBBISH, SHALL BE REMOVED AS REQUIRED BY THE SOILS ENGINEER AND ENGINEERING GEOLOGIST FROM ALL AREAS TO RECEIVE FILL.
10. ALL AREAS TO RECEIVE FILL SHALL BE INSPECTED AND APPROVED BY THE SOILS ENGINEER (AND ENGINEERING GEOLOGIST WHERE EMPLOYED) AFTER REMOVAL OF UNSUITABLE MATERIAL AND EXCAVATION OF KEYWAYS AND BENCHES, AND PRIOR TO PLACEMENT OF SUBSURFACE DRAINAGE SYSTEMS OR FILL.
11. ALL MATERIALS DEEMED UNSUITABLE FOR PLACEMENT IN COMPACTED FILL SHALL BE REMOVED FROM THE SITE. MATERIALS SUCH AS CONSTRUCTION INERT DEBRIS, OR IMPORTED MATERIALS SHALL BE APPROVED BY THE SOILS ENGINEER AND COUNTY PRIOR TO USE IN COMPACTED FILL. WHERE EXCAVATED MATERIAL IS LARGER THAN TWELVE INCHES IN LARGEST DIMENSION, IT MUST BE BROKEN INTO SMALLER PARTICLE SIZES, BEFORE BEING USED AS FILL.
12. THE SOILS ENGINEER SHALL DIRECT THE REMOVAL OF ANY EXISTING UNDERGROUND STRUCTURES SUCH AS SEPTIC TANKS, IRRIGATION LINES, ETC.
13. ANY WATER WELL LOCATED WITHIN THE AREA OF DISTURBANCE SHALL BE REPORTED TO THE WATER RESOURCES DIVISION, WATERSHED PROTECTION DISTRICT PRIOR TO ITS MODIFICATION, ABANDONMENT, OR DESTRUCTION.
14. ANY OIL WELL LOCATED WITHIN THE AREA OF DISTURBANCE SHALL BE REPORTED TO THE STATE OF CALIFORNIA, DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES PRIOR TO ITS MODIFICATION, ABANDONMENT, OR DESTRUCTION.
15. ALL TEMPORARY EXCAVATED SLOPES OR BENCHES AND KEYS FOR BUTTRESS OR STABILIZATION FILLS MUST BE EXAMINED BY THE ENGINEERING GEOLOGIST AND SOILS ENGINEER TO INSURE THAT ALL POTENTIAL PLANES OF FAILURE HAVE BEEN EXPOSED IN THE EXCAVATION AND WILL BE ADEQUATELY SUPPORTED BY THE PROPOSED BUTTRESS. FIELD CERTIFICATION MUST BE SUBMITTED BY THE CONSULTANTS PRIOR TO PLACING FILL.
16. THE SOILS ENGINEER AND ENGINEERING GEOLOGIST (WHERE EMPLOYED) SHALL PROVIDE RECOMMENDATIONS AND APPROVE CORRECTIVE WORK TO INSURE SLOPE STABILITY WHERE UNSTABLE MATERIAL IS EXPOSED AT THE TOP OF CUTS AND EXCAVATIONS.
17. THE USE OF CORRUGATED STEEL PIPE IS NOT ALLOWED IN ANY COUNTY RIGHTS OF WAY. THE USE OF CORRUGATED STEEL PIPE ON PRIVATE PROPERTY SHOULD BE MINIMIZED. HOWEVER, IF USED SHOULD BE COATED TO MINIMIZE CORROSION AND TO EXTEND SERVICE TIME.
18. INTERIM SOILS AND GEOLOGIC REPORTS SHALL BE SUBMITTED TO THE COUNTY AS REQUIRED BY THE BUILDING OFFICIAL.
19. ROUGH GRADE SOILS ENGINEERING AND (IF APPLICABLE) ENGINEERING GEOLOGY REPORTS SUMMARIZING ALL EARTHWORK PERFORMED AND CONCLUDING THAT THE WORK HAS BEEN COMPLETED ACCORDING TO THE APPROVED REPORTS SHALL BE SUBMITTED TO THE COUNTY FOR APPROVAL OF THE ROUGH GRADING BY THE BUILDING OFFICIAL PRIOR TO CALLING FOR BUILDING AND SAFETY INSPECTION.
20. FINAL SOILS ENGINEERING AND (IF APPLICABLE) ENGINEERING GEOLOGY REPORTS SUMMARIZING ALL EARTHWORK PERFORMED SINCE ROUGH GRADING AND CONCLUDING THAT THE WORK HAS BEEN COMPLETED ACCORDING TO THE APPROVED REPORTS SHALL BE SUBMITTED WITH THE AS-BUILT PLANS (RECORD DRAWING) TO THE COUNTY PRIOR TO FINAL INSPECTION BY THE BUILDING OFFICIAL.

EARTHWORK QUANTITIES

CUT: 15,400 CU. YDS. EXPORT: $0 CU. YDS. DISPOSAL SITE N/A

FILL: 30,438 CU. YDS IMPORT: 15,038 CU. YDS SOURCE TBD

THIS PROJECT INCLUDES POST CONSTRUCTION BMP'S X YES _____ NO

THE TOTAL ESTIMATED DISTURBED AREA OF GRADING AND CONSTRUCTION IS 3.12 ACRES. PROJECTS THAT ARE 1.0 ACRE OR GREATER IN DISTURBED AREA WILL REQUIRE A STORM WATER POLLUTION PREVENTION PLAN (SWPPP) AND NOTICE OF INTENT (NOI) AS APPROVED BY THE STATE REGIONAL WATER QUALITY CONTROL BOARD AS DESCRIBED ABOVE.

AVERAGE NATURAL SLOPE IN THE AREA OF GRADING 22.7 %

THE TOTAL AMOUNT OF IMPERVIOUS AREA TO BE CONSTRUCTED AS PART OF THIS PROJECT IS 15706 SQ. FT.

TOTAL PROPOSED LANDSCAPED AREA _____ SQ. FT. TOTAL NATIVE PLANTING LANDSCAPE AREA _____ % (PERCENT OF TOTAL LANDSCAPE AREA)

LAND DEVELOPMENT & INSPECTION SERVICES MUST BE NOTIFIED TEN (10) WORKING DAYS PRIOR TO ANY EXPORT/IMPORT TO/FROM THE PROJECT SITE.

PERMITS

COUNTY ENCROACHMENT PERMIT NO.

_____ DATE _____

VENTURA COUNTY WATERSHED PROTECTION DISTRICT WATERCOURSE PERMIT NO.

_____ DATE _____

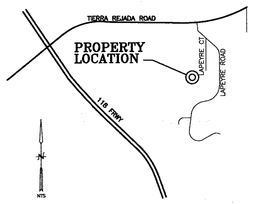
STATE ENCROACHMENT PERMIT NO.

_____ DATE _____

FLOODPLAIN DEVELOPMENT PERMIT

_____ DATE _____

LOCATION & VICINITY MAP



APPROVAL BY CONSULTANTS

THIS GRADING PLAN IS ACCEPTABLE IN REGARD TO SOILS (AND GEOLOGIC - IF APPLICABLE) CONDITIONS AND CONFORMS TO THE RECOMMENDATION OF THE SUPPORTIVE REPORT(S) DATED:

SOILS ENGINEERING REPORTS: MARCH 23 20 17

(SOILS ENGINEER SIGNATURE)

LEONARD LISTON (PRINT NAME) 31902 (RCE)

CAL WEST GEOTECHNICAL
889 PIERCE CT, SUITE 101
THOUSAND OAKS, CA 91360
805-497-1244

ENGINEERING GEOLOGY REPORTS: N/A 20____

N/A (ENGINEERING GEOLOGIST SIGNATURE)

N/A (PRINT NAME) N/A (CERT. NO.)

I HEREBY STATE THAT THESE PLANS ARE IN COMPLIANCE WITH THE ADOPTED COUNTY STANDARDS, AND THAT I HAVE EXERCISED RESPONSIBLE CHARGE OVER THE DESIGN OF THE PROJECT AS DEFINED IN THE PROFESSIONAL ENGINEERS ACT. I UNDERSTAND THAT THE CHECK OF PROJECT DRAWINGS BY THE COUNTY OF VENTURA IS CONFINED TO A REVIEW ONLY AND DOES NOT RELIEVE ME, AS ENGINEER OF RECORD, OF MY RESPONSIBILITIES FOR PROJECT DESIGN.

(CIVIL ENGINEER SIGNATURE)

LEONARD LISTON (PRINT NAME) 31902 (RCE)

LC ENGINEERING GROUP, INC.
889 PIERCE CT, SUITE 101
THOUSAND OAKS, CA 91360
805-497-1244

ENGINEERED GRADING INSPECTION CERTIFICATES

JOB ADDRESS OR LOT AND TRACT NO: 15498 LAPEYRE COURT

ROUGH GRADING CERTIFICATION

(A) BY SOILS ENGINEER

I CERTIFY THAT THE ROUGH GRADING WORK INCORPORATES ALL RECOMMENDATIONS CONTAINED IN THE REPORT OR REPORTS FOR WHICH I AM RESPONSIBLE AND ALL RECOMMENDATIONS THAT I HAVE MADE BASED ON FIELD INSPECTION OF THE WORK AND TESTING DURING GRADING. I FURTHER CERTIFY THAT WHERE THE REPORTS OF AN ENGINEERING GEOLOGIST, RELATIVE TO THIS SITE, HAVE RECOMMENDED THE INSTALLATION OF BUTTRESS FILLS OR OTHER SIMILAR STABILIZATION MEASURES, SUCH EARTHWORK CONSTRUCTION HAS BEEN COMPLETED IN ACCORDANCE WITH THE APPROVED DESIGN.

LOT NOS: 15498 LAPEYRE COURT

SEE REPORTS DATED: _____

FOR TEST DATA, RECOMMENDED ALLOWABLE SOIL BEARING VALUES & OTHER SPECIAL RECOMMENDATIONS.

SOILS ENGINEER _____ REG. NO 31902 DATE _____
(SIGNATURE)

SEAL

(B) BY ENGINEERING GEOLOGIST

I CERTIFY THAT THE ROUGH GRADING WORK INCORPORATES ALL OF THE RECOMMENDATIONS CONTAINED IN THE REPORT OR REPORTS FOR WHICH I AM RESPONSIBLE AND ALL RECOMMENDATIONS THAT I HAVE MADE BASED ON FIELD INSPECTION OF THE WORK DURING GRADING.

LOT NOS: 15498 LAPEYRE COURT

ENGINEERING GEOLOGIST _____ CERT. NO. _____ DATE _____
(SIGNATURE)

SEAL

(C) BY CIVIL ENGINEER

I CERTIFY TO THE SATISFACTORY COMPLETION OF ROUGH GRADING INCLUDING GRADING TO APPROXIMATE FINAL ELEVATIONS; PROPERTY LINES LOCATED AND STAKED, CUT AND FILL SLOPES CORRECTLY GRADED AND LOCATED IN ACCORDANCE WITH THE APPROVED DESIGN; SWALES AND TERRACES GRADED READY FOR PAVING; BERMS INSTALLED; AND REQUIRED DRAINAGE SLOPES PROVIDED ON THE BUILDING PADS. I FURTHER CERTIFY THAT WHERE REPORT OR REPORTS OF AN ENGINEERING GEOLOGIST AND/OR SOILS ENGINEER HAVE BEEN PREPARED RELATIVE TO THIS SITE, THE RECOMMENDATIONS CONTAINED IN SUCH REPORTS HAVE BEEN INCORPORATED IN THE DESIGN.

LOT NOS: 15498 LAPEYRE COURT

CIVIL ENGINEER _____ REG. NO. 31902 DATE _____
(SIGNATURE)

SEAL

FINAL GRADING CERTIFICATION

BY CIVIL ENGINEER

I CERTIFY TO THE SATISFACTORY COMPLETION OF GRADING IN ACCORDANCE WITH THE APPROVED PLANS. ALL DRAINAGE DEVICES REQUIRED BY THE GRADING PERMIT, GRADING PLANS AND GRADING ORDINANCE HAVE BEEN INSTALLED. EROSION TREATMENT OF SLOPES AND IRRIGATION SYSTEMS (WHERE REQUIRED) HAVE BEEN INSTALLED. ADEQUATE PROVISIONS HAVE BEEN MADE FOR DRAINAGE OF SURFACE WATERS FROM EACH BUILDING SITE AS OF THIS DATE.

LOT NOS: _____

CIVIL ENGINEER _____ REG. NO. 31902 DATE _____
(SIGNATURE)

SEAL

GRADING CONTRACTOR CERTIFICATION

BY GRADING CONTRACTOR

I CERTIFY THAT THE GRADING WAS DONE IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS, THE GRADING ORDINANCE, AND THE RECOMMENDATIONS OF THE CIVIL ENGINEER, SOILS ENGINEER AND ENGINEERING GEOLOGIST. IT IS UNDERSTOOD THAT THIS CERTIFICATION INCLUDES ONLY THOSE ASPECTS OF THE WORK THAT CAN BE DETERMINED BY ME, AS A COMPETENT GRADING CONTRACTOR, WITHOUT SPECIAL EQUIPMENT OR PROFESSIONAL SKILLS.

GRADING CONTRACTOR _____ LICENSE NO. _____ DATE _____
(SIGNATURE)

INSTRUCTIONS: THE OWNER MAY SIGN IF THE GRADING WAS NOT DONE BY A LICENSED GRADING CONTRACTOR.

BENCH MARK DATA

DESIGNATION: 16-187
DATUM: NAVD 88
DATE: 1999
HEIGHT: 223.066 (METERS)/ 731.84 (FEET)
DESCRIPTION: 1.2 MILES ALONG TIERRA REJADA ROAD FROM ITS INTERSECTION WITH MOORPARK ROAD, 60 FEET NORTHERLY FROM THE CENTER OF TIERRA REJADA ROAD, IN THE CENTER OF A CONCRETE HEADWALL

TOPOGRAPHY DATA

STEVE OPDAHL SURVEYING
187 E. WILBUR RD, SUITE 4
THOUSAND OAKS, CA 91360
06-02-17

OWNER/APPLICANT

CHARLES PINNEO
15498 LAPEYRE COURT, MOORPARK, CA 93021
805-402-6468

PRIMARY CONTACT

RALPH ARNOLD
1560 Newbury Rd #103
Newbury Park, CA 91320
805-444-7371

REGISTERED PROFESSIONAL ENGINEER LEONARD T. LISTON No.31902 Exp. Dec. 2018 CIVIL STATE OF CALIFORNIA

GENERAL STORMWATER NOTES:

THE LEGALLY RESPONSIBLE PERSON OF ANY PROPERTY IN WHICH GRADING ACTIVITIES OR OTHER SOIL DISTURBANCE ACTIVITIES ARE PERFORMED, INCLUDING PERMITTEE, SHALL COMPLY WITH THE LATEST AND APPLICABLE NPDES REQUIREMENTS. EFFECTIVE COMBINATION OF EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES (BMP'S) SHALL BE INSTALLED BEFORE GRADING BEGINS. DURING GRADING ACTIVITIES, ALL BMP'S SHALL BE UPDATED AS NECESSARY TO PREVENT EROSION AND ANY ILLICIT DISCHARGE OF CONSTRUCTION RELATED POLLUTANTS. EROSION CONTROL BMP'S ARE LISTED ON COUNTY FORMS SW-1, SW-2, OR SW-HR.

1. **GENERAL CONSTRUCTION PERMIT.** PROJECTS THAT CAUSE SOIL DISTURBANCE OF ONE ACRE OR MORE, OR THAT ARE PART OF A COMMON PLAN OF DEVELOPMENT OR SALE THAT CAUSE SOIL DISTURBANCE OF ONE ACRE OR MORE ARE REQUIRED TO OBTAIN COVERAGE UNDER NPDES CALIFORNIA STATEWIDE GENERAL CONSTRUCTION PERMIT NO. CAS000002, AS A NUMBER ASSIGNED TO THE PROJECT BY THE STATE WATER RESOURCES CONTROL BOARD, COMPLETED AND SIGNED NOTICE OF INTENT (NOI) AND PROJECT STORMWATER POLLUTION PREVENTION PLAN (SWPPP) SHALL BE SUBMITTED AND IMPLEMENTED DURING ALL GRADING ACTIVITIES.
2. **COUNTY'S STORM DRAIN SYSTEM.** ILLICIT DISCHARGES INTO THE COUNTY'S STORM DRAIN SYSTEM AS A RESULT OF GRADING, CLEARING, CONSTRUCTION, DEMOLITION, AND OTHER SOIL DISTURBANCE ACTIVITIES ARE PROHIBITED.
3. **INSPECTIONS.** EROSION CONTROL AND PERMANENT STORMWATER TREATMENT BMP'S ARE SUBJECT TO INSPECTIONS AS REQUIRED BY THE PERMIT ORDER NO. R4-2010-0108, AS AMENDED FROM TIME TO TIME.
4. **PUMPED WATER DISCHARGES.** DISCHARGES OF PUMPED GROUND WATER REQUIRE A DISCHARGE PERMIT FROM THE STATE OF CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD (RWQCB).
5. **SANITARY FACILITIES.** PORTABLE SANITARY FACILITIES SHALL BE LOCATED ON RELATIVELY LEVEL GROUND AWAY FROM TRAFFIC AREAS, DRAINAGE COURSES, AND STORM DRAIN INLETS.
6. **EMERGENCY WORK.** A STANDBY CREW FOR EMERGENCY WORK SHALL BE AVAILABLE AT ALL TIMES DURING THE RAINY SEASON (OCTOBER 1ST TO APRIL 15TH). NECESSARY MATERIALS SHALL BE AVAILABLE ON SITE AND STOCKPILED AT CONVENIENT LOCATIONS TO FACILITATE RAPID CONSTRUCTION OF EMERGENCY DEVICES WHEN RAIN IS IMMINENT.

PROJECT BMP'S

THE FOLLOWING BMPS AS OUTLINED IN, BUT NOT LIMITED TO, THE LATEST EDITION OF THE CASQA CONSTRUCTION BMP ONLINE HANDBOOK, MAY APPLY DURING THE CONSTRUCTION OF THIS PROJECT (ADDITIONAL MEASURES MAY BE REQUIRED IF DEEMED APPROPRIATE BY THE PROJECT ENGINEER, QUALIFIED SWPP DEVELOPER, PRACTITIONER OR THE BUILDING OFFICIAL). CERTAIN BMP'S ARE REQUIRED AS PART OF THE STORMWATER FORMS SW-1, SW-2 AND SW-HR. THE APPLICANT IS RESPONSIBLE FOR ENSURING THAT THE BMP'S LISTED HEREON, ARE IMPLEMENTED AND MAINTAINED AT ALL TIMES DURING THE CONSTRUCTION. THE INSPECTOR OR BUILDING OFFICIAL MAY PERFORM UNANNOUNCED SITE INSPECTIONS TO ENSURE THAT THE PROJECT MAINTAINS THE BMP'S AS LISTED BELOW.

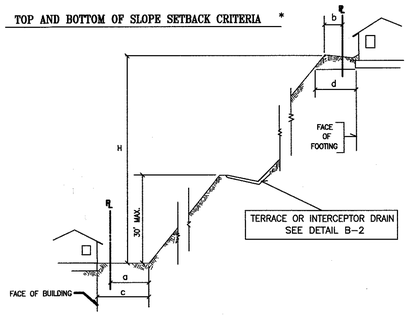
BMP DESCRIPTIONS AND DETAILS CAN BE OBTAINED FROM THE CALIFORNIA STORMWATER HANDBOOKS AT WWW.CASQA.ORG

COMPLETE CHECKLIST BELOW FOR APPLICABLE PROJECT BMP'S

	EROSION CONTROL
X	EC1 – SCHEDULING
X	EC2 – PRESERVATION EXISTING VEGETATION
	EC3 – HYDRAULIC MULCH
X	EC4 – HYDROSEEDING
	EC5 – SOIL BINDERS
	EC6 – STRAW MULCH
X	EC7 – GEOTEXTILES & MATS
X	EC8 – WOOD MULCHING
	EC9 – EARTH DIKES & DRAINAGE SWALES
	EC10 – VELOCITY DISSIPATION DEV.
	EC11 – SLOPE DRAINS
	EC12 – STREAMBANK STABILIZATION
	EC14 – COMPOST BLANKETS
	EC15 – SOIL PREPARATION/ROUGHENING
	EC16 – NON-VEGETATED STABILIZATION
	TEMPORARY SEDIMENT CONTROL
X	SE1 – SILT FENCE
	SE2 – SEDIMENT BASIN
	SE3 – SEDIMENT TRAP
	SE4 – CHECK DAM
X	SE5 – FIBER ROLLS
	SE6 – GRAVEL BAG BERM
X	SE7 – STREET SWEEPING AND VACUUMING
X	SE8 – SANDBAG BARRIER
	SE9 – STRAW BALE BARRIER
X	SE10 – STORM DRAIN INLET PROTECTION
	SE11 – ACTIVE TREATMENT SYSTEMS
	SE12 – TEMPORARY SILT DIKE
	SE13 – COMPOST SOCKS & BERMS
	SE14 – BIOFILTER BAGS
	WIND EROSION CONTROL
X	WE1 – WIND EROSION CONTROL
	EQUIPMENT TRACKING
X	TC1 – STABILIZED CONSTRUCTION ENTRANCE EXIT
	TC2 – STABILIZED CONSTRUCTION ROADWAY
	TC3 – ENTRANCE/OUTLET TIRE WASH

	NON-STORMWATER MANAGEMENT
X	NS1 – WATER CONSERVATION PRACTICES
	NS2 – DEWATERING OPERATIONS
	NS3 – PAVING & GRINDING OPERATIONS
	NS4 – TEMPORARY STREAM CROSSING
	NS5 – CLEAR WATER DIVERSION
	NS6 – ILLICIT CONNECTION/DISCHARGE
	NS7 – POTABLE WATER/IRRIGATION
	NS8 – VEHICLE & EQUIPMENT CLEANING
	NS9 – VEHICLE & EQUIPMENT FUELING
	NS10 – VEHICLE & EQUIPMENT MAINTENANCE
	NS11 – PILE DRIVING OPERATIONS
	NS12 – CONCRETE CURING
	NS13 – CONCRETE FINISHING
	NS14 – MATERIAL & EQUIPMENT USE
	NS15 – DEMOLITION ADJACENT TO WATER
	NS16 – TEMPORARY BATCH PLANTS
	WASTE MANAGEMENT & MATERIAL POLLUTION CONTROL
X	WM1 – MATERIAL DELIVERY & STORAGE
	WM2 – MATERIAL USE
X	WM3 – STOCKPILE MANAGEMENT
X	WM4 – SPILL PREVENTION & CONTROL
X	WM5 – SOLID WASTE MANAGEMENT
	WM6 – HAZARDOUS WASTE MANAGEMENT
	WM7 – CONTAMINATION SOIL MANAGEMENT
X	WM8 – CONCRETE WASTE MANAGEMENT
X	WM9 – SANITARY/SEPTIC WASTE MANAGEMENT
	WM10 – LIQUID WASTE MANAGEMENT
	ADDITIONAL BMP'S SELECTED

TOP AND BOTTOM OF SLOPE SETBACK CRITERIA *

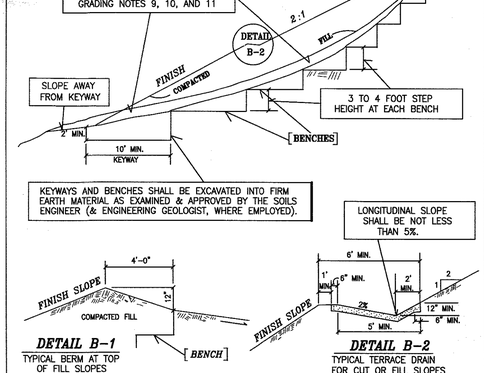


H(IN FEET)	a	b	c	d
ANY HEIGHT	2' MIN (H/2)' 20' MAX	2' MIN (H/5)' 10' MAX	(H/2)' 15' MAX	(H/3)' 40'MAX

* FROM C B C SEC. 1808.7 AND APPENDIX J – SEC. J109
℄ (SITE BOUNDARY)

DETAIL A
NTS

FILL PLACEMENT AND DRAINAGE DETAILS



1) TERRACE DRAINS, INTERCEPTOR DRAINS & DOWNDRAINS SHALL BE CONSTRUCTED OF MINIMUM 3" REINFORCED CONCRETE REINFORCED WITH 6 x 6 x 10 x 10 W.W.M. & SHALL BE OF EITHER SEMI-CIRCULAR OR TRIANGULAR CROSS SECTION.
2) FOR INTERCEPTOR DRAIN AT TOP OF CUT SLOPES AND DOWN DRAINS, MINIMUM WIDTH OF 3 FEET.

DETAIL B
NTS

WAIVER ID: 4 56W003581 APN: 594-0-030-11 594-0-030-12 GP 17-0019

4					
3					
2					
1					
△	DESCRIPTION OF REVISION	RCE	DATE	APP.	DATE

REV. MARCH 2016

DESIGN ENGINEER
LC ENGINEERING GROUP, INC.
CONSULTING ENGINEERS
889 Pierce Court, Suite 101, Thousand Oaks, California 91360
818-991-7745 • 805-497-1244 • lcegroup@ca.rr.com • worldlin@lcegroupinc.com
AUG 02 2018
LEONARD LISTON 31902 DATE
LEONARD LISTON RCE

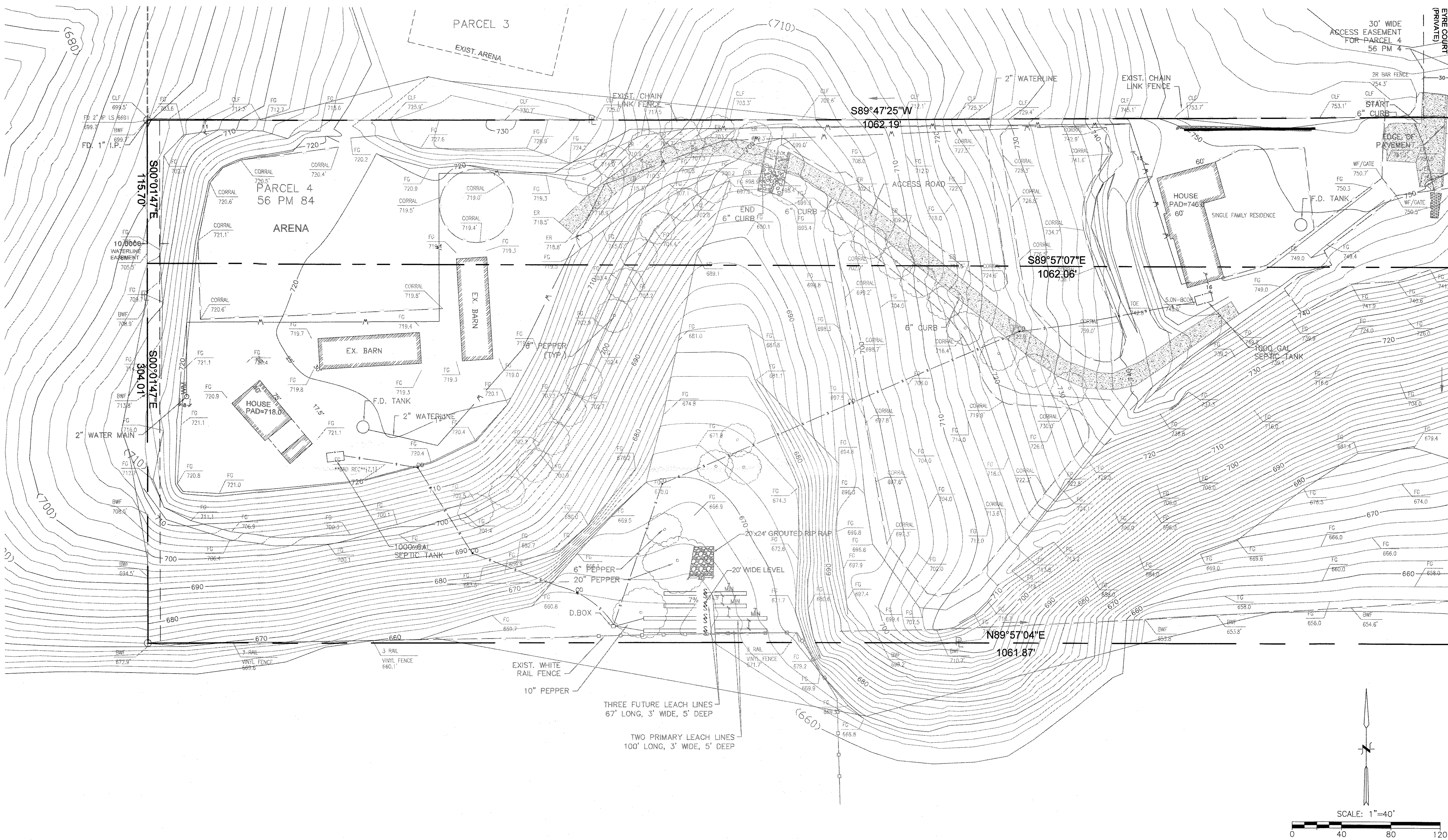
APPROVED: COUNTY OF VENTURA
DATE: _____
BY _____
DEVELOPMENT SERVICES

COUNTY OF VENTURA
PUBLIC WORKS AGENCY
DEVELOPMENT SERVICES

SPEC. NO.
PROJ. NO.

COVER SHEET
PARCEL 4 56 PM 84
15498 LAPEYRE CT., MOORPARK, CA. 93021

SHEET 1 OF 5
DRAWING NO.



REGISTERED PROFESSIONAL ENGINEER
LEONARD I. LISTON
No.31902
Exp. Dec. 2018
CIVIL
STATE OF CALIFORNIA

WAIVER ID: **4 56W003581**

APN: **594-0-030-11**
594-0-030-12

GP **17-0019**

1		31902			
△	DESCRIPTION OF REVISION	RCE	DATE	APP.	DATE

REV. APRIL–2009

DESIGN ENGINEER

LC ENGINEERING GROUP, INC.
CONSULTING ENGINEERS
889 Pierce Court, Suite 101, Thousand Oaks, California 91360
818-991-7148 • 805-497-1244 • lcegroupinc.com • workfiles@lcegroupinc.com

LEONARD LISTON | **31902** RCE | AUG 0 2 2018 DATE

APPROVED: COUNTY OF VENTURA

BY _______________
MANAGER, DEVELOPMENT SERVICES

DATE: _______________

COUNTY OF VENTURA
PUBLIC WORKS AGENCY
DEVELOPMENT SERVICES

SPEC. NO.

PROJ. NO. **7167**

TOPOGRAPHIC SURVEY
PARCEL 4 56 PM 84
15498 LAPEYRE CT., MOORPARK, CA. 93021

SHEET **2** OF **5**

DRAWING NO.

X:\LCE GROUP\Civil\JOBS\7100\7167 Pinneo\CIVIL\DWG\SHT\7167 SHT 2 TOPO.dwg Jul 18, 2018, 7:49am Michelle Meehan

PARCEL 3
EXIST. ARENA
PARCEL 4
56 PM 84
ARENA
APN 500-039-302
APN 500-039-322
APN 594-003-010
APN 594-0-030-11
APN 594-0-030-12
APN 594-003-006
APN 594-002-010
APN 594-002-011
S89°47'25"W 1062.19'
S89°57'07"E 1062.06'
N89°57'04"E 1061.87'
S00°01'47"E 115.70'
S00°01'47"E 304.01'
S00°01'50"W 421.10'
S00°01'50"W 303.41'
30' WIDE ACCESS EASEMENT FOR PARCEL 4 56 PM 4
LAPEYRE COURT (PRIVATE)
EXIST. CHAIN LINK FENCE
3R BAR FENCE
START 6" CURB
EDGE OF PAVEMENT
EXIST. TURN-AROUND
FD. 1" I.P.
154.6' TBM EL. 750.0
HOUSE PAD=748 60'
SINGLE FAMILY RESIDENCE
F.D. TANK
1000 GAL SEPTIC TANK
HOUSE PAD=718.6
F.D. TURNAROUND
EX. BARN
EX. BASIN
10.0' WATER EASEMENT
10.0' WATERLINE EASEMENT
2" WATERLINE
2" WATER MAIN
4"øPVC
6"øPVC
12"øPVC
24"ø STANDPIPE WITH SLOTS 698.80 TOP 694.00 INV
MAX. 3' HIGH RETAINING WALL
LIMITS OF GRADING
EXISTING SEWER LINE TO REMAIN
LIMITS OF EXISTING SEWER LINE TO REMAIN
PROPOSED CAREGIVER'S RESIDENCE UNIT 1 FF=698.50 PAD=698.00
PROPOSED CAREGIVER'S RESIDENCE UNIT 2 FF=698.50 PAD=698.00
PROPOSED BARN W/LOUNGE FF=701.00
PROPOSED 10' DIAMETER WATER TANK
PROPOSED ARENA
PROPOSED SEEPAGE PIT
PROPOSED SAND FILTER PIT
ADD 6" AC BERM
HEADWALL MAX. 3' HIGH
ACCESS ROAD
20' WIDE LEVEL
2:1 MAX FILL SLOPE
4:1 MAX SLOPE
2:1 MAX CUT SLOPE
DETENTION BASIN
BOTTOM AREA=240 SQ FT
VOLUME = 429 CF
RIM=666.00
FG=664.50
BOTTOM=661.50
(5)18" GRATES 665.50 TG 661.50 INV
OUTLET PIPE TO RIPRAP PAD 661.00 INV
710.0 INV OUTLET
20'x24' GROUTED RIP-RAP
THREE FUTURE LEACH LINES 67' LONG, 3' WIDE, 5' DEEP
TWO PRIMARY LEACH LINES 100' LONG, 3' WIDE, 5' DEEP
3 RAIL VINYL FENCE
WHITE RAIL FENCE
10" PEPPER
WF/GATE
SCALE: 1"=40'
0 40 80 120

LEGEND

℄	CENTER LINE
CO	CLEANOUT
DG	DECOMPOSED GRANITE
⌀	DAYLIGHT LINE
DN	DOWN
• DS	DOWNSPOUT
FF	FINISH FLOOR
FG	FINISH GRADE
FL	FLOW LINE
FS	FINISH SURFACE
HP	HIGH POINT
INV	INVERT
PA	PLANTER AREA
P	PROPERTY LINE
PSP	PER SEPARATE PERMIT
NG	NATURAL GRADE
TC	TOP OF CURB
TD	TOP OF DECK
TG	TOP OF GRATE
TOS	TOP OF SLOPE
TW	TOP OF WALL
UNO	UNLESS NOTED OTHERWISE
	RETAINING WALL PER SEPARATE PERMIT
	NON-PERMITTED RETAINING WALL
FS	CONTRACTOR TO VERIFY HARD SURFACE THICKNESS PER ARCHITECTURAL SPECIFICATIONS AND DETAILS TO DETERMINE ROUGH GRADE ELEVATIONS.
	SQ. CATCH BASIN PER NDS PLASTIC PRODUCTS
	6"ø SPEE-D BASIN PER NDS. PLASTIC PRODUCTS PART NO. 101, 201, 300. U.N.O.
	INDICATES 4"ø PERF. SUBDRAIN
812.2	EXISTING SPOT ELEVATIONS
	PADDOCK AND ARENA FENCING
	PROPERTY LINE
	DAYLIGHT LINE
	GRADE BREAK
	EASEMENT
	EXISTING SEWER
	EXISTING WATER
670.0 FG	PROPOSED CONTOURS
710	EXISTING CONTOURS

CONSTRUCTION NOTES

1. STRUCTURAL FOUNDATION AND SLABS-ON-GRADE PER ARCHITECT/STRUCTURAL PLANS AND GEOTECHNICAL REPORT.
2. OVER EXCAVATE ENTIRE BUILDING AND AREA PLUS 5'-0" TO A DEPTH OF 3'-0" BELOW FOUNDATIONS AS RECOMMENDED BY THE GEOTECHNICAL REPORT.
3. CONSTRUCT SDR 35 PVC PIPE (SIZE AS SHOWN) AT 1% MINIMUM SLOPE (MIN. PIPE SIZE 4"ø.)
4. CONSTRUCT GRAVEL ACCESS ROAD
5. EXISTING TO REMAIN.
6. EXISTING TO BE REMOVED.
7. CONSTRUCT 4" THICK CONC. W/ #4 @ 16" O.C.E.W. OVER 4" SAND PER GEOTECHNICAL REPORT.
8. RETAINING WALL, H=4' MAX. (3' EXPOSED) PER DETAIL 5, SHEET 4 NO PERMIT REQUIRED.
9. 12"x12 SQUARE GALVANIZED STEEL GRATE (PART NO.1215) WITH 12" CATCH BASIN PER NDS CATALOG.
10. 18"x18" SQUARE GALVANIZED STEEL GRATE (PART NO.1815) WITH 18" CATCH BASIN PER NDS CATALOG.
11. FIRE DEPARTMENT ACCESS DRIVEWAY
12. 18"x18" ATRIUM STEEL GRATE (PART NO.1891) WITH 18" CATCH BASIN PER NDS CATALOG.

FOR SITE OBSERVATIONS DURING CONSTRUCTION CALWEST GEOTECHNICAL, REQUIRES A 48-HOUR NOTICE (818) 991-7143 (805) 497-1244

THIS PLAN HAS BEEN REVIEWED AND APPROVED IN GENERAL CONFORMANCE WITH THE RECOMMENDATIONS OF OUR REPORT(S)

JOB NO._____ DATED _____

_____ PRESIDENT, CALWEST GEOTECHNICAL

REGISTERED PROFESSIONAL ENGINEER LEONARD T. LISTON No. 31902 Exp. Dec. 2018 CIVIL STATE OF CALIFORNIA

NOTE TO CONTRACTOR

CONTRACTOR TO VERIFY THE LOCATIONS OF ALL PROPOSED STRUCTURES, ELEVATIONS, AND DIMENSIONS PRIOR TO CONSTRUCTION. CONTRACTOR TO CONTACT PROJECT ENGINEER OF ANY DISCREPANCIES PRIOR TO ANY CONSTRUCTION.

REGISTERED PROFESSIONAL ENGINEER LEONARD T. LISTON No.31902 Exp. Dec. 2018 CIVIL STATE OF CALIFORNIA

UNDERGROUND SERVICE ALERT
CALL TOLL FREE 1-800-227-2600
TWO WORKING DAYS BEFORE YOU DIG

WAIVER ID: 4 56W003581 APN: 594-0-030-11, 594-0-030-12 GP 17-0019

1		31902				
△	DESCRIPTION OF REVISION	RCE	DATE	APP.	DATE	

REV. APRIL-2009

DESIGN ENGINEER
LC ENGINEERING GROUP, INC.
CONSULTING ENGINEERS
889 Pierce Court, Suite 104, Thousand Oaks, California 91360
818-991-7148 • 805-497-1244 • lcgroupinc.com • workflow@lcgroupinc.com
LEONARD LISTON 31902 RCE AUG 02 2018 DATE

APPROVED: COUNTY OF VENTURA
BY _____ MANAGER, DEVELOPMENT SERVICES
DATE: _____

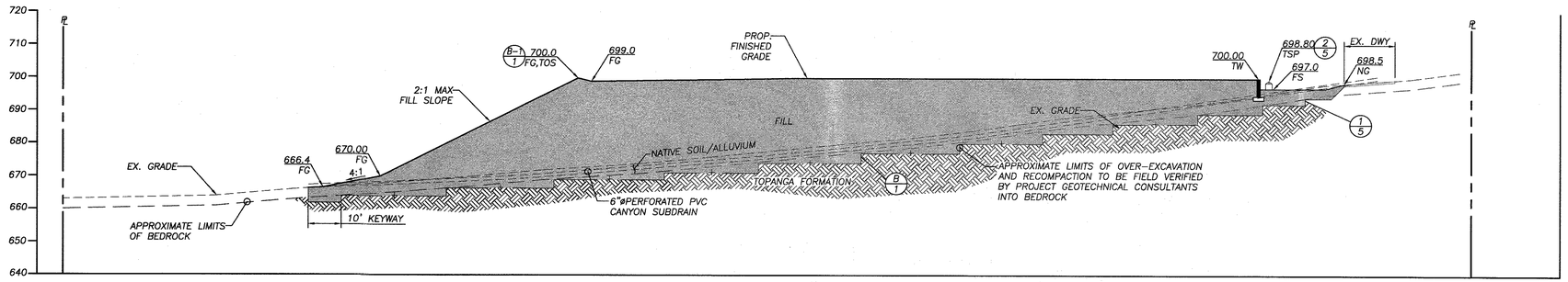
COUNTY OF VENTURA
PUBLIC WORKS AGENCY
DEVELOPMENT SERVICES

SPEC. NO.
PROJ. NO. 7167

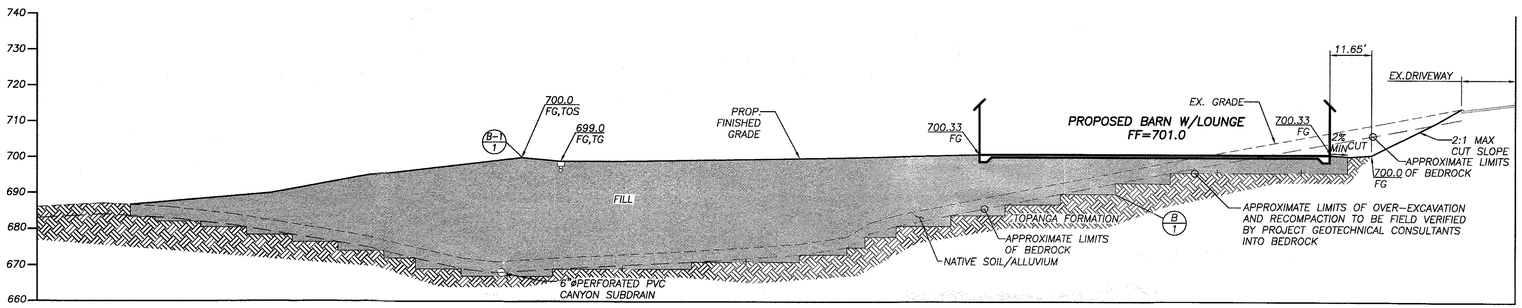
GRADING AND DRAINAGE PLAN
PARCEL 4 56 PM 84
15498 LAPEYRE CT., MOORPARK, CA. 93021

SHEET 3 OF 5
DRAWING NO.

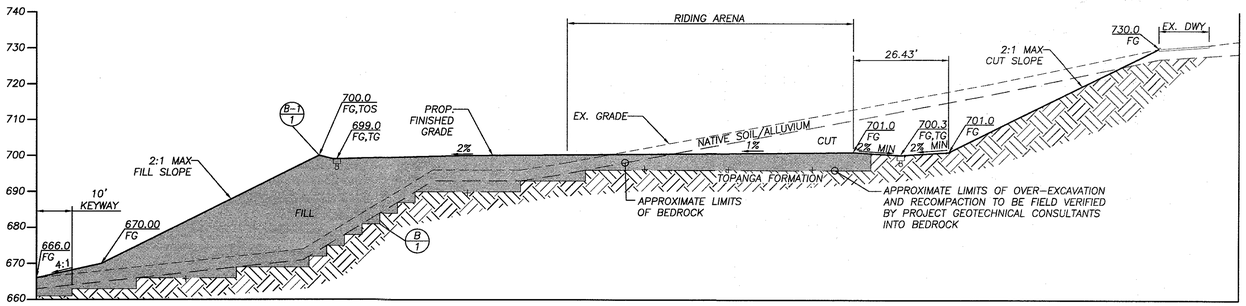
X:\LCE ENG\PLANS\JOBS\7100\7167 Primed\CIVIL\DWG\SHT\7167 SHT 3 GP.dwg Jul 18, 2018, 7:50am Michelle Meehan



SECTION A
1"=20'



SECTION B
1"=20'



SECTION C
1"=20'

FOR SITE OBSERVATIONS DURING CONSTRUCTION CALWEST GEOTECHNICAL, REQUIRES A 48-HOUR NOTICE (818) 991-7148 (805) 497-1244

THIS PLAN HAS BEEN REVIEWED AND APPEARS IN GENERAL CONFORMANCE WITH THE RECOMMENDATIONS OF OUR REPORT(S)

JOB NO _____ DATED _____

_____ RCE 31902
PRESIDENT, CALWEST GEOTECHNICAL

REGISTERED PROFESSIONAL ENGINEER LEONARD I. LISTON No. 31902 Exp. Dec. 2018 CIVIL STATE OF CALIFORNIA

UNDERGROUND SERVICE ALERT
811 DIAL BEFORE YOU DIG
CALL TOLL FREE 1-800-227-2600
TWO WORKING DAYS BEFORE YOU DIG

NOTE TO CONTRACTOR

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REGISTERED PROFESSIONAL ENGINEER LEONARD I. LISTON No.31902 Exp. Dec. 2018 CIVIL STATE OF CALIFORNIA

WAIVER ID: 4 56W003581 APN: 594-0-030-11 594-0-030-12 GP 17-0019

1		31902			
△	DESCRIPTION OF REVISION	RCE	DATE	APP.	DATE

REV. APRIL-2008

DESIGN ENGINEER
LC ENGINEERING GROUP, INC.
CONSULTING ENGINEERS
889 Pierce Court, Suite 102 Thousand Oaks, California 91360
818-991-7148 • 805-497-1244 • lcegroupinc.com • workfiles@lcegroupinc.com
AUG 02 2018
LEONARD LISTON 31902 RCE DATE

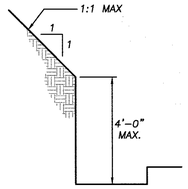
APPROVED: COUNTY OF VENTURA
BY _____ MANAGER, DEVELOPMENT SERVICES
DATE: _____

COUNTY OF VENTURA
PUBLIC WORKS AGENCY
DEVELOPMENT SERVICES

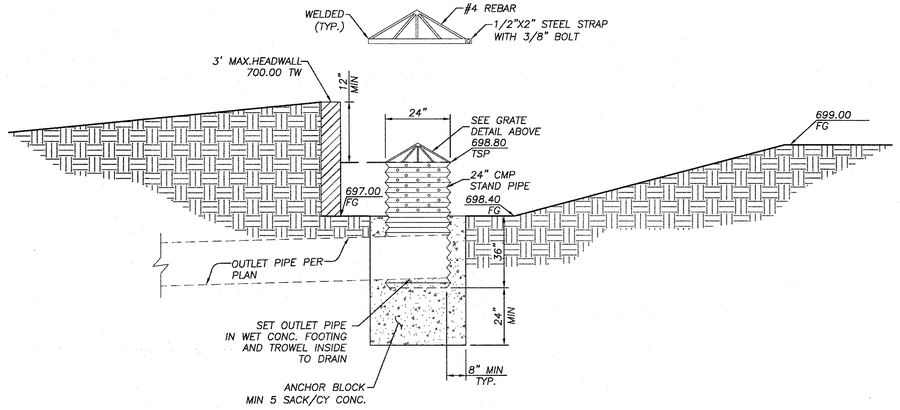
SPEC. NO.
PROJ. NO. 7167

CROSS SECTIONS
PARCEL 4 56 PM 84
15498 LAPEYRE CT., MOORPARK, CA. 93021

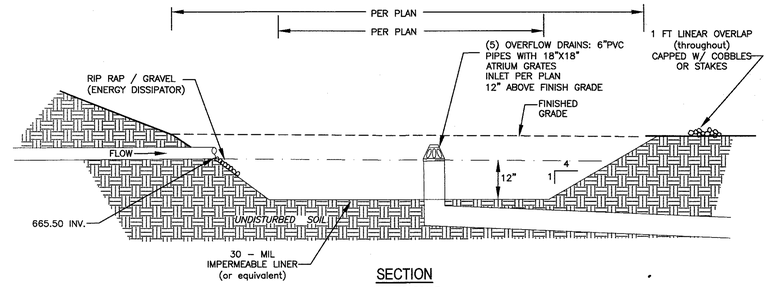
SHEET 4 OF 5
DRAWING NO.



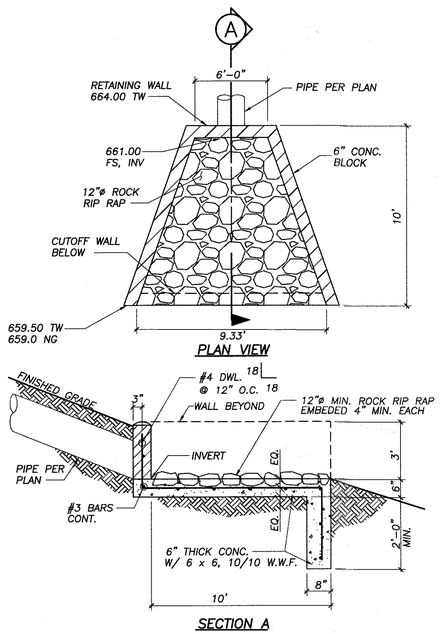
DETAIL NO. 1 TEMPORARY EXCAVATION
N.T.S.



DETAIL NO. 2 INLET STRUCTURE
N.T.S.



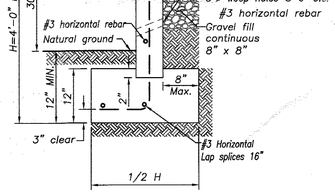
SECTION
NOT TO SCALE



SECTION A

DETAIL NO. 4 RIPRAP PAD
N.T.S.

RETAINING OR SLOUGH WALL (4'–0" HIGH OR LESS)

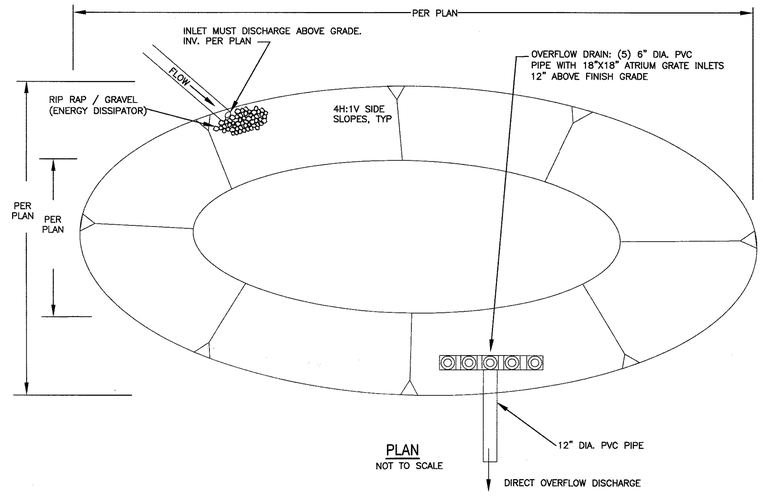


These walls are designed for the average condition and may not be suitable in all cases. Where the proposed wall construction is extensive, a licensed civil or structural engineer should be consulted.

GENERAL SPECIFICATIONS

1. *All footings to be 12" into natural ground.*
2. *Concrete mix for footing and for concrete wall to be 2500 psi minimum, or if site mixed: 1 part Portland cement, 2 parts sand, 3 parts 1" rock with a maximum of 7 gallons of water per sack of cement.*
3. *Grout mix for concrete block wall to be 2000 psi, 1 part Portland cement, to 3 parts sand which may be added not more than 1/10 part lime. Sufficient water to be added to produce consistency for pouring without segregation of the constituents. Grout may contain pea gravel to a maximum size of 3/8".*
4. *Mortar mix for concrete blocks to be 1 part cement to 1/4" lime putty or hydrated lime to 3½ parts damp loose sand.*
5. *Concrete block units to be standard 8"x8"x16" units conforming to ASTM C90, Grade N, Type II and UBC Standard 21–4.*
6. *Reinforcing steel shall be deformed steel conforming to ASTM Specification A–615, Grade 40. Lap all steel 16".*
7. *Concrete block units to be staggered (running bond).*
8. *Concrete block units to have vertical continuity of the cells unobstructed. All cells containing reinforcing to be filled solid with grout.*

DETAIL NO. 5 NON–PERMITTED RETAINING WALL
N.T.S.



PLAN
NOT TO SCALE

DETAIL NO. 3 DETENTION BASIN
N.T.S.

UNDERGROUND SERVICE ALERT
CALL TOLL FREE
1-800-227-2600
TWO WORKING DAYS BEFORE YOU DIG

NOTE TO CONTRACTOR

CONTRACTOR TO VERIFY THE LOCATIONS OF ALL PROPOSED STRUCTURES, ELEVATIONS, AND DIMENSIONS PRIOR TO CONSTRUCTION. CONTRACTOR TO CONTACT PROJECT ENGINEER OF ANY DISCREPANCIES PRIOR TO ANY CONSTRUCTION.

REGISTERED PROFESSIONAL ENGINEER
LEONARD T. LISTON
No.31902
Exp. Dec. 2018
CIVIL
STATE OF CALIFORNIA

WAIVER ID: 4 56W003581 APN: 594-0-030-11 594-0-030-12 GP 17-0019

1		31902			
△	DESCRIPTION OF REVISION	RCE	DATE	APP.	DATE

REV. APRIL–2009

DESIGN ENGINEER
LC ENGINEERING GROUP, INC.
CONSULTING ENGINEERS
889 Pierce Court, Suite 107, Thousand Oaks, California 91360
818-991-7148 • 805-497-8611 • lcengroupinc.com • workflow@lcengroupinc.com
31902
LEONARD LISTON RCE DATE
AUG 02 2018

APPROVED: COUNTY OF VENTURA
BY _____ MANAGER, DEVELOPMENT SERVICES
DATE: _____

COUNTY OF VENTURA
PUBLIC WORKS AGENCY
DEVELOPMENT SERVICES

SPEC. NO.
PROJ. NO. 7167

DETAILS
PARCEL 4 56 PM 84
15498 LAPEYRE CT., MOORPARK, CA. 93021

SHEET 5 OF 5
DRAWING NO.

A:\LCE GROUP\Civil\2085\7100\7167 Permit\CIVIL\SHT\7167 SHT 4_5 XSEC AND DETAILS.dwg Jul 17, 2018, 1:38pm Michelle Meehan

ATTACHMENT 3

Initial Study Biological Assessment

Original ISBA report date: December 1, 2017

Revision report date(s): October 1, 2018

Case number (to be entered by Planning Div.):

Permit type: Conditional Use Permit

Applicant: Mr. Charles Pinneo

Case Planner (to be entered by Planning Div.):

Total parcel(s) size (acres): 10.83

Assessor Parcel Number(s): APNs 594-003-011 & -012

Development proposal description: The Applicant proposes to improve an existing equestrian facility with barns, a covered arena, and associated secondary structures.

Prepared for Ventura County Planning Division by:

As a Qualified Biologist, approved by the Ventura County Planning Division, I hereby certify that this Initial Study Biological Assessment was prepared according to the Planning Division's requirements and that the statements furnished in the report and associated maps are true and correct to the best of my knowledge.

Qualified Biologist (signature): Tyler Barns			Date: 10/01/18
Name (printed): Tyler Barns	Title: Biologist	Company: Envicom Corporation	
Phone: 818.879.4700	email: tbarns@envicomcorporation.com		
Other Biologist (signature):			Date:
Name (printed):	Title:	Company:	
Phone:	email:		
Role:			

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Phone: 818.879.4700	email: tbarns@envicomcorporation.com		
Other Biologist (signature):			Date:
Name (printed):	Title:	Company:	
Phone:	email:		
Role:			

Initial Study Checklist

This Biological Assessment DID provide adequate information to make recommended CEQA findings regarding potentially significant impacts.

	Project Impact Degree of Effect				Cumulative Impact Degree of Effect			
	N	**LS**	**PS-M***	**PS**	**N**	**LS**	**PS-M***	**PS**
Biological Resources								
Species			X			X		
Ecological Communities			X			X		
Habitat Connectivity		X				X		

N: No impact
LS: Less than significant impact
PS-M: Potentially significant unless mitigation incorporated.
PS: Potentially significant
* DO NOT check this box unless the Biological Assessment provided information adequate enough to develop mitigation measures that reduce the level of impact to less than significant.

Contents

Attachments

A. List of California Natural Diversity Database (CNDDB)-tracked species with recorded occurrences within at least a 10-mile radius of the project site.

B. Site Plan, LC Engineering Group, Inc., November 10, 2017

Summary

The proposed project includes the redevelopment of an existing equestrian facility. The project would be consistent with surrounding land uses (i.e., equestrian facilities, residential developments with barns, guest houses, detached garages, corrals, and other accessory structures). The structures would be built on existing disturbed areas with the exception of a portion of coast prickly pear scrub. The existing slopes would be re-contoured and retaining walls would be added to comply with County code requirements. Surface area runoff-water will be collected and diverted to the existing drainage area in the southern portion of the site.

Project grading would affect disturbed native habitats and barren/sparsely vegetated areas as well as portions of coast prickly pear – mixed coastal sage scrub community, which is considered to be a "natural community of special concern." Recommended restoration would mitigate for impacts to this sensitive community on-site.

Two (2) blue elderberry trees were located within the accessible portion of the survey area but these trees are not considered County protected trees because the project is not located in a Scenic Resource Overlay Zone. No special-status plants or special-status wildlife were observed during the site survey. Special-status birds have moderate or high potential to occur while foraging within the sagebrush and grassland habitats within the project site include Cooper's hawk and white-tailed kite, which could occur temporarily at the project site. Cooper's hawk is included on CDFW's Watchlist and is fairly common throughout their range. The white-tailed kite is a CDFW fully protected species that is uncommon but is known to forage over grassland habitat consistent with the northern portion of the site. These species and two (2) species of special-status bats, all Species of Special Concern, may forage over the project site with moderate probability. All of these species would be capable of escaping harm during grading or other project activities, if present. A number of additional wildlife species have low to very low potential to forage over or to occur within the grading footprint, if only temporarily. Some of these species are terrestrial and slow moving and could be harmed by the project, if present. However, project impacts to special-status wildlife species would be less than significant, as the project would not reduce a special-status species' population, only a very small number of individuals would potentially be affected (with low probability), and the habitats at the site are not of particular importance to the survival or life cycle of a special-status species.

Section 1: Construction Footprint Description

Construction Footprint Definition (per the Ventura County Planning Division): The construction footprint includes the proposed maximum limits of temporary or permanent direct land or vegetation disturbance for a project including such things as the building pad(s), roads/road improvements, grading, septic systems, wells, drainage improvements, fire hazard brush clearance area(s), tennis courts, pools/spas, landscaping, storage/stockpile areas, construction staging areas, fire department turnarounds, utility trenching and other grading areas. The construction footprint on some types of projects, such as mining, oil and gas exploration or agricultural operations, may be quite different than the above.

Development Proposal Description:

The Applicant proposes to expand two existing 2,000-square feet (sf) barns by 500 sf each, construct a new 8,500 sf barn with a lounge and toilet facilities, a new 1,600 sf covered riding arena, a new 1,125 sf hay barn, and a double wide modular building containing two living units of 12 x 60 = 720 sf each.

Construction Footprint Size

The size of the grading footprint and development areas are illustrated in Attachment B, Site Plan. The project's grading footprint would be 3.2 acres and includes areas associated with the proposed barn, covered area, and drainage improvements. The project's construction footprint including anticipated fuel modification zones based on the standard 100-foot distance from structures would be approximately 7.3 acres. The proposed construction footprint includes grading on an adjacent parcel to the north of the subject properties.

Project Design for Impact Avoidance or Minimization

The Applicant has designed the project to avoid impacts to sensitive habitat to the extent feasible while meeting building and safety requirements for construction. Furthermore, the development would be sited in existing graded/disturbed areas with the exception of required foundation support for the arena.

Coastal Zone/Overlay Zones

The project is not within the Coastal Zone
The parcels are within a Save Open Space and Agricultural Resources (SOAR) overlay.

Zoning

Open Space – 10 acres (OS-10 ac)

Elevation

The elevation of the parcel ranges from 660 to 755 feet.

Other

No other important features to describe.

Section 2: Survey Information

2.1 Survey Purpose

Discretionary actions undertaken by public agencies are required to demonstrate compliance with the California Environmental Quality Act (CEQA). The purpose of this Initial Study Biological Assessment (ISBA) is to gather enough information about the biological resources associated with the proposed project, and their potential to be impacted by the project, to make a CEQA Initial Study significance finding for biological resources. In general, ISBA's are intended to:

- Provide an inventory of the biological resources on a project site and the values of those resources.
- Determine if a proposed project has the potential to impact any significant biological resources.
- Recommend project redesign to avoid, minimize or reduce impacts to significant biological resources.
- Recommend additional studies necessary to adequately assess potential impacts and/or to develop adequate mitigation measures.

- Develop mitigation measures, when necessary, in cases where adequate information is available.

2.2 Survey Area Description

Survey Area Definition (per the Ventura County Planning Division): The physical area a biologist evaluates as part of a biological assessment. This includes all areas that could potentially be subject to direct or indirect impacts from the project, including, but not limited to: the construction footprint; areas that would be subject to noise, light, dust or runoff generated by the project; any required buffer areas (e.g., buffers surrounding wetland habitat). The construction footprint plus a 100 to 300-foot buffer—beyond the required fire hazard brush clearance boundary—(or 20-foot from the cut/fill boundary or road fire hazard brush clearance boundary – whichever is greater) is generally the size of a survey area. Required off-site improvements—such as roads or fire hazard brush clearance—are included in the survey area. Survey areas can extend off the project's parcel(s) because indirect impacts may cross property lines. The extent of the survey area shall be determined by the biologist in consultation with the lead agency.

Survey Area

Location

There is only one (1) Survey Area for the proposed project. Survey Area 1 (SA1) is located at 15498 LaPeyre Court (APNs 594-003-011 & -012). Regionally, SA1 is situated at the southwest terminus of LaPeyre Court, in unincorporated Ventura County in the foothills of the Simi Hills. SA1 bisects the SW ¼ of Sec. 11, T.2N, R.20W and the NW ¼ of Sec. 14, T.2N, R.20W of the Simi USGS 7.5' Topographical Quadrangle Map.

Survey Area 1 includes APNs 594-003-011 and -012 as well as a 100-foot buffer around the parcels. SA1 includes the paved driveways associated with the property and adjacent properties along LaPeyre Road as well as undeveloped roads within the parcels and the parcel to the south. The larger survey area was selected out of an abundance of caution because the final development footprint had not been established at the time of the survey. Off-site areas on private property were not accessible and surveyed by binoculars, where possible. This survey was conducted specifically for this ISBA and therefore focuses on the subject parcel and those areas that would be impacted or potentially impacted by the proposed project.

Survey Area Environmental Setting

SA1 contains both developed and undeveloped areas with a majority of the horse facility located on APN 594-003-012 and the existing single-family residence on APN 594-003-011. The parcels together, hereafter referred to as subject property, rise sharply from south to north. The subject property's south and southeast facing slopes are relatively steep and dominated by native coast prickly pear cactus and sagebrush scrub plant communities that gradually transition to disturbed areas of non-native grasses and forbs and cleared or developed areas to the north. Other plant communities observed within SA1 include upland mustards (*Brassica nigra*). The main access roadway from LaPeyre Court to the bottom (south) of the subject property was previously cleared but non-native weedy species, including tumbleweed (*Salsola australis*) and tree tobacco (*Nicotiana glauca*) have become established as well as planted rows of Peruvian peppertree (*Schinus molle*). There are numerous areas that have been cleared of all vegetation and are developed with pipe corrals or horse area in the center of SA1. There is one drainage feature in the southeastern portion of SA1 that runs east to west, south of the subject properties. In addition, there is a grouping of exotic trees, primarily Peruvian peppertree and eucalyptus (*Eucalyptus* sp.) in the southeastern portion of SA1. This low-lying area includes several freestanding wood and pipe structures as well as a modern drain field constructed of placed rocks (i.e., energy dissipator).

Surrounding Area Environmental Setting

Parcels to the north are primarily open space and agriculture, including plant and tree nurseries whereas parcels to the south, east, and west are developed primarily with equestrian uses. These surrounding areas contain non-native grassland, coastal scrub, prickly pear cactus, and a few large native and non-native trees. Prickly pear and mustard continues south from the subject property to adjacent private property. The vegetation community eventually transitions to coastal sage scrub. The ephemeral drainage in the southeastern portion of SA1 continues southwest through SA1 and into properties southwest of the subject property. Regionally, the equestrian facilities with individual single-family homes on large lots and non-contiguous areas of sagebrush and cactus scrub characterize the surrounding environmental setting.

Cover

Vegetation Community Cover		
Legend	**Acreage**	**Percent Cover**
Cleared Land	3.49	19.62%
Urban or Disturbed	3.88	21.80%
Undifferentiated Exotic Vegetation	1.95	10.95%
Native and Non-Native Grasses and Forbes	4.68	26.27%
Artemisia californica (California sagebrush scrub) Alliance, Disturbed	0.60	3.38%
Opuntia littoralis (Coast prickly pear scrub) Alliance	2.40	13.46%
Brassica nigra and other mustards (Upland mustards) Semi-natural Stands	0.80	4.51%
Total	**17.81**	**100.00%**

Source: Valtus Imagery Services, Hexagon Imagery Program (HxIP), 2017.

15498 LAPEYRE COURT - INITIAL STUDY BIOLOGICAL ASSESSMENT

envicom

Project Location Map

0 125 250 Feet

FIGURE 1

Source: Valtus Imagery Services, Hexagon Imagery Program (HxIP), 2017. National Hydrography Dataset U.S.G.S., 2006.

Legend

- Survey Area (SA)
- Subject Parcels
- Construction Footprint
- Proposed Building Pads
- # Photo Locations

envicom

Site and Survey Map

0 75 150 Feet

FIGURE 2

2.3 Methodology

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Survey Date & Details							
Survey Key (1)	**Survey Date (2)**	**Survey Area Map Key(s) (3)**	**Survey Type (4)**	**Time Period (5)**	**Methods/ Constraints (6)**	**GPS (7)**	**Surveyors**
SD1	10/06/2017	SA1	ISBA	7:00 am–10:30 am	Walking transects. The entire site was accessible.	Trimble, GeoXT 6000, submeter	Tyler Barns
ISBA .....Initial Study Biological Assessment Botanical.....Botanical Survey							

Section 3: The Biological Inventory

See Appendix One for an overview of the types of biological resources that are protected in Ventura County.

3.1 Ecological Communities: Plant Communities, Physical Features and Wetland

Plant Communities

Locally important or rare plant communities were found within the survey area(s).

Major Plant Communities Summary

Vegetation within SA1 consists of coast prickly pear - mixed coastal sage scrub, California sagebrush scrub, non-native grassland, sparsely vegetated/barren disturbed areas, and cleared areas. There are also a number of individual exotic non-native trees, which typically occur as inclusions within scrub plant communities.

Generally, the condition of the vegetation within the subject parcel and impact area is disturbed. Only the coast prickly pear scrub communities in the southeastern portion of the site appear substantially intact.

The plant communities within SA1 were mapped using the State Vegetation Classification System (SVC). A plant communities map is provided as Figure 3. As is often the case with disturbed habitats, not all of the native and non-native plant communities in the survey area classify well using the SVC. No attempt

was made to classify all of the assemblages of naturalized non-native species using the SVC. Rather, for the purposes of this report, four convenient mapping units have been adopted, namely Undifferentiated Exotic Vegetation, Cleared Land, Urban/Disturbed or Built-Up, and Non-Native Grasses and Forbs: Disturbed. These vegetation types are described in more detail below.

Cleared Land (PC1)

Cleared land within the survey area includes the unpaved road that extends from Rolling Oak Road to the existing pad, as well as the unpaved areas located along Rolling Oak Road south of the parcel. The unpaved access road and areas along Rolling Oak Road are barren to sparsely vegetated, primarily with non-native weeds, such as those described above under non-native grasses and forbs.

Urban/Disturbed or Built-Up (PC2)

These areas include structures (e.g., homes, barns) and hardened roadways within SA1.

Undifferentiated Exotic Vegetation (PC3)

The area mapped as undifferentiated exotic vegetation consists of non-native trees located along western and eastern property boundary adjacent to the two single-family residences. The understory consists of low growing ruderal species, and appears to be routinely mowed.

Non-Native Grasses and Forbs: Disturbed (PC4)

These areas comprise naturalized non-native vegetation consisting predominately of invasive grasses and forbs, a few individual scattered native shrubs and a sparse distribution of native herbs (i.e., native species do not meet membership rules to be considered separate native vegetation communities). These areas have been historically disturbed. This is a mapping unit of convenience, which may contain multiple non-native vegetation types that may or may not be recognized by the SVC. Selected herbs present in these areas include slender oat (*Avena fatua*), ripgut grass (*Bromus diandrus*), foxtail barley (*Hordeum murinum*), tocalote (*Centaurea melitensis*), summer mustard (*Hirschfeldia incana*), redstem filaree (*Erodium cicutarium*), and Italian thistle (*Carduus pycnocephalus*).

California Sagebrush Scrub (*Artemisia californica*) Alliance [G5S5] (32.010.01) (PC5)

California sagebrush is dominant or co-dominant in the shrub canopy with coyote brush (*Baccharis pilularis*), buckwheat, chaparral yucca, and to a lesser extent purple and black sage. Emergent trees or tall shrubs, including laurel sumac, toyon, blue elderberry, and coast live oak are present at low cover. This alliance occurs on the south-facing and north-facing slopes on adjacent parcels south and northeast of the subject property. This alliance meets membership rule "*Artemisia californica* > 60% relative cover in the shrub canopy". This alliance is located primarily in the northeastern and southeastern portion of SA1.

Coast Prickly Pear Scrub (*Opuntia littoralis*) Alliance [G2S1.1] (32.150.02) (PC6)

Coast prickly pear and/or other cacti are dominant or co-dominant in the shrub canopy with California sagebrush, coastal cholla (*Cylindropuntia prolifera*), California buckwheat (*Eriogonum fasciculatum*), chaparral yucca (*Hesperoyucca whipplei*), laurel sumac (*Malosma laurina*), black sage (*Salvia mellifera*) and blue elderberry (*Sambucus nigra* ssp. *caerulea*). This alliance occurs on the south-facing slopes, where the soils are shallow, loams and clays that may be rocky. The alliance meets membership rule "Opuntia littoralis and/or other cacti (such as *Cylindropuntia prolifera* and *O. oricola*) are > 50% relative cover in the shrub canopy; Opuntia littoralis is > 30% relative cover as a dominant or co-dominant with other coastal sage scrub species". This alliance is considered a sensitive plant community.

This alliance occurs in two large swaths within the parcel, the smaller swath north of the subject property and the majority southwest of the existing single-family residence and on adjacent parcels to the west. None of the prickly pear communities are located within the proposed grading limits.

Black Mustard Herbaceous Association (PC7)

This herbaceous association occurs on the flat southwest-facing slope in the southwestern portion of SA1. Black mustard is the dominant species in the herbaceous layer with some California brittlebush (*Encelia californica*) and California sagebrush are found in the shrub layer at low cover, with elderberry in the tree layer at low cover.

Plant Communities								
Map Key (1)	**SVC Alliance**	**SVC Association**	**Misc. (2)**	**Status (3)**	**Condition (4)**	**Acres Total**	**Acres Impacted**	**Comments (5)**
PC1			Cleared land	N/A	Cleared – No Permits Assumed	3.49	1.86	Previous plant community likely coast prickly pear scrub (PC6).
PC2			Urban/Disturbed or Built-Up	N/A	N/A	3.88	2.83	Includes residential development, roads, and driveways.
PC3			Undifferentiated Exotic Vegetation	N/A	Disturbed	1.95	1.13	Non-native trees within SA1.
PC4			Non-Native Grasses and Forbs: Disturbed	N/A	Disturbed	4.68	1.10	Evidence of fuel modification practices and infestation of non-native species.
PC5	California Sagebrush Scrub (*Artemisia californica*)	*Artemisia californica*		CDFW (G5S5)	Intact	0.60	-	Includes numerous weedy, non-native species.
PC6	Coast Prickly Pear Scrub (*Opuntia littoralis*)	*Opuntia littoralis* – mixed coastal sage scrub		CDFW Rare (G2S1.1)	Intact	2.40	0.41	Based on aerial imagery, portions of this community were graded under prior development.
PC7	Black Mustard (*Brassica nigra*) and other mustards Herbaceous Semi-Natural Alliance	*Brassica nigra*		N/A	Intact	0.80	-	Primarily black mustard but includes some native elderberry.
					Totals	17.81		

LIC.....Locally Important Plant Community
ESHA .....Environmentally Sensitive Habitat Areas (Coastal Zone)
CDFW Rare:
G1 or S1.....Critically Imperiled Globally or Subnationally (state)
G2 or S2.....Imperiled Globally or Subnationally (state)
G3 or S3.....Vulnerable to extirpation or extinction Globally or Subnationally (state)
Cal OWA .....Protected by the California Oak Woodlands Act

Physical Features

Physical Features		
Map Key (1)	**Physical Feature (2)**	**Comments (3)**
PF1	Volcanic outcrop (91 square feet)	Provides habitat for special status species, including Conejo dudleya (federally threatened).

Waters and Wetlands

See Appendix One for an overview of the local, state and federal regulations protecting waters, wetlands and riparian habitats. Wetlands are complex systems; delineating their specific boundaries, functions and values generally takes a level of effort beyond the scope of an Initial Study Biological Assessment (ISBA). The goal of the ISBA with regard to waters and wetlands is simply to identify whether they may exist or not and to determine the potential for impacts to them from the proposed project. This much information can be adequate for designing projects to avoid impacts to waters and wetlands. Additional studies are generally warranted to delineate specific wetland boundaries and to develop recommendations for impact minimization or impact mitigation measures.

Waters and/or wetlands were found within the survey area(s).

Waters and Wetlands Summary

W1 – Ephemeral Stream / Riparian Habitat

W1 is a designated USGS blue-line stream, known as Arroyo Santa Rosa. The stream conveys water from upland areas associated with the subject parcel as well as parcels to the east of LaPeyre Road. The stream flows from east to west originating east of LaPeyre Road. The stream flows under LaPeyre Road via a culvert and continues west – southwest, south of the existing fence line through the southern portion of SA1. The stream continues off-site to the southwest. Based on these observations, Arroyo Santa Rosa flows through SA1 and is hydrologically connected upstream and downstream. At the time of the survey, W1 had an incised channel but lacked indicators of hydric vegetation or soils. In addition, W1 lacked other indicators commonly associated with wetland hydrology (e.g., drift deposits, surface water, water marks). A drainage pattern was the only indicator of wetland hydrology observed. Vegetation associated with W1 is predominantly coastal sagebrush scrub and non-native grasses and forbs, as illustrated as PC4 and PC5 on Figure 3. No trees line the stream within SA1. Of note, the portion of W1 within SA1 more closely resembles a grass line swale with emergent coastal scrub species along the upland margins. As illustrated in Photo P18, the portion of the stream nearest the planned development is basically non-native grasses, upland mustards, and castor bean (*Ricinus communis*).

Based on Google Earth historical aerials, the stream does not appear to have been altered since at least 1994, although roadside maintenance occurs immediately adjacent to the stream. Within SA1, Arroyo Santa Rosa contains relatively disturbed riparian habitat with several invasive species.

Per the grading plan provided by the Applicant, the proposed project would not impact the stream. In addition, required Best Management Practices (BMP) during construction would prevent indirect impacts to the stream. The extent of riparian habitat associated with W1 is shown in Figure 3. A formal jurisdictional delineation is not recommended to define the limits of agency jurisdiction as the stream is not located within the Applicant's development footprint, the project would not discharge into the stream, and construction-related BMPs would prevent indirect impacts.

Waters and Wetlands						
Map Key (1)	**Wetland Type (2)**	**Wetland Name (if any)**	**Wetland Status (3) (if known)**	**Wetland Size (4)**	**Hydrologic Status (5)**	**Primary Water Source (6)**
W1	Stream	Arroyo Santa Rosa	USACE, CDFW, County	530 linear ft. onsite	Dry	Runoff

USACE .....U.S. Army Corps of Engineers regulated
CDFW.....California Department of Fish & Wildlife regulated
County .....County General Plan protected wetland
WPD .....Co. Watershed Protection District (red-line stream)

Waters and Wetlands (continued)			
Map Key	**County Wetland Significance (7)**	**Wetland Distance from Project (8)**	**Comments (9)**
W1	Unknown	~130 feet	Arroyo Santa Rosa appears to be an ephemeral stream. Ephemeral streams are not listed as significant wetlands under the County's General Plan. The stream contains a mixture of upland coastal sage scrub species (approx. 30%) along its banks and an abundance of non-native species (approx. 70%) within the channel. Based on these conditions the portion of the stream within SA1 is more akin to an agricultural ditch or upland swale. Nevertheless, because the status cannot be confirmed as Significant, its Significance has been described as "Unknown."

Water/Wetland Buffers		
Map Key (1)	**Recommended Buffer (2)**	**Comments**
W1B1	50	The ephemeral nature and disturbed condition of the stream, along with its location with respect to project development warrants a reduced buffer to protect its functions.

Other Areas/Observations

No other notable areas/observations to describe.

Source: Valtus Imagery Services, Hexagon Imagery Program (HxIP), 2017.

Legend

- Survey Area (SA)
- Subject Parcels
- Construction Footprint

Plant Communities

- PF1 — Volcanic Outcrop
- PC1 — Cleared Land
- PC2 — Urban or Disturbed
- PC3 — Undifferentiated Exotic Vegetation
- PC4 — Native and Non-Native Grasses and Forbes
- PC5 — California Sagebrush Scrub Alliance, Disturbed (*Artemisia californica*)
- PC6 — Coast Prickly Pear Scrub Alliance (*Opuntia littoralis*)
- PC7 — Upland Mustards Semi-natural Stands (*Brassica nigra* and other mustards)

Waters / Wetlands

- W1 — Ephemeral Drainage / Riparian Habitat
- W1B1 — Water Buffer

Plant Communities and Waters / Wetlands Map

0 75 150 Feet

FIGURE 3

Source: Source: Valtus Imagery Services, Hexagon Imagery Program (HxIP), 2017. National Hydrography Dataset U.S.G.S., 2006. National Hydrography Dataset U.S.G.S., 2006.

envicom

Waters and Wetlands Map

0 75 150 Feet

FIGURE 4

3.2 Species

Observed Species

During the survey conducted within SA1 on October 6, 2017, a total of 42 species of vascular plants (19 native, 23 non-native) were observed. A complete list of observed plant species is provided in Appendix 2. Plant diversity is low to moderate and a significant percentage of the species observed were non-native (55%). None of the observed species are rare, threatened, or endangered.

A total of 18 species of birds, one (1) reptile, and six (6) mammals were observed. Observed species were primarily species common or relatively common to the region, and represent only a sample of the species that can be expected to utilize habitats at or in the vicinity of the site for cover, foraging, and reproduction. Furthermore, in general, this list includes species that are more easily detected during daytime surveys. Wildlife observed were mainly birds associated with the upland sagebrush scrub, wooded habitats, and semi-urban environs.

Birds heard or observed included American crow, Anna's hummingbird, black phoebe, Bewick's wren, Brewer's blackbird, brown-headed cowbird, California scrub-jay [formerly western scrub-jay], California towhee, common raven, dark-eyed junco, European starling, house finch, house wren, mourning dove, northern mockingbird, rock pigeon, and spotted towhee. A turkey vulture was observed overhead. Great Basin fence lizard (*Sceloporus occidentalis*) was observed in some denser woody and brushy areas. A complete list of observed wildlife species is provided in Appendix 2.

Protected Trees

The Ventura County Tree Protection Ordinance, found in Section 8107-25 of the Ventura County Non-Coastal Zoning Ordinance, protects select trees. This ordinance, which applies in the unincorporated areas of the County outside the coastal zone, regulates—through a tree permit program—the removal, trimming of branches or roots, or grading or excavating within the root zone of a "protected tree." Individual trees are the focus of the ordinance, while oak woodlands are additionally protected as "locally important communities." A list of protected trees is provided in Section 8107-25 of the ordinance. The species of trees protected is dependent on zoning classification, with more species protected in Scenic Highway and Scenic Resource Protection Overlay Zones. The subject parcel is not within a Scenic Resource Overlay Zone and no heritage trees were observed within the survey area. Although two (2) blue elderberry trees located within the accessible portion of the survey area, these trees are not considered County protected trees because the project is not located in a Scenic Resource Overlay Zone. Furthermore, based on the grading plan provided by the Applicant, grading would not encroach into the canopy or the root protection zone of any trees listed as protected by the County.

Special Status Species and Nests

See Appendix One for definitions of the types of special status species that have federal, state or local protection and for more information on the regulations that protect birds' nests.

Special status species <u>were observed or have a moderate to high potential to occur</u> within the survey area(s).
Habitat suitable for nests of birds protected under the Migratory Bird Treaty Act <u>does exist</u> within the survey area(s).

Special Status Species Summary

<u>Special-Status Plants</u>

No special-status plant species were observed within SA1. A review of the California Department of Fish and Wildlife (CDFW) Biogeographic Information and Observation System (BIOS) shows multiple special-

status plant species occurrences are located within one (1) mile from the site. The nearest occurrences include Conejo dudleya (*Dudleya parva*) located approximately 0.37 miles southeast of SA1, California Orcutt grass (Orcuttia californica) approximately 0.65 miles southwest of SA1 and Lyon's Pentachaeta (Pentachaeta lyonii) located approximately 0.62 miles northwest of SA1. In addition, a review of the Critical Habitat spatial data provided by the U.S. Fish and Wildlife Service shows no critical habitat for sensitive plant species within one (1) mile of the project site.

The potential for occurrence analysis for special-status plant species presented in the table below considers the potential for the species to occur within SA1, and therefore includes not only the subject parcel and impact area, but the coastal sage scrub, prickly pear scrub, and developed habitats of the adjacent properties. Several of the species in the table are considered absent with no potential to occur either because they are outside the known range of the species or they are perennial species that would have been detected during the field survey. The potential for occurrence of annual species and bulbs was evaluated as these species may not have been detected if they did not bloom during this growing season. Nevertheless, although some species have been assigned a low or moderate potential for occurrence, they are not expected to occur within the construction footprint due to the site's disturbed condition.

Special-Status Wildlife

No special-status wildlife species were observed within SA1. However, a review of the Critical Habitat spatial data provided by the U.S. Fish and Wildlife Service shows critical habitat for the coastal California gnatcatcher surrounds SA1 with the nearest designated critical habitat located within approximately 800 feet south of SA1. As for special-status plants, the potential for occurrence analysis for special-status wildlife species presented in the table below considers the potential for the species to occur within SA1, and therefore includes not only the subject parcel and impact area, but habitat within adjacent properties. In regards to wildlife, the disturbed nature of the proposed construction footprint and immediately adjacent areas makes it unlikely that a special-status species occupying these native habitats would occur within the grading footprint.

Observed and Potentially Occurring Special Status Species						
Map Key (1)	**Survey/ Source (2)**	**Scientific Name (3)**	**Common Name**	**Species' Status (4)**	**Potential to Occur (5)**	**Habitat Requirements (6)**
PLANTS POTENTIAL FOR OCCURRENCE						
SSP1	CNPS	*Acanthoscyphus parishii var. parishii*	Parish's Oxytheca	4.2	Low	Occurs in areas that are sandy or gravelly as well as chaparral and lower montane coniferous forest. Blooms from June to September.
SSP2	CNPS	*Abronia maritima*	Red Sand-Verbena	4.2	None	Coastal dunes.
SSP3	CNPS	*Asplenium vespertinum*	Western Spleenwort	4.2	None	Found in chaparral, cismontane woodlands and coastal scrub, typically at the base of overhanging boulders.
SSP4	CNDDB	*Astragalus brauntonii*	Braunton's Milkvetch	FE, 1B.1	None	Recent burns or disturbed areas, usually sandstone with carbonate layers in closed- cone coniferous forest, chaparral, coastal scrub, and valley and foothill grassland at elevations between 4 and 640 meters. A soil specialist in saline, somewhat alkaline soils high in calcium, manganese, with some potassium.

Observed and Potentially Occurring Special Status Species						
Map Key (1)	**Survey/ Source (2)**	**Scientific Name (3)**	**Common Name**	**Species' Status (4)**	**Potential to Occur (5)**	**Habitat Requirements (6)**
SSP5	CNDDB	*Atriplex coulteri*	Coulter's Saltbush	1B.2	None	Generally found in coastal bluff scrub, coastal dunes, coastal scrub, valley and foothill grassland. Ocean bluffs, ridge tops, as well as alkaline low places, 10-440 m.
SSP6	CNDDB	*California macrophylla*	Round-leaved Filaree	1B.2	Moderate	Found in chaparral, coastal scrub, cismontane woodland, valley and foothill grassland, clay soils, 15-1200m.
SSP7	CNPS	*Calochortus catalinae*	Catalina Mariposa Lily	4.2	Moderate	This species typically occurs in chaparral, cismontane woodland, coastal scrub, and valley and foothill grassland. The species is widespread in region. "Uncommon, heavy soil, open grassland or shrubland, <700m, south Central Coast, west South Coast, especially Channel Islands"
SSP8	CNPS	*Calochortus clavatus* var. *clavatus*	Club Haired Mariposa Lily	4.3	Low	This species typically occurs in chaparral, cismontane woodland, coastal scrub, and valley and foothill grassland on usually serpentinite, clay, and rocky substrate.
SSP9	CNDDB	*Calochortus clavatus var. gracilis*	Slender Mariposa Lily	1B.2	Low	Chaparral, coastal scrub, and valley and foothill grassland habitats. Found in shaded foothill canyons; often on grassy slopes within other habitat. 420-760.
SSP10	CNPS	*Calochortus fimbriatus*	Late-Flowered Mariposa Lily	1B.3	None	This species typically occurs in chaparral, cismontane woodland, coastal scrub, and valley and foothill grassland on usually serpentinite, clay, and rocky substrate.
SSP11	CNDDB	*Calochortus plummerae*	Plummer's Mariposa Lily	4.2	Moderate	Found in coastal scrub, chaparral, valley and foothill grassland, cismontane woodland, and lower montane coniferous forest. Generally occurs on rocky and sandy sites, usually of granitic or alluvial material. It can be very common after fire.
SSP12	CNPS	*Calystegia peirsonii*	Peirson's Morning-Glory	4.2	None	This species typically occurs in chaparral, cismontane woodland, chenopod scrub, coastal scrub, lower montane coniferous forest, and valley and foothill grassland on usually serpentinite, clay, and rocky substrate.
SSP13	CNPS	*Castilleja gleasonii*	Mt. Gleason Paintbrush	1B.2	None	This species typically occurs in granitic, chaparral, lower montane coniferous forest, pinyon and juniper woodland at elevations between 1160-2170 meters. Blooms from May to September,
SSP14	CNDDB	*Centromadia parryi* ssp. *australis*	Southern Tarplant	1B.1	None	Annual herb found on the margins of marshes and swamps, and in vernally mesic valley and foothill grassland and vernal pools at elevations between 0 and 425 meters. Blooms from May to November.

Observed and Potentially Occurring Special Status Species						
Map Key (1)	**Survey/ Source (2)**	**Scientific Name (3)**	**Common Name**	**Species' Status (4)**	**Potential to Occur (5)**	**Habitat Requirements (6)**
SSP15	CNPS	*Cercocarpus betuloides var. blancheae*	Island Mountain-Mahogany	4.3	None	Species occurs in closed-cone coniferous forest and chaparral.
SSP16	CNDDB	*Chorizanthe parryi* var. *fernandina*	San Fernando Valley spineflower	FC, SE	None	Annual herb found on sandy soils in coastal scrub and valley and foothill grassland at elevations between 3 and 1035 meters. Blooms April to July.
SSP17	CNPS	*Clarkia exilis*	Slender Clarkia	4.3	None	Found in Cismontane woodland at elevations of 120-1000 meters. Blooms April to May.
SSP18	CNPS	*Clinopodium mimuloides*	Monkey-flower Savory	4.2	None	Occurs in stream banks, mesic, chaparral, and North Coast coniferous forest at elevations of 205-1800 meters, Blooms June to October.
SSP19	CNPS	*Convolvulus simulans*	Small-flowered Morning Glory	4.2	None	Occurs in wet clay, serpentine ridges, 30-700m, San Joaquin Valley, Central and South Coast, southern Channel Islands, Baja California.
SSP20	CNDDB	*Deinandra minthornii*	Santa Susana tarplant	SR, 1B.2	None	Perennial deciduous shrub found in rocky sandstone habitats in chaparral and coastal scrub at elevations between 280 and 760 meters. Blooms July to November.
SSP21	CNPS	*Deinandra paniculata*	Paniculate Tarplant	4.2	None	Occurs in usually vernally mesic, sometimes sandy habitats as well as coastal scrub, valley and foothill grassland, vernal pools at elevations of 25-940 meters. Blooms from April to November.
SSP22	CNDDB	*Delphinium parryi* ssp. *blochmaniae*	Dune Larkspur	1B.2	None	Perennial herb found in maritime chaparral and coastal dunes at elevations between 0 and 200 meters. Blooms April to May.
SSP23	CNDDB	*Delphinium parryi* ssp. *purpureum*	Dune Larkspur	4.3	None	Occurs in chaparral, Mojavean desert scrub, and pinyon and juniper woodland.
SSP24	CNDDB	*Delphinium umbraculorum*	Umbrella Larkspur	1B.3	None	Occurs in cismontane woodland, chaparral, and in mesic sites between elevations of 215-2075 meters.
SSP25	CNDDB	*Dudleya blochmaniae* ssp. *blochmaniae*	Blochman's Dudleya	1B.1	None	Perennial herb found on open, rocky slopes; often in shallow clays over serpentine or in rocky areas with little soil; coastal bluff scrub, chaparral, coastal scrub, and valley and foothill grassland at elevations between 5 an 450 meters. Blooms April to June.
SSP26	CNDDB	*Dudleya cymosa* ssp. *agourensis*	Agoura Hills Dudleya	FT, 1B.2	None	Perennial herb found in rocky, volcanic breccia in chaparral and cismontane woodland at elevations between 200 to 500 meters. Blooms May to June.
SSP27	CNDDB	*Dudleya cymosa* ssp. *marcescens*	Marcescent Dudleya	FT, SR, 1B.2	None	Perennial herb found on sheer rock surfaces and rocky volcanic cliffs in chaparral at elevations between 150 and 520 meters. Blooms April to July.

Observed and Potentially Occurring Special Status Species						
Map Key (1)	**Survey/ Source (2)**	**Scientific Name (3)**	**Common Name**	**Species' Status (4)**	**Potential to Occur (5)**	**Habitat Requirements (6)**
SSP28	CNDDB	*Dudleya multicaulis*	Many-Stemmed Dudleya	1B.2	Low	Perennial herb found in chaparral, coastal scrub, and valley and foothill grassland at elevations between 15 and 790 meters, in heavy, often clayey soils or grassy slopes. Blooms from April to July.
SSP29	CNDDB	*Dudleya parva*	Conejo Dudleya	FT, 1B.2	Low	Found in rocky or gravelly areas on clay or volcanic substrates in coastal scrub and valley and foothill grassland habitats at elevations between 60 and 450 meters. Blooms from May to June.
SSP30	CNDDB	*Dudleya verityi*	Verity's Dudleya	FT, 1B.2	None	Perennial herb found on volcanic, rocky substrates in chaparral, cismontane woodland, and coastal scrub at elevations between 60 and 120 meters. Blooms from May to June.
SSP31	CNDDB	*Eriogonum crocatum*	Conejo Buckwheat	CR, 1B.2	Low	Perennial subshrub found in rocky or gravelly areas on clay or volcanic substrates in coastal scrub and valley and foothill grassland habitats at elevations between 60 and 450 meters. Blooms from April to July.
SSP32	CNDDB	*Harpagonella palmeri*	Palmer's Grapplinghook	4.2	Low	Occurs in chaparral, coastal scrub, valley and foothill grassland as well as clay soils, open grassy areas within shrubland, 20-995 meters.
SSP33	CNDDB	*Horkelia cuneata ssp. puberula*	Mesa Horkelia	1B.1	None	Chaparral, cismontane woodland, coastal scrub. Sandy or gravelly sites, 70-810m.
SSP34	CNPS	*Juglans californica*	Southern California Black Walnut	4.2	Low	Perennial deciduous tree that occurs in chaparral, cismontane woodland, and coastal scrub.
SSP35	CNPS	*Lepechinia fragrans*	Fragrant Pitcher sage	4.2	None	Occurs in chaparral between 20-1310 meters. Blooms March – October.
SSP36	CNPS	*Lepechinia rossii*	Ross' Pitcher sage	1B.2	None	Occurs in chaparral at elevations of 305-790 meters. Blooms in May through September.
SSP37	CNPS	*Lupinus paynei*	Payne's Bush Lupine	3.1	Low	Perennial shrub that occurs in sandy habitats, coastal scrub, riparian scrub and valley and foothill grassland at elevations of 220-420 meters. Blooms March through April.
SSP38	CNPS	*Lilium humboldtii ssp. ocellatum*	Ocellated Humboldt	4.2	None	Uncommon, yellow pine forest and openings, <1800m
SSP39	CNDDB	*Monardella hypoleuca ssp. hypoleuca*	White-veined Monardella	1B.3	None	Occurs in chaparral and shady oak woodland habitats at elevations between 50 and 1525 meters. Local in a variety of habitats.
SSP40	CNDDB	*Monardella sinuata ssp. gerryi*	Gerry's curly-leaved Monardella	1B.1	Low	Occurs on sandy openings in coastal strands.
SSP41	CNPS	*Monardella sinuata ssp. sinuata*	Southern Curly-leaved Monardella	1B.2	Low	Occurs in sandy soils, coastal strand, dune and sagebrush scrub, coastal chaparral and oak woodland. Blooms April – September. Found between 0-300 m

Observed and Potentially Occurring Special Status Species						
Map Key (1)	**Survey/ Source (2)**	**Scientific Name (3)**	**Common Name**	**Species' Status (4)**	**Potential to Occur (5)**	**Habitat Requirements (6)**
SSP42	CNDDB	*Navarretia ojaiensis*	Ojai Navarretia	1B.1	Moderate	Annual herb found in valley and foothill grassland and openings in chaparral and coastal scrub at elevations between 275 and 620 meters. Blooms from May to July.
SSP43	CNDDB	*Nolina cismontana*	Chaparral Nolina	1B.2	None	Perennial evergreen shrub found on sandstone or gabbro substrates in chaparral and coastal scrub at elevations between 140 and 1275 meters. Blooms between May and July.
SSP44	CNDDB	*Orcuttia californica*	California Orcutt Grass	FE, SE	None	Annual herb found in vernal pool at elevations between 15 and 660 meters. Blooms from April to August.
SSP45	CNDDB	*Pentachaeta lyonii*	Lyon's Pentachaeta	FE, SE	Moderate	Annual herb found on rocky, clay substrates in coastal scrub, valley and foothill grassland, and openings in chaparral at elevations between 30 and 630 meters. Blooms between March and August.
SSP46	CNPS	*Phacelia hubbyi*	Hubby's Phacelia	4.2	None	Gravelly, rocky substrates in chaparral, coastal scrub, and valley and foothill grassland habitats at elevations between 0 – 1000 meters.
SSP47	CNPS	*Piperia michaelii*	Michael's rein orchid	4.2	None	Occurs in coastal bluff scrub, closed-cone coniferous forest, chaparral, cismontane woodland, coastal scrub, lower montane coniferous forest
SSP48	CNPS	*Pseudognaphalium leucocephalum*	White Rabbit-Tobacco	2B.2	Low	Perennial herb that occurs in a sandy and gravelly habitat, as well as chaparral, cismontane woodland, coastal scrub, riparian woodland at elevations of 0-2100 meters. Blooms from August to November.
SSP49	CNPS	*Stylocline masonii*	Mason's Neststraw	1B.1	None	Annual herb that occurs in sandy habitats, chenopod scrub, and pinyon/juniper woodlands at elevations of 100-1200 meters. Blooms from March to May.
SSP50	CNPS	*Symphyotrichum greatae*	Greata's Aster	1B.3	None	Perennial rhizomatous herb found in mesic habitats, broad-leafed upland forest, chaparral, cismontane woodland, lower montane coniferous forest and riparian woodland at elevation of 300-2010 meters. Blooms from June to October.
WILDLIFE POTENTIAL FOR OCCURRENCE						
Insects						
SSP51	CNDDB	*Bombus crotchii*	Crotch Bumble Bee	SA	Low	Coastal California east to the sierra-cascade crest and south into Mexico. Food plant genera include Antirrhinum, Clarkia, Dendromecon, Eschscholzia, and Eriogonum.

Observed and Potentially Occurring Special Status Species						
Map Key (1)	**Survey/ Source (2)**	**Scientific Name (3)**	**Common Name**	**Species' Status (4)**	**Potential to Occur (5)**	**Habitat Requirements (6)**
SSP52	CNDDB	*Socalchemmis gertschii*	Gertschs Socalchemmis Spider	SA	None	Known only from 2 locations in Los Angeles County; (Brentwood and Topanga Canyon). Source: Platnick, N.I. and D. Ubick. 2001. A revision of North American spiders of the genus Socalchemmis (Araneae, Tengellidae). North American Novitates No. 3339.
SSP53	CNDDB	*Trimerotropis occidentaloides*	Santa Monica Mountains Grasshopper	SA	Low	Known only from the Santa Monica Mountains, on bare hillsides and along dirt trails in chaparral. Endemic to the Santa Monica Mountains. Perhaps common along the whole crest of the western one-third of the range.
Crustaceans						
SSP54	CNDDB	*Streptocephalus woottoni*	Riverside Fairy Shrimp	FE	None	Endemic to western Riverside, Orange, and San Diego Counties in areas of tectonic swales/earth slump basins in grassland and coastal sage scrub. Inhabit seasonally astatic pools filled by winter/spring rains. Hatch in warm water later in the season.
Fish						
SSP55	CNDDB	*Catostomus santaanae*	Santa Ana Sucker	FT, SSC	None	Endemic to Los Angeles Basin south coastal streams. Habitat generalists, but prefer sand-rubble-boulder bottoms, cool, clear water and algae.
SSP56	CNDDB	*Gasterosteus aculeatus williamsoni*	Unarmored Threespine Stickleback	FE, SE	None	Weedy pools, backwaters, and among emergent vegetation at the stream edge in small southern California streams. Cools (<24C), clear water with abundant vegetation.
SSP57	CNDDB	*Gila orcuttii*	Arroyo Chub	SSC	None	Native to streams from Malibu Creek to San Luis Rey River basin. Introduced into streams in Santa Clara, Ventura, Santa Ynez. Slow water stream sections with mud or sand bottoms. Feeds heavily on aquatic vegetation and associated invertebrates.
SSP58	CNDDB	*Oncorhynchus mykiss irideus*	Southern Steelhead – Southern California DPS	FE, SSC	None	Federal listing refers to populations from Santa Maria River south to southern extent of range (San Mateo Creek in San Diego Co.). Southern steelhead likely have greater physiological tolerances to warmer water and more variable conditions.

Observed and Potentially Occurring Special Status Species						
Map Key (1)	**Survey/ Source (2)**	**Scientific Name (3)**	**Common Name**	**Species' Status (4)**	**Potential to Occur (5)**	**Habitat Requirements (6)**
Amphibians						
SSP59		*Anaxyrus californicus*	Arroyo Toad	SSC	None	Occurs in semi-arid regions near washes or intermittent streams, including valley-foothill and desert riparian, desert wash, etc. Also occurs in rivers with sandy banks, willows, cottonwoods, sycamores, and loose gravelly areas of streams in the drier parts of range.
SSP60	CNDDB	*Rana draytonii*	California Red-Legged Frog	FT, SSC	None	Lowlands and foothills in or near permanent source of deep water with dense, shrubby or emergent vegetation. Requires 11-20 weeks of permanent water for larval development. Must have access to aestivation habitat.
SSP61	CNDDB	*Rana boylii*	Foothill Yellow-Legged Frog	ST, SSC	None	Found in partly-shaded, shallow streams and riffles with a rocky substrate in a variety of habitats. Needs at least some cobble-sized substrate for egg-laying, needs at least 15 weeks to attain metamorphosis.
SSP62	CNDDB	*Spea hammondii*	Western Spadefoot	SSC	None	Occurs primarily in grassland habitats, but can be found in valley-foothill hardwood woodlands. Vernal pools are essential for breeding and egg-laying.
Reptiles						
SSP63	CNDDB	*Anniella sp. 1*	California Legless Lizard	SSC	Low	Found in Contra Costa County south to San Diego, within a variety of open habitats, such as moist, loose soil with high moisture content.
SSP64	CNDDB	*Arizona elegans occidentalis*	California Glossy Snake	SSC	Low	Patchily distributed from the Eastern portion of San Francisco Bay, southern San Joaquin Valley, and the Coast, transverse, and peninsular ranges, south to Baja California. Generalist reported from a range of scrub and grassland habitats, often with loose or sandy soils.
SSP65	CNDDB	*Aspidoscelis tigris stejnegeri*	Coastal Whiptail	SA	Moderate	Found in deserts and semiarid areas with sparse vegetation and open areas. Also found in woodland and riparian areas.
SSP66	CNDDB	*Diadophis punctatus modestus*	San Bernardino Ringneck Snake	SA	Low	Most common in open, relatively rocky areas. Often in somewhat moist microhabitats near intermittent streams. Avoids moving through open or barren areas by restricting movements to areas of surface litter or herbaceous veg.

Observed and Potentially Occurring Special Status Species						
Map Key (1)	**Survey/ Source (2)**	**Scientific Name (3)**	**Common Name**	**Species' Status (4)**	**Potential to Occur (5)**	**Habitat Requirements (6)**
SSP67	CNDDB	*Phrynosoma blainvillii*	Coast Horned Lizard	SSC	Low	Frequents a wide variety of habitats, most common in lowlands along sandy washes with scattered low bushes. Open areas for sunning, bushes for cover, patches of loose soil for burial, and abundant supply of ants and other insects.
SSP68	CNDDB	*Emys marmorata*	Western Pond Turtle	SSC	None	A thoroughly aquatic turtle of ponds, marshes, rivers, streams and irrigation ditches, usually with aquatic vegetation. Need basking sites and suitable (sandy banks or grassy open fields) upland habitat up to 0.5 km from water for egg-laying.
SSP69	CNDDB	*Thamnophis hammondii*	Two-Striped Garter Snake	SSC	None	Coastal California from vicinity of Salinas to northwest Baja California. From sea to about 7,000 feet elevation. Highly aquatic, found in or near permanent fresh water. Often along streams with rocky beds and riparian growth.
Birds						
SSP70	CNDDB	*Accipiter cooperii*	Cooper's Hawk	WL	High	Uncommon permanent resident, augmented by fall transients in the coastal district (Garrett and Dunn 1981). Dense stands of live oak, riparian deciduous, or other forest habitats near water used most frequently (Zeiner et al. 1990b).
SSP71	CNDDB	*Agelaius tricolor*	Tricolored Blackbird	SSC	Low	Local resident in coastal district, common where it occurs (Garrett and Dunn 1981).
SSP72	CNDDB	*Aimophila ruficeps canescens*	Southern California Rufous-Crowned Sparrow	WL	Low	Uncommon permanent resident, augmented by fall transients in the coastal district (Garrett and Dunn 1981). Dense stands of live oak, riparian deciduous, or other forest habitats near water used most frequently (Zeiner et al. 1990b).
SSP73	CNDDB	*Aquila chrysaetos*	Golden Eagle	SFP	Low	Rolling foothills, mountain areas, sage- juniper flats, and desert. Cliff-walled canyons provide nesting habitat in most parts of range; also, large trees in open areas.
SSP74		*Artemisiospiza belli belli*	Bell's Sage Sparrow	WL	None	Nests in chaparral dominated by fairly dense stands of chamise. Found in coastal sage scrub in south of range. Nest located on the ground beneath a shrub or in a shrub 6-18 inches above ground. Territories about 50 yards apart.

Observed and Potentially Occurring Special Status Species						
Map Key (1)	**Survey/ Source (2)**	**Scientific Name (3)**	**Common Name**	**Species' Status (4)**	**Potential to Occur (5)**	**Habitat Requirements (6)**
SSP75	CNDDB	*Athene cunicularia*	Burrowing Owl	SSC	Low	Open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. Subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel. Now extirpated from most of the coastal slope of the Los Angeles region (Garrett et al 2006). Now occurs mainly as a transient and winter visitor to coastal southern California.
SSP76	CNDDB	*Coccyzus americanus occidentalis*	Western Yellow-Billed Cuckoo	FT, SE	None	Nests in riparian jungles of willow, often mixed with cottonwoods, with lower story of blackberry, nettles or wild grape.
SSP77	CNDDB	*Elanus leucurus*	White-Tailed Kite	SFP	Moderate	Uncommon resident in open grasslands, valley oak savannas, marshes, and agricultural areas throughout the lowlands of the Los Angeles region (Garrett et al. 2006).
SSP78	CNDDB	*Empidonax traillii extimus*	Southwestern Willow Flycatcher	FE/SE	Low	Riparian woodlands in southern California. Very low potential to occur temporarily during migration.
SSP79	CNDDB	*Gymnogyps californianus*	California Condor	FE, SE	None	Requires vast expanses of open savannah, grasslands, and foothill chaparral in mountain ranges of moderate altitude. Also occurs in deep canyons containing clefts in the rocky walls, which provide nesting sites. Forages up to 100 miles from roost/nest.
SSP80	CNDDB	*Icteria virens*	Yellow-Breasted Chat	SSC	None	Summer resident, inhabits riparian thickets of willow and other brushy tangles near watercourses. Nests in low, dense riparian, consisting of willow, blackberry, wild grape, forages and nests within 10 ft. of ground.
SSP81	CNDDB	*Polioptila californica californica*	Coastal California Gnatcatcher	FT, SSC	None	Obligate, permanent resident of coastal sage scrub below 2500 feet in southern California. Low, coastal sage scrub in arid washes, on mesa and slopes. Not all areas classified as coastal sage scrub are occupied.
SSP82	CNDDB	*Riparia riparia*	Bank Swallow	ST	Low	Very uncommon spring transient and rare fall transient, and casual winter transient along the coast, formerly a fairly common summer resident, now virtually extirpated as a breeder in the region (Garrett and Dunn 1981).

Observed and Potentially Occurring Special Status Species						
Map Key (1)	**Survey/ Source (2)**	**Scientific Name (3)**	**Common Name**	**Species' Status (4)**	**Potential to Occur (5)**	**Habitat Requirements (6)**
SSP83	CNDDB	*Vireo bellii pusillus*	Least Bell's Vireo	FE, SE	Low	Summer resident of southern California in low riparian in vicinity of water or in dry river bottoms; below 2000 ft. Nests placed along margins of bushes or on twigs projecting into pathways, usually willow, baccharis, or mesquite. Very low potential to occur temporarily during migration.
Mammals						
SSP84	CNDDB	*Antrozous pallidus*	Pallid Bat	SSC	Low	Deserts, grasslands, shrublands, woodlands and forests. Most common in open, dry habitats with rocky areas for roosting. Roosts must protect bats from high temperatures. Very sensitive to disturbance of roosting sites.
SSP85	CNDDB	*Euderma maculatum*	Spotted Bat	SSC	Low	Mostly in foothills and mountains and desert regions of southern California, in a range of habitats from desert and grasslands through mixed conifer forest. Range in California includes Santa Monica Mountains (Zeiner et al. 1990a). Occupies a wide variety of habitats from arid deserts and grasslands through mixed conifer forests, feeds over water and along washes. feeds almost entirely on moths. Needs rock crevices in cliffs or caves for roosting.
SSP86	CNDDB	*Eumops perotis californicus*	Western Mastiff Bat	SSC	Moderate	Many open, semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, grasslands, chaparral etc. Roosts in crevices in cliff faces, high buildings, trees and tunnels.
SSP87	CNDDB	*Lasiurus cinereus*	Hoary Bat	VC LIS	Moderate	Prefers open habitats or habitat mosaics, with access to trees for cover and open areas or habitat edges for feeding. Roosts in dense foliate of medium to large trees. Feeds primarily on moths. Requires water.
SSP88	CNDDB	*Macrotus californicus*	California Leaf-nosed Bat	SSC	Low	Found in desert riparian, desert wash, desert scrub, desert succulent scrub, alkali scrub and palm oasis habitats. Needs rocky, rugged terrain with mines or caves for roosting. Reported range does not include the Santa Monica Mountains (Zeiner et al. 1990a).
SSP89	CNDDB	*Myotis ciliolabrum*	Western Small-Footed Myotis	SA	Low	Occurs in a wide variety of habitats, especially woodland and brush lands near water from sea level to 8900 feet. Range in California includes Santa Monica Mountains (Zeiner et al. 1990a).

Observed and Potentially Occurring Special Status Species						
Map Key (1)	**Survey/ Source (2)**	**Scientific Name (3)**	**Common Name**	**Species' Status (4)**	**Potential to Occur (5)**	**Habitat Requirements (6)**
SSP90	CNDDB	*Neotoma lepida intermedia*	San Diego Desert Woodrat	SSC	None	Lives in high desert areas, chaparral, sagebrush flats, and Pinyon-Juniper Woodland.
SSP91	CNDDB	*Taxidea taxus*	American Badger	SSC	None	Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils. Needs sufficient food, friable soils and open, uncultivated ground. Preys on burrowing rodents. Digs burrows.

Special Status Species (continued)				
Map Key	**Adequate Habitat Onsite**	**Adequate Habitat Size (7)**	**Acreage Impacted**	**Comments (8)**
SSP1	No	No		
SSP2	No	No		
SSP3	No	No		
SSP4	No	No		
SSP5	No	No		
SSP6	Yes	Yes	0.41	This species was not observed but may occur in the fuel modification area southeast of the proposed arena. The species is more likely to occur in the study area, beyond the limits of construction and fuel modification.
SSP7	Yes	Yes	0.41	This species was not observed but may occur in the fuel modification area southeast of the proposed arena. The species is more likely to occur in the study area, beyond the limits of construction and fuel modification.
SSP8	Yes	Yes	0.41	This species was not observed but may occur in the fuel modification area southeast of the proposed arena. The species is more likely to occur in the study area, beyond the limits of construction and fuel modification.
SSP9	Yes	Yes	0.41	This species was not observed but may occur in the fuel modification area southeast of the proposed arena. The species is more likely to occur in the study area, beyond the limits of construction and fuel modification.
SSP10	No	No		
SSP11	Yes	Yes	0.41	This species was not observed but may occur in the fuel modification area southeast of the proposed arena. The species is more likely to occur in the study area, beyond the limits of construction and fuel modification.
SSP12	No	No		
SSP13	No	No		
SSP14	No	No		
SSP15	No	Yes		
SSP16	No	No		
SSP17	No	No		
SSP18	No	No		
SSP19	No	No		
SSP20	No	No		
SSP21	No	No		
SSP22	No	No		
SSP23	No	No		
SSP24	Yes	No		
SSP25	Yes	No		
SSP26	Yes	No		
SSP27	Yes	No		

Special Status Species (continued)				
Map Key	**Adequate Habitat Onsite**	**Adequate Habitat Size (7)**	**Acreage Impacted**	**Comments (8)**
SSP28	Yes	No		
SSP29	Yes	Yes		Marginal habitat available (rocky volcanic outcrop), species confirmed absent during survey.
SSP30	No	No		
SSP31	Yes	Yes		Marginal habitat available (rocky volcanic outcrop), species confirmed absent during survey.
SSP32	No	No		
SSP33	No	No		
SSP34	Yes	Yes		This species was not observed within the survey area.
SSP35	No	No		
SSP36	No	No		
SSP37	No	No		
SSP38	No	No		
SSP39	No	No		
SSP40	No	No		
SSP41	No	No		
SSP42	Yes	Yes	1.51	This species was not observed. Acreage impact includes non-native disturbed grassland as well as sagebrush scrub.
SSP43	No	No		
SSP44	No	No		
SSP45	Yes	Yes	1.51	Marginal habitat available in disturbed areas adjacent to prickly pear (off-site); species confirmed absent during survey.
SSP46	Yes	No	1.51	Marginal habitat available near rocky outcrop; species confirmed absent during survey.
SSP47	No	No		
SSP48	Yes	No		Marginal habitat available, species confirmed absent during survey.
SSP49	No	No		
SSP50	No	No		
SSP51	Yes	Yes		Food plant available on-site but not enough is known about the distribution and habitat preferences of this species.
SSP52	Yes	Yes		To little is known about this species to speculate whether it is likely to occur on-site.
SSP53	No	No		The species preferred habitat is available within the disturbance footprint.
SSP54	No	No		No vernal pools within the study area.
SSP55	No	No		The dry drainage does not support aquatic life.
SSP56	No	No		The dry drainage does not support aquatic life.
SSP57	No	No		The dry drainage does not support aquatic life.
SSP58	No	No		The dry drainage does not support aquatic life.
SSP59	No	No		This species prefers semi-arid, desert riparian systems with loose gravelly areas of streams, which are not present in the survey area. The drainage would not support this species.
SSP60	No	No		The drainage is not a permanent source of water and does not contain deep pools.
SSP61	No	No		The drainage is not a permanent source of water and does not contain deep pools.
SSP62	No	No		Suitable habitat is not available within the survey area.
SSP63	No	Yes		Soil moisture is a limiting factor for the distribution of this species. The culvert outfall area may provide enough soil moisture for this species.
SSP64	No	Yes		
SSP65	Yes	Yes	1.51	This species was not observed and has a moderate potential to forage within the study area.
SSP66	No	Yes		Low potential to occur in transition between more mesic areas associated with the drainage.
SSP67	No	Yes		This species was not observed and has a low potential to forage within the study area.
SSP68	No	No		No suitable habitat.

Special Status Species (continued)				
Map Key	**Adequate Habitat Onsite**	**Adequate Habitat Size (7)**	**Acreage Impacted**	**Comments (8)**
SSP69	No	No		No suitable aquatic habitat.
SSP70	Yes	Yes	2.64	This species is expected to forage and possibly nest within the survey area. Impacts to non-native trees may affect this species' perch area. Nesting on-site is not expected.
SSP71	No	No		This species preferred habitat is not available within the survey area. The species may be seen overhead transiting to suitable habitat off-site.`
SSP72	No	Yes		Suitable habitat is located southwest of the subject property and possibly northeast of the property.
SSP73	Yes	Yes		The species may be observed overhead but no reasonable potential to forage on-site.
SSP74	No	Yes		Suitable habitat is located southwest of the subject property and possibly northeast of the property.
SSP75	Yes	Yes		The consistently disturbed grassland area north and south of the site may be suitable for owls but fuel modification practices preclude use for nesting. The species is not likely to occur within the survey area.
SSP76	No	No		No suitable habitat within the survey area.
SSP77	Yes	Yes	1.10	The species may forage within the grassland portions of the survey area but would not nest.
SSP78	Yes	Yes		No suitable habitat within the survey area.
SSP79	No	No		The species may be observed overhead but no reasonable potential to forage on-site.
SSP80	Yes	Yes		Limited potential for nesting associated with the culvert outfall and species may be seen overhead but not expected to occur within the survey area.
SSP81	Yes	No		Marginally suitable habitat within the survey area is not large enough to support the species. The species is not expected.
SSP82	No	No		Limited potential for nesting associated with the culvert outfall and species may be seen overhead but not expected to occur within the survey area.
SSP83	Yes	No		Marginally suitable habitat within the survey area is not large enough to support the species. The species is not expected.
SSP84	Yes	Yes		Species may forage within the survey area but roosting is not expected.
SSP85	No	No		Species may forage within the survey area, possibly roosting in oak trees within the survey area.
SSP86	Yes	Yes	1.10	Species may forage within the survey area but roosting is not expected.
SSP87	Yes	Yes	2.64	Species may forage within the survey area, possibly roosting in trees within the survey area.
SSP88	Yes	Yes		No suitable habitat.
SSP89	No	No		Species may forage within the survey area, possibly roosting in trees within the survey area.
SSP90	Yes	Yes		No suitable habitat. The common *N. macrotis* are expected to occur within the larger study area.
SSP91	Yes	Yes		No reasonable potential to occur.

Special Status Species (continued)				
Map Key	**Adequate Habitat Onsite**	**Adequate Habitat Size (7)**	**Acreage Impacted**	**Comments (8)**

FE .....Federal Endangered
FT .....Federal Threatened
FC.....Federal Candidate Species
FSC .....Federal Species of Concern
SFP.....California Fully Protected Species
SE.....California Endangered
ST .....California Threatened
SR.....California Rare
SSC .....California Species of Special Concern
CDFW/NatureServe Rank
G1 or S1 - Critically Imperiled Globally or Subnationally (state)
G2 or S2 - Imperiled Globally or Subnationally (state)
G3 or S3 - Vulnerable to extirpation or extinction Globally or Subnationally (state)
California Rare Plant Rank (RPR)
RPR 1A - California Native Plant Society/CDFW listed as presumed to be extinct
RPR 1B - California Native Plant Society/CDFW listed as rare or endangered in California and elsewhere
RPR 2 - California Native Plant Society/CDFW listed as rare or endangered in California but more common elsewhere
RPR 3 - California Native Plant Society/CDFW listed as in need of more information.
RPR 4 - California Native Plant Society/CDFW listed as of limited distribution or infrequent throughout a broader area in California.
LIS .....Locally Important Species

Source: Valtus Imagery Services, Hexagon Imagery Program (HxIP), 2017.

Legend

- Survey Area (SA)
- Subject Parcels
- Construction Footprint

Special-Status Species*

Map Key (1)	Scientific Name (3)	Common Name	Habitat Key
SSP6	*California macrophylla*	round-leaved filaree	PC5, PC6
SSP7	*Calochortus catalinae*	Catalina mariposa lily	PC5, PC6
SSP8	*Calochortus clavatus var. clavatus*	club haired mariposa lily	PC5, PC6
SSP9	*Calochortus clavatus var. gracilis*	slender mariposa lily	PC5, PC6
SSP11	*Calochortus plummerae*	Plummer's mariposa lily	PC5, PC6

Map Key (1)	Scientific Name (3)	Common Name	Habitat Key
SSP29	*Dudleya parva*	Conejo Dudleya	PF1
SSP31	*Eriogonum crocatum*	Conejo Buckwheat	PC5, PC6
SSP42	*Navarretia ojaiensis*	Ojai navarretia	PC4, PC5 PC6
SSP45	*Pentachaeta lyonii*	Lyon's pentachaeta	PC4, PC5 PC6
SSP65	*Aspidoscelis tigris stejnegeri*	coastal whiptail	PC4, PC5, PC6

Map Key (1)	Scientific Name (3)	Common Name	Habitat Key
SSP70	*Accipiter cooperii*	Cooper's hawk	PC3, PC4 PC5, PC6
SSP72	*Aimophila ruficeps canescens*	southern California rufous-crowned sparrow	PC5
SSP77	*Elanus leucurus*	white-tailed kite	PC4
SSP86	*Eumops perotis californicus*	western mastiff bat	PC4
SSP87	*Lasiurus cinereus*	hoary bat	PC3, PC4 PC6

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Special-Status Species Map

0 75 150 Feet

FIGURE 5

Nesting Bird Summary

There is potential for nesting birds protected under the federal Migratory Bird Treaty Act to nest in trees, shrubs, and dense herbaceous vegetation within SA1. The potential for nesting varies with the many species involved. It is expected that some birds would nest in areas adjacent to the grading footprint, including within the cactus scrub, sagebrush scrub, and exotic trees in any given year. Nesting is expected to be less frequent within the grading footprint, due to the generally open condition of most of the vegetation. Among special-status bird species including those included on the CDFWs Special Animals list known to occur in the area, the Allen's hummingbird, Cooper's hawk, oak titmouse, and southern California rufous-crowned sparrow may nest within 300 feet of the site.

3.3 Wildlife Movement and Connectivity

(Initial Study Checklist D)

Wildlife movement or connectivity features, or evidence thereof, were found within the survey area(s).

Connectivity Features

Wildlife must to be able to access habitat for water, foraging, breeding, and cover. Examples of barriers or impediments to movement, i.e., access, include housing and other urban development, roads, fencing, unsuitable habitat, or open areas with little vegetative cover. The term wildlife movement corridor is used to describe physical connections that allow wildlife to move between areas of suitable habitat in both undisturbed and fragmented landscapes, such as landscapes fragmented by urban development. Wildlife movement corridors are necessary for dispersal and migration, to ensure the mixing of genes between populations, and so wildlife can respond and adapt to environmental stress, and thus are necessary to maintain healthy ecological and evolutionary processes. Wildlife crossings are generally small, narrow areas allowing wildlife to pass through an obstacle or barrier, such as a roadway to reach another patch of habitat. These can be critical at both the local and regional level. Wildlife crossings include culverts, drainage pipes, underpasses, tunnels, and, more recently, crossings created specifically for wildlife movement over highways.

The subject property is not of any particular importance to terrestrial wildlife for movement because the site is developed (i.e., urban and built-up) and operates as an equestrian facility. Nevertheless, the site is located within a documented wildlife corridor and landscape linkage. Namely, SA1 is located within the South Coast Missing Linkages Santa Monica - Sierra Madre Connection. The Santa Monica-Sierra Madre Connection is a chain of linkages that connect the Santa Monica, Simi, Santa Susana, and Sierra Madre ranges, addressing two of the 15 landscape linkages identified as irreplaceable and imminently threatened.

Arroyo Santa Rosa runs along the southern portion of SA1 and is a likely route for movement of wildlife through the survey area, connecting the large areas of scrub and agricultural open space to the southwest of the study area (west of State Route 23) with larger patches of habitat to the north, east, and west of the survey area. The connectivity feature is mapped on Figure 6. In addition, residential development and residential roads in the surrounding area may act as barriers or impediments to movement between the natural scrub habitats to the south and west.

Connectivity Features							
Map Key (1)	**Type of Connectivity Feature (2)**	**Description (3)**	**Species Observed (4)**	**Evidence (5)**	**Functional Group/Species Expected (6)**	**Habitats Connected (7)**	**Comments**
C1	corridor	watercourse	coyote	scat	All mammals, birds, riparian reptiles/ amphibians	Santa Susana Mountains – Tierra Rejada Valley	
C2	linkage	coastal prickly pear/coastal sagebrush scrub	coyote, cottontail	scat	All mammals, birds, reptiles, mesopredators	Santa Susana Mountains – Tierra Rejada Valley	Designated wildlife corridor

Crossing Structures

No existing roadway crossing structures were observed within or adjacent to the survey area. No proposed roadway crossings are known at this time.

Connectivity Barriers Table

Barriers			
Map Key (1)	**Barrier Type (2)**	**Species/Functional Groups Affected (3)**	**Comments (4)**
B1	Existing road	Large, medium and small mammals.	A two-lane road that receives a fair amount of traffic that is likely to result in road kill.

Source: Valtus Imagery Services, Hexagon Imagery Program (HxIP), 2017.

Legend

- Survey Area (SA)
- Subject Parcels
- Construction Footprint
- Proposed Building Pads

Barriers

- B1 Existing Road

Connectivity Features

- C1 Corridor
- C2 Linkage

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Habitat Connectivity Map

0 100 200 Feet

FIGURE 6

Section 4: Recommended Impact Assessment & Mitigation

4.1 Sufficiency of Biological Data

Additional information needed to make CEQA findings and develop mitigation measures:

No additional information is needed to make CEQA findings or develop mitigation measures.

Additional biology-related surveys or permits needed prior to issuance of land use permit:

No additional biology-related surveys or permits needed prior to issuance of land use permit.

4.2 Impacts and Mitigation

A. Species Project: LS; Cumulative: LS

Special-Status Species

Significance Finding – Project Impacts: Less than Significant

Significance Finding – Cumulative Impacts: Less than Significant

Plants

This evaluation of impacts to special-status plants considers those species that require mandatory special consideration and/or protection pursuant to the Federal Endangered Species Act, the State Endangered Species Act, and/or CEQA. Ventura County locally sensitive species are also considered as well as CRPR 4 species if they meet criteria to be locally significant. No special-status plant species have been found at the site. As discussed in the potential for occurrence analysis for special-status plant species earlier in this document, many of the special-status species known to occur in the region are presumed to be absent from the site due to lack of suitable habitat or because the site is outside of the species known range or distribution. Although some special-status plant species are potentially occurring based on their habitat suitability, range, and distribution, due to the disturbed condition of the project footprint, no special-status plant species are expected to occur within the project footprint. Therefore, impacts to special-status plant species would be less than significant. Cumulative impacts to special-status plant species would also be less than significant.

Wildlife

Significance Finding – Project Impacts: Less than Significant

Significance Finding – Cumulative Impacts: Less than Significant

No rare, threatened, endangered, or Ventura County Locally Important Wildlife Species have been observed at the project site. Two (2) special-status birds have moderate or high potential to occur while foraging within the landscape trees, sagebrush, and cactus habitats within the project site, including Cooper's hawk and southern California rufous-crowned sparrow, and therefore could occur temporarily at the project site.

Cooper's hawk and the rufous-crowned sparrow are included on CDFW's Watchlist and are fairly common throughout their range. These species and four species of special-status bats, all Species of Special Concern, may forage over the project site with moderate probability. All of these species would be capable of escaping harm during grading or other project activities, if present.

As described in the Observed and Potentially Occurring Special Status Species table, a number of additional species have low to no potential to forage over or to occur within the grading footprint, if

only temporarily, including but not limited to coast horned lizard, silvery legless lizard, California mountain kingsnake, golden eagle, loggerhead shrike, bank swallow, burrowing owl, pallid bat, and California leaf-nosed bat. Some of these species are terrestrial and slow moving and could be harmed by the project, if present. Others would only forage aerially over the site, or are otherwise capable of escaping from harm. The potential for occurrence of many of these species is primarily due to the presence of suitable habitats adjacent to or in the vicinity of the site, rather than the quality or suitability of the habitat at the project site itself.

The habitats within the impact area are not of particular importance to the survival or life cycle of any of the above-mentioned special-status species, such that the temporary loss of the habitat would have a significantly adverse effect on a population of the species. For those that could be harmed by the project, which is unlikely, the small size of the impacted area means that only a very small number of individuals would potentially be affected. With only a very small number of individuals potentially affected, a population of the species would not be significantly reduced. In addition, the species that could potentially be harmed by the project are not listed under the Federal or State Endangered Species Acts. No significant indirect impacts to special-status wildlife are expected.

The project impacts to special-status species would be less than significant, due to their low probability of occurrence and/or their capability of escaping from harm, the very small number of individuals that could potentially be affected, and because the habitats at the site are not of particular importance to their survival or life cycle. As the project would not result in significant project-level impacts to special-status wildlife species, cumulative impacts to special-status wildlife are less than significant.

Nesting Birds

Significance Finding – Project Impacts: Potentially Significant Unless Mitigation Incorporated

Significance Finding – Cumulative Impacts: Less than Significant

Nesting birds may potentially occur within native habitats on and adjacent to the impact area in trees, shrubs, and relatively dense herbaceous vegetation. If construction of the proposed project occurs within the nesting bird season (February 1 through August 31), the project could potentially impact nesting birds protected under the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code. Nesting birds present within the grading footprint during grading activities would be directly impacted by the project. Special-status birds included on CDFW's list of special animals and species considered to be California Species of Special Concern, have potential to nest within 300 feet of the grading footprint, but would not nest within the footprint. These species, as well as many non-special-status species that may nest in the vicinity of the project site, may potentially be disturbed by noise, human presence, or grading activities associated with the project, which could result in nesting failure and the loss of eggs or nestlings.

The Federal Migratory Bird Treaty Act (MBTA) and the California of Fish and Game Code (Sections 3503, 3503.5, 3511, 3513 and 3800) protect most native birds. In addition, the federal and state endangered species acts protect some bird species listed as threatened or endangered. Project-related impacts to birds protected by these regulations would occur during the breeding season, because unlike adult birds, eggs and chicks are unable to escape impacts.

Fish and Game Code Section 3513 upholds the MBTA by prohibiting any take or possession of birds that are designated by the MBTA as migratory nongame birds except as allowed by federal rules and regulations promulgated pursuant to the MBTA. In addition, Fish and Game Codes (Sections 3503, 3503.5, 3511, and 3800) further protect nesting birds and their parts, including passerine birds, raptors, and state "fully protected" birds.

Through implementation of mitigation measure MM-1, potential impacts to birds nesting within or adjacent to the proposed impact area would be reduced to a less than significant level. As project-level impacts to nesting birds would be mitigated by MM-1, cumulative impacts to nesting birds are also less than significant.

MM1: Nesting Birds

Purpose:

The purpose of the mitigation is to protect nesting birds from construction-related impacts.

Requirement:

If work during the nesting season cannot be avoided, prior to vegetation removal activities, the Applicant shall have a qualified biologist survey all breeding and nesting habitat within 500 feet of the development footprint for breeding and nesting birds. If no breeding/nesting birds are observed site preparation and grading activities may begin. If breeding activities and/or an active nest is located, a buffer shall be established by the biologist and this area shall not be disturbed until the nest becomes inactive, the young have fledged, the young are no longer being fed by the parents, the young have left the area and the young will no longer be impacted by the project. In the case that a special-status bird is found nesting within 500 feet of the project activities, project activities shall be stopped until the Applicant consults with the CDFW, and the USFWS (when applicable), to determine how to proceed.

Documentation:

Not Applicable. See Reporting requirement.

Timing:

Surveys shall be conducted every 3-4 days for two consecutive weeks with the last survey no more than three days prior to project implementation.

Monitoring and Reporting:

A letter documenting the results of the surveys shall be submitted to the County prior to commencement of grading for the project.

B. Ecological Communities Project: PS-M; Cumulative: LS

Sensitive Plant Communities

Significance Finding – Project Impacts: Potentially Significant Unless Mitigation Incorporated

Significance Finding – Cumulative Impacts: Less than Significant

Based on the conservation status rankings from the CDFW List of Vegetation Alliances and Associations (September 2010), one (1) of the plant communities identified within the survey area are considered rare or sensitive, namely the coast prickly pear – mixed coastal sage scrub plant alliance (G2S1.1). Significant but mitigable direct and permanent impacts to the coast prickly pear – mixed coastal sage scrub community are described below. As project impacts to the coast prickly pear – mixed coastal sage scrub plant community would be mitigated to a less than significant level, cumulative impacts to this habitat would also be less than significant.

Coast Prickly Pear – Mixed Coastal Sage Scrub Alliance

As illustrated in Figure 3 and listed in the Plant Communities Table, project grading would permanently remove a total of 0.41 acres (approximately 17,959 square feet) of the coast prickly pear – mixed coastal sage scrub plant community (G2S1.1), which is considered a natural community of special concern by the CDFW as well as a locally important plant community by the County of Ventura. Project impacts to this community would be significant, but mitigable. Implementation of MM2 would reduce potentially significant impacts to this sensitive plant community to a less-than-significant level.

Avoidance and Minimization Measures

According to the Applicant, the proposed project has been designed to reduce impacts to the sensitive coast prickly pear – mixed coastal sage scrub community to the maximum extent feasible. The project's development footprint would impact approximately 0.15 acres of prickly pear scrub but fuel modification would increase the impacted area to roughly 0.41 acres. Fuel modification requirements are ultimately at the discretion of the Fire Department. Future fuel modification requirements may reduce the proposed impact area.

MM2: Coast Prickly Pear – Mixed Coastal Sage Scrub Restoration

Purpose:

To compensate for impacts to 0.41 acres of coast prickly pear – mixed coastal sage scrub.

Requirement:

The loss of a total of 0.41 acres of coast prickly pear – mixed coastal sage scrub shall be compensated for at a 2:1 ratio by on-site restoration in an area to be preserved as permanent open space. This shall be accomplished by the restoration of graded coast prickly pear – mixed coastal sage scrub habitats to a coast prickly pear – mixed coastal sage scrub plant community, as well as restoration of additional areas on-site where suitable conditions exist to support a viable prickly pear – coastal sage scrub plant community. The weedy sagebrush scrub habitats in the western portion of the property may be a suitable opportunity for on-site restoration of 0.10 acre of coast prickly pear – mixed coastal sage scrub. Alternatively, compensation for impacts to 0.41 acres of coast prickly pear – coastal sage scrub may be accomplished by on-site preservation of in-kind habitat at a 2:1 ratio, a combination of on-site restoration and on-site preservation of in-kind habitat at a 2:1 ratio, or by a contribution to an in-lieu fee program approved by the County of Ventura. The proposed locations of both the potential on-site mitigation area and preservation areas are provided on Figure 7.

Documentation:

A Mitigation and Monitoring Plan shall be developed by a qualified biologist, restoration ecologist, or resource specialist, and approved by the County of Ventura prior to issuance of the grading permit for the Project. In broad terms, the plan shall at a minimum include:

- Description of the project/impact and mitigation sites
- Specific objectives
- Success criteria
- Plant palette
- Implementation plan
- Maintenance activities
- Monitoring plan
- Contingency measures

The plant palette shall include in addition to coast prickly pear (*Opuntia littoralis*) a diversity of appropriate native species that occur in coastal sagebrush scrub at the site and in the surrounding area.

The performance standards for the Mitigation and Monitoring Plan shall be at a minimum the following:

- Within five years after introducing the native plants to the mitigation site, the acreage of restored scrub habitat shall be no less than 2x the acreage impacted by project construction and fuel modification.
- If the loss of coast prickly pear – coastal sage scrub is to be mitigated by a contribution of an in-lieu fee, the applicant shall provide evidence of payment of the in-lieu fee prior to issuance of the grading permit. The fee shall be based on the cost per acre to restore or create in-kind habitat and the acreage of coast prickly pear – coastal sage scrub impacted. In-lieu fees shall be used for the restoration of in-kind habitat.

Timing:

The restoration project shall be initiated prior to development of the project, and shall be implemented over a five-year period.

Monitoring and Reporting:

The restoration project shall incorporate an iterative process of annual monitoring and evaluation of progress, and allow for adjustments to the restoration plan, as necessary, to achieve desired outcomes and meet success criteria. Annual reports discussing the implementation, monitoring, and management of the restoration project shall be submitted to the County of Ventura. Five years after project start, a final report shall be submitted to the County of Ventura, which shall at a minimum discuss the implementation, monitoring, and management of the restoration project over the five-year period, and indicate whether the restoration project has been successful based on established success criteria. The annual reports and the final report shall include as-built plans submitted as an appendix to the report. The project shall be extended if success criteria have not been met at the end of the five-year period to the satisfaction of the County of Ventura.

Mapped Information:

It is feasible for mitigation to occur on-site, as illustrated in Figure 7. Potential on-site restoration of 0.10 acres and preservation of an additional 0.72 acres would compensate for the loss of 0.41 acres of coast prickly pear habitat. Actual areas to be restored and preserved will be determined during preparation of the site specific Mitigation and Monitoring Plan.

Waters and Wetlands

As designed, the proposed project would not impact Arroyo Santa Rosa (W1). Nonetheless, runoff from the project site has the potential to impact sensitive wetland and riparian habitats, if the runoff contains excess sediment or nutrients (fertilizers), or toxic pesticides or herbicides. Potential impacts to wetlands and riparian habitats are significant, but mitigable. The potential for impacts to sensitive wetland and riparian habitats would be reduced to a less than significant level with proper implementation of a Storm Water Pollution Prevention Plan (SWPPP) and erosion control plan, which would be required by the County as a condition of approval to obtain a grading permit, as well as implementation of Avoidance and Minimization Measures. As potential project impacts to nearby waters, wetlands, and riparian habitats would be mitigated to a less than significant level, cumulative impacts to these habitats would also be less than significant.

Avoidance and Minimization Measures

All pesticides, herbicides, or fertilizers used at the project site shall be those designated for use near aquatic and wetland habitats, and shall be applied with techniques that avoid over-spraying and control application to avoid excessive concentrations.

C. Habitat Connectivity (migration corridors) Project: LS; Cumulative: LS

Significance Finding – Project Impacts: Less than Significant

Significance Finding – Cumulative Impacts: Less than Significant

The potential importance of the project site to wildlife movement was evaluated both in the field and by reviewing recent aerial photographs of the site and the surrounding area. The project site is located in the Santa Monica – Sierra Madre Connection, a documented wildlife movement corridor that connects the large areas of habitat in the Santa Monica Mountains to the south to the Sierra Madres to the north. While the site itself does not provide suitable coverage for wildlife movement, portions of the study area, specifically areas southwest and northeast of the parcel do provide suitable vegetated coverage and foraging opportunity. A diversity of wildlife species could potentially move along Arroyo Santa Rosa and sagebrush habitat east of the parcel, as it contains patchy vegetative cover and suitable habitat for many species.

The anticipated development of the equestrian facility would permanently remove vegetation amounting to a combined 7.33 acres of coastal prickly pear - mixed coastal sage scrub, non-native habitat (grasslands and trees), and cleared or urban areas, but it would not directly remove habitat along the drainage.

Construction of the project would not impede wildlife movement and use of the private roadway would continue as currently operating and would not result in new sources of night lighting, noise and human presence that could deter wildlife movement. The project's indirect impacts on wildlife movement would be less than significant. Because the project's impacts would be reduced to a less-than-significant level, cumulative impacts would be less than significant.

Source: Valtus Imagery Services, Hexagon Imagery Program (HxIP), 2017. National Hydrography Dataset U.S.G.S., 2006.

Legend

- Survey Area (SA)
- Subject Parcels
- Construction Footprint
- Proposed Building Pads
- Potential Mitigation Area (MM2)

Mitigation Map

0 75 150 Feet

FIGURE 7

Section 5: Photos

Photos	
Location SA1 **Map Key** P1 **View Direction** North **Description** Cleared area proposed for development.	
Location SA1 **Map Key** P2 **View Direction** Southwest **Description** View of non-native grasses, exotic trees, and prickly pear scrub southwest of the proposed development area.	

Photos	
Location **SA1** **Map Key** P3 **View Direction** South **Description** View of southern portion of SA1 on adjacent parcel. Non-native grasses, exotic trees, coastal sage scrub vegetation.	
Location SA1 **Map Key** P4 **View Direction** North **Description** View of non-native grasses and exotic trees within the western portion of the development footprint.	

Photos	
Location **SA1** **Map Key** P5 **View Direction** Northeast **Description** View of the development footprint illustrating the existing cleared lands and horse corrals.	
Location SA1 **Map Key** P6 **View Direction** East **Description** View of non-native grasses and exotic trees within the western portion of the development footprint as well as the existing drainage pad area.	

Photos

Location
SA1
Map Key
P7
View Direction
East
Description
View illustrating the proposed development area.

Location
SA1
Map Key
P8
View Direction
North
Description
View of existing developed areas within the northwest portion of SA1.

Photos

Location **SA1** **Map Key** P9 **View Direction** Northeast **Description** View of exotic trees and coastal prickly pear scrub in the northern portion of SA1.	
Location SA1 **Map Key** P10 **View Direction** South **Description** View of cleared areas, non-native grasses, and exotic trees within the development footprint.	

Photos

Location **SA1** **Map Key** P11 **View Direction** South **Description** View of cleared lands within the southern portion of the development footprint.	
Location SA1 **Map Key** P12 **View Direction** Northeast **Description** View of corrals within the proposed development footprint.	

Photos	
Location **SA1** **Map Key** P13 **View Direction** South **Description** View of southern portion of SA1 on adjacent parcel. Non-native grasses, exotic trees, coastal sage and coastal prickly pear scrub vegetation.	
Location SA1 **Map Key** P14 **View Direction** Southeast **Description** View of non-native grasses and exotic trees (foreground) and black mustard fields (background) within the southeast portion of SA1.	

Photos

Location **SA1** **Map Key** P15 **View Direction** Northeast **Description** View of non-native grasses, exotic trees, and a patch of coastal prickly pear scrub within the northeast portion of SA1.	
Location SA1 **Map Key** P16 **View Direction** Southwest **Description** View of non-coastal sage scrub and prickly pear scrub in western portion of the survey area.	

Photos	
Location SA1 **Map Key** P17 **View Direction** Northwest **Description** View of southeastern portion of SA1 illustrating the prickly pear scrub, mustard field, and exotic trees on the slope southwest of the proposed development (background) and Arroyo Santa Rosa (foreground).	
Location SA1 **Map Key** P18 **View Direction** North **Description** View of Arroyo Santa Rosa in the southern portion of SA1, south of the subject property.	

APPENDIX ONE
Summary of Biological Resource Regulations

The Ventura County Planning Division, as "lead agency" under CEQA for issuing discretionary land use permits, uses the relationship of a potential environmental effect from a proposed project to an established regulatory standard to determine the significance of the potential environmental effect. This Appendix summarizes important biological resource regulations that are used by the Division's biologists (consultants and staff) in making CEQA findings of significance:

Sensitive Status Species Regulations
Nesting Bird Regulations
Plant Community Regulations
Tree Regulations
Waters and Wetlands Regulations
Coastal Habitat Regulations
Wildlife Migration Regulations
Locally Important Species/Communities Regulations

Sensitive Status Species Regulations

Federally Protected Species

Ventura County is home to 29 federally listed endangered and threatened plant and wildlife species. The U.S. Fish and Wildlife Service (USFWS) regulates the protection of federally listed endangered and threatened plant and wildlife species.

FE (Federally Endangered): A species that is in danger of extinction throughout all or a significant portion of its range.

FT (Federally Threatened): A species that is likely to become endangered in the foreseeable future.

FC (Federal Candidate): A species for which USFWS has sufficient information on its biological status and threats to propose it as endangered or threatened under the Endangered Species Act (ESA), but for which development of a proposed listing regulation is precluded by other higher priority listing activities.

FSC (Federal Species of Concern): A species under consideration for listing, for which there is insufficient information to support listing at this time. These species may or may not be listed in the future, and many of these species were formerly recognized as "Category-2 Candidate" species.

The USFWS requires permits for the "take" of any federally listed endangered or threatened species. "Take" is defined by the USFWS as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct; may include significant habitat modification or degradation if it kills or injures wildlife by significantly impairing essential behavioral patterns including breeding, feeding, or sheltering."
The Endangered Species Act (ESA) does not provide statutory protection for candidate species or species of concern, but USFWS encourages conservation efforts to protect these species. USFWS can set up voluntary Candidate Conservation Agreements and Assurances, which provide non-Federal landowners (public and private) with the assurance that if they implement various conservation activities to protect a given candidate species, they will not be subject to additional restrictions if the species becomes listed under the ESA.

State Protected Species

The California Department of Fish and Game (CDFG) regulates the protection of endangered, threatened, and fully protected species listed under the California Endangered Species Act. Some species may be jointly listed under the State and Federal Endangered Species Acts.

SE (California Endangered): A native species or subspecies which is in serious danger of becoming extinct throughout all, or a significant portion, of its range due to one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, or disease.

ST (California Threatened): A native species or subspecies that, although not presently threatened with extinction, is likely to become an endangered species in the foreseeable future in the absence of the special protection and management efforts required by this chapter. Any animal determined by the commission as "rare" on or before January 1, 1985, is a "threatened species."

SFP (California Fully Protected Species): This designation originated from the State's initial effort in the 1960's to identify and provide additional protection to those animals that were rare or faced possible extinction. Lists were created for fish, mammals, amphibians, reptiles, and birds. Most fully protected species have also been listed as threatened or endangered species under the more recent endangered species laws and regulations.

SR (California Rare): A species, subspecies, or variety of plant is rare under the Native Plant Protection Act when, although not presently threatened with extinction, it is in such small numbers throughout its range that it may become endangered if its present environment worsens. Animals are no longer listed as rare; all animals listed as rare before 1985 have been listed as threatened.

SSC (California Species of Special Concern): Animals that are not listed under the California Endangered Species Act, but which nonetheless 1) are declining at a rate that could result in listing, or 2) historically occurred in low numbers and known threats to their persistence currently exist.

The CDFG requires permits for the “take” of any State-listed endangered or threatened species. Section 2080 of the Fish and Game Code prohibits "take" of any species that the California Fish and Game Commission determines to be endangered or threatened. “Take” is defined in Section 86 of the Fish and Game Code as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill."

The California Native Plant Protection Act protects endangered and rare plants of California. Section 1908, which regulates plants listed under this act, states: “no person shall import into this state, or take, possess, or sell within this state, except as incident to the possession or sale of the real property on which the plant is growing, any native plant, or any part or product thereof, that the commission determines to be an endangered native plant or rare native plant, except as otherwise provided in this chapter.”

Unlike endangered, threatened, and rare species, for which a take permit may be issued, California Fully Protected species may not be taken or possessed at any time and no licenses or permits may be issued for their take except for collecting these species for necessary scientific research and relocation of the bird species for the protection of livestock.

The California Endangered Species Act does not provide statutory protection for California species of special concern, but they should be considered during the environmental review process.

California Rare Plant Ranks (RPR)

Plants with 1A, 1B, 2 or 4 should always be addressed in CEQA documents. Plants with a RPR 3 do not need to be addressed in CEQA documents unless there is sufficient information to demonstrate that a RPR 3 plant meets the criteria to be listed as a RPR 1, 2, or 4.

RPR 1A: Plants presumed to be extinct because they have not been seen or collected in the wild in California for many years. This list includes plants that are both presumed extinct in California, as well as those plants which are presumed extirpated in California. A plant is extinct in California if it no longer occurs in or outside of California. A plant that is extirpated from California has been eliminated from California, but may still occur elsewhere in its range.

RPR 1B: Plants that are rare throughout their range with the majority of them endemic to California. Most of the plants of List 1B have declined significantly over the last century.

RPR 2: Plants that are rare throughout their range in California, but are more common beyond the boundaries of California. List 2 recognizes the importance of protecting the geographic range of widespread species.

Plants identified as RPR 1A, 1B, and 2 meet the definitions of Sec. 1901, Chapter 10 (Native Plant Protection Act) or Secs. 2062 and 2067 (California Endangered Species Act) of the California Department of Fish and Game Code, and are eligible for state listing.

RPR 3: A review list for plants for which there is inadequate information to assign them to one of the other lists or to reject them.

RPR 4: A watch list for plants that are of limited distribution in California.

Global and Subnational Rankings

Though not associated directly with legal protections, species have been given a conservation status rank by NatureServe, an international non-profit conservation organization that is the leading source for information about rare and endangered species and threatened ecosystems. The Ventura County Planning Division considers the following ranks as sensitive for the purposes of CEQA impact assessment (G = Global, S = Subnational or State):

G1 or S1 - Critically Imperiled
G2 or S2 – Imperiled
G3 or S3 - Vulnerable to extirpation or extinction

Locally Important Species

Locally important species' protections are addressed below under "Locally Important Species/Communities Regulations."

For lists of some of the species in Ventura County that are protected by the above regulations, go to http://www.ventura.org/rma/planning/ceqa/bio_resource_review.html.

Migratory Bird Regulations

The Federal Migratory Bird Treaty Act (MBTA) and the California Department of Fish and Game (CDFG) Code (3503, 3503.5, 3511, 3513 and 3800) protect most native birds. In addition, the federal and state endangered species acts protect some bird species listed as threatened or endangered. Project-related impacts to birds protected by these regulations would normally occur during the breeding season, because unlike adult birds, eggs and chicks are unable to escape impacts.

The MBTA implements various treaties and conventions between the U.S. and Canada, Japan, Mexico, and Russia for the protection of migratory birds, which occur in two of these countries over the course of one year. The Act maintains that it is unlawful to pursue, hunt, take, capture or kill; attempt to take, capture or kill; possess, offer to or sell, barter, purchase, deliver or cause to be shipped, exported, imported, transported, carried or received any migratory bird, part, nest, egg or product, manufactured or not. Bird species protected under the provisions of the MBTA are identified by the List of Migratory Birds (Title 50 of the Code of Federal Regulations, Section 10.13 as updated by the 1983 American Ornithologists' Union (AOU) Checklist and published supplements through 1995 by the USFWS).

CDFG Code 3513 upholds the MBTA by prohibiting any take or possession of birds that are designated by the MBTA as migratory nongame birds except as allowed by federal rules and regulations promulgated pursuant to the MBTA. In addition, there are CDFG Codes (3503, 3503.5, 3511, and 3800) which further protect nesting birds and their parts, including passerine birds, raptors, and state "fully protected" birds.

NOTE: These regulations protect almost all *native nesting birds*, not just sensitive status birds.

Plant Community Regulations

Plant communities are provided legal protection when they provide habitat for protected species or when the community is in the coastal zone and qualifies as environmentally sensitive habitat area (ESHA).

Global and Subnational Rankings

Though not associated directly with legal protections, plant communities have been given a conservation status rank by NatureServe, an international non-profit conservation organization that is the leading source for information about rare and endangered species and threatened ecosystems. The Ventura County Planning Division considers the following ranks as sensitive for the purposes of CEQA impact assessment (G = Global, S = Subnational or State):

G1 or S1 - Critically Imperiled
G2 or S2 - Imperiled
G3 or S3 - Vulnerable to extirpation or extinction

CDFG Rare

Rare natural communities are those communities that are of highly limited distribution. These communities may or may not contain rare, threatened, or endangered species. Though the Native Plant Protection Act and the California Endangered Species Act provide no legal protection to plant communities, CDFG considers plant communities that are ranked G1-G3 or S1-S3 (as defined above) to be rare or sensitive, and therefore these plant communities should be addressed during CEQA review.

Environmentally Sensitive Habitat Areas

The Coastal Act specifically calls for protection of “environmentally sensitive habitat areas” or ESHA, which it defines as: “Any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments” (Section 30107.5).

ESHA has been specifically defined in the Santa Monica Mountains. For ESHA identification in this location, the Coastal Commission, the agency charged with administering the Coastal Act, has described the habitats that are considered ESHA. A memo from a Coastal Commission biologist that describes ESHA in the Santa Monica Mountains can be found at: http://www.ventura.org/rma/planning/ceqa/bio_resource_review.html.

Locally Important Communities

The Ventura County Initial Study Assessment Guidelines defines a locally important community as one that is considered by qualified biologists to be a quality example characteristic of or unique to the County or region, with this determination being made on a case-by-case basis. The County has not developed a list of locally important communities, but has deemed oak woodlands to be a locally important community through the County’s *Oak Woodland Management Plan*.

Tree Regulations

Selected trees are protected by the Ventura County Tree Protection Ordinance, found in Section 8107-25 of the Ventura County Non-Coastal Zoning Ordinance. This ordinance, which applies in the unincorporated areas of the County outside the coastal zone, regulates—through a tree permit program—the removal, trimming of branches or roots, or grading or excavating within the root zone of a "protected tree." Individual trees are the focus of the ordinance, while oak woodlands are additionally protected as “locally important communities.”

The ordinance allows removal of five protected trees (only three of which can be oaks or sycamores; none of which can be heritage or historical trees) through a ministerial permit process. Removal of more/other than this may trigger a discretionary tree permit.

If a proposed project cannot avoid impacts to protected trees, mitigation of these impacts (such as replacement of lost trees) is addressed through the tree permit process—**unless the impacts may affect biological resources beyond the tree itself**, such as to sensitive status species that may be using the tree, nesting birds, the tree’s role as part of a larger habitat, etc. These secondary impacts have not been addressed through the tree permit program and must be addressed by the biologist in the biological assessment in accordance with the California Environmental Quality Act (CEQA).

A tree permit does not, however, substitute as mitigation for impacts to oak woodlands. The Public Resources Code requires that when a county is determining the applicability of CEQA to a project, it must determine whether that

project "may result in a conversion of oak woodlands that will have a significant effect on the environment." If such effects (either individual impacts or cumulative) are identified, the law requires that they be mitigated. Acceptable mitigation measures include, but are not limited to, conservation of other oak woodlands through the use of conservation easements and planting replacement trees, which must be maintained for seven years. In addition, only 50% of the mitigation required for significant impacts to oak woodlands may be fulfilled by replanting oak trees.

The following trees are protected in the specified zones. Girth is measured at 4.5 feet from the midpoint between the uphill and downhill side of the root crown.

PROTECTED TREES			
Common Name/Botanical Name (Genus species)	**Girth Standard (Circumference)**	**Applicable Zones**	
		All Base Zones	**SRP*1***
Alder (*Alnus* all species)	9.5 in.		X
Ash (*Fraxinus* all species)	9.5 in.		X
Bay (*Umbellularia californica)*	9.5 in.		X
Cottonwood (*Populus* all species)	9.5 in.		X
Elderberry (*Sambucus* all species)	9.5 in.		X
Big Cone Douglas Fir (*Pseudotsuga macrocarpa)*	9.5 in.		X
White Fir (*Abies concolor)*	9.5 in.		X
Juniper (*Juniperus californica)*	9.5 in.		X
Maple (*Acer macrophyllum)*	9.5 in.		X
Oak (Single) (*Quercus* all species)	9.5 in.	X	X
Oak (Multi) (*Quercus* all species)	6.25 in.	X	X
Pine (*Pinus* all species)	9.5 in.		X
Sycamore (*Platanus* all species)	9.5 in.	X	X
Walnut (*Juglans* all species)	9.5 in.		X
Historical Tree[3] (any species)	(any size)	X	X
Heritage Tree[4] (any species)	90.0 in.	X	X

X Indicates the zones in which the subject trees are considered protected trees.

1. SRP - Scenic Resource Protection Overlay Zone

2. SHP - Scenic Highway Protection Overlay Zone

3. Any tree or group of trees identified by the County or a city as a landmark, or identified on the Federal or California Historic Resources Inventory to be of historical or cultural significance, or identified as contributing to a site or structure of historical or cultural significance.

4. Any species of tree with a single trunk of 90 or more inches in girth or with multiple trunks, two of which collectively measure 72 inches in girth or more. Species with naturally thin trunks when full grown or naturally large trunks at an early age, or trees with unnaturally enlarged trunks due to injury or disease must be at least 60 feet tall or 75 years old.

Waters and Wetlands Regulations

Numerous agencies control what can and cannot be done in or around streams and wetlands. If a project affects an area where water flows, ponds or is present even part of the year, it is likely to be regulated by one or more agencies. Many wetland or stream projects will require three main permits or approvals (in addition to CEQA compliance). These are:

- 404 Permit (U.S. Army Corps of Engineers)
- 401 Certification (California Regional Water Quality Control Board)
- Streambed Alteration Agreement (California Department of Fish and Game)

For a more thorough explanation of wetland permitting, see the Ventura County's "Wetland Project Permitting Guide" at http://www.ventura.org/rma/planning/ceqa/bio_resource_review.html.

404 Permit (U.S. Army Corps of Engineers)

Most projects that involve streams or wetlands will require a 404 Permit from the U.S. Army Corps of Engineers (USACE). Section 404 of the federal Clean Water Act is the primary federal program regulating activities in wetlands. The Act regulates areas defined as "waters of the United States." This includes streams, wetlands in or next to streams, areas influenced by tides, navigable waters, lakes, reservoirs and other impoundments. For nontidal waters, USACE jurisdiction extends up to what is referred to as the "ordinary high water mark" as well as to the landward limits of adjacent Corps-defined wetlands, if present. The ordinary high water mark is an identifiable natural line visible on the bank of a stream or water body that shows the upper limit of typical stream flow or water level. The mark is made from the action of water on the streambank over the course of years.

Permit Triggers: A USACE 404 Permit is triggered by moving (discharging) or placing materials—such as dirt, rock, geotextiles, concrete or culverts—into or within USACE jurisdictional areas. This type of activity is also referred to as a "discharge of dredged or fill material."

401 Certification (Regional Water Quality Control Board)

If your project requires a USACE 404 Permit, then you will also need a Regional Water Quality Control Board (RWQCB) 401 Certification. The federal Clean Water Act, in Section 401, specifies that states must certify that any activity subject to a permit issued by a federal agency, such as the USACE, meets all state water quality standards. In California, the state and regional water boards are responsible for certification of activities subject to USACE Section 404 Permits.

Permit Trigger: A RWQCB 401 Certification is triggered whenever a USACE 404 Permit is required, or whenever an activity could cause a discharge of dredged or fill material into waters of the U.S. or wetlands.

Streambed Alteration Agreement (California Department of Fish and Game)

If your project includes alteration of the bed, banks or channel of a stream, or the adjacent riparian vegetation, then you may need a Streambed Alteration Agreement from the California Department of Fish and Game (CDFG). The California Fish and Game Code, Sections 1600-1616, regulates activities that would alter the flow, bed, banks, channel or associated riparian areas of a river, stream or lake. The law requires any person, state or local governmental agency or public utility to notify CDFG before beginning an activity that will substantially modify a river, stream or lake.

Permit Triggers: A Streambed Alteration Agreement (SAA) is triggered when a project involves altering a stream or disturbing riparian vegetation, including any of the following activities:

- Substantially obstructing or diverting the natural flow of a river, stream or lake
- Using any material from these areas
- Disposing of waste where it can move into these areas

Some projects that involve routine maintenance may qualify for long-term maintenance agreements from CDFG. Discuss this option with CDFG staff.

Ventura County General Plan

The Ventura County General Plan contains policies which also strongly protect wetland habitats.

Biological Resources Policy 1.5.2-3 states**:**

> Discretionary development that is proposed to be located within 300 feet of a marsh, small wash, intermittent lake, intermittent stream, spring, or perennial stream (as identified on the latest USGS 7½ minute quad map), shall be evaluated by a County approved biologist for potential impacts on wetland habitats. Discretionary development that would have a significant impact on significant wetland habitats shall be prohibited, unless mitigation measures are adopted that would reduce the impact to a less than significant level; or for lands designated "Urban" or "Existing Community", a statement of overriding considerations is adopted by the decision-making body.

Biological Resources Policy 1.5.2-4 states:

> Discretionary development shall be sited a minimum of 100 feet from significant wetland habitats to mitigate the potential impacts on said habitats. Buffer areas may be increased or decreased upon evaluation and recommendation by a qualified biologist and approval by the decision-making body. Factors to be used in determining adjustment of the 100 foot buffer include soil type, slope stability, drainage patterns, presence or absence of endangered, threatened or rare plants or animals, and compatibility of the proposed development with the wildlife use of the wetland habitat area. The requirement of a buffer (setback) shall not preclude the use of replacement as a mitigation when there is no other feasible alternative to allowing a permitted use, and if the replacement results in no net loss of wetland habitat. Such replacement shall be "in kind" (i.e. same type and acreage), and provide wetland habitat of comparable biological value. On-site replacement shall be preferred wherever possible. The replacement plan shall be developed in consultation with California Department of Fish and Game.

Coastal Habitat Regulations

Ventura County's Coastal Area Plan and the Coastal Zoning Ordinance, which constitute the "Local Coastal Program" (LCP) for the unincorporated portions of Ventura County's coastal zone, ensure that the County's land use plans, zoning ordinances, zoning maps, and implemented actions meet the requirements of, and implement the provisions and polices of California's 1976 Coastal Act at the local level.

Environmentally Sensitive Habitats

The Coastal Act specifically calls for protection of "environmentally sensitive habitat areas" or ESHA, which it defines as: "Any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments" (Section 30107.5).

Section 30240 of the Coastal Act states:

(a) "Environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses dependent on such resources shall be allowed within such areas."

(b) "Development in areas adjacent to environmentally sensitive habitat areas and parks and recreation areas shall be sited and designed to prevent impacts which would significantly degrade such areas, and shall be compatible with the continuance of such habitat areas."

There are three important elements to the definition of ESHA. First, a geographic area can be designated ESHA either because of the presence of individual species of plants or animals or because of the presence of a particular habitat. Second, in order for an area to be designated as ESHA, the species or habitat must be either rare or it must be especially valuable. Finally, the area must be easily disturbed or degraded by human activities.

Protection of ESHA is of particular concern in the southeastern part of Ventura County, where the coastal zone extends inland (~5 miles) to include an extensive area of the Santa Monica Mountains. For ESHA identification in this location, the Coastal Commission, the agency charged with administering the Coastal Act, has described the habitats that are considered ESHA. A memo from a Coastal Commission biologist that describes ESHA in the Santa Monica Mountains can be found at: http://www.ventura.org/rma/planning/ceqa/bio_resource_review.html.

The County's Local Coastal Program outlines other specific protections to environmentally sensitive habitats in the Coastal Zone, such as to wetlands, riparian habitats, dunes, and upland habitats within the Santa Monica Mountains (M Overlay Zone). Protections in some cases are different for different segments of the coastal zone.

Copies of the Coastal Area Plan and the Coastal Zoning Ordinance can be found at:
http://www.ventura.org/rma/planning/Programs/local.html.

Wildlife Migration Regulations

The Ventura County General Plan specifically includes wildlife migration corridors as an element of the region's significant biological resources. In addition, protecting habitat connectivity is critical to the success of special status species and other biological resource protections. Potential project impacts to wildlife migration are analyzed by biologists on a case-by-case basis. The issue involves both a macro-scale analysis—where routes used by large carnivores connecting very large core habitat areas may be impacted—as well as a micro-scale analysis—where a road or stream crossing may impact localized movement by many different animals.

Locally Important Species/Communities Regulations

Locally important species/communities are considered to be significant biological resources in the Ventura County General Plan.

Locally Important Species

The Ventura County General Plan defines a Locally Important Species as a plant or animal species that is not an endangered, threatened, or rare species, but is considered by qualified biologists to be a quality example or unique species within the County and region. The following criteria further define what local qualified biologists have determined to be Locally Important Species:

Locally Important Animal Species Criteria

Taxa for which habitat in Ventura County is crucial for their existence either globally or in Ventura County. This includes:

- Taxa for which the population(s) in Ventura County represents 10 percent or more of the known extant global distribution; or
- Taxa for which there are five or fewer *element occurrences*, or less than 1,000 individuals, or less than 2,000 acres of habitat that sustains populations in Ventura County; or,
- Native taxa that are generally declining throughout their range or are in danger of extirpation in Ventura County.

Locally Important Plant Species Criteria

- Taxa that are declining throughout the extent of their range AND have five (5) or fewer element occurrences in Ventura County.

The County maintains a list of locally important species, which can be found on the Planning Division website at: http://www.ventura.org/rma/planning/ceqa/bio_resource_review.html. *This list should not be considered comprehensive.* Any species that meets the criteria qualifies as locally important, whether or not it is included on this list.

Locally Important Communities

The Ventura County Initial Study Assessment Guidelines defines a locally important community as one that is considered by qualified biologists to be a quality example characteristic of or unique to the County or region, with this determination being made on a case-by-case basis. The County has not developed a list of locally important communities. Oak woodlands have however been deemed by the Ventura County Board of Supervisors to be a locally important community.

The state passed legislation in 2001, the Oak Woodland Conservation Act, to emphasize that oak woodlands are a vital and threatened statewide resource. In response, the County of Ventura prepared and adopted an Oak Woodland Management Plan that recommended, among other things, amending the County's Initial Study Assessment Guidelines to include an explicit reference to oak woodlands as part of its definition of locally important communities. The Board of Supervisors approved this management plan and its recommendations.

APPENDIX TWO
Observed Species Tables

Species Observed			
Scientific Name (Species or Genus)	**Common Name**	**Native (1)**	**Notes (2)**
PLANTS			
Amaranthus albus	tumbleweed	No	
Artemisia californica	California sagebrush	Yes	
Baccharis pilularis	coyote brush	Yes	
Brassica nigra	black mustard	No	
Bromus diandrus	ripgut grass	No	
Bromus hordeaceus	soft-chess	No	
Bromus madritensis ssp. *rubens*	red brome	No	
Carduus pycnocephalus	Italian thistle	No	
Carpobrotus edulis	iceplant	No	
Centauria melitensis	tocalote	No	
Cryptantha intermedia	common cryptantha	Yes	
Cylindropuntia prolifera	coastal cholla	Yes	
Datura wrightii	Jimsonweed	Yes	
Encelia californica	Bush sunflower	Yes	
Erigeron canadensis	Canada horseweed	Yes	
Eriogonum fasciculatum	California buckwheat	Yes	
Erodium cicutarium	red-stemmed filaree	No	
Eucalyptus globulus	blue gum	No	
Festuca myuros	rattail sixweeks grass	No	
Hesperoyucca whipplei	chaparral yucca	Yes	
Heteromeles arbutifolia	toyon	Yes	
Hirschfeldia incana	hoary mustard	No	
Juniperus sp.	juniper	No	cultivated
Lamarckia aurea	goldentop	No	
Lepidium nitidum	peppergrass	Yes	
Limonium perezii	Perez's sealavender	No	
Lonicera subspicata var. *denudata*	chaparral honeysuckle	Yes	
Malacothrix saxatilis var. *tenuifolia*	cliff aster	Yes	
Marrubium vulgare	white horehound	No	
Mirabilis laevis var. crassifolia	California four o'clock	Yes	
Nicotiana glauca	tree tobacco	No	
Olea europaea	olive	No	
Opuntia littoralis	coast prickly pear	Yes	
Peritoma arborea	bladderpod	Yes	
Ricinus communis	castor bean	No	
Salsola australis	Russian-thistle	No	
Salvia mellifera	black sage	Yes	
Sambucus nigra ssp. *caerulea*	blue elderberry	Yes	
Schinus molle	Peruvian peppertree	No	
Schismus barbatus	Mediterranean grass	No	
Vitis vinifera	cultivated grape	No	
Xanthium strumarium	rough cockleburr	Yes	

ANIMALS	
Common Name	Scientific Name (Species or Genus)
Reptiles	
Great Basin (western) fence lizard	*Sceloporus occidentalis longipes*
Birds	
American crow	*Corvus brachyrhynchos*
Anna's hummingbird	*Calypte anna*
black phoebe	*Sayornis nigricans*

Bewick's wren	*Thryomanes bewickii*
Brewer's blackbird	*Euphagus cyanocephalus*
brown-headed cowbird	*Molothrus ater*
California scrub-jay [formerly western scrub-jay]	*Apehelocoma californica*
California towhee	*Melozone crissalis*
common raven	*Corvus corax*
dark-eyed junco	*Junco hyemalis*
European starling	*Sturnus vulgaris*
house finch	*Carpodacus mexicanus*
house wren	*Troglodytes aedon*
mourning dove	*Zenaida macroura*
northern mockingbird	*Mimus polyglottos*
rock pigeon	*Columba livia*
spotted towhee	*Pipilo maculatus*
turkey vulture	*Cathartes aura*
Mammals	
California ground squirrel	*Spermophilus beecheyi*
coyote	*Canis latrans*
desert cottontail	*Sylvilagus audubonii*
domestic dog	*Canis lupus familiaris*
domestic horse	*Equus caballus*
domestic sheep	*Ovis aries*

Attachment A

List of California Natural Diversity Database (CNDDB)-tracked species with recorded occurrences within at least a 10-mile radius of the project site.

Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad IS (Fillmore (3411848) OR Piru (3411847) OR Val Verde (3411846) OR Moorpark (3411838) OR Simi (3411837) OR Santa Susana (3411836) OR Newbury Park (3411828) OR Thousand Oaks (3411827) OR Calabasas (3411826))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Accipiter cooperii Cooper's hawk	ABNKC12040	None	None	G5	S4	WL
Agelaius tricolor tricolored blackbird	ABPBXB0020	None	Candidate Endangered	G2G3	S1S2	SSC
Aimophila ruficeps canescens southern California rufous-crowned sparrow	ABPBX91091	None	None	G5T3	S3	WL
Anaxyrus californicus arroyo toad	AAABB01230	Endangered	None	G2G3	S2S3	SSC
Anniella sp. 1 California legless lizard	ARACC01070	None	None	G3G4	S3S4	SSC
Antrozous pallidus pallid bat	AMACC10010	None	None	G5	S3	SSC
Aquila chrysaetos golden eagle	ABNKC22010	None	None	G5	S3	FP
Arizona elegans occidentalis California glossy snake	ARADB01017	None	None	G5T2	S2	SSC
Artemisiospiza belli belli Bell's sage sparrow	ABPBX97021	None	None	G5T2T4	S3	WL
Aspidoscelis tigris stejnegeri coastal whiptail	ARACJ02143	None	None	G5T5	S3	SSC
Astragalus brauntonii Braunton's milk-vetch	PDFAB0F1G0	Endangered	None	G2	S2	1B.1
Athene cunicularia burrowing owl	ABNSB10010	None	None	G4	S3	SSC
Bombus crotchii Crotch bumble bee	IIHYM24480	None	None	G3G4	S1S2	
California macrophylla round-leaved filaree	PDGER01070	None	None	G3?	S3?	1B.2
California Walnut Woodland California Walnut Woodland	CTT71210CA	None	None	G2	S2.1	
Calochortus clavatus var. gracilis slender mariposa-lily	PMLIL0D096	None	None	G4T2T3	S2S3	1B.2
Calochortus fimbriatus late-flowered mariposa-lily	PMLIL0D1J2	None	None	G3	S3	1B.3
Calochortus plummerae Plummer's mariposa-lily	PMLIL0D150	None	None	G4	S4	4.2
Catostomus santaanae Santa Ana sucker	AFCJC02190	Threatened	None	G1	S1	

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Centromadia parryi ssp. australis southern tarplant	PDAST4R0P4	None	None	G3T2	S2	1B.1
Chorizanthe parryi var. fernandina San Fernando Valley spineflower	PDPGN040J1	Proposed Threatened	Endangered	G2T1	S1	1B.1
Cismontane Alkali Marsh Cismontane Alkali Marsh	CTT52310CA	None	None	G1	S1.1	
Coccyzus americanus occidentalis western yellow-billed cuckoo	ABNRB02022	Threatened	Endangered	G5T2T3	S1	
Deinandra minthornii Santa Susana tarplant	PDAST4R0J0	None	Rare	G2	S2	1B.2
Delphinium parryi ssp. blochmaniae dune larkspur	PDRAN0B1B1	None	None	G4T2	S2	1B.2
Delphinium umbraculorum umbrella larkspur	PDRAN0B1W0	None	None	G3	S3	1B.3
Diadophis punctatus modestus San Bernardino ringneck snake	ARADB10015	None	None	G5T2T3Q	S2?	
Dudleya blochmaniae ssp. blochmaniae Blochman's dudleya	PDCRA04051	None	None	G3T2	S2	1B.1
Dudleya cymosa ssp. agourensis Agoura Hills dudleya	PDCRA040A7	Threatened	None	G5T1	S1	1B.2
Dudleya cymosa ssp. marcescens marcescent dudleya	PDCRA040A3	Threatened	Rare	G5T2	S2	1B.2
Dudleya multicaulis many-stemmed dudleya	PDCRA040H0	None	None	G2	S2	1B.2
Dudleya parva Conejo dudleya	PDCRA04016	Threatened	None	G1	S1	1B.2
Dudleya verityi Verity's dudleya	PDCRA040U0	Threatened	None	G1	S1	1B.1
Elanus leucurus white-tailed kite	ABNKC06010	None	None	G5	S3S4	FP
Empidonax traillii extimus southwestern willow flycatcher	ABPAE33043	Endangered	Endangered	G5T2	S1	
Emys marmorata western pond turtle	ARAAD02030	None	None	G3G4	S3	SSC
Eriogonum crocatum conejo buckwheat	PDPGN081G0	None	Rare	G1	S1	1B.2
Euderma maculatum spotted bat	AMACC07010	None	None	G4	S3	SSC
Eumops perotis californicus western mastiff bat	AMACD02011	None	None	G5T4	S3S4	SSC
Gasterosteus aculeatus williamsoni unarmored threespine stickleback	AFCPA03011	Endangered	Endangered	G5T1	S1	FP

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Gila orcuttii arroyo chub	AFCJB13120	None	None	G2	S2	SSC
Gymnogyps californianus California condor	ABNKA03010	Endangered	Endangered	G1	S1	FP
Harpagonella palmeri Palmer's grapplinghook	PDBOR0H010	None	None	G4	S3	4.2
Horkelia cuneata var. puberula mesa horkelia	PDROS0W045	None	None	G4T1	S1	1B.1
Icteria virens yellow-breasted chat	ABPBX24010	None	None	G5	S3	SSC
Lasiurus cinereus hoary bat	AMACC05030	None	None	G5	S4	
Lepechinia rossii Ross' pitcher sage	PDLAM0V060	None	None	G1	S1	1B.2
Macrotus californicus California leaf-nosed bat	AMACB01010	None	None	G4	S3	SSC
Monardella hypoleuca ssp. hypoleuca white-veined monardella	PDLAM180A3	None	None	G4T3	S3	1B.3
Monardella sinuata ssp. gerryi Gerry's curly-leaved monardella	PDLAM18163	None	None	G3T1	S1	1B.1
Myotis ciliolabrum western small-footed myotis	AMACC01140	None	None	G5	S3	
Navarretia ojaiensis Ojai navarretia	PDPLM0C130	None	None	G2	S2	1B.1
Neotoma lepida intermedia San Diego desert woodrat	AMAFF08041	None	None	G5T3T4	S3S4	SSC
Nolina cismontana chaparral nolina	PMAGA080E0	None	None	G3	S3	1B.2
Oncorhynchus mykiss irideus steelhead - southern California DPS	AFCHA0209J	Endangered	None	G5T1Q	S1	
Orcuttia californica California Orcutt grass	PMPOA4G010	Endangered	Endangered	G1	S1	1B.1
Pentachaeta lyonii Lyon's pentachaeta	PDAST6X060	Endangered	Endangered	G1	S1	1B.1
Phrynosoma blainvillii coast horned lizard	ARACF12100	None	None	G3G4	S3S4	SSC
Polioptila californica californica coastal California gnatcatcher	ABPBJ08081	Threatened	None	G4G5T2Q	S2	SSC
Pseudognaphalium leucocephalum white rabbit-tobacco	PDAST440C0	None	None	G4	S2	2B.2
Rana boylii foothill yellow-legged frog	AAABH01050	None	Candidate Threatened	G3	S3	SSC

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Rana draytonii California red-legged frog	AAABH01022	Threatened	None	G2G3	S2S3	SSC
Riparia riparia bank swallow	ABPAU08010	None	Threatened	G5	S2	
Salvadora hexalepis virgultea coast patch-nosed snake	ARADB30033	None	None	G5T4	S2S3	SSC
Senecio aphanactis chaparral ragwort	PDAST8H060	None	None	G3	S2	2B.2
Setophaga petechia yellow warbler	ABPBX03010	None	None	G5	S3S4	SSC
Socalchemmis gertschi Gertsch's socalchemmis spider	ILARAU7010	None	None	G1	S1	
Southern California Threespine Stickleback Stream Southern California Threespine Stickleback Stream	CARE2320CA	None	None	GNR	SNR	
Southern Coast Live Oak Riparian Forest Southern Coast Live Oak Riparian Forest	CTT61310CA	None	None	G4	S4	
Southern Cottonwood Willow Riparian Forest Southern Cottonwood Willow Riparian Forest	CTT61330CA	None	None	G3	S3.2	
Southern Mixed Riparian Forest Southern Mixed Riparian Forest	CTT61340CA	None	None	G2	S2.1	
Southern Riparian Forest Southern Riparian Forest	CTT61300CA	None	None	G4	S4	
Southern Riparian Scrub Southern Riparian Scrub	CTT63300CA	None	None	G3	S3.2	
Southern Sycamore Alder Riparian Woodland Southern Sycamore Alder Riparian Woodland	CTT62400CA	None	None	G4	S4	
Southern Willow Scrub Southern Willow Scrub	CTT63320CA	None	None	G3	S2.1	
Spea hammondii western spadefoot	AAABF02020	None	None	G3	S3	SSC
Streptocephalus woottoni Riverside fairy shrimp	ICBRA07010	Endangered	None	G1G2	S1S2	
Symphyotrichum greatae Greata's aster	PDASTE80U0	None	None	G2	S2	1B.3
Taxidea taxus American badger	AMAJF04010	None	None	G5	S3	SSC
Thamnophis hammondii two-striped gartersnake	ARADB36160	None	None	G4	S3S4	SSC
Trimerotropis occidentiloides Santa Monica grasshopper	IIORT36300	None	None	G1G2	S1S2	
Valley Needlegrass Grassland Valley Needlegrass Grassland	CTT42110CA	None	None	G3	S3.1	

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Valley Oak Woodland	CTT71130CA	None	None	G3	S2.1	
Valley Oak Woodland						
Vireo bellii pusillus	ABPBW01114	Endangered	Endangered	G5T2	S2	
least Bell's vireo						
Walnut Forest	CTT81600CA	None	None	G1	S1.1	
Walnut Forest						

Record Count: 85

Map of Project Area

California Natural Diversity Database (CNDDB) Commercial [ds85]

- Plant (80m)
- Plant (specific)
- Plant (non-specific)
- Plant (circular)
- Animal (80m)
- Animal (specific)
- Animal (non-specific)
- Animal (circular)
- Terrestrial Comm. (80m)
- Terrestrial Comm. (specific)
- Terrestrial Comm. (non-specific)
- Terrestrial Comm. (circular)
- Aquatic Comm. (80m)
- Aquatic Comm. (specific)
- Aquatic Comm. (non-specific)
- Aquatic Comm. (circular)
- Multiple (80m)
- Multiple (specific)
- Multiple (non-specific)
- Multiple (circular)
- Sensitive EO's (Commercial only)

N

1:18,056

0 0.15 0.3 0.6 mi

0 0.25 0.5 1 km

August 17, 2017

Author: cnddb_com

Printed from http://bios.dfg.ca.gov

CNPS California Native Plant Society

Plant List

Inventory of Rare and Endangered Plants

48 matches found. *Click on scientific name for details*

Search Criteria

Found in Quads 3411848, 3411847, 3411846, 3411838, 3411837, 3411836, 3411828 3411827 and 3411826;

Modify Search Criteria | Export to Excel | Modify Columns | Modify Sort | Display Photos

Scientific Name	Common Name	Family	Lifeform	Blooming Period	CA Rare Plant Rank	State Rank	Global Rank
Acanthoscyphus parishii var. parishii	Parish's oxytheca	Polygonaceae	annual herb	Jun-Sep	4.2	S3S4	G4? T3T4
Asplenium vespertinum	western spleenwort	Aspleniaceae	perennial rhizomatous herb	Feb-Jun	4.2	S4	G4
Astragalus brauntonii	Braunton's milk-vetch	Fabaceae	perennial herb	Jan-Aug	1B.1	S2	G2
California macrophylla	round-leaved filaree	Geraniaceae	annual herb	Mar-May	1B.2	S3?	G3?
Calochortus catalinae	Catalina mariposa lily	Liliaceae	perennial bulbiferous herb	(Feb)Mar-Jun	4.2	S4	G4
Calochortus clavatus var. clavatus	club-haired mariposa lily	Liliaceae	perennial bulbiferous herb	(Mar)May-Jun	4.3	S3	G4T3
Calochortus clavatus var. gracilis	slender mariposa lily	Liliaceae	perennial bulbiferous herb	Mar-Jun(Nov)	1B.2	S2S3	G4T2T3
Calochortus fimbriatus	late-flowered mariposa lily	Liliaceae	perennial bulbiferous herb	Jun-Aug	1B.3	S3	G3
Calochortus plummerae	Plummer's mariposa lily	Liliaceae	perennial bulbiferous herb	May-Jul	4.2	S4	G4
Calystegia peirsonii	Peirson's morning-glory	Convolvulaceae	perennial rhizomatous herb	Apr-Jun	4.2	S4	G4
Castilleja gleasoni	Mt. Gleason paintbrush	Orobanchaceae	perennial herb (hemiparasitic)	May-Jun(Sep)	1B.2	S2	G2
Centromadia parryi ssp. australis	southern tarplant	Asteraceae	annual herb	May-Nov	1B.1	S2	G3T2
Cercocarpus betuloides var. blancheae	island mountain-mahogany	Rosaceae	perennial evergreen shrub	Feb-May	4.3	S4	G5T4
Chorizanthe parryi var. fernandina	San Fernando Valley spineflower	Polygonaceae	annual herb	Apr-Jul	1B.1	S1	G2T1
Clarkia exilis	slender clarkia	Onagraceae	annual herb	Apr-May	4.3	S4	G4
Clinopodium mimuloides	monkey-flower savory	Lamiaceae	perennial herb	Jun-Oct	4.2	S3	G3
Convolvulus simulans	small-flowered morning-glory	Convolvulaceae	annual herb	Mar-Jul	4.2	S4	G4
Deinandra minthornii	Santa Susana tarplant	Asteraceae	perennial deciduous shrub	Jul-Nov	1B.2	S2	G2
Deinandra paniculata	paniculate tarplant	Asteraceae	annual herb	(Mar)Apr-Nov	4.2	S4	G4
	dune larkspur	Ranunculaceae	perennial herb	Apr-Jun	1B.2	S2	G4T2

Delphinium parryi ssp. blochmaniae							
Delphinium parryi ssp. purpureum	Mt. Pinos larkspur	Ranunculaceae	perennial herb	May-Jun	4.3	S4	G4T4
Dudleya blochmaniae ssp. blochmaniae	Blochman's dudleya	Crassulaceae	perennial herb	Apr-Jun	1B.1	S2	G3T2
Dudleya cymosa ssp. agourensis	Agoura Hills dudleya	Crassulaceae	perennial herb	May-Jun	1B.2	S1	G5T1
Dudleya cymosa ssp. marcescens	marcescent dudleya	Crassulaceae	perennial herb	Apr-Jul	1B.2	S2	G5T2
Dudleya multicaulis	many-stemmed dudleya	Crassulaceae	perennial herb	Apr-Jul	1B.2	S2	G2
Dudleya parva	Conejo dudleya	Crassulaceae	perennial herb	May-Jun	1B.2	S1	G1
Dudleya verityi	Verity's dudleya	Crassulaceae	perennial herb	May-Jun	1B.1	S1	G1
Eriogonum crocatum	conejo buckwheat	Polygonaceae	perennial herb	Apr-Jul	1B.2	S1	G1
Hordeum intercedens	vernal barley	Poaceae	annual herb	Mar-Jun	3.2	S3S4	G3G4
Horkelia cuneata var. puberula	mesa horkelia	Rosaceae	perennial herb	Feb-Jul(Sep)	1B.1	S1	G4T1
Juglans californica	Southern California black walnut	Juglandaceae	perennial deciduous tree	Mar-Aug	4.2	S3	G3
Lepechinia fragrans	fragrant pitcher sage	Lamiaceae	perennial shrub	Mar-Oct	4.2	S3	G3
Lepechinia rossii	Ross' pitcher sage	Lamiaceae	perennial shrub	May-Sep	1B.2	S1	G1
Lilium humboldtii ssp. ocellatum	ocellated Humboldt lily	Liliaceae	perennial bulbiferous herb	Mar-Jul(Aug)	4.2	S3	G4T3
Lupinus paynei	Payne's bush lupine	Fabaceae	perennial shrub	Mar-Apr(May-Jul)	3.1	S1	G1Q
Monardella hypoleuca ssp. hypoleuca	white-veined monardella	Lamiaceae	perennial herb	(Apr)May-Aug(Sep-Dec)	1B.3	S3	G4T3
Monardella sinuata ssp. gerryi	Gerry’s curly-leaved monardella	Lamiaceae	annual herb	Apr-Jun	1B.1	S1	G3T1
Monardella sinuata ssp. sinuata	southern curly-leaved monardella	Lamiaceae	annual herb	Apr-Sep	1B.2	S2	G3T2
Navarretia ojaiensis	Ojai navarretia	Polemoniaceae	annual herb	May-Jul	1B.1	S2	G2
Nolina cismontana	chaparral nolina	Ruscaceae	perennial evergreen shrub	(Mar)May-Jul	1B.2	S3	G3
Orcuttia californica	California Orcutt grass	Poaceae	annual herb	Apr-Aug	1B.1	S1	G1
Pentachaeta lyonii	Lyon's pentachaeta	Asteraceae	annual herb	(Feb)Mar-Aug	1B.1	S1	G1
Phacelia hubbyi	Hubby's phacelia	Hydrophyllaceae	annual herb	Apr-Jul	4.2	S4	G4
Piperia michaelii	Michael's rein orchid	Orchidaceae	perennial herb	Apr-Aug	4.2	S3	G3
Pseudognaphalium leucocephalum	white rabbit-tobacco	Asteraceae	perennial herb	(Jul)Aug-Nov(Dec)	2B.2	S2	G4
Senecio aphanactis	chaparral ragwort	Asteraceae	annual herb	Jan-Apr(May)	2B.2	S2	G3
Stylocline masonii	Mason's neststraw	Asteraceae	annual herb	Mar-May	1B.1	S1	G1
Symphyotrichum greatae	Greata's aster	Asteraceae	perennial rhizomatous herb	Jun-Oct	1B.3	S2	G2

Suggested Citation

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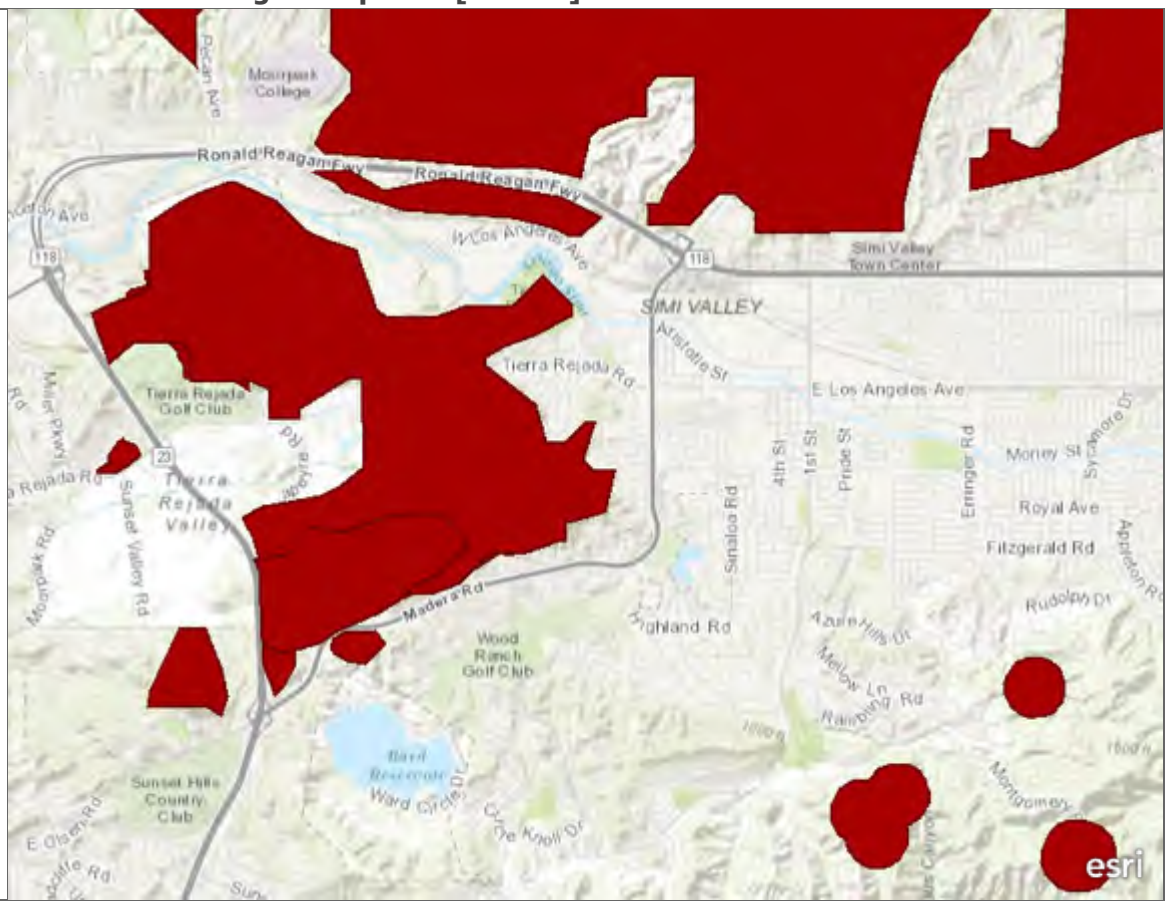
Critical Habitat for Threatened & Endangered Species [USFWS]

Final Linear Features

Final Polygon Features

Proposed Linear Features

Proposed Polygon Features



A specific geographic area(s) that contains features essential for the conservation of a threatened or endangered species and that may require special management and protection.

U.S. Fish and Wildlife Service
National Wetlands Inventory

15498 LaPeyre Court

August 17, 2017

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

National Wetlands Inventory (NWI)
This page was produced by the NWI mapper

Attachment B
Site Plan, LC Engineering Group, Inc., November 10, 2017

COUNTY OF VENTURA
PUBLIC WORKS AGENCY

GENERAL GRADING NOTES:

1. GRADING ACTIVITIES SHALL BE IN ACCORDANCE WITH THE VENTURA COUNTY BUILDING CODE APPENDIX J GRADING, LATEST EDITION.
2. THE GRADING PERMIT AND WORK SHOWN IN THESE PLANS IS VALID ONLY TO THE EXTENT OF THE VENTURA COUNTY BUILDING CODE APPENDIX J - GRADING. PERMITS OR PERMISSIONS THAT MAY BE REQUIRED BY OTHER REGULATORY AGENCIES OR INTERESTED PARTIES ARE THE RESPONSIBILITY OF THE PERMITTEE.
3. A PRECONSTRUCTION MEETING SHALL BE HELD AT THE SITE PRIOR TO ANY GRADING ACTIVITY OR LAND DISTURBANCES WITH THE FOLLOWING PARTIES PRESENT: OWNER, GRADING CONTRACTOR, DESIGN CIVIL ENGINEER, SOILS ENGINEER, COUNTY GRADING INPECTOR(S), AND OTHER JURISDICTIONAL AGENCIES WHEN REQUIRED.
4. HEAVY EQUIPMENT NOISE & TRUCK DELIVERIES SHALL NOT BEGIN UNTIL AFTER 7:00 A.M. NO WORK BEYOND 4:30 PM UNLESS APPROVED BY PWA.
5. NO GRADING ACTIVITY SHALL OCCUR IN ANY WETLAND, BLUE-LINE STREAM, RED-LINE CHANNEL, OR FLOODPLAIN WITHOUT THE PROPER PERMITS & PERMISSION FROM THE PWA & RESOURCE MANAGEMENT AGENCY (RMA), OR OTHER AUTHORITIES HAVING JURISDICTION.
6. RETAINING WALLS AND BRIDGES REQUIRE A SEPARATE PERMIT FROM BUILDING AND SAFETY.
7. ALL RECOMMENDATIONS MADE BY THE SOILS ENGINEER (AND ENGINEERING GEOLOGIST, WHERE EMPLOYED) CONTAINED IN THE REPORTS AS APPROVED BY THE COUNTY SHALL BE A PART OF THIS GRADING PLAN.
8. ALL DISTURBED SURFACES SUBJECT TO EROSION SHALL BE PROTECTED IN ACCORDANCE WITH THE VENTURA COUNTYWIDE MUNICIPAL STORMWATER NPDES PERMIT. SEDIMENT AND EROSION CONTROL MEASURES SHALL BE INSTALLED AND MAINTAINED FULLY FUNCTIONAL.
9. ALL UNSUITABLE MATERIAL, I.E. LUMBER, LOGS, BRUSH, COMPRESSIBLE SOILS, OR ANY ORGANIC MATERIALS OR RUBBISH, SHALL BE REMOVED AS REQUIRED BY THE SOILS ENGINEER AND ENGINEERING GEOLOGIST FROM ALL AREAS TO RECEIVE FILL.
10. ALL AREAS TO RECEIVE FILL SHALL BE INSPECTED AND APPROVED BY THE SOILS ENGINEER (AND ENGINEERING GEOLOGIST WHERE EMPLOYED) AFTER REMOVAL OF UNSUITABLE MATERIAL AND EXCAVATION OF KEYWAYS AND BENCHES, AND PRIOR TO PLACEMENT OF SUBSURFACE DRAINAGE SYSTEMS OR FILL.
11. ALL MATERIALS DEEMED UNSUITABLE FOR PLACEMENT IN COMPACTED FILL SHALL BE REMOVED FROM THE SITE. MATERIALS SUCH AS CONSTRUCTION INERT DEBRIS, OR IMPORTED MATERIALS SHALL BE APPROVED BY THE SOILS ENGINEER AND COUNTY PRIOR TO USE IN COMPACTED FILL. WHERE EXCAVATED MATERIAL IS LARGER THAN TWELVE INCHES IN LARGEST DIMENSION, IT MUST BE BROKEN INTO SMALLER PARTICLE SIZES, BEFORE BEING USED AS FILL.
12. THE SOILS ENGINEER SHALL DIRECT THE REMOVAL OF ANY EXISTING UNDERGROUND STRUCTURES SUCH AS SEPTIC TANKS, IRRIGATION LINES, ETC.
13. ANY WATER WELL LOCATED WITHIN THE AREA OF DISTURBANCE SHALL BE REPORTED TO THE WATER RESOURCES DIVISION, WATERSHED PROTECTION DISTRICT PRIOR TO ITS MODIFICATION, ABANDONMENT, OR DESTRUCTION.
14. ANY OIL WELL LOCATED WITHIN THE AREA OF DISTURBANCE SHALL BE REPORTED TO THE STATE OF CALIFORNIA, DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES PRIOR TO ITS MODIFICATION, ABANDONMENT, OR DESTRUCTION.
15. ALL TEMPORARY EXCAVATED SLOPES OR BENCHES AND KEYS FOR BUTTRESS OR STABILIZATION FILLS MUST BE EXAMINED BY THE ENGINEERING GEOLOGIST AND SOILS ENGINEER TO INSURE THAT ALL POTENTIAL PLANES OF FAILURE HAVE BEEN EXPOSED IN THE EXCAVATION AND WILL BE ADEQUATELY SUPPORTED BY THE PROPOSED BUTTRESS. FIELD CERTIFICATION MUST BE SUBMITTED BY THE CONSULTANTS PRIOR TO PLACING FILL.
16. THE SOILS ENGINEER AND ENGINEERING GEOLOGIST (WHERE EMPLOYED) SHALL PROVIDE RECOMMENDATIONS AND APPROVE CORRECTIVE WORK TO INSURE SLOPE STABILITY WHERE UNSTABLE MATERIAL IS EXPOSED AT THE TOP OF CUTS AND EXCAVATIONS.
17. THE USE OF CORRUGATED STEEL PIPE IS NOT ALLOWED IN ANY COUNTY RIGHTS OF WAY. THE USE OF CORRUGATED STEEL PIPE ON PRIVATE PROPERTY SHOULD BE MINIMIZED. HOWEVER, IF USED SHOULD BE COATED TO MINIMIZE CORROSION AND TO EXTEND SERVICE TIME.
18. INTERIM SOILS AND GEOLOGIC REPORTS SHALL BE SUBMITTED TO THE COUNTY AS REQUIRED BY THE BUILDING OFFICIAL.
19. ROUGH GRADE SOILS ENGINEERING AND (IF APPLICABLE) ENGINEERING GEOLOGY REPORTS SUMMARIZING ALL EARTHWORK PERFORMED AND CONCLUDING THAT THE WORK HAS BEEN COMPLETED ACCORDING TO THE APPROVED REPORTS SHALL BE SUBMITTED TO THE COUNTY FOR APPROVAL OF THE ROUGH GRADING BY THE BUILDING OFFICIAL PRIOR TO CALLING FOR BUILDING AND SAFETY INSPECTION.
20. FINAL SOILS ENGINEERING AND (IF APPLICABLE) ENGINEERING GEOLOGY REPORTS SUMMARIZING ALL EARTHWORK PERFORMED SINCE ROUGH GRADING AND CONCLUDING THAT THE WORK HAS BEEN COMPLETED ACCORDING TO THE APPROVED REPORTS SHALL BE SUBMITTED WITH THE AS-BUILT PLANS (RECORD DRAWING) TO THE COUNTY PRIOR TO FINAL INSPECTION BY THE BUILDING OFFICIAL.

EARTHWORK QUANTITIES

CUT: 15,400 CU. YDS. EXPORT: ø CU. YDS. DISPOSAL SITE N/A

FILL: 30,438 CU. YDS IMPORT: 15,038 CU. YDS SOURCE TBD

THIS PROJECT INCLUDES POST CONSTRUCTION BMP'S X YES _____ NO

THE TOTAL ESTIMATED DISTURBED AREA OF GRADING AND CONSTRUCTION IS 3.12 ACRES. PROJECTS THAT ARE 1.0 ACRE OR GREATER IN DISTURBED AREA WILL REQUIRE A STORM WATER POLLUTION PREVENTION PLAN (SWPPP) AND NOTICE OF INTENT (NOI) AS APPROVED BY THE STATE REGIONAL WATER QUALITY CONTROL BOARD AS DESCRIBED ABOVE.

AVERAGE NATURAL SLOPE IN THE AREA OF GRADING 22.7 %

THE TOTAL AMOUNT OF IMPERVIOUS AREA TO BE CONSTRUCTED AS PART OF THIS PROJECT IS ø SQ. FT.

TOTAL PROPOSED LANDSCAPED AREA _____ SQ. FT. TOTAL NATIVE PLANTING LANDSCAPE AREA _____ % (PERCENT OF TOTAL LANDSCAPE AREA)

LAND DEVELOPMENT & INSPECTION SERVICES MUST BE NOTIFIED TEN (10) WORKING DAYS PRIOR TO ANY EXPORT/IMPORT TO/FROM THE PROJECT SITE.

PERMITS

COUNTY ENCROACHMENT PERMIT NO. _____ DATE _____

VENTURA COUNTY WATERSHED PROTECTION DISTRICT WATERCOURSE PERMIT NO. _____ DATE _____

STATE ENCROACHMENT PERMIT NO. _____ DATE _____

FLOODPLAIN DEVELOPMENT PERMIT _____ DATE _____

LOCATION & VICINITY MAP

APPROVAL BY CONSULTANTS

THIS GRADING PLAN IS ACCEPTABLE IN REGARD TO SOILS (AND GEOLOGIC - IF APPLICABLE) CONDITIONS AND CONFORMS TO THE RECOMMENDATION OF THE SUPPORTIVE REPORT(S) DATED:

SOILS ENGINEERING REPORTS: MARCH 23 20 17

(SOILS ENGINEER SIGNATURE)

LEONARD LISTON (PRINT NAME) 31902 (RCE)

CAL WEST GEOTECHNICAL
889 PIERCE CT, SUITE 101
THOUSAND OAKS, CA 91360
805-497-1244

ENGINEERING GEOLOGY REPORTS: N/A 20 _____

N/A (ENGINEERING GEOLOGIST SIGNATURE)

N/A (PRINT NAME) N/A (CERT. NO.)

I HEREBY STATE THAT THESE PLANS ARE IN COMPLIANCE WITH THE ADOPTED COUNTY STANDARDS, AND THAT I HAVE EXERCISED RESPONSIBLE CHARGE OVER THE DESIGN OF THE PROJECT AS DEFINED IN THE PROFESSIONAL ENGINEERS ACT. I UNDERSTAND THAT THE CHECK OF PROJECT DRAWINGS BY THE COUNTY OF VENTURA IS CONFINED TO A REVIEW ONLY AND DOES NOT RELIEVE ME, AS ENGINEER OF RECORD, OF MY RESPONSIBILITIES FOR PROJECT DESIGN.

(CIVIL ENGINEER SIGNATURE)

LEONARD LISTON (PRINT NAME) 31902 (RCE)

LC ENGINEERING GROUP, INC.
889 PIERCE CT, SUITE 101
THOUSAND OAKS, CA 91360
805-497-1244

ENGINEERED GRADING INSPECTION CERTIFICATES

JOB ADDRESS OR LOT AND TRACT NO: 15498 LAPEYRE COURT

ROUGH GRADING CERTIFICATION

(A) BY SOILS ENGINEER

I CERTIFY THAT THE ROUGH GRADING WORK INCORPORATES ALL RECOMMENDATIONS CONTAINED IN THE REPORT OR REPORTS FOR WHICH I AM RESPONSIBLE AND ALL RECOMMENDATIONS THAT I HAVE MADE BASED ON FIELD INSPECTION OF THE WORK AND TESTING DURING GRADING. I FURTHER CERTIFY THAT WHERE THE REPORTS OF AN ENGINEERING GEOLOGIST, RELATIVE TO THIS SITE, HAVE RECOMMENDED THE INSTALLATION OF BUTTRESS FILLS OR OTHER SIMILAR STABILIZATION MEASURES, SUCH EARTHWORK CONSTRUCTION HAS BEEN COMPLETED IN ACCORDANCE WITH THE APPROVED DESIGN.

LOT NOS: 15498 LAPEYRE COURT

SEE REPORTS DATED: _____

FOR TEST DATA, RECOMMENDED ALLOWABLE SOIL BEARING VALUES & OTHER SPECIAL RECOMMENDATIONS.

SOILS ENGINEER _____ REG. NO 31902 DATE _____
(SIGNATURE)

SEAL

(B) BY ENGINEERING GEOLOGIST

I CERTIFY THAT THE ROUGH GRADING WORK INCORPORATES ALL OF THE RECOMMENDATIONS CONTAINED IN THE REPORT OR REPORTS FOR WHICH I AM RESPONSIBLE AND ALL RECOMMENDATIONS THAT I HAVE MADE BASED ON FIELD INSPECTION OF THE WORK DURING GRADING.

LOT NOS: 15498 LAPEYRE COURT

ENGINEERING GEOLOGIST _____ CERT. NO. _____ DATE _____
(SIGNATURE)

SEAL

(C) BY CIVIL ENGINEER

I CERTIFY TO THE SATISFACTORY COMPLETION OF ROUGH GRADING INCLUDING GRADING TO APPROXIMATE FINAL ELEVATIONS; PROPERTY LINES LOCATED AND STAKED; CUT AND FILL SLOPES CORRECTLY GRADED AND LOCATED IN ACCORDANCE WITH THE APPROVED DESIGN; SWALES AND TERRACES GRADED READY FOR PAVING; BERMS INSTALLED; AND REQUIRED DRAINAGE SLOPES PROVIDED ON THE BUILDING PADS. I FURTHER CERTIFY THAT WHERE REPORT OR REPORTS OF AN ENGINEERING GEOLOGIST AND/OR SOILS ENGINEER HAVE BEEN PREPARED RELATIVE TO THIS SITE, THE RECOMMENDATIONS CONTAINED IN SUCH REPORTS HAVE BEEN INCORPORATED IN THE DESIGN.

LOT NOS: 15498 LAPEYRE COURT

CIVIL ENGINEER _____ REG. NO. 31902 DATE _____
(SIGNATURE)

SEAL

FINAL GRADING CERTIFICATION

BY CIVIL ENGINEER

I CERTIFY TO THE SATISFACTORY COMPLETION OF GRADING IN ACCORDANCE WITH THE APPROVED PLANS. ALL DRAINAGE DEVICES REQUIRED BY THE GRADING PERMIT, GRADING PLANS AND GRADING ORDINANCE HAVE BEEN INSTALLED. EROSION TREATMENT OF SLOPES AND IRRIGATION SYSTEMS (WHERE REQUIRED) HAVE BEEN INSTALLED. ADEQUATE PROVISIONS HAVE BEEN MADE FOR DRAINAGE OF SURFACE WATERS FROM EACH BUILDING SITE AS OF THIS DATE.

LOT NOS: _____

CIVIL ENGINEER _____ REG. NO. 31902 DATE _____
(SIGNATURE)

SEAL

GRADING CONTRACTOR CERTIFICATION

BY GRADING CONTRACTOR

I CERTIFY THAT THE GRADING WAS DONE IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS, THE GRADING ORDINANCE, AND THE RECOMMENDATIONS OF THE CIVIL ENGINEER, SOILS ENGINEER AND ENGINEERING GEOLOGIST. IT IS UNDERSTOOD THAT THIS CERTIFICATION INCLUDES ONLY THOSE ASPECTS OF THE WORK THAT CAN BE DETERMINED BY ME, AS A COMPETENT GRADING CONTRACTOR, WITHOUT SPECIAL EQUIPMENT OR PROFESSIONAL SKILLS.

GRADING CONTRACTOR _____ LICENSE NO. _____ DATE _____
(SIGNATURE)

INSTRUCTIONS: THE OWNER MAY SIGN IF THE GRADING WAS NOT DONE BY A LICENSED GRADING CONTRACTOR.

BENCH MARK DATA

DESIGNATION: 16-187
DATUM: NAVD 88
DATE: 1999
HEIGHT: 223.066 (METERS)/ 731.84 (FEET)
DESCRIPTION: 1.2 MILES ALONG TIERRA REJADA ROAD FROM ITS INTERSECTION WITH MOORPARK ROAD, 60 FEET NORTHERLY FROM THE CENTER OF TIERRA REJADA ROAD, IN THE CENTER OF A CONCRETE HEADWALL

TOPOGRAPHY DATA

STEVE OPDAHL SURVEYING
187 E. WILBUR RD, SUITE 4
THOUSAND OAKS, CA 91360
[TOPO SOURCE METHOD (ie. ALTA, PHOTOGRAMMETERY, ETC.)]
06-02-17

OWNER/APPLICANT

CHARLES PINNEO
15498 LAPEYRE COURT, MOORPARK, CA 93021
805-402-6468

REGISTERED PROFESSIONAL ENGINEER
LEONARD T. LISTON
No.31902
Exp. Dec. 2018
CIVIL
STATE OF CALIFORNIA

GENERAL STORMWATER NOTES:

THE LEGALLY RESPONSIBLE PERSON OF ANY PROPERTY IN WHICH GRADING ACTIVITIES OR OTHER SOIL DISTURBANCE ACTIVITIES ARE PERFORMED, INCLUDING PERMITTEE, SHALL COMPLY WITH THE LATEST AND APPLICABLE NPDES REQUIREMENTS. EFFECTIVE COMBINATION OF EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES (BMP'S) SHALL BE INSTALLED BEFORE GRADING BEGINS. DURING GRADING ACTIVITIES, ALL BMP'S SHALL BE UPDATED AS NECESSARY TO PREVENT EROSION AND ANY ILLICIT DISCHARGE OF CONSTRUCTION RELATED POLLUTANTS. EROSION CONTROL BMP'S ARE LISTED ON COUNTY FORMS SW-1, SW-2, OR SW-HR.

1. **GENERAL CONSTRUCTION PERMIT.** PROJECTS THAT CAUSE SOIL DISTURBANCE OF ONE ACRE OR MORE, OR THAT ARE PART OF A COMMON PLAN OF DEVELOPMENT OR SALE THAT CAUSE SOIL DISTURBANCE OF ONE ACRE OR MORE ARE REQUIRED TO OBTAIN COVERAGE UNDER NPDES CALIFORNIA STATEWIDE GENERAL CONSTRUCTION PERMIT NO. CAS000002, AS A NUMBER ASSIGNED TO THE PROJECT BY THE STATE WATER RESOURCES CONTROL BOARD, COMPLETED AND SIGNED NOTICE OF INTENT (NOI) AND PROJECT STORMWATER POLLUTION PREVENTION PLAN (SWPPP) SHALL BE SUBMITTED AND IMPLEMENTED DURING ALL GRADING ACTIVITIES.
2. **COUNTY'S STORM DRAIN SYSTEM.** ILLICIT DISCHARGES INTO THE COUNTY'S STORM DRAIN SYSTEM AS A RESULT OF GRADING, CLEARING, CONSTRUCTION, DEMOLITION, AND OTHER SOIL DISTURBANCE ACTIVITIES ARE PROHIBITED.
3. **INSPECTIONS.** EROSION CONTROL AND PERMANENT STORMWATER TREATMENT BMP'S ARE SUBJECT TO INSPECTIONS AS REQUIRED BY THE PERMIT ORDER NO. R4-2010-0108, AS AMENDED FROM TIME TO TIME.
4. **PUMPED WATER DISCHARGES.** DISCHARGES OF PUMPED GROUND WATER REQUIRE A DISCHARGE PERMIT FROM THE STATE OF CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD (RWQCB).
5. **SANITARY FACILITIES.** PORTABLE SANITARY FACILITIES SHALL BE LOCATED ON RELATIVELY LEVEL GROUND AWAY FROM TRAFFIC AREAS, DRAINAGE COURSES, AND STORM DRAIN INLETS.
6. **EMERGENCY WORK.** A STANDBY CREW FOR EMERGENCY WORK SHALL BE AVAILABLE AT ALL TIMES DURING THE RAINY SEASON (OCTOBER 1ST TO APRIL 15TH). NECESSARY MATERIALS SHALL BE AVAILABLE ON SITE AND STOCKPILED AT CONVENIENT LOCATIONS TO FACILITATE RAPID CONSTRUCTION OF EMERGENCY DEVICES WHEN RAIN IS IMMINENT.

PROJECT BMP'S

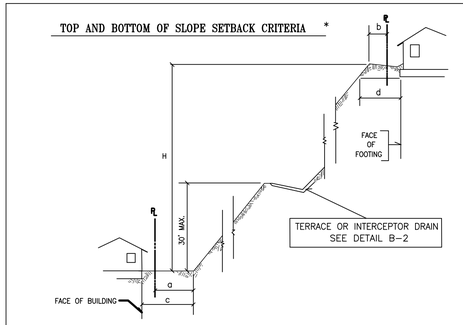
THE FOLLOWING BMPS AS OUTLINED IN, BUT NOT LIMITED TO, THE LATEST EDITION OF THE CASQA CONSTRUCTION BMP ONLINE HANDBOOK MAY APPLY DURING THE CONSTRUCTION OF THIS PROJECT (ADDITIONAL MEASURES MAY BE REQUIRED IF DEEMED APPROPRIATE BY THE PROJECT ENGINEER, QUALIFIED SWPP DEVELOPER, PRACTITIONER OR THE BUILDING OFFICIAL). CERTAIN BMP'S ARE REQUIRED AS PART OF THE STORMWATER FORMS SW-1, SW-2 AND SW-HR. THE APPLICANT IS RESPONSIBLE FOR ENSURING THAT THE BMP'S LISTED HEREON, ARE IMPLEMENTED AND MAINTAINED AT ALL TIMES DURING THE CONSTRUCTION. THE INSPECTOR OR BUILDING OFFICIAL MAY PERFORM UNANNOUNCED SITE INSPECTIONS TO ENSURE THAT THE PROJECT MAINTAINS THE BMP'S AS LISTED BELOW.

BMP DESCRIPTIONS AND DETAILS CAN BE OBTAINED FROM THE CALIFORNIA STORMWATER HANDBOOKS AT WWW.CASQA.ORG

COMPLETE CHECKLIST BELOW FOR APPLICABLE PROJECT BMP'S

	EROSION CONTROL
X	EC1 – SCHEDULING
X	EC2 – PRESERVATION EXISTING VEGETATION
	EC3 – HYDRAULIC MULCH
X	EC4 – HYDROSEEDING
	EC5 – SOIL BINDERS
	EC6 – STRAW MULCH
	EC7 – GEOTEXTILES & MATS
	EC8 – WOOD MULCHING
	EC9 – EARTH DIKES & DRAINAGE SWALES
	EC10 – VELOCITY DISSIPATION DEV.
	EC11 – SLOPE DRAINS
	EC12 – STREAMBANK STABILIZATION
	EC14 – COMPOST BLANKETS
	EC15 – SOIL PREPARATION/ROUGHENING
	EC16 – NON-VEGETATED STABILIZATION
	TEMPORARY SEDIMENT CONTROL
X	SE1 – SILT FENCE
	SE2 – SEDIMENT BASIN
	SE3 – SEDIMENT TRAP
X	SE4 – CHECK DAM
	SE5 – FIBER ROLLS
	SE6 – GRAVEL BAG BERM
	SE7 – STREET SWEEPING AND VACUUMING
X	SE8 – SANDBAG BARRIER
	SE9 – STRAW BALE BARRIER
X	SE10 – STORM DRAIN INLET PROTECTION
	SE11 – ACTIVE TREATMENT SYSTEMS
	SE12 – TEMPORARY SILT DIKE
	SE13 – COMPOST SOCKS & BERMS
	SE14 – BIOFILTER BAGS
	WIND EROSION CONTROL
X	WE1 – WIND EROSION CONTROL
	EQUIPMENT TRACKING
X	TC1 – STABILIZED CONSTRUCTION ENTRANCE EXIT
	TC2 – STABILIZED CONSTRUCTION ROADWAY
	TC3 – ENTRANCE/OUTLET TIRE WASH

	NON-STORMWATER MANAGEMENT
X	NS1 – WATER CONSERVATION PRACTICES
	NS2 – DEWATERING OPERATIONS
	NS3 – PAVING & GRINDING OPERATIONS
	NS4 – TEMPORARY STREAM CROSSING
	NS5 – CLEAR WATER DIVERSION
	NS6 – ILLICIT CONNECTION/DISCHARGE
	NS7 – POTABLE WATER/IRRIGATION
	NS8 – VEHICLE & EQUIPMENT CLEANING
	NS9 – VEHICLE & EQUIPMENT FUELING
	NS10 – VEHICLE & EQUIPMENT MAINTENANCE
	NS11 – PILE DRIVING OPERATIONS
	NS12 – CONCRETE CURING
	NS13 – CONCRETE FINISHING
	NS14 – MATERIAL & EQUIPMENT USE
	NS15 – DEMOLITION ADJACENT TO WATER
	NS16 – TEMPORARY BATCH PLANTS
	WASTE MANAGEMENT & MATERIAL POLLUTION CONTROL
X	WM1 – MATERIAL DELIVERY & STORAGE
	WM2 – MATERIAL USE
X	WM3 – STOCKPILE MANAGEMENT
X	WM4 – SPILL PREVENTION & CONTROL
X	WM5 – SOLID WASTE MANAGEMENT
	WM6 – HAZARDOUS WASTE MANAGEMENT
	WM7 – CONTAMINATION SOIL MANAGEMENT
X	WM8 – CONCRETE WASTE MANAGEMENT
X	WM9 – SANITARY/SEPTIC WASTE MANAGEMENT
	WM10 – LIQUID WASTE MANAGEMENT
	ADDITIONAL BMP'S SELECTED

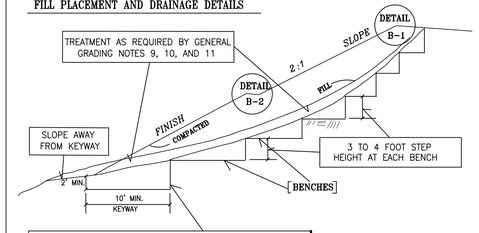


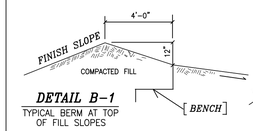
H(IN FEET)	a	b	c	d
ANY HEIGHT	2' MIN (H/2)' 20' MAX	2' MIN (H/5)' 10' MAX	(H/2)' 15' MAX	(H/3)' 40'MAX

* FROM C B C SEC. 1808.7 AND APPENDIX J – SEC. J109
℄ (SITE BOUNDARY)

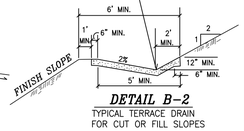
DETAIL A
NTS

FILL PLACEMENT AND DRAINAGE DETAILS





DETAIL B-1
TYPICAL BERM AT TOP OF FILL SLOPES



DETAIL B-2
TYPICAL TERRACE DRAIN FOR CUT OR FILL SLOPES

1) TERRACE DRAINS, INTERCEPTOR DRAINS & DOWNDRAINS SHALL BE CONSTRUCTED OF MINIMUM 3" REINFORCED CONCRETE REINFORCED WITH 6 x 6 x 10 x 10 W.W.M. & SHALL BE OF EITHER SEMI-CIRCULAR OR TRIANGULAR CROSS SECTION.
2) FOR INTERCEPTOR DRAIN AT TOP OF CUT SLOPES AND DOWN DRAINS, MINIMUM WIDTH OF 3 FEET.

DETAIL B
NTS

WDID: _____ APN: 594-003-011 / 594-003-012 GP 17-0019

4					
3					
2					
1					
△	DESCRIPTION OF REVISION	RCE	DATE	APP.	DATE

REV. MARCH 2016

DESIGN ENGINEER
LC ENGINEERING GROUP, INC.
CONSULTING ENGINEERS
889 Pierce Court, Suite 101, Thousand Oaks, California 91360
818-991-7148 • 805-497-1244 • • workfiles@lcgroupinc.com

LEONARD LISTON 31902 RCE DATE

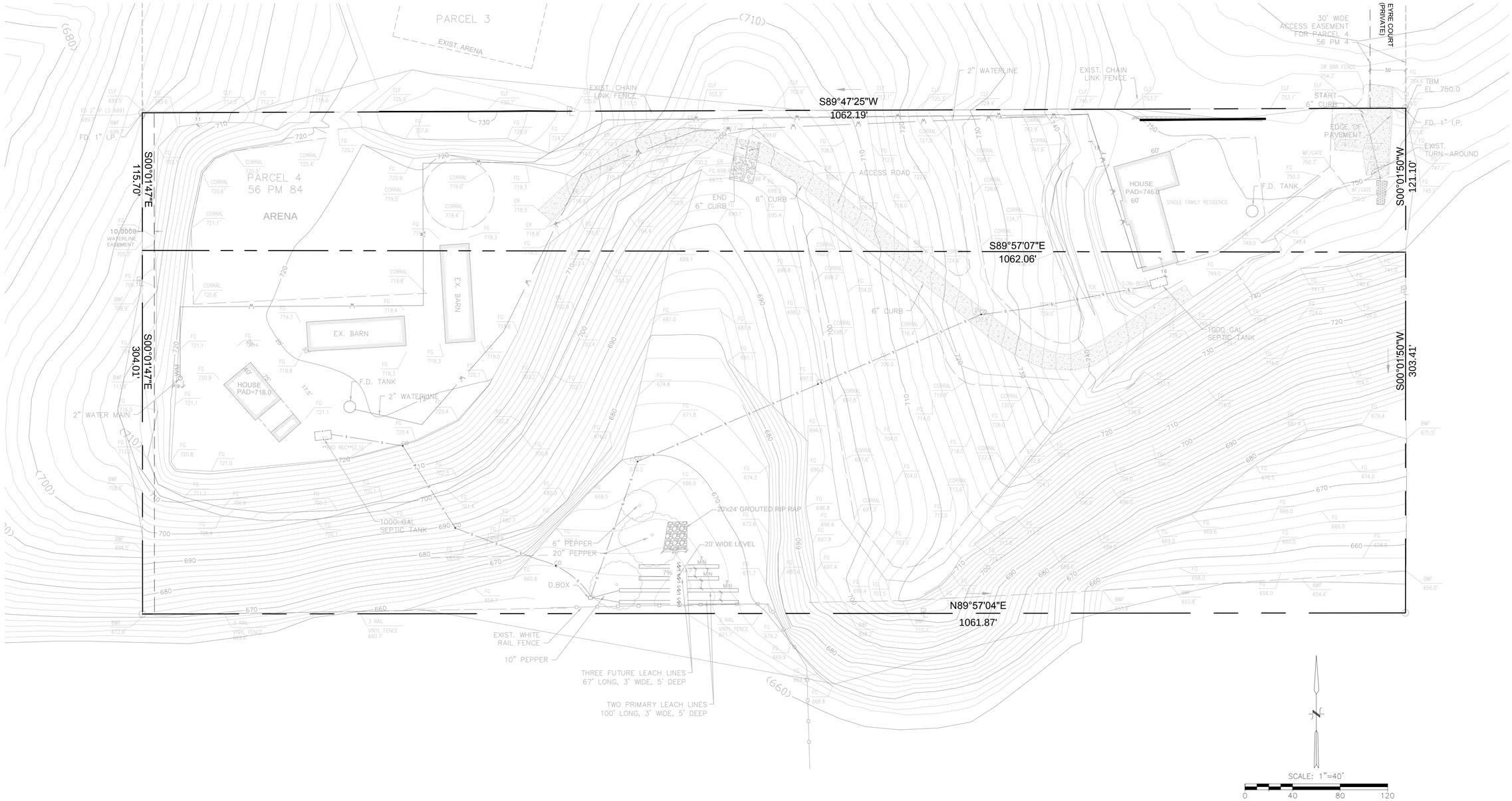
APPROVED: COUNTY OF VENTURA
DATE: _____
BY _____
DEVELOPMENT SERVICES

COUNTY OF VENTURA
PUBLIC WORKS AGENCY
DEVELOPMENT SERVICES

SPEC. NO. _____
PROJ. NO. _____

COVER SHEET
PARCEL 4 56 PM 84
15498 LAPEYRE CT., MOORPARK, CA. 93021

SHEET 1 OF 5
DRAWING NO. _____



REGISTERED PROFESSIONAL ENGINEER
LEONARD I. LISTON
No. 31902
Exp. Dec. 2018
CIVIL
STATE OF CALIFORNIA

WDID: N/A APN: 594-003-011 594-003-012 GP 17-0019

1		31902			
△	DESCRIPTION OF REVISION	RCE	DATE	APP.	DATE

REV. APRIL-2009

DESIGN ENGINEER

LC ENGINEERING GROUP, INC.
CONSULTING ENGINEERS
889 Pierce Court, Suite 103, Thousand Oaks, California 91360
818-991-7148 • 805-497-1244 • fax 805-497-1247 • workflow@lcengroupinc.com

LEONARD LISTON 31902 RCE DATE

APPROVED: COUNTY OF VENTURA

BY _____
MANAGER, DEVELOPMENT SERVICES

DATE: _____

COUNTY OF VENTURA
PUBLIC WORKS AGENCY
DEVELOPMENT SERVICES

SPEC. NO.

PROJ. NO. 7167

TOPOGRAPHIC SURVEY
PARCEL 4 56 PM 84
15498 LAPEYRE CT., MOORPARK, CA. 93021

SHEET 2 OF 5

DRAWING NO.

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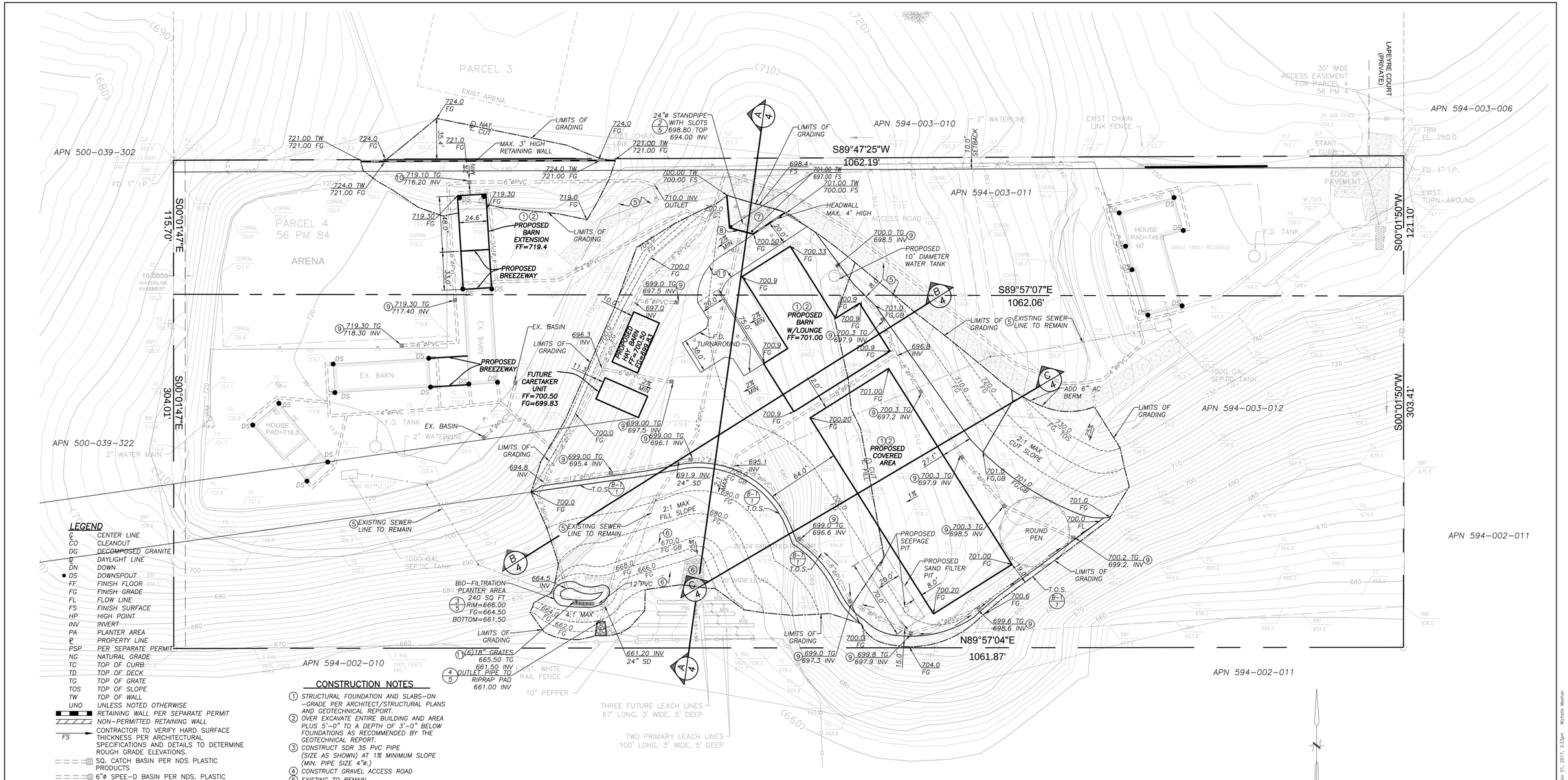


LEGEND

℄	CENTER LINE
CO	CLEANOUT
DG	DECOMPOSED GRANITE
⊘	DAYLIGHT LINE
DN	DOWN
● DS	DOWNSPOUT
FF	FINISH FLOOR
FG	FINISH GRADE
FL	FLOW LINE
FS	FINISH SURFACE
HP	HIGH POINT
INV	INVERT
PA	PLANTER AREA
℗	PROPERTY LINE
PSP	PER SEPARATE PERMIT
NG	NATURAL GRADE
TC	TOP OF CURB
TD	TOP OF DECK
TG	TOP OF GRATE
TOS	TOP OF SLOPE
TW	TOP OF WALL
UNO	UNLESS NOTED OTHERWISE

RETAINING WALL PER SEPARATE PERMIT

NON-PERMITTED RETAINING WALL

FS — CONTRACTOR TO VERIFY HARD SURFACE THICKNESS PER ARCHITECTURAL SPECIFICATIONS AND DETAILS TO DETERMINE ROUGH GRADE ELEVATIONS.

SQ. CATCH BASIN PER NDS PLASTIC PRODUCTS

6"ø SPEE-D BASIN PER NDS. PLASTIC PRODUCTS PART NO. 101, 201, 300. U.N.O.

INDICATES 4"ø PERF. SUBDRAIN

812.2 EXISTING SPOT ELEVATIONS

PADDOCK AND ARENA FENCING

PROPERTY LINE

DAYLIGHT LINE

GRADE BREAK

EASEMENT

S S EXISTING SEWER

W W EXISTING WATER

670.0 FG PROPOSED CONTOURS

710 EXISTING CONTOURS

CONSTRUCTION NOTES

1. STRUCTURAL FOUNDATION AND SLABS-ON-GRADE PER ARCHITECT/STRUCTURAL PLANS AND GEOTECHNICAL REPORT.
2. OVER EXCAVATE ENTIRE BUILDING AND AREA PLUS 5'-0" TO A DEPTH OF 3'-0" BELOW FOUNDATIONS AS RECOMMENDED BY THE GEOTECHNICAL REPORT.
3. CONSTRUCT SDR 35 PVC PIPE (SIZE AS SHOWN) AT 1% MINIMUM SLOPE (MIN. PIPE SIZE 4"ø.)
4. CONSTRUCT GRAVEL ACCESS ROAD
5. EXISTING TO REMAIN.
6. EXISTING TO BE REMOVED.
7. CONSTRUCT 4" THICK CONC. W/ #4 @ 16" O.C.E.W. OVER 4" SAND PER GEOTECHNICAL REPORT.
8. RETAINING WALL, H=4' MAX.
9. 12"x12 SQUARE GALVANIZED STEEL GRATE (PART NO.1215) WITH 12" CATCH BASIN PER NDS CATALOG.
10. 18"x18" SQUARE GALVANIZED STEEL GRATE (PART NO.1815) WITH 18" CATCH BASIN PER NDS CATALOG.
11. FIRE DEPARTMENT ACCESS DRIVEWAY
12. 18"x18" ATRIUM STEEL GRATE (PART NO.1891) WITH 18" CATCH BASIN PER NDS CATALOG.

NOTE TO CONTRACTOR

CONTRACTOR TO VERIFY THE LOCATIONS OF ALL PROPOSED STRUCTURES, ELEVATIONS, AND DIMENSIONS PRIOR TO CONSTRUCTION. CONTRACTOR TO CONTACT PROJECT ENGINEER OF ANY DISCREPANCIES PRIOR TO ANY CONSTRUCTION.

REGISTERED PROFESSIONAL ENGINEER LEONARD T. LISTON No.31902 Exp. Dec. 2018 CIVIL STATE OF CALIFORNIA

UNDERGROUND SERVICE ALERT

CALL BEFORE YOU DIG

CALL TOLL FREE 1-800-227-2600

TWO WORKING DAYS BEFORE YOU DIG

WDID: N/A APN: 594-003-011, 594-003-012 GP 17-0019

1		31902				
△	DESCRIPTION OF REVISION	RCE	DATE	APP.	DATE	

REV. APRIL-2009

DESIGN ENGINEER

LC ENGINEERING GROUP, INC.
CONSULTING ENGINEERS
889 Pierce Court, Suite 101, Thousand Oaks, California 91360
818-991-7148 • 805-497-1244 • leegroup@lcengineering.com • worldfiles@leegroupinc.com

LEONARD LISTON	RCE 31902	DATE

APPROVED: COUNTY OF VENTURA

BY _____ MANAGER, DEVELOPMENT SERVICES

DATE: _____

COUNTY OF VENTURA
PUBLIC WORKS AGENCY
DEVELOPMENT SERVICES

SPEC. NO.

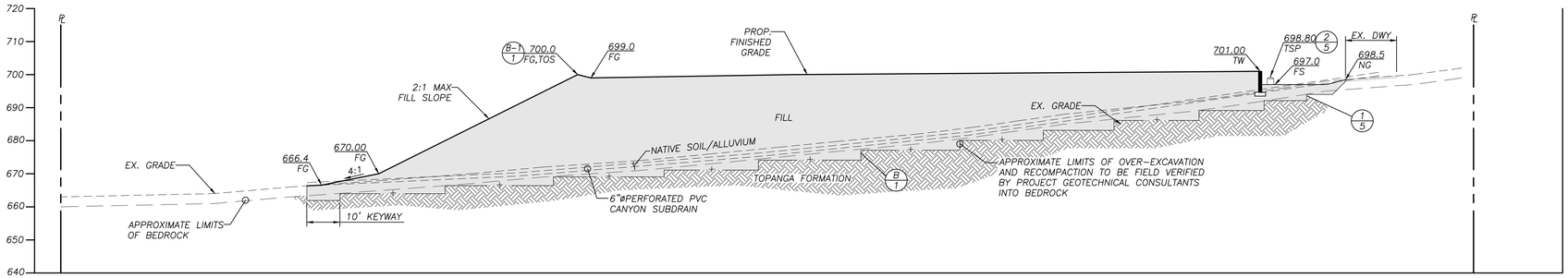
PROJ. NO. 7167

GRADING AND DRAINAGE PLAN
PARCEL 4 56 PM 84
15498 LAPEYRE CT., MOORPARK, CA. 93021

SHEET 3 OF 5

DRAWING NO.

X:\LCE GROUP\Civil\JOBS\7100\7167 Pioneer\CIVIL\DWG\SHT\7167 SHT 3 GP.dwg Nov 01, 2017, 3:33pm Michelle Meehan



SECTION A
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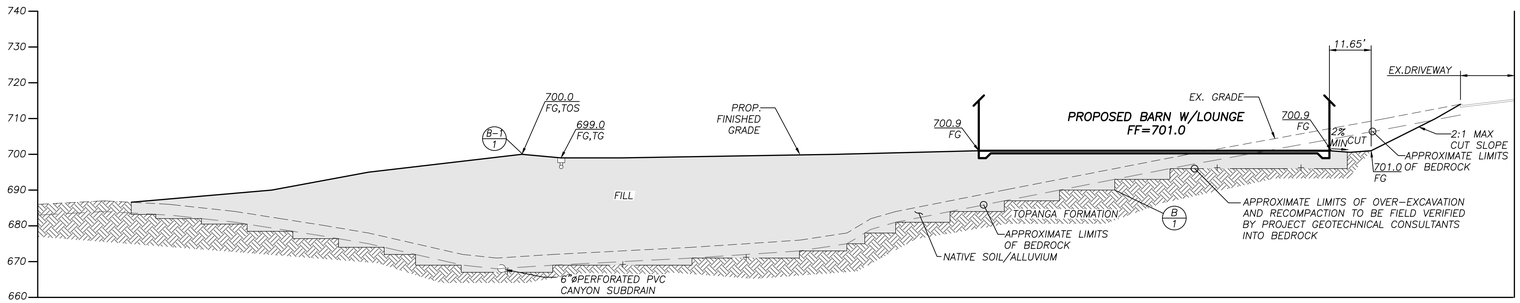
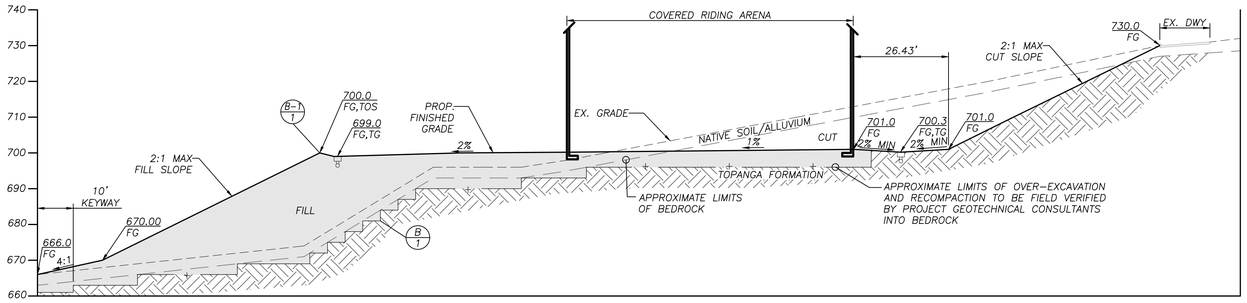


SECTION B
1"=20'



SECTION C
1"=20'

UNDERGROUND SERVICE ALERT

CALL TOLL FREE
1-800-227-2600

TWO WORKING DAYS BEFORE YOU DIG

NOTE TO CONTRACTOR

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REGISTERED PROFESSIONAL ENGINEER
LEONARD I. LISTON
No.31902
Exp. Dec. 2018
CIVIL
STATE OF CALIFORNIA

WDID: N/A APN: 594-003-011 594-003-012 GP 17-0019

1		31902			
△	DESCRIPTION OF REVISION	RCE	DATE	APP.	DATE

REV. APRIL-2009

DESIGN ENGINEER

LC ENGINEERING GROUP, INC.
CONSULTING ENGINEERS
889 Pierce Court, Suite 101, Thousand Oaks, California 91360
818-991-7168 • 805-497-1244 • lcengineering@sbcglobal.net

31902

LEONARD LISTON RCE DATE

APPROVED: COUNTY OF VENTURA

BY _____
MANAGER, DEVELOPMENT SERVICES

DATE: _____

COUNTY OF VENTURA
PUBLIC WORKS AGENCY
DEVELOPMENT SERVICES

SPEC. NO.

PROJ. NO. 7167

CROSS SECTIONS
PARCEL 4 56 PM 84
15498 LAPEYRE CT., MOORPARK, CA. 93021

SHEET 4
OF 5

DRAWING NO.

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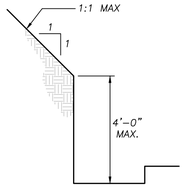

DETAIL NO. 1 TEMPORARY EXCAVATION
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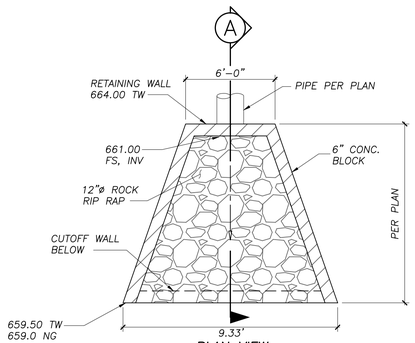

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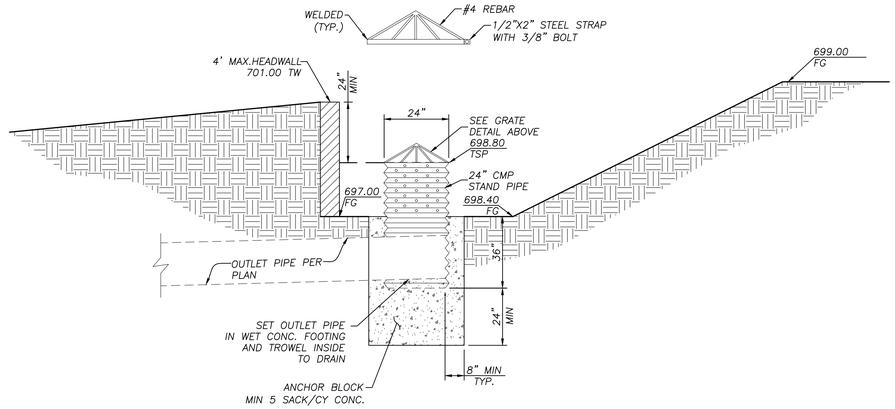

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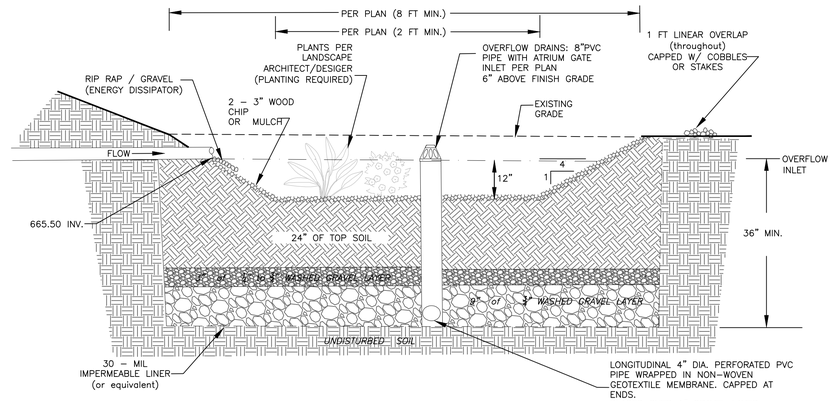
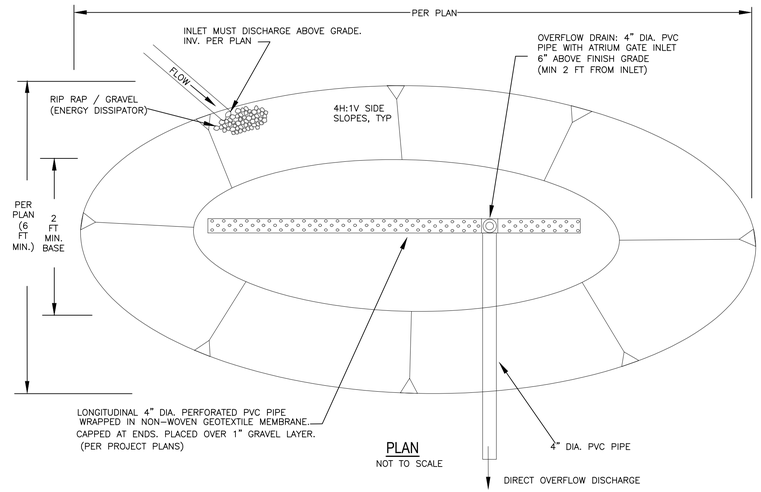


SECTION
NOT TO SCALE



PLAN
NOT TO SCALE

DETAIL NO. 3 BIO-FILTRATION PLANTER AREA
N.T.S.

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CALL BEFORE YOU DIG
CALL TOLL FREE
1-800-227-2600
TWO WORKING DAYS BEFORE YOU DIG

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REGISTERED PROFESSIONAL ENGINEER
LEONARD I. LISTON
No.31902
Exp. Dec. 2018
CIVIL
STATE OF CALIFORNIA

WDID: N/A APN: 594-003-011
594-003-012 GP 17-0019

1		31902			
△	DESCRIPTION OF REVISION	RCE	DATE	APP.	DATE

REV. APRIL-2009

DESIGN ENGINEER
LC ENGINEERING GROUP, INC.
CONSULTING ENGINEERS
889 Pierce Court, Suite 101, Thousand Oaks, California 91360
818-991-7168 • 805-497-1244 • lcengroup@roadrunner.com
31902
LEONARD LISTON RCE DATE

APPROVED: COUNTY OF VENTURA
BY _____
MANAGER, DEVELOPMENT SERVICES
DATE: _____

COUNTY OF VENTURA
PUBLIC WORKS AGENCY
DEVELOPMENT SERVICES

SPEC. NO.
PROJ. NO. 7167

DETAILS
PARCEL 4 56 PM 84
15498 LAPEYRE CT., MOORPARK, CA. 93021

SHEET 5
OF 5
DRAWING NO.

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ATTACHMENT 4

CALWEST GEOTECHNICAL
CONSULTING ENGINEERS

May 29, 2018 Project No. 5740

Charles Pinneo
15498 Lapeyre Court
Moorpark, CA 93021

SUBJECT: **ADDENDUM GEOTECHNICAL ENGINEERING REPORT, RESPONSE TO THE COUNTY OF VENTURA PUBLIC WORKS AGENCY, REVIEW OF GRADING PERMIT: 17-0019- 2nd PLAN CHECK, PROPOSED GRADING AND CONSTRUCTION OF RIDING ARENAS, ROUND PEN, PASTURES AND RELATED EQUESTRIAN IMPROVEMENTS, PINNEO RIDING AREA, APN 500-0-393-370, 15498 LAPEYRE COURT, MOORPARK, COUNTY OF VENTURA, CALIFORNIA.**

REFERENCES: UPDATE GEOTECHNICAL ENGINEERING REPORT AND CHANGE OF GEOTECHNICAL CONSULTANT OF RECORD, PROPOSED GRADING AND CONSTRUCTION OF RIDING ARENAS, ROUND PEN, PASTURES AND RELATED EQUESTRIAN IMPROVEMENTS, PARCEL 4 56 PM 84, APN 500-0-393-370, 15498 LAPEYRE COURT, MOORPARK AREA, COUNTY OF VENTURA, CALIFORNIA, PREPARED BY CALWEST GEOTECHNICAL, PROJECT NO. 5740, DATED MARCH 23, 2017.

GRADING AND DRAINAGE PLAN, PARCEL 4 56 PM 84, APN 500-0-393-370, 15498 LAPEYERE COURT, MOORPARK, CALIFORNIA, PREPARED BY LC ENGINEERING GROUP, INC., PROJECT NO. 7167, DATED MAY 26, 2016.

GEOLOGIC AND SOILS ENGINEERING REPORT FOR PROPOSED BARNS AND WATER TANK, GP9771, 15498 La PEYRE COURT, MOORPARK AREA, COUNTY OF VENTURA, CALIFORNIA, PREPARED BY GOLD COAST GEOSERVICES, INC., FILE NO. GC04-081964, DATED OCTOBER 26, 2006.

ADDENDUM TO OUR GEOLOGIC AND GEOTECHNICAL ENGINEERING REPROT ON COMPLETED ROUGH GRADING FOR PROPSOED SINGLE FAMILY RESIDENCE, GUEST HOUSE, AND ACCESS DRIVEWAY, GP9771, 15498 La PEYRE COURT, MOORPARK AREA, COUNTY OF VENTURA, CALIFORNIA, PREPARED BY GOLD COAST GEOSERVICES, INC., FILE NO. GC04-081964, DATED NOVEMBER 4, 2005.

GEOLOGIC AND GEOTECHNICAL ENGINEEING REPORT ON COMPLETED ROUGH GRADING FOR PROPOSED SINGLE FAMILY RESIDENCE, GUEST HOUSE, AND ACCESS DRIVEWAY, GP9771, 15498 La PEYRE COURT, MOORPARK AREA, COUNTY OF VENTURA, CALIFORNIA, PREPARED BY GOLD COAST GEOSERVICES, INC., FILE NO. GC04-081964, DATED OCTOBER 24, 2005.

RESPONSE TO COUNTY OF VENTURA RESOURCE MANAGEMENT AGENCY, ENVIRONMENTAL HEALTH DIVISION REVIEW FOR PROPOSED SINGLE FAMILY RESIDENCE, GUEST HOUSE, AND CARETAKER'S RESIDENCE, APN 500-0-393-370, 15498 La PEYRE COURT, MOORPARK AREA, COUNTY OF VENTURA, CALIFORNIA, PREPARED BY GOLD COAST GEOSERVICES, INC., FILE NO. GC04-081964, DATED AUGUST 23, 2005.

889 Pierce Court, Suite 101, Thousand Oaks, California 91360 • tel:818-991-7148 • fax:818-991-5942
www.lcegroupinc.com workfiles@lcegroupinc.com

CALWEST GEOTECHNICAL
CONSULTING ENGINEERS

May 29, 2018 Project No. 5740

Charles Pinneo
15498 Lapeyre Court
Moorpark, CA 93021

SUBJECT: **ADDENDUM GEOTECHNICAL ENGINEERING REPORT, RESPONSE TO THE COUNTY OF VENTURA PUBLIC WORKS AGENCY, REVIEW OF GRADING PERMIT: 17-0019- 2nd PLAN CHECK, PROPOSED GRADING AND CONSTRUCTION OF RIDING ARENAS, ROUND PEN, PASTURES AND RELATED EQUESTRIAN IMPROVEMENTS, PINNEO RIDING AREA, APN 500-0-393-370, 15498 LAPEYRE COURT, MOORPARK, COUNTY OF VENTURA, CALIFORNIA.**

REFERENCES: UPDATE GEOTECHNICAL ENGINEERING REPORT AND CHANGE OF GEOTECHNICAL CONSULTANT OF RECORD, PROPOSED GRADING AND CONSTRUCTION OF RIDING ARENAS, ROUND PEN, PASTURES AND RELATED EQUESTRIAN IMPROVEMENTS, PARCEL 4 56 PM 84, APN 500-0-393-370, 15498 LAPEYRE COURT, MOORPARK AREA, COUNTY OF VENTURA, CALIFORNIA, PREPARED BY CALWEST GEOTECHNICAL, PROJECT NO. 5740, DATED MARCH 23, 2017.

GRADING AND DRAINAGE PLAN, PARCEL 4 56 PM 84, APN 500-0-393-370, 15498 LAPEYERE COURT, MOORPARK, CALIFORNIA, PREPARED BY LC ENGINEERING GROUP, INC., PROJECT NO. 7167, DATED MAY 26, 2016.

GEOLOGIC AND SOILS ENGINEERING REPORT FOR PROPOSED BARNS AND WATER TANK, GP9771, 15498 La PEYRE COURT, MOORPARK AREA, COUNTY OF VENTURA, CALIFORNIA, PREPARED BY GOLD COAST GEOSERVICES, INC., FILE NO. GC04-081964, DATED OCTOBER 26, 2006.

ADDENDUM TO OUR GEOLOGIC AND GEOTECHNICAL ENGINEERING REPROT ON COMPLETED ROUGH GRADING FOR PROPSOED SINGLE FAMILY RESIDENCE, GUEST HOUSE, AND ACCESS DRIVEWAY, GP9771, 15498 La PEYRE COURT, MOORPARK AREA, COUNTY OF VENTURA, CALIFORNIA, PREPARED BY GOLD COAST GEOSERVICES, INC., FILE NO. GC04-081964, DATED NOVEMBER 4, 2005.

GEOLOGIC AND GEOTECHNICAL ENGINEEING REPORT ON COMPLETED ROUGH GRADING FOR PROPOSED SINGLE FAMILY RESIDENCE, GUEST HOUSE, AND ACCESS DRIVEWAY, GP9771, 15498 La PEYRE COURT, MOORPARK AREA, COUNTY OF VENTURA, CALIFORNIA, PREPARED BY GOLD COAST GEOSERVICES, INC., FILE NO. GC04-081964, DATED OCTOBER 24, 2005.

RESPONSE TO COUNTY OF VENTURA RESOURCE MANAGEMENT AGENCY, ENVIRONMENTAL HEALTH DIVISION REVIEW FOR PROPOSED SINGLE FAMILY RESIDENCE, GUEST HOUSE, AND CARETAKER'S RESIDENCE, APN 500-0-393-370, 15498 La PEYRE COURT, MOORPARK AREA, COUNTY OF VENTURA, CALIFORNIA, PREPARED BY GOLD COAST GEOSERVICES, INC., FILE NO. GC04-081964, DATED AUGUST 23, 2005.

UPDATED GEOLOGIC/GEOTECHNICAL ENGINEERING REPORT AND GRADING PLAN REVIEW, PROPOSED SINGLE FAMILY RESIDENCE, GUEST HOUSE, CARETAKER'S RESIDENCE, BARN, ARENA, AND ACCESS DRIVEWAYS, PARCEL 4, PARCEL MAP NO. 4878, La PEYERE COURT, TIERRA REJADA VALLEY, MOORPARK AREA, COUNTY OF VENTURA, CALIFORNIA, PREPARE B GOLD COAST GEOSERVICES, FILE NO. GC04-0811964, DATED SEPTEMBER 27, 2004.

ADDITIONAL REFERENCES ARE LISTED IN THE ABOVE REFERENCED REPORTS.

Introduction

This Addendum Geotechnical Engineering Report has been prepared at your request and is in response to the County of Ventura Public Works Agency Review of Grading Permit:17-0019 – 2ND Plan check, Pinneo Riding area, APN 500-0-393-370, 15498 Lapeyre Court, Moorpark, California, dated May 4, 2018, included in Appendix A. The Review Sheet requests additional information and/or clarification to one Geotechnical/Geologic Review Comment, prior to approval. For convenience to the reviewer, the review item is restated, followed immediately by our response.

1. **Geotechnical/Geological Review:**

   The submitted plan by LC Engineering group indicates about 15,000 yards of import to the project, but does not provide any characteristics for the import or processing recommendations. Please provide.

Response: Based on our consultation with the client and the project civil engineer, LC Engineering Group, Inc, approximately 15,000 cubic yard of import soil will be required to complete the proposed grading for the equestrian improvements at the subject site. All import sources and material should be approved by a representative of this office prior to transport to the site. The import material should be comparable to the onsite native soil and alluvium with a low to moderate expansive potential. The import should not include highly expansive soil. Lastly, all import material should be tested and approved in our laboratory prior to transport to the site.

SITE PREPARATION AND GRADING

All grading operations should be performed in compliance with all applicable grading codes and the minimum specifications outlined below. Observation and testing will be necessary during these phases of the project to allow CalWest Geotechnical to provide certification of the finished project.

Site Preparation and Excavation

A. Any trees or shrubs designated for removal should be cut down and all stumps and roots should be removed. All major vegetation, organic soil and debris material should be stripped and wasted from the site.

B. The exposed surface should be scarified to a minimum depth of six (6) inches, moisture conditioned to produce a soil-water content of about two (2) percent above optimum moisture content and compacted to a minimum 90 percent relative compaction, based on ASTM Test D1557.

Placement

A. Soil material to be placed as certified compacted fill may be placed to design grades using onsite inorganic soils or approved import. All fill placed on sloping ground (greater than 5:1 H:V) should be keyed and benched as described below under "Keyways, Benching, and Subdrains".

B. Soil proposed for use as structural fill should be inorganic, free from deleterious materials, and contain no more than 15 percent by weight of rocks larger than four (4) inches (largest dimension).

C. Rocks larger than six (6) inches should not be placed in the upper ten (10) feet of any certified compacted fill.

D. Where in-place moisture content exceeds optimum values, the materials may need to be spread and dried, or mixed with dryer material. Final determination will be provided in the field by the project geotechnical consultants at the time the excavations take place.

E. Soil material containing excessive organic debris will not be suitable for use in the certified compacted fill. Materials deemed unsuitable should be wasted offsite or as designated by the project architect or geotechnical consultant.

F. The approved material should be placed in layers, each not exceeding eight (8) inches in thickness (before compaction), water conditions to about two percent above optimum moisture content and compacted to a minimum 90 percent relative compaction based on ASTM Test D1557.

G. Fill compaction tests should be performed during placement of the future fills to verify acceptable compaction and moisture content. At a minimum, one test should be performed within each 12 to 24 inches (vertical depth) or 500 cubic yards of fill (whichever is less). More frequent testing may be required by the geotechnical consultant.

H. Graded cut slopes and fill slopes should be constructed at a maximum gradient of 2:1 (H:V). Fill slopes should be constructed by overfilling and cutting back to the compacted core.

I. If construction takes place during the winter months or unseasonable rainy periods, additional winterizing and erosion-control recommendations may be necessary.

Keys, Benching, and Subdrains

A. All fill placed on slopes exceeding a 5:1 (H:V) gradient should be provided with a keyway at the toe of the slope. The keyway should have a minimum width of 10 feet and extend below the surficial soil to expose a minimum of two (2) feet of dense alluvial deposits or site bedrock on the downhill side of the key. The bottom of the key should be inclined into the slope at a minimum gradient of two (2) percent.

B. Fill placed above the level of the keyway should be placed above horizontal benches excavated into site bedrock. Benches should be a minimum width of four (4) feet. A minimum 12" of site bedrock material must be visible above the fill level at all times.

C. Subdrains should be placed below all canyon fills and in all fill slope keyways. Subdrains should consist perforated SDR-35 PVC pipe placed with the perforations downward in a blanket of ¾-inch durable aggregate such that the subdrain pipe is surrounded by a minimum 12 inches of gravel on all sides. The gravel blanket should be wrapped with a geosynthetic filter such as Mirafi 140 or suitable equivalent. Fabric joints should be overlapped a minimum of three (3) feet. Minimum specifications for pipe diameter, aggregate volume and fabric width are provided as follows:

Run Length (ft)	Pipe Diameter (in)	Aggregate Volume (ft)	Fabric Width (ft)
0 – 200	4"	4.5	10.5'
200 – 400	6"	5.0	11.0'
400 – 600	8"	5.6	11.5'

The project geotechnical consultant should observe and approve all subdrain installations prior to placing compacted fill.

Summary and Conclusions

Cal West Geotechnical has prepared this Addendum Geotechnical Report in response to the subject County of Ventura Public Works Agency, review of Grading Permit- 17-0019- 2nd Plan check, dated May 4, 2018, included in Appendix A.

Based on our response provided herein, and the geotechnical data/ recommendations presented in this and our referenced reports, it continues to be the opinion of this office the proposed grading and construction of riding arenas, round pen, pastures and related equestrian improvements is considered

feasible from a geotechnical engineering point of view, providing our recommendations are made part of the final design plans and implemented during construction.

Limitations and Uniformity of Conditions

This report is prepared for use by Charles Pinneo and his authorized agents and should not be considered transferable. Prior to use by others, the subject site and this report should be reviewed by Cal West Geotechnical to determine if any additional work is required to update this report.

The findings presented in this report are valid as of this date and may be invalidated wholly or partially by changes outside our control. Therefore, this report should be subject to review and should not be relied upon after a period of one year or if any significant changes are made.

The professional opinions and geotechnical advice contained in this report are not intended to imply total performance of the project or guarantee that unusual conditions will not be discovered during or after construction.

This report has been prepared in accordance with generally accepted engineering practices and makes no warranties, either expressed or implied, as to the professional opinions provided in this report.

Should you have any questions, please don't hesitate to call.

Respectfully submitted,

Leonard Liston
President
RCE 31902

Eli Katibah
Staff Engineer

Enc: Appendix A - County of Ventura Public Works Agency, Review letter, dated October May 4, 2018.

cc: LC Engineering Group Inc.

APPENDIX A

county of ventura

PUBLIC WORKS
VENTURA COUNTY

JEFF PRATT
Agency Director

Central Services Department
J. Tabin Costo, Director

Engineering Services Department
Christopher Cooper, Director

Transportation Department
David Fleisch, Director

Water & Sanitation Department
Michaela Brown, Director

Watershed Protection District
Glenn Shephard, Director

May 4, 2018

LC Engineering Group
889 Pierce Court, Suite 101
Thousand Oaks, California 91360

Subject: Grading Permit: 17-0019 – 2nd Plancheck
Pinneo, Riding Area, etc. [15498 Lapeyre Court, Moorpark
APN: 500-0-393-370

Reference: 1. Calwest Geotechnical, March 23, 2017, Update Geotechnical Engineering Report and Change of Consultant of Record, Proposed Grading and Construction of Riding Arenas, Round Pen, Pastures and Related Equestrian Improvements, Parcel 4 56 PM 84, APN 500-0-393-270, 15498 Lapeyre Court, Moorpark Area, County of Ventura.

The second submittal was accepted by the County on April 3, 2018. The grading plans had significant changes to the design of the plan and most noticeably the project requires 15,000 cubic yards of imported earth material and will be placed on average slope gradient of 27 percent.

COMMENTS:

Due to the proposed project exceeding excavation or fill of 10,000 cubic yard coupled with the existing average natural slope within the area to be graded exceeding 10% (VCBC §J103.3), the project appears subject to a discretionary grading permit. Unless the proposed project's excavation or fill can be reduced to less than an 10,000 cubic yards or it can be demonstrated that the average natural slope of existing area to be graded is less than 10% the project will require a discretionary grading permit.

Due to the location of the project relative to *archaeological* records (Section 1.8 of the Ventura County General Plan Resource Appendix 2011 edition) on file with the Resource Management Agency, the project is also subject to a discretionary grading permit. You will need to provide *"Phase 1 Archaeological Survey"* for the area prepared by a qualified Archaeologist. Otherwise, this item maybe presented with the discretionary grading permit.

Due to the amount of imported earth material, the grading code only permits up to 10 trucks per day with a ministerial permit, however, prior to submitting the discretionary permit application you should determine how trucks per day the project requires and provide that information in the project description.

DISCRETIONARY GRADING PERMIT PROCESS

A discretionary grading permit application requires approval from a decision by the building official with consideration of an environmental review for potential impacts and a public hearing.

A discretionary grading permit application would be distributed to other County agencies (Watershed Protection District, Environmental Health, Air Pollution Control District, Fire District, Sheriff, General Services, Etc.) for input and special considerations.

All discretionary permit applications are subject to the California Environmental Quality Act (CEQA) and reviewed to determine whether they are exempt from environmental review or require a Negative Declaration or Environmental Impact Report (EIR). If a Negative Declaration or EIR is required, State law requires a certain amount of public review for the document.

Once an application has been deemed complete, State Law requires that a decision be made within either 6 months or 1 year depending on the type of environmental document prepared for the project. In Ventura County, most discretionary grading permit applications can take 5-8 months to process from the date the application is deemed complete.

The time and costs associated with processing a discretionary grading permit varies widely depending on the type and the complexity of the project. Estimates of processing time and costs have been identified and based on historic data; a initial deposit of $6485.00 would be required to initiate the processing of the discretionary grading permit. The deposit is only an initial estimate used to cover the actual cost of permit processing. After the deposit is exhausted, a monthly bill is sent to the applicant requesting payment for staff time spent on the project. In addition, separate fees may be charged by other County agencies (e.g., Environmental Health, Public Works Agency, etc.) for their review and processing.

The project may also require a Conditional Use Permit from Planning and it would be best to combine the discretionary grading into the Conditional Use permit with Planning. Please check with Planning Department and provide a zoning clearance number.

Geotechnical/Geological Review:

The Geotechnical Report has been reviewed and the following comments are provided:

The submitted plan by LC Engineering group indicates about 15, 000 yards of import to the project, but does not provide any characteristics for the import or processing recommendations. Please provide.

Grading & Drainage Review:

A complete submittal is required to continue the plancheck process. Please provide all the items missing from the grading permit submittal. The following are the items missing or incomplete from the submittal:

- Address all ✓(checked) items as identified on DS-Form 5.
- Address and/or respond to all redline comments on the plan.
- The grading plans cannot be approved until documentation form Planning regarding the necessity for a Conditional Use Permit or Zoning Clearance (if not) has been provided. Conditions in the approval in a future land use permit may require additional requirements for the grading plan.
- Provide a drainage study or hydrology report. The requirements of *J105.2.2 – Engineered Grading Requirements* are applicable and the hydrology report submitted must demonstrate that the proposed site drainage design will either retain or detain the difference from predevelopment to post development conditions for several storm frequencies (report is missing some). Please use the Hydrology Manual, **Section *6.15.1 100-Year Undeveloped Condition Peak Mitigation*** for the mitigation calculations. The pre and post development subareas should be identical in the analysis.

Storm Water Quality:

Please respond to the Stormwater/Water Quality Plancheck Review Memo, dated April 30, 2018.

Please respond to the plan check reviews. A response to comments may be added directly to the Grading Plan Checklist and/or the marked up. The revised plans should be submitted along with the marked up plans and checklist. When new information is provided after a plan check review due to corrections or otherwise, additional plan review time may be necessary upon resubmittal. Review of new information may result in additional comments and require corrections.

Any forms missing from the submittal can be downloaded from the PWA Development & Inspection Services website at *http://vcpublicworks.org/dis*.

To ensure that the plancheck is performed in an expedited manner, please return all of the enclosed materials and provide responses to all comments. If the plan preparer feels a comment is not applicable, please state so and provide justification.

If you have, any further questions please feel free to contact me at (805) 654-2034. For any questions related to the Stormwater Quality Review, contact David Kirby at (805) 662-6737.

Sincerely,

James OTousa | Engineering Manager II
Public Works Agency | Engineering Services Dept.
Development & Inspection Services
Jim.OTousa@ventura.org
(805) 654-2034

Encl: Grading Plans with redline comments (1 Set)
Grading Plan Checklist (DS-35)
County Stormwater Program Section – 1st Plan Review.

CALWEST GEOTECHNICAL
CONSULTING ENGINEERS

March 23, 2017 Project No. 5740

Charles Pinneo
15498 Lapeyre Court
Moorpark, CA 93021

SUBJECT: **UPDATE GEOTECHNICAL ENGINEERING REPORT AND CHANGE OF GEOTECHNICAL CONSULTANT OF RECORD, PROPOSED GRADING AND CONSTRUCTION OF RIDING ARENAS, ROUND PEN, PASTURES AND RELATED EQUESTRIAN IMPROVEMENTS, PARCEL 4 56 PM 84, APN 500-0-393-370, 15498 LAPEYRE COURT, MOORPARK AREA, COUNTY OF VENTURA, CALIFORNIA.**

REFERENCES: GRADING AND DRAINAGE PLAN, PARCEL 4 56 PM 84, APN 500-0-393-370, 15498 LAPEYERE COURT, MOORPARK, CALIFORNIA, PREPARED BY LC ENGINEERING GROUP, INC., PROJECT NO. 7167, DATED MAY 26, 2016.

GEOLOGIC AND SOILS ENGINEERING REPORT FOR PROPOSED BARNS AND WATER TANK, GP9771, 15498 La PEYRE COURT, MOORPARK AREA, COUNTY OF VENTURA, CALIFORNIA, PREPARED BY GOLD COAST GEOSERVICES, INC., FILE NO. GC04-081964, DATED OCTOBER 26, 2006.

ADDENDUM TO OUR GEOLOGIC AND GEOTECHNICAL ENGINEERING REPROT ON COMPLETED ROUGH GRADING FOR PROPSOED SINGLE FAMILY RESIDENCE, GUEST HOUSE, AND ACCESS DRIVEWAY, GP9771, 15498 La PEYRE COURT, MOORPARK AREA, COUNTY OF VENTURA, CALIFORNIA, PREPARED BY GOLD COAST GEOSERVICES, INC., FILE NO. GC04-081964, DATED NOVEMBER 4, 2005.

GEOLOGIC AND GEOTECHNICAL ENGINEEING REPORT ON COMPLETED ROUGH GRADING FOR PROPOSED SINGLE FAMILY RESIDENCE, GUEST HOUSE, AND ACCESS DRIVEWAY, GP9771, 15498 La PEYRE COURT, MOORPARK AREA, COUNTY OF VENTURA, CALIFORNIA, PREPARED BY GOLD COAST GEOSERVICES, INC., FILE NO. GC04-081964, DATED OCTOBER 24, 2005.

RESPONSE TO COUNTY OF VENTURA RESOURCE MANAGEMENT AGENCY, ENVIRONMENTAL HEALTH DIVISION REVIEW FOR PROPOSED SINGLE FAMILY RESIDENCE, GUEST HOUSE, AND CARETAKER'S RESIDENCE, APN 500-0-393-370, 15498 La PEYRE COURT, MOORPARK AREA, COUNTY OF VENTURA, CALIFORNIA, PREPARED BY GOLD COAST GEOSERVICES, INC., FILE NO. GC04-081964, DATED AUGUST 23, 2005.

UPDATED GEOLOGIC/GEOTECHNICAL ENGINEERING REPORT AND GRADING PLAN REVIEW, PROPOSED SINGLE FAMILY RESIDENCE, GUEST HOUSE, CARETAKER'S RESIDENCE, BARN, ARENA, AND ACCESS DRIVEWAYS, PARCEL 4, PARCEL MAP NO. 4878, La PEYERE COURT, TIERRA REJADA VALLEY, MOORPARK AREA, COUNTY OF VENTURA, CALIFORNIA, PREPARE B GOLD COAST GEOSERVICES, FILE NO. GC04-0811964, DATED SEPTEMBER 27, 2004.

INTRODUCTION

This Update Geotechnical Engineering Report and Change of Geotechnical Consultant of Record presents the results of our geotechnical engineering review and evaluation performed for the proposed grading and construction of riding arenas, round pen, pastures and related equestrian improvements at 15498 La Peyre Court, Moorpark area, County of Ventura, California. The Location Map in Appendix A shows the approximate location of the subject site and surrounding vicinity. The following report describes our scope of work and presents our professional opinions regarding the proposed improvements, in the form of findings, conclusions and geotechnical recommendations.

This Update Geotechnical Engineering Report is based on information contained in the referenced reports prepared by Gold Coast Geoservices, Inc., review of the Grading and Drainage Plan, prepared by LC Engineering Group, Inc., and a recent site reconnaissance by a representative of this office. The site reconnaissance was performed to visually evaluate changes in the surface condition of the subject site subsequent to the preparation of the referenced reports.

SCOPE OF WORK

Our geotechnical review and evaluation has been directed at identification and evaluation of geotechnical conditions at the subject site that may impact the proposed improvements. Our review and evaluation was conducted during January through March 2017 and included, but may not be limited to the following tasks:

- Consultation with the client and project civil engineer, LC Engineering Group Inc., during the site reconnaissance and preparation of this report.
- Review of the referenced reports, County correspondence, and the current site Grading and Drainage Plan.
- Reviewed published geotechnical information, relevant to the site and surrounding areas, available in our files.
- Review of pertinent records on file at the County of Ventura Department of Public Works.
- Performed a site reconnaissance to assess surficial conditions at the subject site.
- Preparation of a Geotechnical Map and Cross-sections, utilizing as a basis, the Grading and Drainage Plan prepared by LC Engineering Group, Inc. The Geotechnical Map and Cross-sections are included in Appendix C. We make no representations regarding the accuracy of the supplied Grading and Drainage Plan.
- Review and geotechnical engineering analysis of the available geotechnical data.

- Preparation of this formal report presenting our professional opinions regarding the proposed improvements, in the form of findings, conclusions and geotechnical recommendations.

PROPOSED IMPROVEMENTS

Information concerning the proposed improvements was provided by the client and project civil engineer, LC Engineering Group, Inc. It is our understanding the proposed improvements will consist of grading and construction of riding arenas, round pen, pastures, drainage devices, and related equestrian improvements at the subject site.

Grading associated with the proposed improvements will include the removal and recompaction of the near surface soils to a certified fill condition, in order to provide for a uniform subgrade in the area of the proposed improvements. Cut and fill graded slopes are proposed at a maximum gradient of 2:1(H:V). Grading will also include fine grading to provide for proper site drainage. Grading devices also include the installation of a 24" stand pipe and associated head wall at the north end of the site to collect and transfer drainage to a suitable location. Specific grading recommendations are presented in later sections of this report. The Geotechnical Map and Cross-sections included in Appendix C delineate the topographic conditions and approximate locations of the proposed site improvements.

SITE DESCRIPTION

The subject site consists of an approximate ten acre parcel located in the Tierra Rejada Valley, Moorpark area, County of Ventura, California. The subject site is bound by Tierra Rejada Road to the north, La Peyre Road to the east and open space to the south and southwest, with agricultural and equestrian land use within the subject site and surrounding properties. The subject site also contains an existing residence at the northeast portion of the site and a guest house, barns and riding horse arena at the northwestern portion of the site with access driveways. The northeastern and northwestern portion of the site is relatively level with surface drainage directed to the south. A north to south trending ravine crosses the central portion of the subject site. The east side of the ravine consists of ascending slopes ranging in gradient from 4:1 (H:V) to 2.5:1 (H:V) for an overall height of approximately 22 feet. The west side of the ravine consists of ascending slopes raging in gradient from 4:1 (H:V) to 3:1 (H:V) for an overall height of approximately 30 feet.

It is proposed to fill in the existing ravine with certified compacted fill with a graded fill slope at an approximate gradient 2:1 (H:V) along the southern portion of the site and a level pad area at the north portion. The grading will be performed from an approximate lowest elevation at the bottom of the ravine of 673 feet to the proposed finish grade elevation at the pad area of approximately of 700 feet. The existing and proposed topographic conditions of the subject site are presented on the Geotechnical Map and Cross-sections included Appendix C.

PREVIOUS GEOTECHNICAL STUDIES

Based on our research, the subject site was previously investigated by Gold Coast Geoservices, Inc., circa 2004-2006 for the previously proposed single family residence, guest house, caretaker's residence, barn, arena, and access driveways. Their investigation included in part, the excavation logging and sampling of fifteen (15) exploratory backhoe trenches.

Gold Coast Geoservices, Inc., concluded that the subject site was suitable for the proposed project provided their recommendations were implemented during design and construction. Detailed findings, conclusions and recommendations of their investigations are presented in the referenced reports on file at the County of Ventura Department of Public Works.

Gold Coast Geoservices, Inc., prepared a Geologic and Geotechnical Engineering Report on Completed Rough Grading for the single family residence, guest house, and associated access driveway, dated October 24, 2005. The referenced report indicates the building pads for the residences and access driveway were prepared via conventional cut and fill grading procedures. The proposed residence and guest house were each provided with a minimum of five (5) feet thick compacted fill blanket. The compacted fill extended a minimum of five (5) feet beyond the building footprint. A copy of the Rough Grade Compaction Map included in the referenced report prepared by Gold Coast Geoservices, Inc., delineating the limits of the certified compacted fill is included in Appendix C. Detailed findings, conclusions and recommendations are presented in the referenced report, dated October 24, 2005 on file at the County of Ventura Department of Public Works.

CalWest Geotechnical has reviewed the referenced reports prepared by Gold Coast Geoservices, Inc., and accepts responsibility as geotechnical consultant of record for the current proposed improvements.

SUBSURFACE CONDITIONS

Subsurface conditions beneath the subject site have been interpreted and characterized based on the subsurface investigation performed at the subject site by Gold Coast Geoservices, Inc. As previously mentioned, the subsurface exploration included fifteen (15) exploratory backhoe trenches within the subject site. Gold Coast Geoservices, Inc., observed during their subsurface exploration includes soil and alluvium deposits over sandstone and Conejo Volcanic bedrock.

The descriptions provided below pertain only to subsurface conditions revealed at the time of their field exploration in 2004-2006. Certain subsurface conditions, such as groundwater levels and the consistency of near-surface soils may vary with the seasons.
The logs of the exploratory backhoe trenches prepared by Gold Coast Geoservices, Inc., are included in Appendix B.

SEISMIC CONSIDERATIONS

The subject site, as all of the Southern California area, is located in a seismically active region and will be subject to moderate to strong ground shaking should any of the active Southern California faults produce an earthquake. Potential hazards from earthquakes in the vicinity of the site, aside from strong ground shaking, may include fault rupture, landslides, liquefaction, and seismically induced settlement.

California Building Code 2016 Seismic Parameters

Section 1613 of the California Building Code 2016 provides load specifications for seismic design and related parameters for every structure, including non-structural components that are permanently attached to the structure. CBC 2016 seismic load design parameters are shown in tabulated format below:

Table 1. CBC 2016 SEISMIC DESIGN PARAMETERS

Parameter	Value	Reference
Site Latitude	34.2642^0	-
Site Longitude	-118.8383^0	-
Short term mapped acceleration parameter (0.2 second)	$S_S = 2.423$g	USGS
Long term mapped acceleration parameter (1-second)	$S_1 = 0.864$g	USGS

Parameter	Value	Reference
Site Classification	B	ASCE 7 Table 20.3-1
Site Coefficient value (short term)	Fa = 1.0	CBC 2016 Table 1613.3.3.(1)
Site Coefficient value (long term)	Fv = 1.0	CBC 2016 Table 1613.3.3.(2)
Adjusted maximum considered earthquake spectral response acceleration parameter (short term)	S_{MS} = 2.423g	Eq. 16-37 CBC 2016
Adjusted maximum considered earthquake spectral response acceleration parameter (long term)	S_{M1} = 0.864g	Eq. 16-38 CBC 2016
Design spectral response acceleration parameter (short term)	S_{DS}=1.616g	Eq. 16-39 CBC 2016
Design spectral response acceleration parameter (long term)	S_{D1}=0.575g	Eq. 16-40 CBC 2016

Faulting and Fault Rupture

A fault is a discontinuity in the lithology of earth's crust. Occasionally, faults are sources of earthquakes due to movement along the defined fault plane resulting in sudden release of energy. Sites near seismically active faults can experience vigorous shaking due to sudden release of seismic energy. Fault movement can also propagate to the surface, resulting in fault surface rupture.

The subject property is not located within a State-designated Earthquake Fault Zone and no known potentially active or potentially active faults cross the site. Adverse effect due to fault surface rupture is considered to be low to nil for the proposed development. Surface manifestations of any fault rupture are unlikely to impact future development.

SLOPE STABILITY

Slope stability analyses were not prepared as part of this report; since, as previously stated, the area of the proposed improvements is practically level to gently sloping terrain at an approximate gradient of 4:1 (H:V) to 3:1 (H:V). Accordingly, the subject site is considered to be grossly stable from a geotechnical point of view.

FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

CalWest Geotechnical has prepared this Update Geotechnical Engineering Report and Change of Geotechnical Consultant for the proposed grading and construction of riding arenas, round pen, pastures, drainage devices, and related equestrian improvements at 15498 La Peyre Court, Moorpark area, County of Ventura, California. Based upon our geotechnical engineering review and evaluation, as presented in this report, it is the opinion of CalWest Geotechnical the proposed improvements are considered feasible from a geotechnical engineering standpoint, provided our recommendations are made part of the development plans and are implemented during construction.

As previously stated, the proposed improvements will consist of grading and construction of riding arenas, round pen, pastures, drainage devices, and related equestrian improvements at the subject site.

Grading associated with the proposed improvements will include the removal and recompaction of the near surface soils to a certified fill condition, in order to provide for a uniform subgrade in the area of the proposed of riding arenas, round pen, pastures and related equestrian improvements. Cut and fill graded slopes are proposed at a maximum gradient of 2:1(H:V). Grading will also include fine grading to provide for proper site drainage. Grading devices also include the installation of a 24" stand pipe and associated head wall at the north end of the site to collect and transfer drainage to a suitable location. Specific grading recommendations are presented in later sections of this report. The Geotechnical Map and Cross-sections included in Appendix C delineate the topographic conditions and approximate locations of the proposed site improvements.

The recommendations which follow are presented as guidelines to be utilized during the design and construction of the proposed project, and have been prepared with the understanding that CalWest Geotechnical will be given the opportunity to review the improvement plans prior to construction, and will observe, test and advise during site grading and foundation construction to allow this office to provide certification of the finished project. Prior to construction, it is recommended that a meeting be held with the project engineering consultants, owner and general contractor to review the plans and specifications, and to discuss scheduling of the project.

SITE PREPARATION, GRADING, COMPACTION AND UTILITY TRENCH BACKFILL

All grading operations should be performed in compliance with all applicable grading codes and the minimum specifications outlined below. Observation and testing will be necessary during these phases of the project to allow CalWest Geotechnical to provide certification of the finished project.

Site Preparation and Excavation

A. Any trees or shrubs designated for removal should be cut down and all stumps and roots should be removed. All major vegetation, organic soil and debris material should be stripped and wasted from the site.

B. All abandoned utility lines designated for removal should be excavated and removed from the site. Unreinforced concrete irrigation lines may be crushed to a size acceptable to the geotechnical consultants and distributed in the future compacted fill. Abandoned cesspools and seepage pits encountered during grading should be excavated under the observation of a representative of this office and backfilled with pea gravel, or where possible, with certified compacted fill.

C. All artificial fill and near surface soils, and any upper alluvium, located in areas to be constructed upon with paving or in areas to receive certified compacted fill, should be excavated to a minimum depth below to expose the dense natural alluvium or site bedrock. The approximate horizontal and vertical extent of these excavations should be verified by the project geotechnical consultants in the field.

D. The soil surface exposed by stripping and excavation activities should be scarified to a minimum depth of eight inches, moisture conditioned to produce a soil-water content of about two percent above optimum moisture content and compacted to a minimum 90 percent relative compaction, based on ASTM Test D1557.

E. For preliminary planning purposes, the following earth quantities may be implemented. Soil shrinkage is estimated on the order of 10 to 15 percent due to excavation and recompaction during the grading operation at the subject site. The volume change does not include an allowance for vegetation or organic stripping, removal of subsurface improvements or topographic anomalies.

F. The exposed surface should be scarified to a minimum depth of six (6) inches, moisture conditioned to produce a soil-water content of about two (2) percent above optimum moisture content and compacted to a minimum 90 percent relative compaction, based on ASTM Test D1557.

Placement

A. At the completion of scarification, certified compacted fill may be placed to design grades using onsite inorganic soils or approved import. All fill placed on sloping ground (greater than 5:1 H:V) should be keyed and benched as described below under "Keyways, Benching, and Subdrains".

B. Soil proposed for use as structural fill should be inorganic, free from deleterious materials, and contain no more than 15 percent by weight of rocks larger than four (4) inches (largest dimension).

C. We do not anticipate significant quantities of oversized materials; however, if excavations within well-cemented bedrock units produce irreducible rock that exceeds a maximum dimension of 12 inches, it should not be placed in certified compacted fill without specific geotechnical approval of the material, the disposal location and the disposal method. All disposal areas for oversized materials should be mapped by the project geotechnical consultant and indicated on the final as-built geotechnical map.

D. Rocks larger than six (6) inches should not be placed in the upper ten (10) feet of any certified compacted fill.

E. We expect that materials excavated onsite will be suitable for use as certified compacted fill provided they do not contain appreciable quantities of organic debris.

F. Where in-place moisture content exceeds optimum values, the materials may need to be spread and dried, or mixed with dryer material. Final determination will be provided in the field by the project geotechnical consultants at the time the excavations take place.

G. Excavated material containing excessive organic debris will not be suitable for use in the certified compacted fill. Materials deemed unsuitable should be wasted offsite or as designated by the project architect or geotechnical consultant.

H. The approved material should be placed in layers, each not exceeding eight (8) inches in thickness (before compaction), water conditions to about two percent above optimum moisture content and compacted to a minimum 90 percent relative compaction based on ASTM Test D1557.

I. Fill compaction tests should be performed during placement of the future fills to verify acceptable compaction and moisture content. At a minimum, one test should be performed within each 12 to 24 inches (vertical depth) or 500 cubic yards of fill (whichever is less). More frequent testing may be required by the geotechnical consultant.

J. Graded cut slopes and fill slopes should be constructed at a maximum gradient of 2:1 (H:V). Fill slopes should be constructed by overfilling and cutting back to the compacted core.

K. If construction takes place during the winter months or unseasonable rainy periods, additional winterizing and erosion-control recommendations may be necessary.

Keys, Benching, and Subdrains

A. All fill placed on slopes exceeding a 5:1 (H:V) gradient should be provided with a keyway at the toe of the slope. The keyway should have a minimum width of 10 feet and extend below the surficial soil to expose a minimum of two (2) feet of dense alluvial deposits or site bedrock on the downhill side of the key. The bottom of the key should be inclined into the slope at a minimum gradient of two (2) percent.

B. Fill placed above the level of the keyway should be placed above horizontal benches excavated into site bedrock. Benches should be a minimum width of four (4) feet. A minimum 12" of site bedrock material must be visible above the fill level at all times.

C. Subdrains should be placed below all canyon fills and in all fill slope keyways. Subdrains should consist perforated SDR-35 PVC pipe placed with the perforations downward in a blanket of ¾-inch durable aggregate such that the subdrain pipe is surrounded by a minimum 12 inches of gravel on all sides. The gravel blanket should be wrapped with a geosynthetic filter such as Mirafi 140 or suitable equivalent. Fabric joints should be overlapped a minimum of three (3) feet. Minimum specifications for pipe diameter, aggregate volume and fabric width are provided as follows:

Run Length (ft)	Pipe Diameter (in)	Aggregate Volume (ft)	Fabric Width (ft)
0 – 200	4"	4.5	10.5'
200 – 400	6"	5.0	11.0'
400 – 600	8"	5.6	11.5'

The project geotechnical consultant should observe and approve all subdrain installations prior to placing compacted fill.

Utility Trench Backfill

Contractors should strictly adhere to specifications set forth in the State of California Construction Safety Orders for "Excavations, Trenches, Earthwork". For the purposes of this section of the report, bedding is defined as material placed in a trench up to two (2) feet above a utility pipe, and backfill is defined as all material placed in a trench above the bedding.

A. Unless concrete bedding is required around utility pipes, free-draining sand should be used as bedding. Sand proposed for use in bedding should be tested in our laboratory to verify its suitability and to measure its compaction characteristics. Sand bedding should be compacted to achieve at least 90 percent relative density based on ASTM Test D1557.

B. Ponding and jetting compaction methods are not permitted.

C. Until the total backfill above the top of the pipe exceeds two (2) feet, machine-placed backfill material should not be allowed to *freefall* more than two (2) feet.

D. Approved, onsite, inorganic soil or imported materials may be used above the base as utility trench backfill. If imported material is proposed for this use, a sample should be tested and approved by the project geotechnical engineer before any is delivered to the site.

E. Proper compaction of trench backfill will be necessary under and adjacent to certified compacted fill, building foundations, concrete slabs and vehicle pavements. In these areas, backfill should be conditioned with water to produce a soil-water content of about two percent above optimum content, and placed in horizontal layers not exceeding six (6) inches in thickness (before compaction).

F. Each layer should be compacted to at least 90 percent relative compaction based on ASTM Test D1557. The upper 12 inches of trench backfill under vehicle pavements should be compacted to at least 95 percent relative compaction.

G. Where any trench crosses the perimeter foundation line of any building, the trench should be completely plugged and sealed with compacted clay soil for a horizontal distance of two feet on either side of the foundation.

TEMPORARY EXCAVATIONS AND SHORING

All excavations in alluvium deposits or site bedrock that exceed five (5) or eight (8) feet in vertical height, respectively, should have the upper portion trimmed to a 1:1 (H:V) gradient. Otherwise, these excavations should be supported by slot-cutting or by a temporary shoring system.

The geotechnical consultants should be present during grading to observe the temporary excavation. All excavations should be stabilized within 30 days of initial excavation. Water should not be allowed to pond on top of the excavations, nor to flow towards it. No vehicular surcharge should be allowed within five (5) feet of the top of the cut.

FOUNDATIONS

Conventional Spread Footings: The foundation of the proposed round pen, any ancillary site structures, and the head wall may be comprised of continuous and isolated spread footings founded entirely into the future certified compacted fill, or entirely into sedimentary bedrock, and to a depth that complies with the foundation setback recommendations presented in the following sections of this report, or as specified by the project civil/structural engineer, whichever is deeper.

All continuous footings should be reinforced with a minimum of two #4 steel bars placed near the top and bottom of the footing. Reinforcement for pad footings should be specified by the project civil/structural engineer. Footings may be sized utilizing the following design parameters:

FOUNDATIONS BEARING INTO FUTURE CERTIFIED COMPACTED FILL

Foundation Type	Minimum Width (in)	Maximum Vertical Bearing (psf)	Allowable Coefficient of Friction	Allowable Passive Earth Pressure (psf/ft depth)	Maximum Passive Earth Pressure (psf)	Minimum Embedment Depth (in)
Continuous	12	2000	0.30	300	4000	12
Pad	24	2000	0.30	300	4000	12

The bearing capacity may be increased by 10 percent for each additional foot of width or depth to a maximum bearing capacity of 3000 psf.

FOUNDATIONS BEARING INTO SEDIMENTARY BEDROCK

Foundation Type	Minimum Width (in)	Maximum Vertical Bearing (psf)	Allowable Coefficient of Friction	Allowable Passive Earth Pressure (psf/ft depth)	Maximum Passive Earth Pressure (psf)	Minimum Embedment Depth (in)
Continuous	12	2500	0.35	400	4000	12
Pad	24	2500	0.35	400	4000	12

The bearing capacity may be increased by 10 percent for each additional foot of width or depth to a maximum bearing capacity of 3500 psf.

The bearing values presented above are net bearing values; the weight of concrete below grade may be neglected. Embedment depths should be measured from the lowest adjacent grade.

LATERAL DESIGN

The passive resistance parameters provided above include the total dead plus frequently applied live loads. The passive parameters may be increased by a factor of one third ($^1/_3$) for short duration loading, such as the effects of wind and seismic forces. When combining passive pressure and friction for lateral resistance the passive component should be reduced by a factor of one third ($^1/_3$).

FOUNDATION SETTLEMENT

Settlement occurs as a result of stresses imposed on a soil. Typically, the most significant stress is the weight of structure(s). However, in certain soils, significant variation of moisture content may also induce volumetric strains. When water infiltrates the soil pore space, depending on the quantity, it has the potential to increase the density or reduce the effective overburden pressure and in certain soils it can reduce the matric suction or leach out cementing agents.

Considering the known consistency of the recommended bearing materials (i.e. certified compacted fill over dense older alluvium deposits or bedrock), seismically induced settlement is not anticipated to occur within the subject site.

Soils susceptible to seismically induced settlement are typically noncemented cohesionless soils such as dry and loose sands or gravels, which during ground shaking may reach higher relative densities, resulting in volumetric strain.

Moreover, soils susceptible to hydroconsolidation are characterized by internal support systems consisting of cementing or other bonding agents which may leach out during a wetting process, resulting in a sudden decrease in the volume of voids. Typical soils that are prone to this phenomenon include: loess, valley alluvium in a low-rain fall climate and certain residual porous clays. Nonetheless, considering the grading recommendations presented in previous sections of this report, hydroconsolidation is not expected to influence the proposed development.

Based on the anticipated foundation loading and corresponding foundation design, in accordance with the preceding sections of this report, the differential settlement is not expected to exceed a $^1/_4$ inch, in 20 feet, the maximum settlement is not expected to exceed $^1/_2$ inch for the proposed d improvements. The majority of the settlement, if any, should occur during the construction phase, with post construction settlement being within acceptable ranges for the proposed type of structure.

FOUNDATION SETBACK

The foundations of all structures should be embedded such that the minimum horizontal distance from the face of the slope to the bottom of the foundation is at least $^1/_3$ the overall height of the adjacent descending slope that is steeper than 3:1 (H:V). The minimum setback is five (5) feet; the maximum required setback is 40 feet.

BUILDING CLEARANCE FOR ASCENDING SLOPE

All structures should be located such that the minimum horizontal distance from the building to the toe of an ascending slope is at least $^1/_2$ the overall height of the ascending slope that is steeper than 3:1 (H:V), with a maximum required clearance of 15 feet.

RETAINING WALLS

Standard cantilevered retaining walls up to six (6) feet in height may be designed utilizing the following parameters. Retaining wall foundations should be designed in accordance with the recommendations presented in previous sections of this report. The design parameters presented below incorporate the active pressures, backfill gradient of the backfill material.

A. The average bulk density of material placed on the backfill side of the wall will be approximately 125 pcf.

B. Standard cantilever retaining wall, may be designed for the following equivalent fluid weights:
   - 35 pcf/ft for level backfill behind the retaining wall
   - 48 pcf/ft for 2:1 (H:V) slope behind the retaining wall

C. An increase in these pressures may be necessary if vehicular traffic or any building structures are to be located adjacent to the retaining wall. Construction traffic and compaction equipment should be kept a minimum of three feet from the retaining wall unless these surcharges are accounted for in the design.

D. Subdrains should be placed behind all retaining walls. Subdrains should consist of perforated SDR-35 PVC pipe placed with the perforations downward in a blanket of $^3/_4$" durable aggregate such that the subdrain pipe is surrounded by a minimum of 12" of gravel on all side. A curtain gravel drain (or approved equivalent), at least 12 inch thick, should extend from the subdrain pipe upwards to a height of two (2) feet below surface grade. Additionally, the gravel blanket should be wrapped with a geosynthetic filter fabric such as Mirafi 140 or a suitable equivalent. Fabric joints should be overlapped a minimum of three feet. Minimum specifications for pipe diameter, aggregate volume and fabric width are provided as follows:

SUBDRAIN SPECIFICATIONS

Run Length (ft)	Pipe Diameter (in)	Aggregate Volume (ft^3)	Fabric Width (ft)
0 - 200'	4"	4.5	10.5'
200 - 400'	6"	5.0	11.0'
400 - 600'	8"	5.6	11.5'

The project geotechnical consultant should observe and approve all subdrain installations prior to placing compacted fill.

E. Wall backfill areas not occupied by specified drainage materials should be backfilled with structural fill placed as specified above under "Site Preparation and Excavation, Fill Placement, and Utility Trench Backfill".

DRAINAGE AND MOISTURE PROTECTION

The site should be fine graded to direct drainage away from any structures. Drainage should not be allowed to pond anywhere on the pad, against foundations or pavements, and should be directed toward suitable collection discharge facilities. Where possible, the grade should slope away from buildings (i.e. foundations) at a minimum 5% grade for at least ten (10) feet.

To promote the rapid drainage of surface water from pavements and to minimize the risk of water ponding on pavements, we recommend that pavements be designed with surface gradients of at least one percent along principal directions of drainage. Water seepage or the spread of extensive root systems into the soil subgrades of foundations, slabs or pavements could cause differential movements and consequent distress in these structural elements. This potential risk should be given consideration in the landscape design.

ADDITIONAL SERVICES

It is recommended that this office be provided an opportunity for a general review of the final design plans and supporting documents for overall compliance with the recommendations presented in this report. Additionally, this office should be retained to provide services during grading, foundation excavation and overall construction phases of the project. Observation of foundation excavations should be performed prior to the placement of concrete and reinforcing steel to confirm that the foundations are founded in the recommended bearing materials. Field and laboratory testing of compacted fill should be performed to verify compliance with recommendations presented herein.

PLAN REVIEW

CalWest Geotechnical should review all final design plans and supporting documents. This will allow us to perform a general review for compliance with the recommendations presented in this report.

SITE OBSERVATIONS

Prior to the start of construction, we recommend that a meeting be held with the contractor to discuss the project and that a representative of CalWest Geotechnical be present at that meeting. We further recommend that CalWest Geotechnical perform the following tasks prior to, and during, the construction of the project:

1. Review all final design plans and supporting documents;
2. Observe and advise during all excavations (temporary, foundation and subgrade);
3. Observe and advise during the installation of sub drainage systems;
4. Observe, test and advise during all grading and placement of certified compacted fill;
5. Observe the construction of all temporary excavations and temporary shoring systems (if utilized).
6. Observe and test during placement of utility trench backfill.

ACKNOWLEDGEMENTS

California, historically, has experienced major destruction due to storms, flooding, firestorms, and earthquakes. The design of drainage control devices is based on rainfall records and the requirements of the authoritative building department agencies. Even so, the capacity of drainage devices often is exceeded, which results in considerable damage. Slopes associated with hillside developments, which have performed satisfactorily over a long period of time, in a majority of cases, could fail as a result, even though such slopes have been designed to the minimum standards set forth by the Uniform Building Code or other authoritative codes.

As for the design of earthquake forces, the records on which engineering design is based, have been accumulated over a relatively short time frame. Every earthquake provides new information and data as to the cause and effect of large earthquakes. As an example, the January 17, 1994 Northridge earthquake recorded ground accelerations that exceeded all previous earthquake records. In addition, the engineering industry has learned that there are many blind-thrust faults present in Southern California. The presence of these faults were known by petroleum geologists, but without much significance attached to the information by seismologists.

It should be understood that residential and commercial structures are constructed to the minimum standards as set forth by the California Building Code and other authoritative codes. Higher standards are utilized for hospitals, schools, and other critical structures, that must remain serviceable in the event of a disaster. Generally, Building Code requirements provide minimum standards to prevent catastrophic failure. Accordingly, it is believed that site structures are not likely to collapse, although considerable damage may occur.

PROPERTY OWNER'S RESPONSIBILITY

The property owner should care for drainage around the site structures and all graded slopes. To maintain the continued effectiveness of onsite drainage devices, there are important procedures that must be undertaken by the property owner on a regular basis. These procedures are specifically for drainage and debris protection, and therefore, the procedures should be performed prior to each rainy season, with sufficient time to allow for thorough maintenance.

In addition to maintenance of drainage devices, an inspection should be made for rodent activity. Small, burrowing rodents, such as ground squirrels and gophers, create avenues for infiltration of surface water, which could create surficial slope failures. Evidence of rodent infestation should result in the employment of a licensed exterminator. It should be emphasized that these procedures may require periodic performance if reinfestation occurs.

LIMITATIONS AND UNIFORMITY OF CONDITIONS

This report is prepared for use by Charles Pinneo and their authorized agents, and should not be considered transferable. Prior to use by others, the subject site and this report should be reviewed by CalWest Geotechnical to determine if any additional work is required to update this report.

The findings presented in this report are valid as of this date and may be invalidated wholly or partially by changes outside our control. Therefore, this report should be subject to review and should not be relied upon after a period of one year or if any significant changes are made.

It is the intent of this report to aid in the design and construction of the described project. Implementation of the advice presented in the "Conclusions and Recommendations" sections of this report is intended to reduce risk associated with construction projects. The professional opinions and geotechnical advice contained in this report are not intended to imply total performance of the project or guarantee that unusual conditions will not be discovered during or after construction.

The conclusions and recommendations contained within this report are based on field observations of the site conditions. Recommendations are based on the assumption that the subsurface conditions do not deviate appreciably from those indicated by the individual test pits placed on the subject site. If conditions encountered during construction appear to differ from those described in this report, this office should be notified so we may determine if any modifications are necessary. In this way, any required supplemental recommendations can be made with a minimum delay to the project.

The recommendations are based on the preliminary information provided to us at the start of the investigation. Any changes of this information may require additional work. This report has been prepared in accordance with generally accepted engineering practices and makes no warranties, either express or implied, as to the professional advice provided in this report.

Respectfully submitted,

Leonard Liston
President
RCE 31902

Eli Katibah
Staff Engineer

Enc: Appendix A - Site Location Map
Appendix B - Logs of Exploratory Test Pits by Gold Coast Geoservices, Inc.
Appendix C - Geotechnical Map and Cross-sections

APPENDIX A

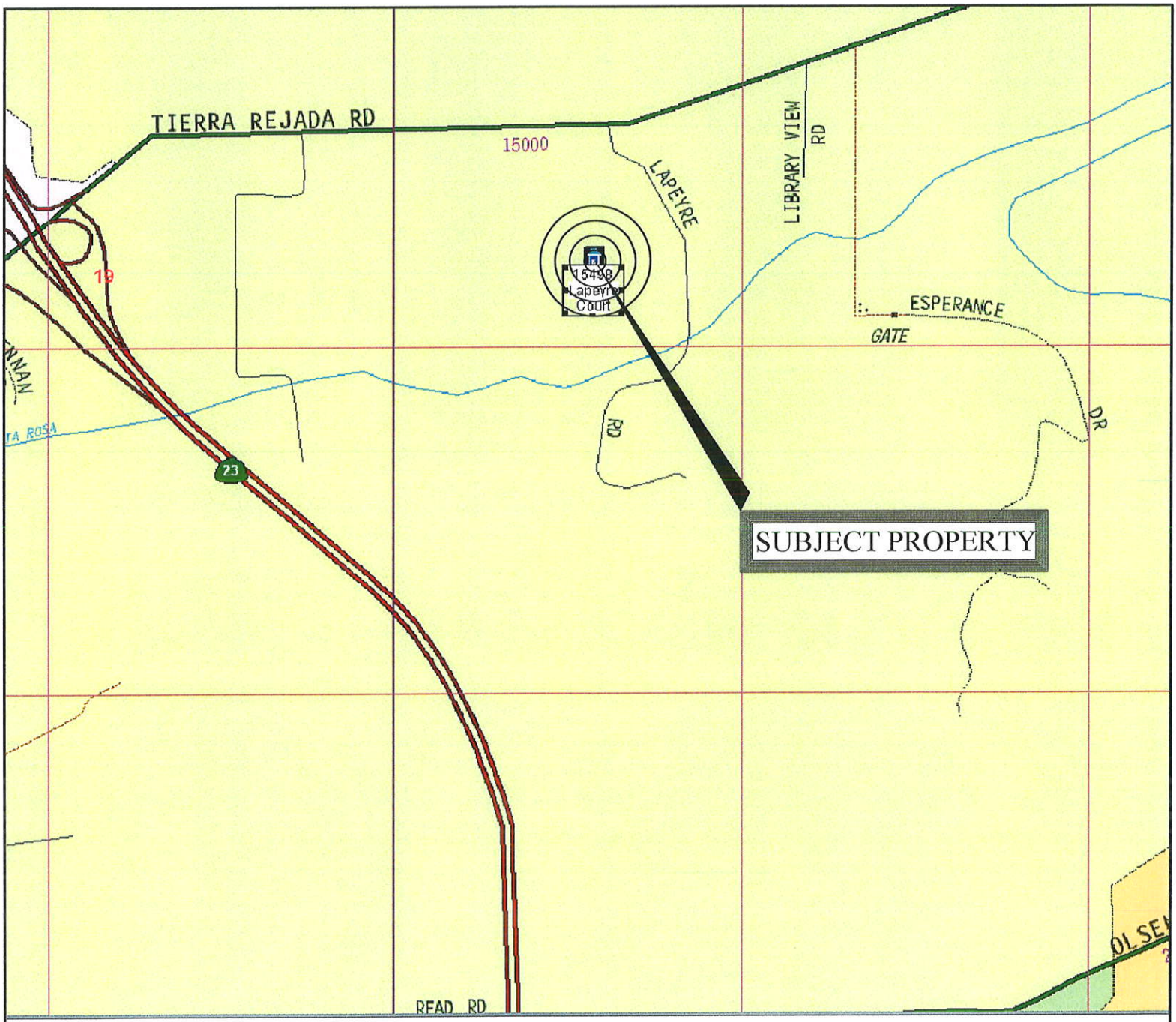
CALWEST GEOTECHNICAL
CONSULTING ENGINEERS
A DIVISION OF LC ENGINEERING, INC.

889 PIERCE COURT, SUITE 101
THOUSAND OAKS, CA. 91360
(818)991-7148
(805)497-1244

PROJECT: Charles Pinneo
ADDRESS: 15498 Lapeyre Court, Moorpark, CA
DRAWN: RD REF.: 497 A3
DATE: February, 2017 JOB #: G 5740

VICINITY MAP

SHEET TITLE



GRIDLINES ARE OFFSET BY APPROXIMATELLY 0.5 MILES.

N
NORTH

REFERENCE: THOMAS BROTHERS MAP GUIDE, PAGE: 497

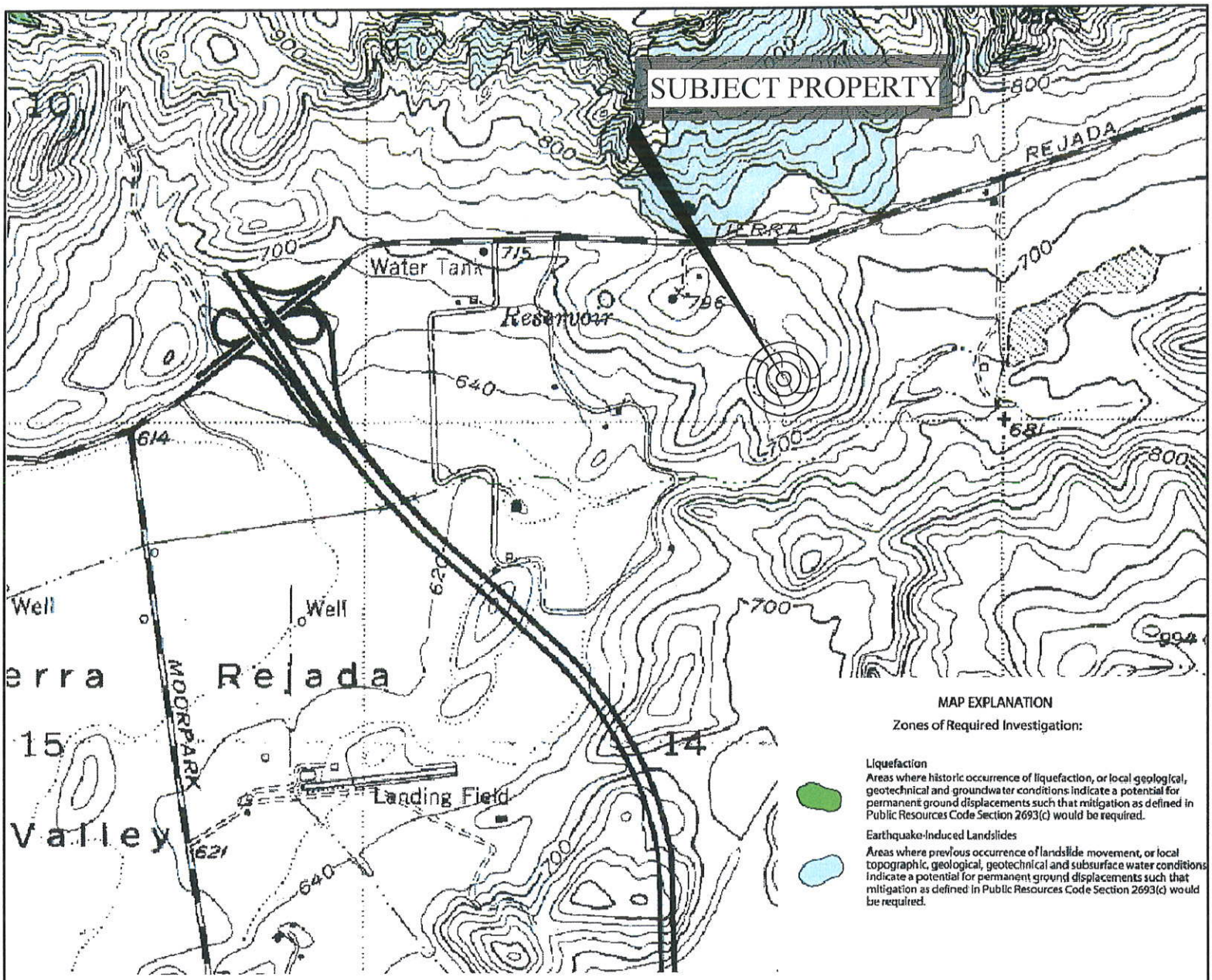
CALWEST GEOTECHNICAL
CONSULTING ENGINEERS
A DIVISION OF LC ENGINEERING, INC.

889 PIERCE COURT, SUITE 101 (818)991–7148
THOUSAND OAKS, CA. 91360 (805)497–1244

PROJECT: Charles Pinneo JOB #: G 5740
ADDRESS: 15498 Lapeyre Court, Moorpark, CA
DRAWN: RD DATE: February, 2017

SEISMIC HAZARD MAP

SHEET TITLE



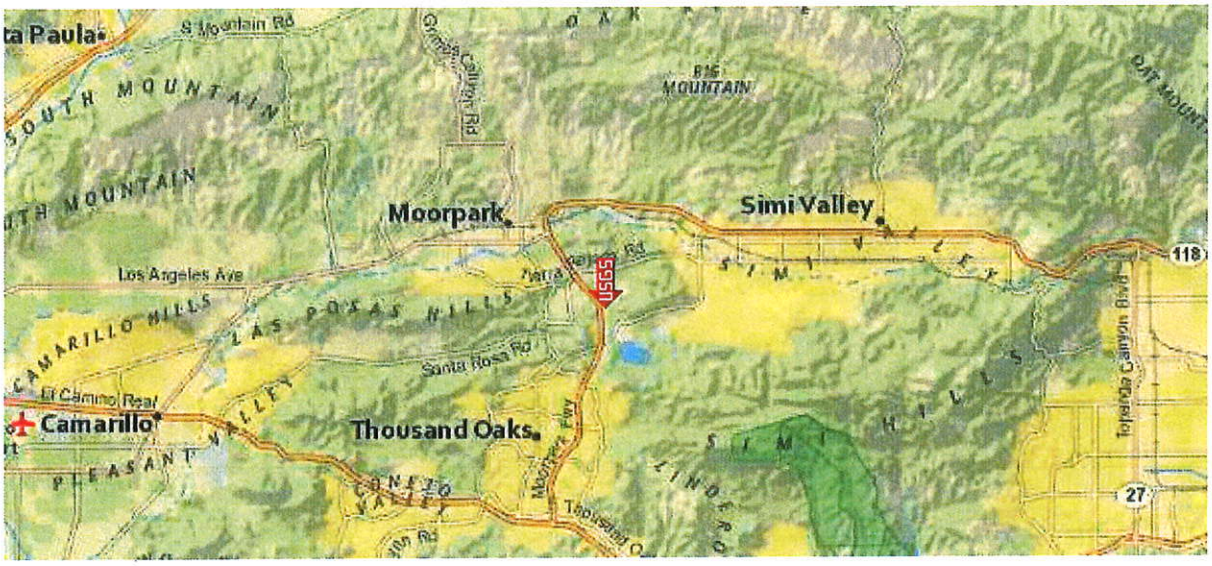
N
NORTH

REFERENCE: SIESMIC HAZARD ZONE, SIMI VALLEY WEST QUADRANGLE, 1997

USGS Design Maps Summary Report

User–Specified Input

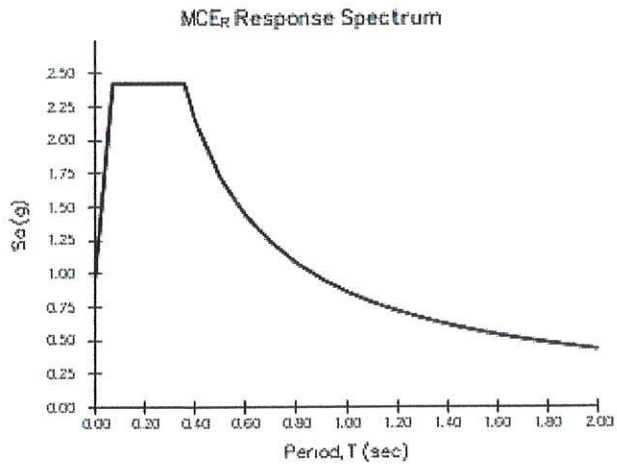
Report Title	Pinneo Fri March 24, 2017 18:22:25 UTC
Building Code Reference Document	ASCE 7-10 Standard (which utilizes USGS hazard data available in 2008)
Site Coordinates	34.2642°N, 118.8383°W
Site Soil Classification	Site Class B – "Rock"
Risk Category	I/II/III

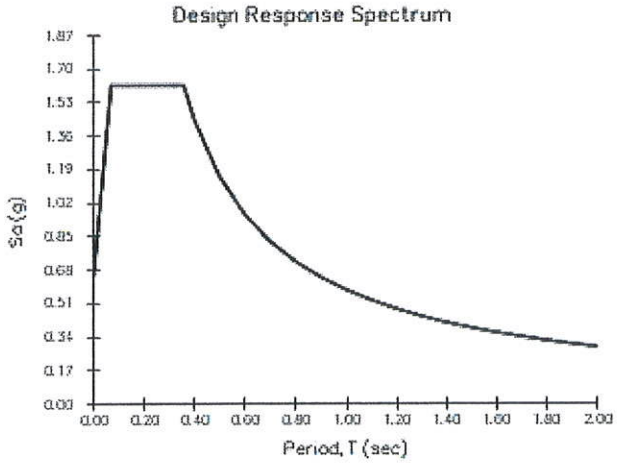


USGS–Provided Output

S_S =	2.423 g	S_{MS} =	2.423 g	S_{DS} =	1.616 g
S_1 =	0.864 g	S_{M1} =	0.864 g	S_{D1} =	0.576 g

For information on how the SS and S1 values above have been calculated from probabilistic (risk-targeted) and deterministic ground motions in the direction of maximum horizontal response, please return to the application and select the "2009 NEHRP" building code reference document.





For PGA_M, T_L, C_{RS}, and C_{R1} values, please view the detailed report.

APPENDIX B

FILE NO : GC04-081964 DATE : 09/03/04

LOCATION : SEE PLOT PLAN, PLATE 1 LOGGED BY : JCR

1. NATIVE SOIL – (Ns) - Medium brown to dark yellowish brown silty to clayey fine- to coarse-grained sand, dense to firm, dry.

2. ALLUVIUM – (Qal) - Reddish brown clayey silty sand, structureless, slightly moist, firm.

3. TOPANGA FORMATION – (Tt) - Yellowish brown to grayish yellow fine- to coarse-grained sandstone and volcanic pebble conglomerate, well cemented, dry, very hard, massive, weathered in upper 1 to 4 feet.

4. CONEJO VOLCANICS – (Tcv) - Medium brown to pale pinkish brown basalt, very hard, dry, amygdaloidal locally, weathered in upper 3 feet.

SCALE: 1" = 5'

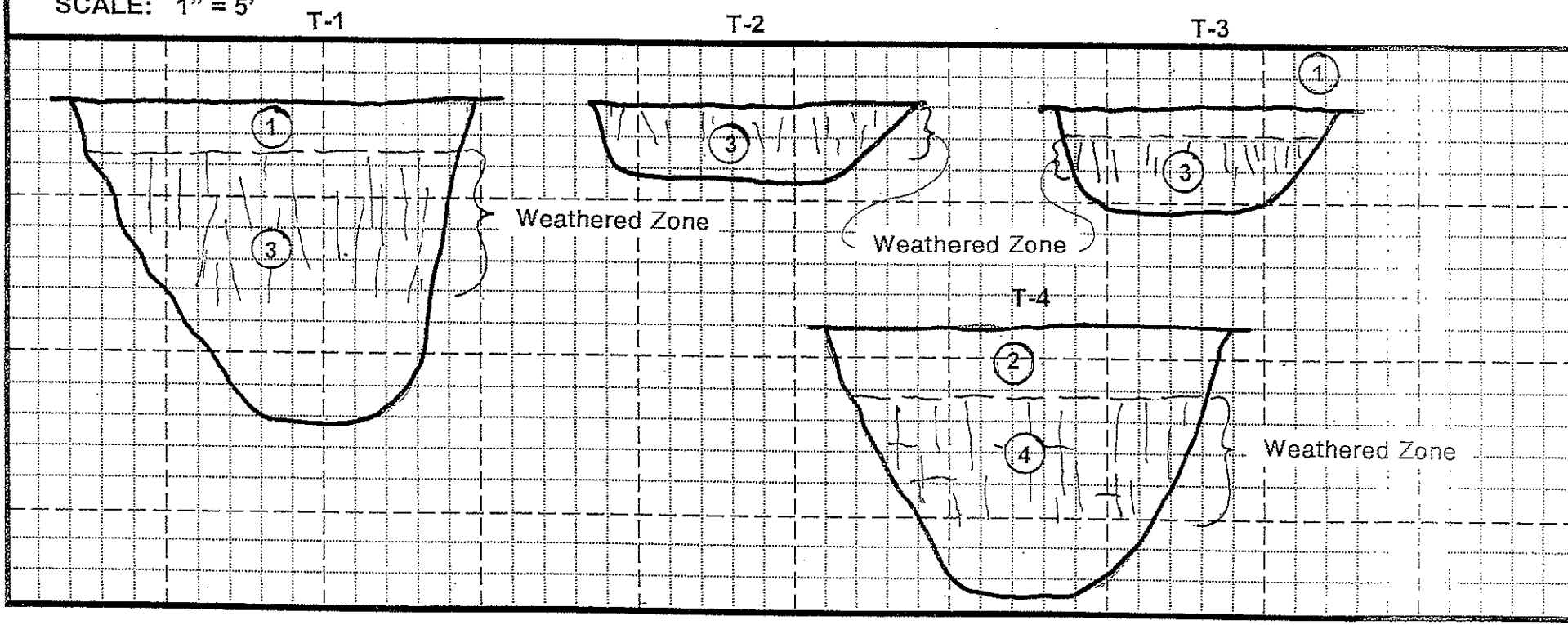


PLATE 2.1

GOLD COAST GEOSERVICES, INC. * 5217 VERDUGO WAY, SUITE B* CAMARILLO, CA 93012 * (805) 484-5070 * FAX (805) 484-4295

PROJECT : PARCEL 4, LAPEYRE ROAD, MOORPARK

TEST PIT LOG : T-5 TO T-7

FILE NO : GC04-081964

DATE : 09/03/04

LOCATION : SEE PLOT PLAN, PLATE 1

LOGGED BY : JCR

1. ALLUVIUM – (Qal) - Reddish brown clayey silty sand, structureless, slightly moist, firm.

2. CONEJO VOLCANICS – (Tcv) - Medium brown to pale pinkish brown basalt, very hard, dry, amygdaloidal locally, weathered in upper 3 feet.

SCALE: 1" = 5'

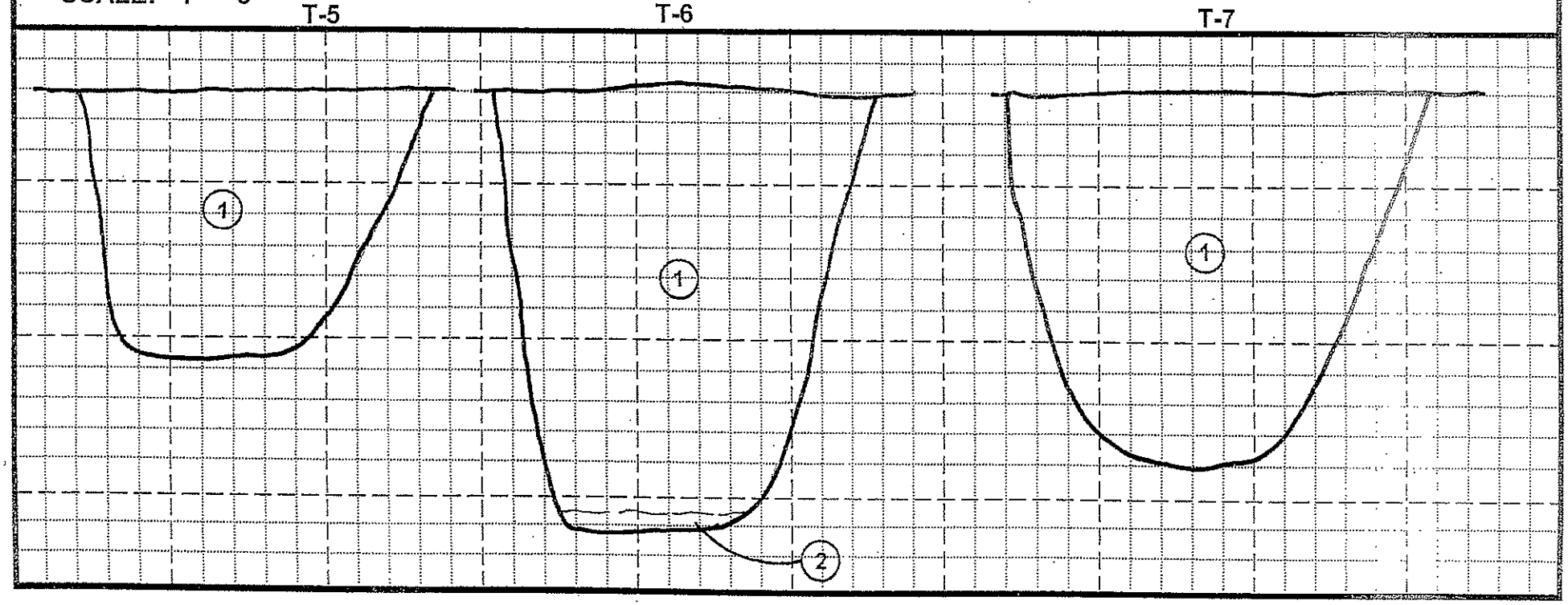


PLATE 2.2

GOLD COAST GEOSERVICES, INC. * 5217 VERDUGO WAY, SUITE B* CAMARILLO, CA 93012 * (805) 484-5070 * FAX (805) 484-4295

TEST PIT LOG : T-8 TO T-10

FILE NO : GC04-081964 DATE : 09/03/04

LOCATION : SEE PLOT PLAN, PLATE 1 LOGGED BY : JCR

1. NATIVE SOIL – (Ns) - Medium brown to dark yellowish brown silty to clayey sand, dense to firm, dry.

2. ALLUVIUM – (Qal) - Reddish brown clayey silty sand, structureless, slightly moist, firm.

3. CONEJO VOLCANICS – (Tcv) - Medium brown to pale pinkish brown basalt, very hard, amygdaloidal locally, weathered in upper 3 feet.

4. TOPANGA FORMATION – (Tt) - Yellowish brown to grayish yellow fine- to coarse-grained sandstone and volcanic pebble conglomerate, well cemented, dry, very hard, massive, weathered in upper 1 to 2 feet.

SCALE: 1" = 5'

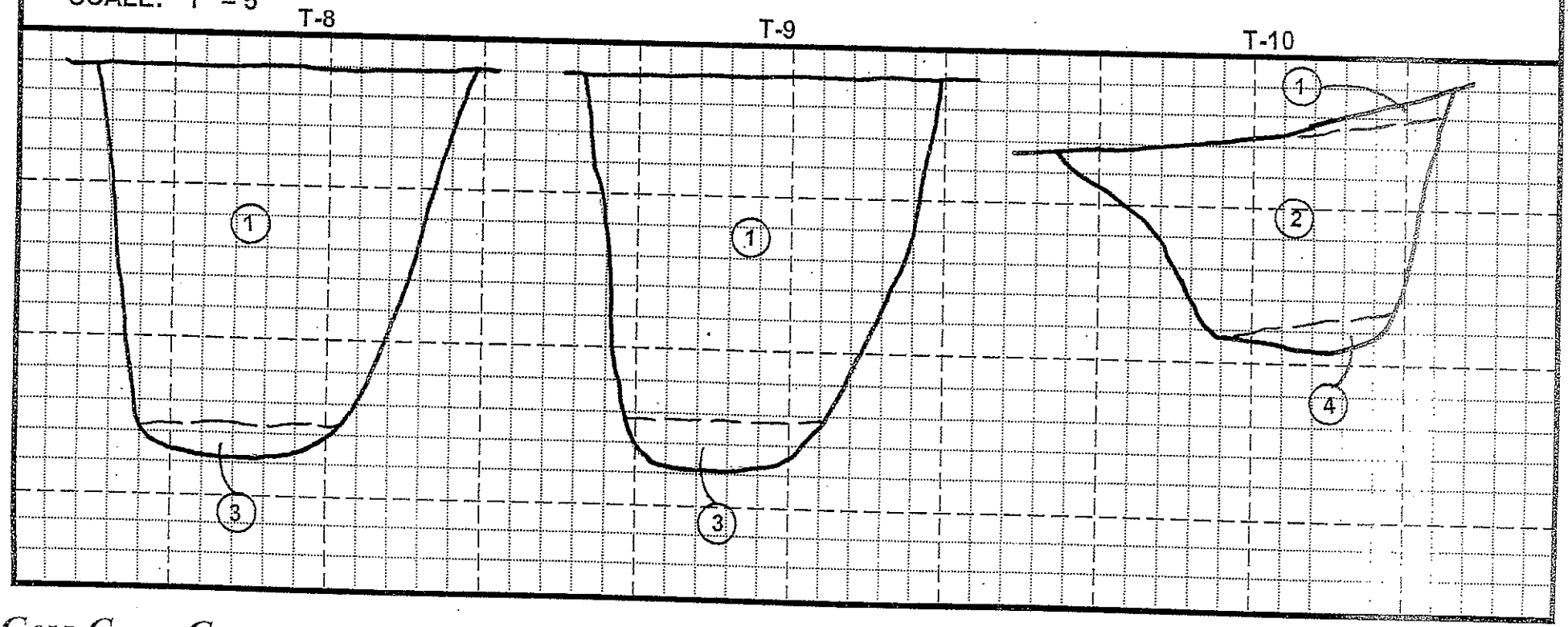


PLATE 2.3

GOLD COAST GEOSERVICES, INC. * 5217 VERDUGO WAY, SUITE B* CAMARILLO, CA 93012 * (805) 484-5070 * FAX (805) 484-4295

PROJECT : PARCEL 4, LAPEYRE ROAD, MOORPARK

TEST PIT LOG : T-11 TO T-15

FILE NO : GC04-081964

DATE : 09/03/04

LOCATION : SEE PLOT PLAN, PLATE 1

LOGGED BY : JCR

1. ALLUVIUM – (Qal) - Reddish brown clayey silty sand, structureless, slightly moist, firm.

2. TOPANGA FORMATION – (Tt) - Yellowish brown to grayish yellow fine- to coarse-grained sandstone and volcanic pebble conglomerate, well cemented, dry, very hard, massive, weathered in upper 1 to 2 feet.

SCALE: 1" = 5'

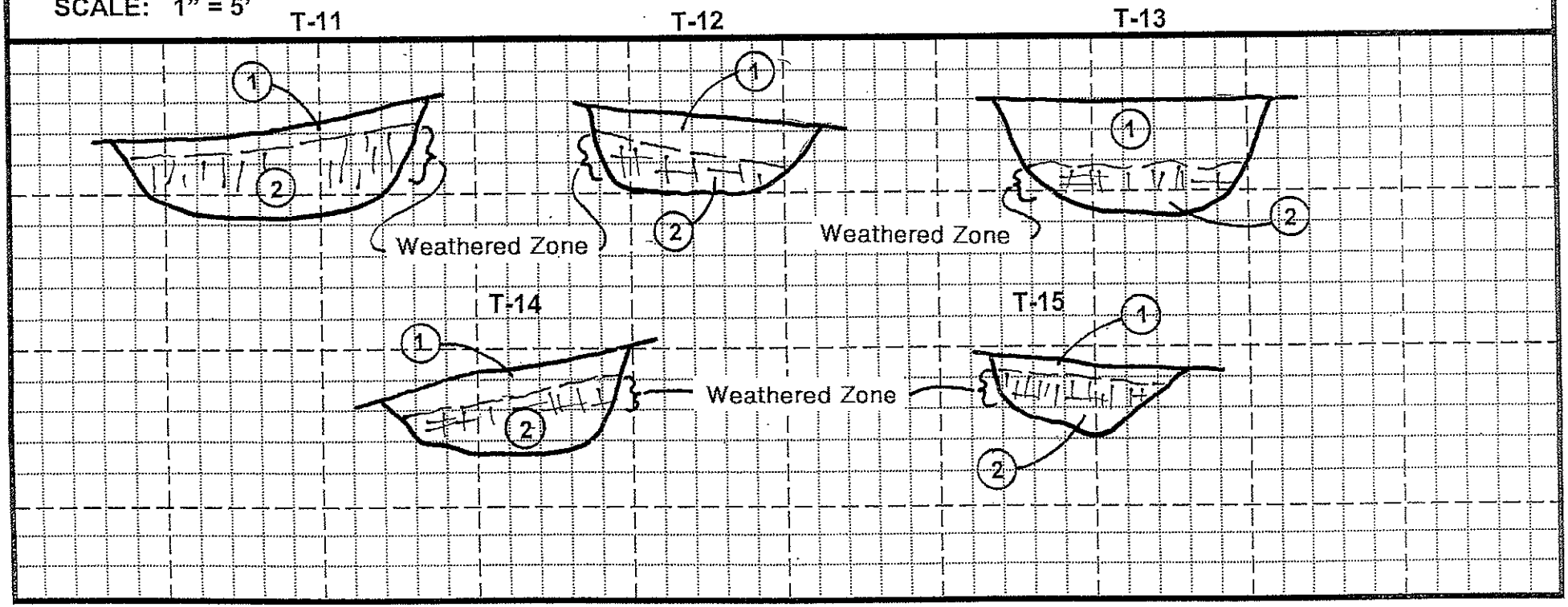
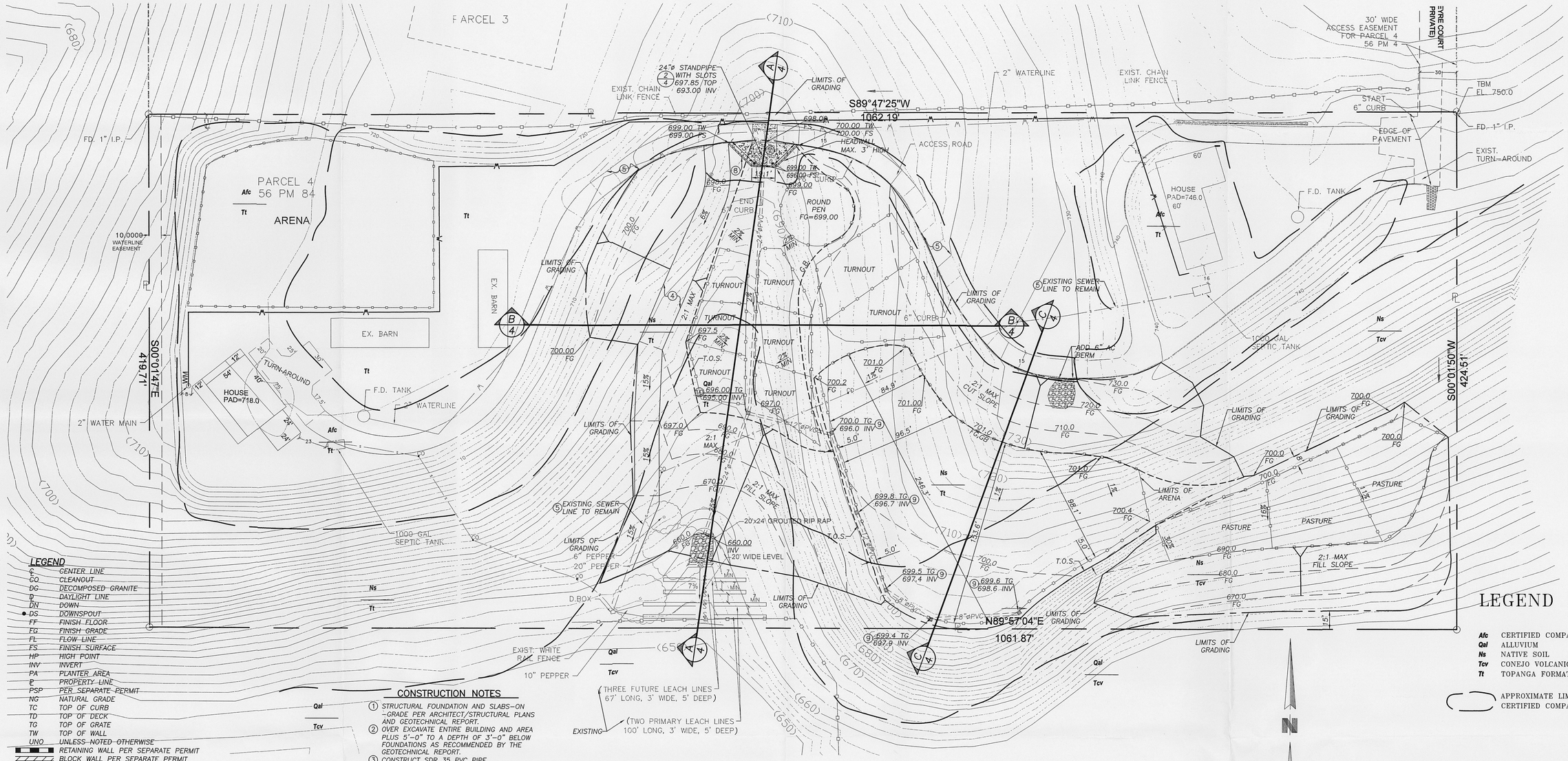


PLATE 2.4

APPENDIX C

GEOTECHNICAL MAP



LEGEND

℄	CENTER LINE
CO	CLEANOUT
DG	DECOMPOSED GRANITE
D	DAYLIGHT LINE
DN	DOWN
DS	DOWNSPOUT
FF	FINISH FLOOR
FG	FINISH GRADE
FL	FLOW LINE
FS	FINISH SURFACE
HP	HIGH POINT
INV	INVERT
PA	PLANTER AREA
P	PROPERTY LINE
PSP	PER SEPARATE PERMIT
NG	NATURAL GRADE
TC	TOP OF CURB
TD	TOP OF DECK
TG	TOP OF GRATE
TW	TOP OF WALL
UNO	UNLESS NOTED OTHERWISE
	RETAINING WALL PER SEPARATE PERMIT
	BLOCK WALL PER SEPARATE PERMIT
FS	CONTRACTOR TO VERIFY HARD SURFACE THICKNESS PER ARCHITECTURAL SPECIFICATIONS AND DETAILS TO DETERMINE ROUGH GRADE ELEVATIONS.
	SQ. CATCH BASIN PER NDS PLASTIC PRODUCTS
	6"ø SPEE-D BASIN PER NDS. PLASTIC PRODUCTS PART NO. 101, 201, 300. U.N.O.
	INDICATES 4"ø PERF. SUBDRAIN
812.2	EXISTING SPOT ELEVATIONS
	INDICATES PROPOSED POOL/SPA (PER SEPARATE PERMIT)
	INDICATES PROPOSED PILE FOUNDATION PER STRUCTURAL PLANS PER SEPARATE PERMIT BY OTHERS.

CONSTRUCTION NOTES

1. STRUCTURAL FOUNDATION AND SLABS-ON-GRADE PER ARCHITECT/STRUCTURAL PLANS AND GEOTECHNICAL REPORT.
2. OVER EXCAVATE ENTIRE BUILDING AND AREA PLUS 5'-0" TO A DEPTH OF 3'-0" BELOW FOUNDATIONS AS RECOMMENDED BY THE GEOTECHNICAL REPORT.
3. CONSTRUCT SDR 35 PVC PIPE (SIZE AS SHOWN) AT 1% MINIMUM SLOPE (MIN. PIPE SIZE 4"ø.)
4. CONSTRUCT GRAVEL ACCESS ROAD
5. EXISTING TO REMAIN.
6. EXISTING TO BE REMOVED.
7. CONSTRUCT 4" THICK CONC. W/ #4 @ 16" O.C.E.W. OVER 4" SAND PER GEOTECHNICAL REPORT.
8. CONCRETE BLOCK SLOUGH WALL PER APWA STD. PLAN NO. 622-3
9. 12"x12 SQUARE GALVANIZED STEEL GRATE (PART NO.1215) WITH 12" CATCH BASIN PER NDS CATALOG.
10. 18"x18" SQUARE GALVANIZED STEEL GRATE (PART NO.1815) WITH 18" CATCH BASIN PER NDS CATALOG.

NOTE TO CONTRACTOR

CONTRACTOR TO VERIFY THE LOCATIONS OF ALL PROPOSED STRUCTURES, ELEVATIONS, AND DIMENSIONS PRIOR TO CONSTRUCTION. CONTRACTOR TO CONTACT PROJECT ENGINEER OF ANY DISCREPANCIES PRIOR TO ANY CONSTRUCTION.

REGISTERED PROFESSIONAL ENGINEER — LEONARD T. LISTON — No.31902 Exp. Dec. 2018 — CIVIL — STATE OF CALIFORNIA

LEGEND :

Afc	CERTIFIED COMPACTED FILL
Qal	ALLUVIUM
Ns	NATIVE SOIL
Tcv	CONEJO VOLCANICA
Tt	TOPANGA FORMATION
	APPROXIMATE LIMITS OF CERTIFIED COMPACTED FILL

N

0 20 40 60 80 120 feet
Graphic Scale: 1" equals 40'

UNDERGROUND SERVICE ALERT
CALL BEFORE YOU DIG
CALL TOLL FREE 1-800-227-2600
TWO WORKING DAYS BEFORE YOU DIG

CALWEST GEOTECHNICAL
CONSULTING ENGINEERS
A DIVISION OF LC ENGINEERING, INC.
889 PIERCE COURT, SUITE 101 (818)991-7148
THOUSAND OAKS, CA. 91360 (805)497-1244

CLIENT: Pinneo JOB #: 5740
LOCATION: 15498 Lapeyre Court, Moorpark, CA SCALE: 1" = 40'
DATE: March, 2017 DRAWN BY: RD

WDID: N/A APN: 500-0-393-370 GP XX,XXX

1		31902				
△	DESCRIPTION OF REVISION	RCE	DATE	APP.	DATE	

REV. APRIL-2009

DESIGN ENGINEER
LC ENGINEERING GROUP, INC.
CONSULTING ENGINEERS
889 Pierce Court, Suite 101, Thousand Oaks, California 91360
(805)497-1244 (818)991-7148 Fax(818)991-5942 Email:worklles@lcegroupinc.com
31902
LEONARD LISTON RCE DATE

APPROVED: COUNTY OF VENTURA
BY _____ MANAGER, DEVELOPMENT SERVICES
DATE: _____

COUNTY OF VENTURA
PUBLIC WORKS AGENCY
DEVELOPMENT SERVICES

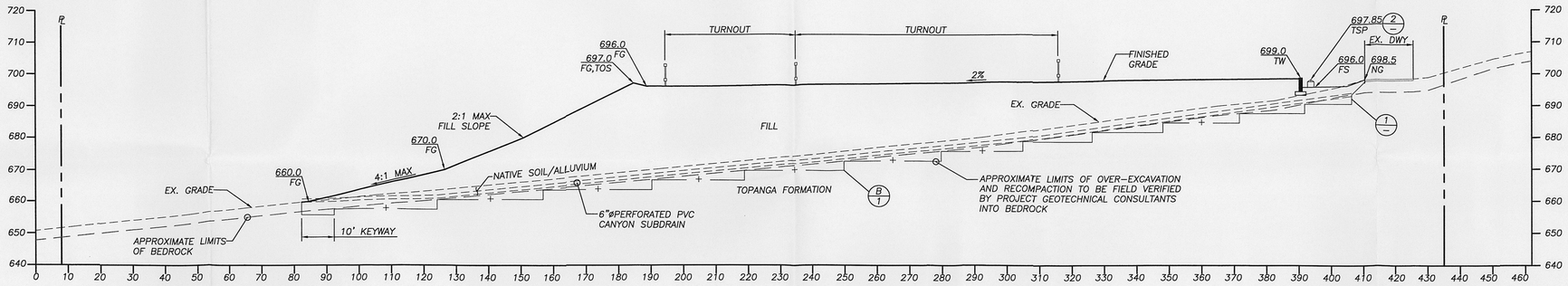
SPEC. NO.
PROJ. NO. 7167

GRADING AND DRAINAGE PLAN
PARCEL 4 56 PM 84
15498 LAPEYRE CT., MOORPARK, CA. 93021

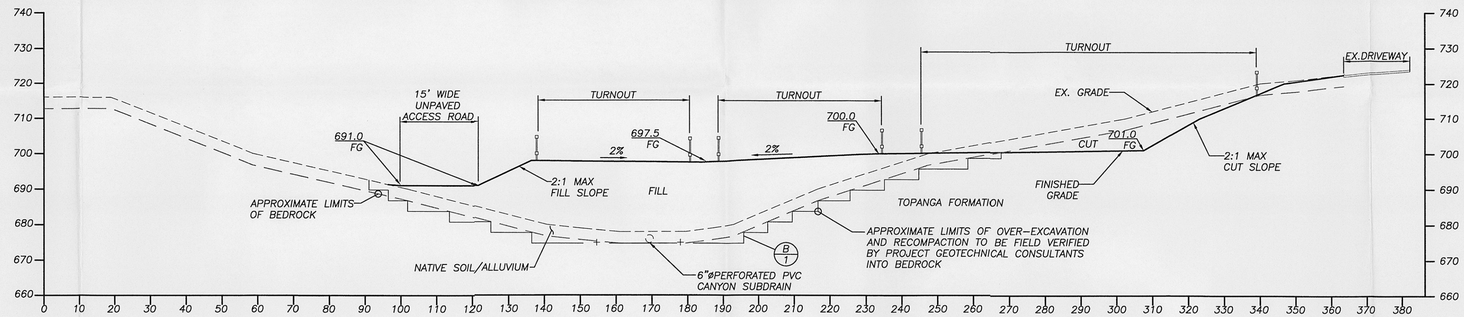
SHEET 3 OF 4
DRAWING NO.

X:\CALWEST\2085\5700\5740 Pinneo\03-2017.dwg Mar 24, 2017, 11:40pm roger diaz

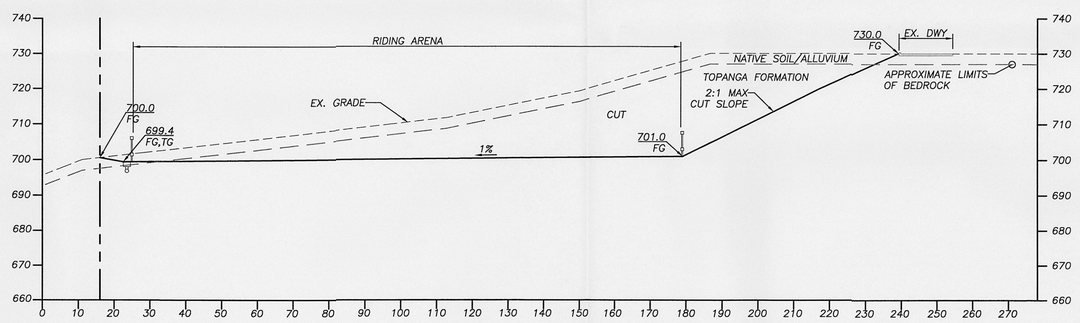
GEOTECHNICAL CROSS-SECTIONS



SECTION A
1"=20'



SECTION B
1"=20'



SECTION C
1"=20'

CALWEST GEOTECHNICAL
CONSULTING ENGINEERS

A DIVISION OF LC ENGINEERING, INC.
889 PIERCE COURT, SUITE 101 (818)991-7148
THOUSAND OAKS, CA. 91360 (805)497-1244

CLIENT: Pinneo JOB #: 5740
LOCATION: 15498 Lapevre Court, Moorpark, CA SCALE: 1" = 20'
DATE: March, 2017 DRAWN BY: RD

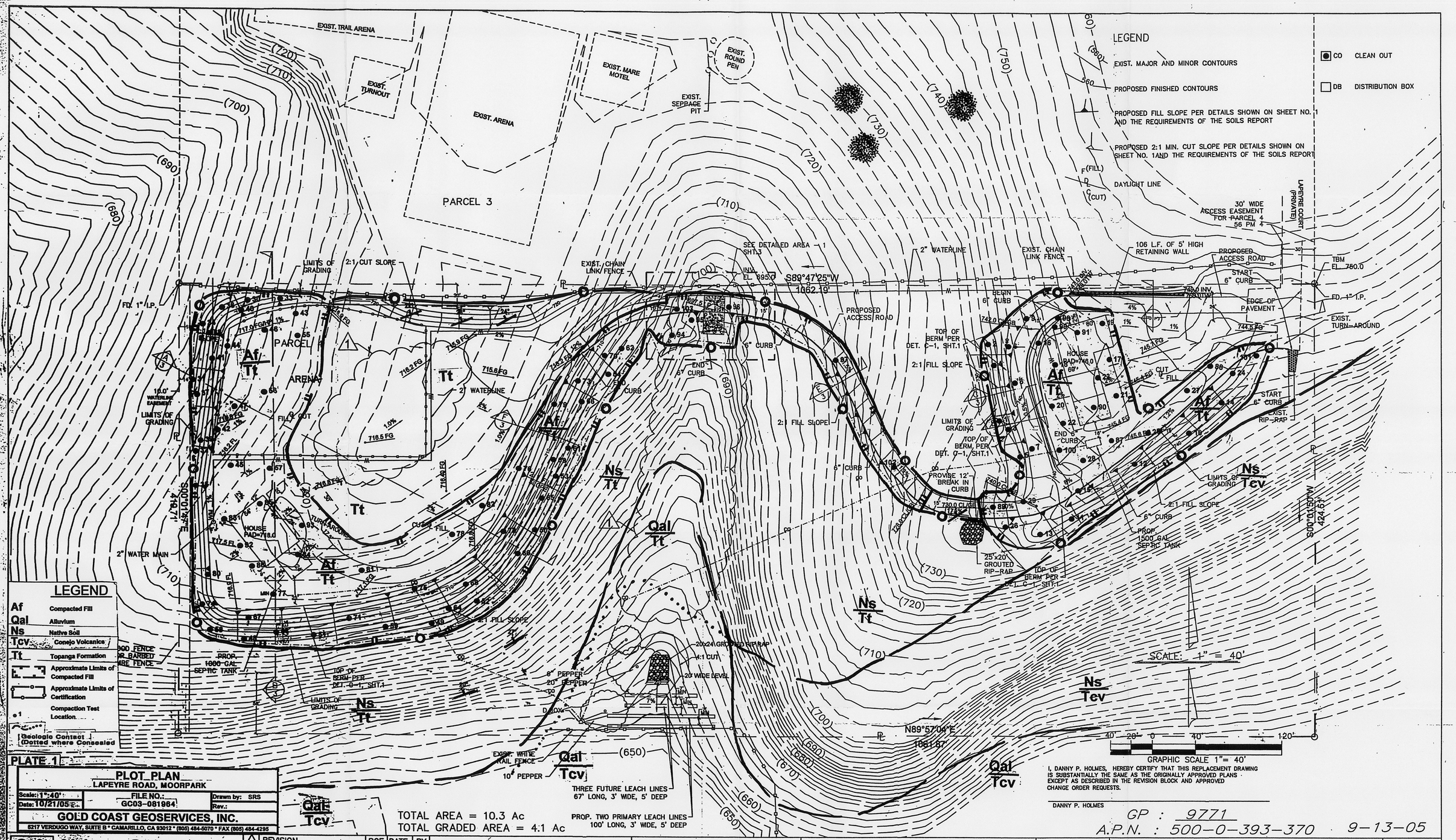


PLATE 1

PLOT PLAN
LAPEYRE ROAD, MOORPARK

Scale: 1"=40' | FILE NO.: GC03-081984 | Drawn by: SRS
Date: 10/21/05 | Rev.:

GOLD COAST GEOSERVICES, INC.
5217 VERDUGO WAY, SUITE B * CAMARILLO, CA 93012 * (805) 484-5070 * FAX (805) 484-4295

TOTAL AREA = 10.3 Ac
TOTAL GRADED AREA = 4.1 Ac

I, DANNY P. HOLMES, HEREBY CERTIFY THAT THIS REPLACEMENT DRAWING IS SUBSTANTIALLY THE SAME AS THE ORIGINALLY APPROVED PLANS EXCEPT AS DESCRIBED IN THE REVISION BLOCK AND APPROVED CHANGE ORDER REQUESTS.

DANNY P. HOLMES

GP : 9771
A.P.N. : 500-0-393-370 9-13-05

HE inc. Holmes Enterprises Inc.
Structural and Civil Engineering
200 Wicks Rd. Moorpark, CA. 93021
(805) 532-1571 fax: (805) 532-1598

REVISION	RCE	DATE	BY
1 DELETE BARN AND LOWER PAD AND ROAD; REPLACE CULVERT W/ ARIZONA CROSSING; REVISE PAD ELAVATIONS MOVE HOUSE(S) LOCATION; ADD WALL			
2			

OWNER:
WILLIAM PINNEO
15498 LAPEYRE CT.
MOORPARK CA 93021

APPROVED: COUNTY OF VENTURA
DATE:
MANAGER, DEVELOPMENT SERVICES

COUNTY OF VENTURA
PUBLIC WORKS AGENCY
DEVELOPMENT SERVICES

SPEC. NO.
PROJECT NO.

GRADING PLAN FOR
SINGLE FAMILY RESIDENCE, GUEST HOUSE, ARENA AND BARNS
LA PEYRE MOORPARK CA.
PARCEL 4 56 PM 84

SHEET 2A OF 3
DRAWING NO.

ATTACHMENT 5

LC ENGINEERING GROUP, INC.
CONSULTING ENGINEERS

HYDROLOGY AND HYDRAULICS STUDY

5/23/2018 *PROJECT NO. 7167*

LOCATION:

15498 Lapeyre Court
Moorpark, California

CLIENT: Charles Pinneo

889 Pierce Court, Suite 101, Thousand Oaks, California 91360 • 818-991-7148 • 805-497-1244 • Fax 818-991-5942
www.lcegroupinc.com
Email: workfiles@lcegroupinc.com

LC ENGINEERING GROUP, INC.
CONSULTING ENGINEERS

HYDROLOGY AND HYDRAULICS STUDY

5/23/2018 PROJECT NO. 7167

LOCATION:

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www.lcegroupinc.com Email: workfiles@lcegroupinc.com

Table of Contents

List of Appendices

List of Figures

1. Description of Project Area

The subject property is located at 15498 Lapeyre, in the County of Ventura, California. The proposed area of development is a 10-acre agricultural use site with a single family home, a caretaker's residence, two barns and associated equestrian facilities.

The proposed improvements consist of grading the undeveloped area of the site to add an additional barn, caretaker's residence, and riding arena.

2. Hydrologic Analysis

a. Watershed Area:

The aerial limits for the watershed area were determined from the Topographic Survey utilized as the base sheet for the Hydrology Maps and site Grading and Drainage Plan. The existing and developed area subarea boundaries are the same. Only the drainage within the site will be modified. In both the existing and developed conditions, there is a considerable amount of area, 9.2 acres, contributing offsite flow. This flow is generally overland sheet flow from the adjacent property, and it enters the property in a wide natural drainage conveyance. In the existing condition, flow from both residences and the barn area is conveyed via sheet flow and some onsite drainage facilities to the existing asphalt driveway. At the low point in the driveway there is a riprap pad. Low flows are conveyed in a 12" pipe which flows southerly, but the majority of the flow is conveyed in the natural wide conveyance. At the southerly end of the natural conveyance there is an existing 20'x24' grouted riprap pad with 6"-12" rocks embedded in concrete.

In the developed condition, the natural conveyance will be filled, and the offsite flow and flow from the driveway will be collected and conveyed in a 24" pipe. In order to capture the water at the low point in the driveway, a small wall with a maximum of height of 3 feet will be constructed, along with a slotted CMP standpipe. The standpipe will allow the water to be slowed down and for sediment to be deposited and later removed. The proposed graded areas will have catch basins and pipes to collect the water and convey it to the pipe. The pipe will outlet onto the existing riprap pad near the southerly portion of the property. Riprap calculations are included in Appendix B.

b. Hydrologic Parameters:

The hydrology parameters were obtained from the Ventura County Watershed Protection District – Hydrology Manual, dated December 2006, from the 100-year, 1-Day Rainfall Contours for Ventura County map, included in Appendix A . The project is located in the J' rainfall zone and has a soil type of 2.

c. Hydrologic Calculations:

The referenced Ventura County Watershed Protection District Hydrology Manual and TC Calculator were used to determine the design discharge for the 10-, 50-, and 100-year storm events. The 2-year discharge was determined by using the LA County Hydrology Manual multiplier of 0.387 times the 50-year discharge. The existing and developed area subarea boundaries are the same. There was a minor increase in impervious area proposed for this project from 4% to 5% for the overall subarea. The resulting discharge is shown in the following table:

	Existing Discharge (cfs)	Developed Discharge (cfs)
2-year	11.93	12.44
10-year	16.87	16.94
50-year	30.82	32.15
100-year	39.75	39.82

Calculations are included in Appendix B.

3. Detention Calculations

Since there was a minor increase in the peak discharge for all 4 rainfall events, detention is required. In order to determine the required storage volume, the 100-Year Undeveloped Condition Peak Mitigation method, detailed in Section 6.15.1 of the Hydrology Manual, was used. In the undeveloped condition, a CN of 81 for pasture, fair cover was determined based on Exhibit 14A from the Hydrology Manual. For the developed condition, a CN of 83 for farmsteads was determined based on Exhibit 14B from the Hydrology Manual. The equation on Exhibit 13 from the Hydrology Manual was used to compute the runoff depths and net yield. Although the manual states to subtract 0.50 inch from the net yield to determine the required volume, that would result in a negative number, so the additional depression storage was set to zero. The proposed impervious area is 0.36 acres, resulting in a required detention volume of 282 cubic feet. The proposed basin is 429 cubic feet. Calculations are included in Appendix B.

4. Hydraulic Calculations

Hydraulic Calculations were performed to size pipes and grating basins, and are included in Appendix B. Additionally, standpipe calculations were performed to ensure that the standpipe has adequate capacity to capture the flow during the 100-year event. Riprap calculations were also completed, showing that the proposed riprap pad is adequately sized. The appropriate structure sizes have been identified on the grading and drainage plans.

5. MS4 Permit Compliance

This project is an existing single family residence and more than 10,000 square feet of additional impervious area proposed, and disturbs more than one acre of land. However, the Ventura County Watershed Protection District determined that this project does not trigger the MS4 Permit Requirement for Post-Construction Stormwater Mitigation Plan (PCSMP) because it is located outside of the unincorporated urban area and the proposed impervious surfaces won't exceed 1 acre.

6. Discussion

This hydrology and hydraulics was completed in order to compare the pre-developed and developed conditions discharges as well as to size onsite storm drain facilities. The total discharge for the site, including the offsite area contributing flow to the site increased slightly for the 2-,10-, 50- and 100-year events. Therefore, detention is required and will be provided. The project is not subject to the requirements for the MS-4 permit due to its location in a non-urban area.

7. Summary

Based on the above discussion, calculations, and above described improvements, it is the opinion of this office that development of the subject property as planned will not result in an adverse impact to the adjacent properties or to the existing storm drain system.

During construction, erosion control devices should be installed, which would include, at a minimum, sand bags and silt fences, along with other typical erosion control devices.

8. Limitations

This report is prepared for use by Charles Pinneo and his authorized agents and should not be considered transferable. Prior to the use by others, the subject site and this report should be reviewed by this office to determine if any additional work is required to update this report. It is the intent of this report to aid in the design and construction of the described project. Implementation of the advice presented in this report is intended to reduce risk associated with construction projects. The professional opinions contained in this report are not intended to imply total performance of the project. Furthermore, the opinions contained within this report are based on the referenced materials.

This report has been prepared in accordance with generally accepted engineering practices and makes no warranties, either expressed or implied, as to the professional opinions provided.

Should you have any questions, please don't hesitate to call.

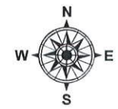
Respectfully submitted,

Michelle Meehan
PE 57460

Leonard Liston
President
RCE 31902

APPENDIX A

100-Year, 1-Day Rainfall Contours for Ventura County



Topography of Ventura County

Elevation (ft.)

- 7,848 - 8,832
- 6,864 - 7,848
- 5,881 - 6,864
- 4,897 - 5,881
- 3,914 - 4,897
- 2,930 - 3,914
- 1,947 - 2,930
- 963 - 1,947
- 0 - 963

Ventura County Soil Numbers

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- Lakes
- Rainfall Zones
- Ventura County Boundary
- Rainfall Contours (Inches)
- VCWPD Channels
- Major Streets and Highways

PROJECT LOCATION

Pacific Ocean

Santa Clara River

Santa Paula Creek

Hall Canyon

L

L

J

EXHIBIT 2. MAXIMUM RAINFALL INTENSITIES

Zone	J	Jp	K	L	J	Jp	K	L	J	Jp	K	L	J	Jp	K	L
Year	10	10	10	10	25	25	25	25	50	50	50	50	100	100	100	100
Cum. Rain (in.)	3.17	4.38	5.53	7.21	3.91	5.28	6.41	8.81	5.0	6.0	8.0	11.0	7.0	6.66	10.6	15.0
Tc (min)	Maximum Rainfall Intensity (in/hr)															
5	2.16	2.16	3.72	4.31	2.64	3.34	4.27	4.94	2.94	3.79	4.55	5.58	3.23	4.06	5.10	6.11
6	2.02	2.01	3.40	3.90	2.52	2.94	3.80	4.39	2.80	3.34	4.10	5.05	2.90	3.55	4.59	5.43
7	1.86	1.90	3.09	3.56	2.30	2.65	3.45	3.99	2.55	3.01	3.77	4.63	2.67	3.19	4.23	4.95
8	1.74	1.82	2.86	3.30	2.14	2.58	3.19	3.69	2.36	2.93	3.52	4.28	2.50	2.99	3.95	4.58
9	1.63	1.76	2.68	3.07	1.99	2.44	2.99	3.45	2.21	2.77	3.33	4.00	2.36	2.87	3.74	4.30
10	1.53	1.70	2.52	2.86	1.87	2.29	2.81	3.24	2.08	2.60	3.16	3.76	2.25	2.78	3.57	4.07
11	1.45	1.64	2.40	2.70	1.76	2.17	2.66	3.07	1.95	2.46	3.02	3.56	2.13	2.67	3.39	3.88
12	1.38	1.59	2.29	2.56	1.66	2.07	2.53	2.92	1.85	2.35	2.90	3.39	2.02	2.58	3.23	3.72
13	1.33	1.55	2.20	2.44	1.58	1.98	2.43	2.80	1.76	2.25	2.80	3.25	1.94	2.49	3.10	3.59
14	1.28	1.51	2.12	2.34	1.52	1.90	2.34	2.70	1.68	2.16	2.72	3.13	1.86	2.42	2.99	3.47
15	1.23	1.47	2.04	2.25	1.46	1.84	2.26	2.60	1.62	2.09	2.62	3.02	1.80	2.36	2.89	3.37
16	1.18	1.43	1.98	2.18	1.40	1.78	2.18	2.50	1.56	2.02	2.54	2.92	1.73	2.29	2.79	3.25
17	1.14	1.39	1.92	2.11	1.36	1.73	2.12	2.42	1.50	1.96	2.47	2.83	1.67	2.22	2.70	3.14
18	1.11	1.35	1.86	2.04	1.31	1.68	2.06	2.34	1.45	1.90	2.41	2.75	1.61	2.16	2.62	3.05
19	1.07	1.32	1.82	1.99	1.27	1.63	2.01	2.28	1.41	1.86	2.35	2.68	1.56	2.11	2.55	2.96
20	1.04	1.29	1.77	1.94	1.24	1.60	1.96	2.22	1.37	1.81	2.29	2.62	1.52	2.07	2.49	2.88
21	1.02	1.26	1.73	1.90	1.20	1.55	1.91	2.17	1.33	1.76	2.23	2.55	1.48	2.03	2.43	2.82
22	0.99	1.23	1.68	1.85	1.17	1.51	1.87	2.12	1.30	1.72	2.17	2.49	1.44	1.99	2.36	2.76
23	0.97	1.21	1.65	1.82	1.14	1.48	1.83	2.07	1.27	1.68	2.12	2.44	1.41	1.95	2.31	2.70
24	0.95	1.19	1.62	1.78	1.12	1.44	1.79	2.03	1.24	1.64	2.07	2.39	1.38	1.92	2.26	2.65
25	0.93	1.16	1.58	1.75	1.09	1.41	1.76	1.99	1.21	1.61	2.03	2.34	1.35	1.89	2.22	2.60
26	0.90	1.14	1.56	1.72	1.07	1.39	1.73	1.96	1.18	1.57	1.98	2.29	1.32	1.86	2.17	2.56
27	0.88	1.13	1.53	1.68	1.05	1.36	1.70	1.92	1.16	1.54	1.94	2.25	1.29	1.83	2.13	2.51
28	0.87	1.11	1.50	1.66	1.03	1.34	1.67	1.89	1.14	1.52	1.90	2.21	1.27	1.80	2.09	2.46
29	0.85	1.09	1.48	1.63	1.01	1.31	1.64	1.87	1.12	1.49	1.87	2.17	1.24	1.77	2.05	2.42
30	0.83	1.08	1.46	1.61	0.99	1.29	1.61	1.84	1.10	1.47	1.84	2.13	1.22	1.74	2.02	2.38

EXHIBIT 6B. RUNOFF COEFFICIENT CURVE- SOIL NUMBER 2 (NRCS TYPE C)

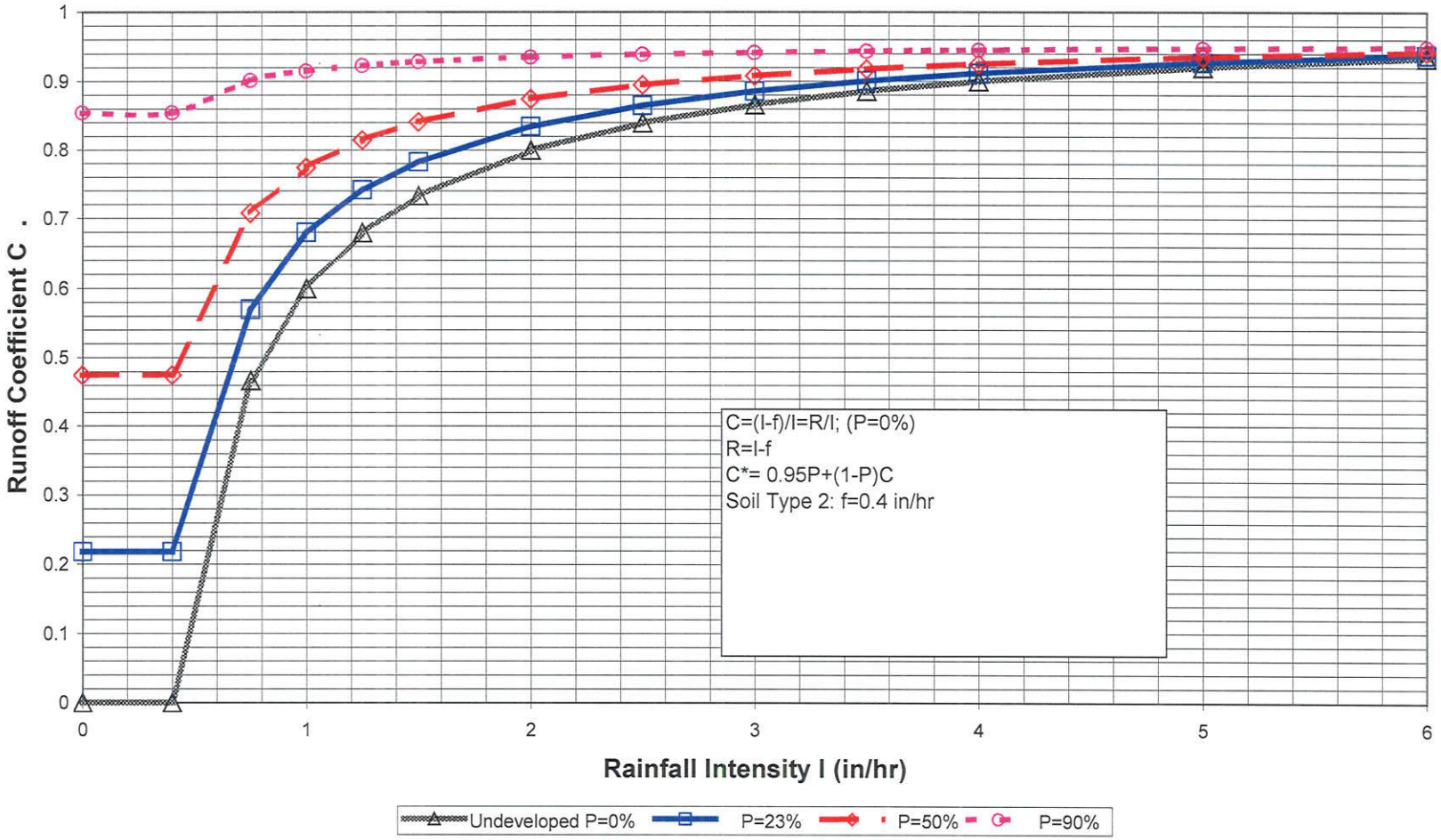


EXHIBIT 13. DIRECT RUNOFF FOR VARIOUS CURVE NUMBERS- NRCS

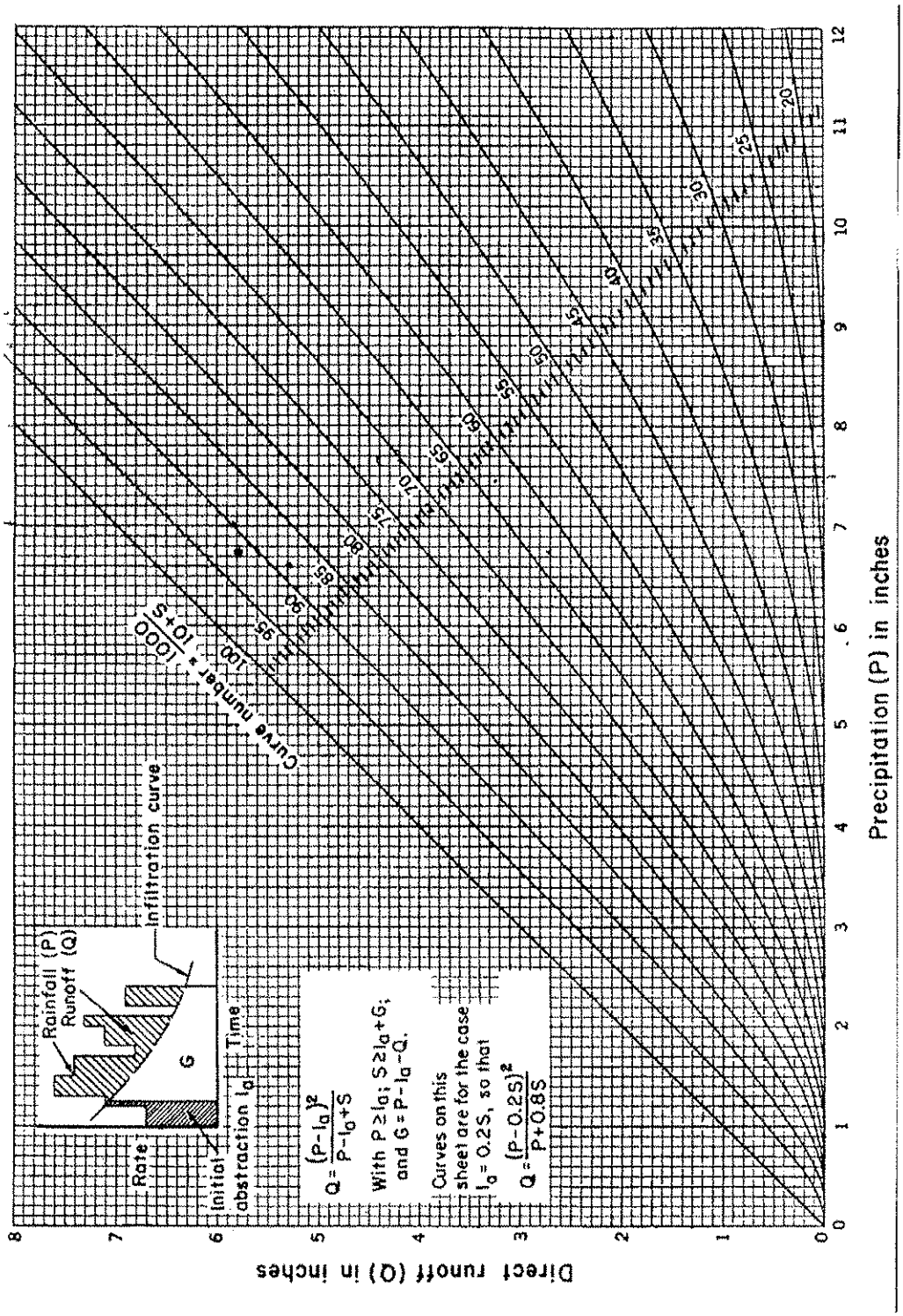


EXHIBIT 14A. AMC II NRCS CURVE NUMBERS FOR UNDEVELOPED LAND

UNDEVELOPED LAND USE AND CONDITION Poor: Less than 50% Cover Fair: From 50% to 75% Cover Good: More Than 75% Cover		% Impervious		HYDROLOGIC SOIL GROUP AND VCWPD NUMBERS						
				A (1), (2)		B		C		D (3)
		Effective	Average	7	6	5	4	3	2	1
Grassland (Annual Grass)	Poor	0	0	46	57	60	63	68	72	76
"	Fair	0	0	21	42	47	53	60	66	70
"	Good	0	0	-	-	41	47	54	59	64
Open Brush (Sagebrush, Flattop Buckwheat)	Poor	0	0	31	51	55	60	66	70	75
"	Fair	0	0	22	40	44	49	54	58	61
"	Good	0	0	-	-	33	39	46	51	56
Big Brush (Scrub Oak, Manzanita, Ceanothis)	Fair	0	0	23	39	42	46	51	54	59
"	Good	0	0	-	-	29	34	41	46	51
Chamise (Narrow Leaf Chaparral)	Fair	0	0	21	43	48	55	63	68	75
"	Good	0	0	-	-	44	49	55	60	64
Oak Savannah (Sparse Oaks & Annual Grass)	Poor	0	0	34	53	57	62	67	71	-
"	Fair	0	0	22	41	45	51	57	61	-
Orchard	Poor	0	0	42	56	59	62	65	67	71
Woodland	Fair	0	0	-	-	35	39	43	47	-
Pinon & Juniper	Fair	0	0	-	-	43	48	54	58	62
Forest	Fair	0	0	22	41	45	50	56	60	64
Pasture or Range	Poor	0	0	61	76	78	81	84	87	89
"	Fair	0	0	40	61	65	71	77	81	84
"	Good	0	0	29	52	57	64	71	76	80
	NOTE: WPD MODIFIED RATIONAL METHOD USES SOIL TYPES 1-7 AND EFFECTIVE IMPERVIOUS PERCENTAGE IN VCRat MODEL									
Note (1)	Curve numbers for soil types 6 and 7 not all available									
Note (2)	For CNs<30, ensure that P-0.2*S > 0									
Note (3)	Curve numbers for soil type 1 not all available									
Reference:	Boyle, 1967. Revised Hydrologic Analysis, Zone II except Pasture from NRCS TR-55 Table 2-2c. For other land use types see TR-55									

EXHIBIT 14B. AMC II NRCS CURVE NUMBERS FOR DEVELOPED LAND

DEVELOPED LAND USE	Condition (1)	% IMPERVIOUS		HYDROLOGIC SOIL GROUP (5)						
		EFFEC-TIVE	AVER-AGE	A		B		C		D
				7	6	5	4	3	2	1
Open Spaces, Lawns, Parks, Golf Courses, Cemeteries, etc.	Good	0	0	29	52	57	64	71	76	80
"	Fair	0	0	42	61	65	71	77	81	84
Residential 1 ac. Lot	-	10	20	45	62	66	71	76	80	84
Residential 1/2 ac. Lot	-	13	25	45	65	68	73	78	81	85
Residential 1/3 ac. Lot	-	15	30	48	67	70	75	79	82	86
Residential 1/4 ac. Lot	-	19	38	53	70	73	77	81	84	87
Residential 1/5 ac. Lot	-	23	47	59	74	77	80	84	86	89
Residential 1/6 ac. Lot	-	28	56	66	79	81	84	86	88	90
Residential 1/8 ac. Lot	-	32	65	72	83	84	87	89	90	92
Residential - Condos	-	37	69	74	84	86	88	90	92	93
Industrial Unpaved Yards, etc.	-	36	72	77	86	87	89	91	92	93
Commercial & Business	-	50	85	88	90	91	93	93	95	95
Industrial Parks, Paved Parking, etc.	-	70	93	93	94	95	96	96	97	97
Parking Lots, Roofs, Driveways, Paved Streets with Curbs & Drains	-	90	100	98	98	98	98	98	98	98
Public Facilities & Institutions; Includes Schools, Government CenterS, Military Bases, etc. (2)	-	23	47	59	74	77	80	84	86	89
Transportation and utilities (3)	-	70	93	79	87	88	90	91	92	93
Newly graded/under construction - No veg.	-	0	0	71	83	85	88	90	92	94
Paved Streets with open ditches including right-of-way (3)	-	70	93	79	87	88	90	91	92	93
Gravel streets including right-of-way	-	0	0	71	82	84	86	88	90	91
Dirt street including right-of-way	-	0	0	66	79	81	83	86	88	89
Natural desert landscaping- native vegetation	-	0	0	55	72	75	79	83	86	88
Farmsteads- buildings, lanes, driveways, and surrounding lots (2)	-	23	47	51	69	72	76	80	83	86
Agriculture- Straight Row + Crop Residue Cover on >5% of surface	Good	0	0	57	72	74	77	80	83	85
Agriculture- Straight Row + Crop Residue Cover on <5% of surface	Poor	0	0	64	78	80	83	86	88	90

APPENDIX B

VENTURA COUNTY WATERSHED PROTECTION DISTRICT
TIME OF CONCENTRATION
TC Program Version: 2.6.2009.7
Project: 7167 PINNEO
Date: 12:00:00 AM
Engineer: Michelle Meehan
Consultant:

S U M M A R Y O F C O M P U T A T I O N S

Watershed Name: EXISTING

Name	Zone	Storm	Soil	Area (acres)	TC (min)
1A	J'	10	2.00	19.8 / 20	20.704 / 21
1A	J'	25	2.00	19.8 / 20	17.484 / 17
1A	J'	50	2.00	19.8 / 20	15.574 / 16
1A	J'	100	2.00	19.8 / 20	12.766 / 13

♀

Watershed Name: EXISTING

Sub-Area Name: 1A
Computing Tc for all rainfall frequencies for sub-area 1A...

Tc for frequency = 10.00: 20.704 Minutes
DATA FOR SUB AREA 1

SUB AREA TIME OF CONCENTRATION: 20.704 min. = 21 min.

SUB AREA INPUT DATA

Sub Area Name: 1A
Total Area (ac): 19.8
Flood Zone: 3
Rainfall Zone: J'
Storm Frequency (years): 10
Development Type: Undeveloped
Soil Type: 2.00
Percent Impervious: 4
SUB AREA OUTPUT

Intensity (in/hr): 1.260
C Total: 0.676
Sum Q Segments (cfs): 16.87
Q Total (cfs): 16.87
Sum Percent Area (%): 100.0
Sum of Flow Path Travel Times (sec): 1,242.23
Time of Concentration (min): 20.704

DATA FOR FLOW PATH 1

Flow Path Name: FlowPath1
FLOW PATH TRAVEL TIME (min): 19.7848
Flow Type: Overland
Length (ft): 810
Top Elevation (ft): 780
Bottom Elevation (ft): 702
Contributing Area (acres): 9.2
Percent of Sub-Area (%): 46.5
Overland Type: Mountain

Development Type: Undeveloped
Map Slope: 0.0963
Effective Slope: 0.0963
Q for Flow Path (cfs): 7.84
Avg Velocity (ft/s): 0.68
Passed Scour Check: YES
Scour Velocity (ft/sec): 3.49
DATA FOR FLOW PATH 2

Flow Path Name: FlowPath2
FLOW PATH TRAVEL TIME (min): 0.1128
Flow Type: Natural Channel
Length (ft): 35
Top Elevation (ft): 702
Bottom Elevation (ft): 699
Contributing Area (acres): 3.7
Percent of Sub-Area (%): 18.7
Overland Type: Mountain
Map Slope: 0.0857
Effective Slope: 0.0857
Q for Flow Path (cfs): 3.15
Q Top (cfs): 7.84
Q Bottom (cfs): 10.99
Velocity Top (ft/s): 3.25
Velocity Bottom (ft/s): 3.64
Avg Velocity (ft/s): 3.45
Wave Velocity (ft/s): 5.17
DATA FOR FLOW PATH 3

Flow Path Name: FlowPath3
FLOW PATH TRAVEL TIME (min): 0.8062
Flow Type: Natural Channel
Length (ft): 320
Top Elevation (ft): 699
Bottom Elevation (ft): 662
Contributing Area (acres): 6.9
Percent of Sub-Area (%): 34.8
Overland Type: Mountain
Map Slope: 0.1156
Effective Slope: 0.1084
Q for Flow Path (cfs): 5.88
Q Top (cfs): 10.99
Q Bottom (cfs): 16.87
Velocity Top (ft/s): 4.10
Velocity Bottom (ft/s): 4.72
Avg Velocity (ft/s): 4.41
Wave Velocity (ft/s): 6.62
♀
Tc for frequency = 25.00: 17.484 Minutes
DATA FOR SUB AREA 1

SUB AREA TIME OF CONCENTRATION: 17.484 min. = 17 min.

SUB AREA INPUT DATA

Sub Area Name: 1A
Total Area (ac): 19.8
Flood Zone: 3
Rainfall Zone: J'
Storm Frequency (years): 25
Development Type: Undeveloped
Soil Type: 2.00

Percent Impervious: 4
SUB AREA OUTPUT

Intensity (in/hr): 1.725
C Total: 0.742
Sum Q Segments (cfs): 25.33
Q Total (cfs): 25.33
Sum Percent Area (%): 100.0
Sum of Flow Path Travel Times (sec): 1,049.06
Time of Concentration (min): 17.484

DATA FOR FLOW PATH 1

Flow Path Name: FlowPath1
FLOW PATH TRAVEL TIME (min): 16.6816
Flow Type: Overland
Length (ft): 810
Top Elevation (ft): 780
Bottom Elevation (ft): 702
Contributing Area (acres): 9.2
Percent of Sub-Area (%): 46.5
Overland Type: Mountain
Development Type: Undeveloped
Map Slope: 0.0963
Effective Slope: 0.0963
Q for Flow Path (cfs): 11.77
Avg Velocity (ft/s): 0.81
Passed Scour Check: YES
Scour Velocity (ft/sec): 0.00
DATA FOR FLOW PATH 2

Flow Path Name: FlowPath2
FLOW PATH TRAVEL TIME (min): 0.0985
Flow Type: Natural Channel
Length (ft): 35
Top Elevation (ft): 702
Bottom Elevation (ft): 699
Contributing Area (acres): 3.7
Percent of Sub-Area (%): 18.7
Overland Type: Mountain
Map Slope: 0.0857
Effective Slope: 0.0857
Q for Flow Path (cfs): 4.73
Q Top (cfs): 11.77
Q Bottom (cfs): 16.50
Velocity Top (ft/s): 3.73
Velocity Bottom (ft/s): 4.17
Avg Velocity (ft/s): 3.95
Wave Velocity (ft/s): 5.92
DATA FOR FLOW PATH 3

Flow Path Name: FlowPath3
FLOW PATH TRAVEL TIME (min): 0.7042
Flow Type: Natural Channel
Length (ft): 320
Top Elevation (ft): 699
Bottom Elevation (ft): 662
Contributing Area (acres): 6.9
Percent of Sub-Area (%): 34.8
Overland Type: Mountain
Map Slope: 0.1156
Effective Slope: 0.1084

Q for Flow Path (cfs): 8.83
Q Top (cfs): 16.50
Q Bottom (cfs): 25.33
Velocity Top (ft/s): 4.69
Velocity Bottom (ft/s): 5.41
Avg Velocity (ft/s): 5.05
Wave Velocity (ft/s): 7.57
♀
Tc for frequency = 50.00: 15.574 Minutes
DATA FOR SUB AREA 1

SUB AREA TIME OF CONCENTRATION: 15.574 min. = 16 min.

SUB AREA INPUT DATA

Sub Area Name: 1A
Total Area (ac): 19.8
Flood Zone: 3
Rainfall Zone: J'
Storm Frequency (years): 50
Development Type: Undeveloped
Soil Type: 2.00
Percent Impervious: 4
SUB AREA OUTPUT

Intensity (in/hr): 2.019
C Total: 0.771
Sum Q Segments (cfs): 30.82
Q Total (cfs): 30.82
Sum Percent Area (%): 100.0
Sum of Flow Path Travel Times (sec): 934.46
Time of Concentration (min): 15.574

DATA FOR FLOW PATH 1

Flow Path Name: FlowPath1
FLOW PATH TRAVEL TIME (min): 14.8224
Flow Type: Overland
Length (ft): 810
Top Elevation (ft): 780
Bottom Elevation (ft): 702
Contributing Area (acres): 9.2
Percent of Sub-Area (%): 46.5
Overland Type: Mountain
Development Type: Undeveloped
Map Slope: 0.0963
Effective Slope: 0.0963
Q for Flow Path (cfs): 14.32
Avg Velocity (ft/s): 0.91
Passed Scour Check: YES
Scour Velocity (ft/sec): 4.16
DATA FOR FLOW PATH 2

Flow Path Name: FlowPath2
FLOW PATH TRAVEL TIME (min): 0.0923
Flow Type: Natural Channel
Length (ft): 35
Top Elevation (ft): 702
Bottom Elevation (ft): 699
Contributing Area (acres): 3.7
Percent of Sub-Area (%): 18.7
Overland Type: Mountain

Map Slope: 0.0857
Effective Slope: 0.0857
Q for Flow Path (cfs): 5.76
Q Top (cfs): 14.32
Q Bottom (cfs): 20.08
Velocity Top (ft/s): 3.98
Velocity Bottom (ft/s): 4.45
Avg Velocity (ft/s): 4.21
Wave Velocity (ft/s): 6.32
DATA FOR FLOW PATH 3

Flow Path Name: FlowPath3
FLOW PATH TRAVEL TIME (min): 0.6597
Flow Type: Natural Channel
Length (ft): 320
Top Elevation (ft): 699
Bottom Elevation (ft): 662
Contributing Area (acres): 6.9
Percent of Sub-Area (%): 34.8
Overland Type: Mountain
Map Slope: 0.1156
Effective Slope: 0.1084
Q for Flow Path (cfs): 10.74
Q Top (cfs): 20.08
Q Bottom (cfs): 30.82
Velocity Top (ft/s): 5.01
Velocity Bottom (ft/s): 5.77
Avg Velocity (ft/s): 5.39
Wave Velocity (ft/s): 8.08
♀
Tc for frequency = 100.00: 12.766 Minutes
DATA FOR SUB AREA 1

SUB AREA TIME OF CONCENTRATION: 12.766 min. = 13 min.

SUB AREA INPUT DATA

Sub Area Name: 1A
Total Area (ac): 19.8
Flood Zone: 3
Rainfall Zone: J'
Storm Frequency (years): 100
Development Type: Undeveloped
Soil Type: 2.00
Percent Impervious: 4
SUB AREA OUTPUT

Intensity (in/hr): 2.492
C Total: 0.805
Sum Q Segments (cfs): 39.75
Q Total (cfs): 39.75
Sum Percent Area (%): 100.0
Sum of Flow Path Travel Times (sec): 765.97
Time of Concentration (min): 12.766

DATA FOR FLOW PATH 1

Flow Path Name: FlowPath1
FLOW PATH TRAVEL TIME (min): 12.0753
Flow Type: Overland
Length (ft): 810
Top Elevation (ft): 780

Bottom Elevation (ft): 702
Contributing Area (acres): 9.2
Percent of Sub-Area (%): 46.5
Overland Type: Mountain
Development Type: Undeveloped
Map Slope: 0.0963
Effective Slope: 0.0963
Q for Flow Path (cfs): 18.47
Avg Velocity (ft/s): 1.12
Passed Scour Check: YES
Scour Velocity (ft/sec): 4.54
DATA FOR FLOW PATH 2

Flow Path Name: FlowPath2
FLOW PATH TRAVEL TIME (min): 0.0848
Flow Type: Natural Channel
Length (ft): 35
Top Elevation (ft): 702
Bottom Elevation (ft): 699
Contributing Area (acres): 3.7
Percent of Sub-Area (%): 18.7
Overland Type: Mountain
Map Slope: 0.0857
Effective Slope: 0.0857
Q for Flow Path (cfs): 7.43
Q Top (cfs): 18.47
Q Bottom (cfs): 25.90
Velocity Top (ft/s): 4.33
Velocity Bottom (ft/s): 4.85
Avg Velocity (ft/s): 4.59
Wave Velocity (ft/s): 6.88
DATA FOR FLOW PATH 3

Flow Path Name: FlowPath3
FLOW PATH TRAVEL TIME (min): 0.6061
Flow Type: Natural Channel
Length (ft): 320
Top Elevation (ft): 699
Bottom Elevation (ft): 662
Contributing Area (acres): 6.9
Percent of Sub-Area (%): 34.8
Overland Type: Mountain
Map Slope: 0.1156
Effective Slope: 0.1084
Q for Flow Path (cfs): 13.85
Q Top (cfs): 25.90
Q Bottom (cfs): 39.75
Velocity Top (ft/s): 5.45
Velocity Bottom (ft/s): 6.28
Avg Velocity (ft/s): 5.87
Wave Velocity (ft/s): 8.80

VENTURA COUNTY WATERSHED PROTECTION DISTRICT
TIME OF CONCENTRATION
TC Program Version: 2.6.2009.7
Project: 7167 PINNEO
Date: 12:00:00 AM
Engineer: Michelle Meehan
Consultant:

S U M M A R Y O F C O M P U T A T I O N S

Watershed Name: DEVELOPED

Name	Zone	Storm	Soil	Area (acres)	TC (min)
1A	J'	10	2.00	19.8 / 20	20.628 / 21
1A	J'	25	2.00	19.8 / 20	17.474 / 17
1A	J'	50	2.00	19.8 / 20	15.403 / 15
1A	J'	100	2.00	19.8 / 20	12.637 / 13

♀

Watershed Name: DEVELOPED

Sub-Area Name: 1A
Computing Tc for all rainfall frequencies for sub-area 1A...

Tc for frequency = 10.00: 20.628 Minutes
DATA FOR SUB AREA 1

SUB AREA TIME OF CONCENTRATION: 20.628 min. = 21 min.

SUB AREA INPUT DATA

Sub Area Name: 1A
Total Area (ac): 19.8
Flood Zone: 3
Rainfall Zone: J'
Storm Frequency (years): 10
Development Type: Undeveloped
Soil Type: 2.00
Percent Impervious: 5
SUB AREA OUTPUT

Intensity (in/hr): 1.260
C Total: 0.679
Sum Q Segments (cfs): 16.94
Q Total (cfs): 16.94
Sum Percent Area (%): 100.0
Sum of Flow Path Travel Times (sec): 1,237.68
Time of Concentration (min): 20.628

DATA FOR FLOW PATH 1

Flow Path Name: FlowPath 1
FLOW PATH TRAVEL TIME (min): 19.7848
Flow Type: Overland
Length (ft): 810
Top Elevation (ft): 780
Bottom Elevation (ft): 702
Contributing Area (acres): 9.2
Percent of Sub-Area (%): 46.5
Overland Type: Mountain

Development Type: Undeveloped
Map Slope: 0.0963
Effective Slope: 0.0963
Q for Flow Path (cfs): 7.87
Avg Velocity (ft/s): 0.68
Passed Scour Check: YES
Scour Velocity (ft/sec): 3.49
DATA FOR FLOW PATH 2

Flow Path Name: FlowPath 2
FLOW PATH TRAVEL TIME (min): 0.0869
Flow Type: Natural Channel
Length (ft): 35
Top Elevation (ft): 702
Bottom Elevation (ft): 696
Contributing Area (acres): 3.6
Percent of Sub-Area (%): 18.2
Overland Type: Mountain
Map Slope: 0.1714
Effective Slope: 0.1444
Q for Flow Path (cfs): 3.08
Q Top (cfs): 7.87
Q Bottom (cfs): 10.95
Velocity Top (ft/s): 4.23
Velocity Bottom (ft/s): 4.72
Avg Velocity (ft/s): 4.48
Wave Velocity (ft/s): 6.71
DATA FOR FLOW PATH 3

Flow Path Name: FlowPath 3
FLOW PATH TRAVEL TIME (min): 0.4999
Flow Type: Pipe
Length (ft): 290
Top Elevation (ft): 696
Bottom Elevation (ft): 666
Contributing Area (acres): 2.6
Percent of Sub-Area (%): 13.1
Initial Pipe Diameter (in): 24
Calculated Pipe Diameter (in): 15
Used Pipe Diameter (in): 24
Manning's N: 0.012
Map Slope: 0.1034
Q for Flow Path (cfs): 2.22
Q Top (cfs): 10.95
Q Bottom (cfs): 13.18
Avg Velocity (ft/s): 7.28
Wave Velocity (ft/s): 9.67
DATA FOR FLOW PATH 4

Flow Path Name: FlowPath 4
FLOW PATH TRAVEL TIME (min): 0.2564
Flow Type: Natural Channel
Length (ft): 74
Top Elevation (ft): 666
Bottom Elevation (ft): 662
Contributing Area (acres): 4.4
Percent of Sub-Area (%): 22.2
Overland Type: Mountain
Map Slope: 0.0541
Effective Slope: 0.0541
Q for Flow Path (cfs): 3.76
Q Top (cfs): 13.18

Q Bottom (cfs): 16.94
Velocity Top (ft/s): 3.07
Velocity Bottom (ft/s): 3.34
Avg Velocity (ft/s): 3.21
Wave Velocity (ft/s): 4.81
♀
Tc for frequency = 25.00: 17.474 Minutes
DATA FOR SUB AREA 1

SUB AREA TIME OF CONCENTRATION: 17.474 min. = 17 min.

SUB AREA INPUT DATA

Sub Area Name: 1A
Total Area (ac): 19.8
Flood Zone: 3
Rainfall Zone: J'
Storm Frequency (years): 25
Development Type: Undeveloped
Soil Type: 2.00
Percent Impervious: 5
SUB AREA OUTPUT

Intensity (in/hr): 1.725
C Total: 0.744
Sum Q Segments (cfs): 25.40
Q Total (cfs): 25.40
Sum Percent Area (%): 100.0
Sum of Flow Path Travel Times (sec): 1,048.45
Time of Concentration (min): 17.474

DATA FOR FLOW PATH 1

Flow Path Name: FlowPath 1
FLOW PATH TRAVEL TIME (min): 16.6816
Flow Type: Overland
Length (ft): 810
Top Elevation (ft): 780
Bottom Elevation (ft): 702
Contributing Area (acres): 9.2
Percent of Sub-Area (%): 46.5
Overland Type: Mountain
Development Type: Undeveloped
Map Slope: 0.0963
Effective Slope: 0.0963
Q for Flow Path (cfs): 11.80
Avg Velocity (ft/s): 0.81
Passed Scour Check: YES
Scour Velocity (ft/sec): 0.00
DATA FOR FLOW PATH 2

Flow Path Name: FlowPath 2
FLOW PATH TRAVEL TIME (min): 0.0759
Flow Type: Natural Channel
Length (ft): 35
Top Elevation (ft): 702
Bottom Elevation (ft): 696
Contributing Area (acres): 3.6
Percent of Sub-Area (%): 18.2
Overland Type: Mountain
Map Slope: 0.1714
Effective Slope: 0.1444

```
Q for Flow Path (cfs): 4.62
Q Top (cfs): 11.80
Q Bottom (cfs): 16.42
Velocity Top (ft/s): 4.84
Velocity Bottom (ft/s): 5.40
Avg Velocity (ft/s): 5.12
Wave Velocity (ft/s): 7.68
DATA FOR FLOW PATH 3
-------------------------------------------------------------------------------
Flow Path Name: FlowPath 3
FLOW PATH TRAVEL TIME (min): 0.4926
Flow Type: Pipe
Length (ft): 290
Top Elevation (ft): 696
Bottom Elevation (ft): 666
Contributing Area (acres): 2.6
Percent of Sub-Area (%): 13.1
Initial Pipe Diameter (in): 24
Calculated Pipe Diameter (in): 15
Used Pipe Diameter (in): 24
Manning's N: 0.012
Map Slope: 0.1034
Q for Flow Path (cfs): 3.34
Q Top (cfs): 16.42
Q Bottom (cfs): 19.76
Avg Velocity (ft/s): 7.95
Wave Velocity (ft/s): 9.81
DATA FOR FLOW PATH 4
-------------------------------------------------------------------------------
Flow Path Name: FlowPath 4
FLOW PATH TRAVEL TIME (min): 0.2240
Flow Type: Natural Channel
Length (ft): 74
Top Elevation (ft): 666
Bottom Elevation (ft): 662
Contributing Area (acres): 4.4
Percent of Sub-Area (%): 22.2
Overland Type: Mountain
Map Slope: 0.0541
Effective Slope: 0.0541
Q for Flow Path (cfs): 5.65
Q Top (cfs): 19.76
Q Bottom (cfs): 25.40
Velocity Top (ft/s): 3.52
Velocity Bottom (ft/s): 3.82
Avg Velocity (ft/s): 3.67
Wave Velocity (ft/s): 5.50
♀
Tc for frequency = 50.00: 15.403 Minutes
DATA FOR SUB AREA 1
-------------------------------------------------------------------------------
SUB AREA TIME OF CONCENTRATION: 15.403 min. = 15 min.
-------------------------------------------------------------------------------
SUB AREA INPUT DATA
-------------------------------------------------------------------------------
Sub Area Name: 1A
Total Area (ac): 19.8
Flood Zone: 3
Rainfall Zone: J'
Storm Frequency (years): 50
Development Type: Undeveloped
Soil Type: 2.00
```

Percent Impervious: 5
SUB AREA OUTPUT

Intensity (in/hr): 2.088
C Total: 0.778
Sum Q Segments (cfs): 32.15
Q Total (cfs): 32.15
Sum Percent Area (%): 100.0
Sum of Flow Path Travel Times (sec): 924.16
Time of Concentration (min): 15.403

DATA FOR FLOW PATH 1

Flow Path Name: FlowPath 1
FLOW PATH TRAVEL TIME (min): 14.8224
Flow Type: Overland
Length (ft): 810
Top Elevation (ft): 780
Bottom Elevation (ft): 702
Contributing Area (acres): 9.2
Percent of Sub-Area (%): 46.5
Overland Type: Mountain
Development Type: Undeveloped
Map Slope: 0.0963
Effective Slope: 0.0963
Q for Flow Path (cfs): 14.94
Avg Velocity (ft/s): 0.91
Passed Scour Check: YES
Scour Velocity (ft/sec): 4.22
DATA FOR FLOW PATH 2

Flow Path Name: FlowPath 2
FLOW PATH TRAVEL TIME (min): 0.0702
Flow Type: Natural Channel
Length (ft): 35
Top Elevation (ft): 702
Bottom Elevation (ft): 696
Contributing Area (acres): 3.6
Percent of Sub-Area (%): 18.2
Overland Type: Mountain
Map Slope: 0.1714
Effective Slope: 0.1444
Q for Flow Path (cfs): 5.85
Q Top (cfs): 14.94
Q Bottom (cfs): 20.79
Velocity Top (ft/s): 5.24
Velocity Bottom (ft/s): 5.85
Avg Velocity (ft/s): 5.54
Wave Velocity (ft/s): 8.31
DATA FOR FLOW PATH 3

Flow Path Name: FlowPath 3
FLOW PATH TRAVEL TIME (min): 0.3029
Flow Type: Pipe
Length (ft): 290
Top Elevation (ft): 696
Bottom Elevation (ft): 666
Contributing Area (acres): 2.6
Percent of Sub-Area (%): 13.1
Initial Pipe Diameter (in): 24
Calculated Pipe Diameter (in): 18
Used Pipe Diameter (in): 24

Manning's N: 0.012
Map Slope: 0.1034
Q for Flow Path (cfs): 4.22
Q Top (cfs): 20.79
Q Bottom (cfs): 25.01
Avg Velocity (ft/s): 12.30
Wave Velocity (ft/s): 15.96
DATA FOR FLOW PATH 4

Flow Path Name: FlowPath 4
FLOW PATH TRAVEL TIME (min): 0.2071
Flow Type: Natural Channel
Length (ft): 74
Top Elevation (ft): 666
Bottom Elevation (ft): 662
Contributing Area (acres): 4.4
Percent of Sub-Area (%): 22.2
Overland Type: Mountain
Map Slope: 0.0541
Effective Slope: 0.0541
Q for Flow Path (cfs): 7.15
Q Top (cfs): 25.01
Q Bottom (cfs): 32.15
Velocity Top (ft/s): 3.80
Velocity Bottom (ft/s): 4.14
Avg Velocity (ft/s): 3.97
Wave Velocity (ft/s): 5.95
♀
Tc for frequency = 100.00: 12.637 Minutes
DATA FOR SUB AREA 1

SUB AREA TIME OF CONCENTRATION: 12.637 min. = 13 min.

SUB AREA INPUT DATA

Sub Area Name: 1A
Total Area (ac): 19.8
Flood Zone: 3
Rainfall Zone: J'
Storm Frequency (years): 100
Development Type: Undeveloped
Soil Type: 2.00
Percent Impervious: 5
SUB AREA OUTPUT

Intensity (in/hr): 2.492
C Total: 0.807
Sum Q Segments (cfs): 39.82
Q Total (cfs): 39.82
Sum Percent Area (%): 100.0
Sum of Flow Path Travel Times (sec): 758.19
Time of Concentration (min): 12.637

DATA FOR FLOW PATH 1

Flow Path Name: FlowPath 1
FLOW PATH TRAVEL TIME (min): 12.0753
Flow Type: Overland
Length (ft): 810
Top Elevation (ft): 780
Bottom Elevation (ft): 702
Contributing Area (acres): 9.2

Percent of Sub-Area (%): 46.5
Overland Type: Mountain
Development Type: Undeveloped
Map Slope: 0.0963
Effective Slope: 0.0963
Q for Flow Path (cfs): 18.50
Avg Velocity (ft/s): 1.12
Passed Scour Check: YES
Scour Velocity (ft/sec): 4.54
DATA FOR FLOW PATH 2

Flow Path Name: FlowPath 2
FLOW PATH TRAVEL TIME (min): 0.0654
Flow Type: Natural Channel
Length (ft): 35
Top Elevation (ft): 702
Bottom Elevation (ft): 696
Contributing Area (acres): 3.6
Percent of Sub-Area (%): 18.2
Overland Type: Mountain
Map Slope: 0.1714
Effective Slope: 0.1444
Q for Flow Path (cfs): 7.24
Q Top (cfs): 18.50
Q Bottom (cfs): 25.74
Velocity Top (ft/s): 5.62
Velocity Bottom (ft/s): 6.28
Avg Velocity (ft/s): 5.95
Wave Velocity (ft/s): 8.92
DATA FOR FLOW PATH 3

Flow Path Name: FlowPath 3
FLOW PATH TRAVEL TIME (min): 0.3029
Flow Type: Pipe
Length (ft): 290
Top Elevation (ft): 696
Bottom Elevation (ft): 666
Contributing Area (acres): 2.6
Percent of Sub-Area (%): 13.1
Initial Pipe Diameter (in): 24
Calculated Pipe Diameter (in): 18
Used Pipe Diameter (in): 24
Manning's N: 0.012
Map Slope: 0.1034
Q for Flow Path (cfs): 5.23
Q Top (cfs): 25.74
Q Bottom (cfs): 30.97
Avg Velocity (ft/s): 12.87
Wave Velocity (ft/s): 15.96
DATA FOR FLOW PATH 4

Flow Path Name: FlowPath 4
FLOW PATH TRAVEL TIME (min): 0.1929
Flow Type: Natural Channel
Length (ft): 74
Top Elevation (ft): 666
Bottom Elevation (ft): 662
Contributing Area (acres): 4.4
Percent of Sub-Area (%): 22.2
Overland Type: Mountain
Map Slope: 0.0541
Effective Slope: 0.0541

Q for Flow Path (cfs): 8.85
Q Top (cfs): 30.97
Q Bottom (cfs): 39.82
Velocity Top (ft/s): 4.08
Velocity Bottom (ft/s): 4.44
Avg Velocity (ft/s): 4.26
Wave Velocity (ft/s): 6.39

Developed Conditions
15498 Lapeyre Court
Moorpark, CA
job number 7167

interior subarea	area (acres)	discharge (10-year) (cfs)	discharge (100-year) (cfs)
1A(1)	9.2	7.9	18.5
1A(2)	3.6	3.1	7.2
1A(3)	2.6	2.2	5.2
1A(4)	4.4	3.8	8.9

Grating Basin Sizing

15498 Lapeyre Court
Moorpark, CA
job number
100-year grate sizing

Grating Basin area	100-year Discharge (Q) (cfs)	# of basins	discharge per basin (cfs)	assumed max. head on grate (H) (ft)	calculated grate size opening (sq ft)	grate type	grate size	actual opening size (sq ft)
1A(2) (1/4)	1.8	4	0.45	0.1	0.58	square	12"	0.790
1A(3)	5.2	16	0.33	0.1	0.42	square	12"	0.790
1A(3)	5.2	5	1.04	0.5	0.60	atrium	18"	0.621

FORMULA:
Q =A*.61*(2gh)^0.5
a = Q/(((2gh)^0.5)*.61)

CATCH BASIN SIZE:	6" AREA DRAIN	12"X12" (part 1213)	12"x12" (part 1215)	18"X18"	Channel drain 6"x18'	Channel drain 6"x20'	12" ATRIUM GRATE	18" ATRIUM GRATE
OPEN AREA (in^2)	9.1	59.5	113.78	239	357.3	397	50.6	89.43
OPEN AREA (ft^2)	**0.063**	**0.413**	**0.790**	**1.660**	**2.481**	**2.757**	**0.351**	**0.621**

Determination of Required Pipe Size (100-year event)

15498 Lapeyre Court
Moorpark, CA
job number 7167

For Hancor HDPE pipe, Kprov from Hancor Water Management Drainage Handbook, table 3-1

Pipe Size (in)	Kprov
4	2.5
6	7.3
8	15.7
10	28.5
12	46.3
15	84.0
18	136.6
21	206.0
24	294.4
30	533.0
36	866.8

Equations:
Kreq = Q/((S)^0.5) Kreq=Krequired
Kprov=46.3d^(8/3) Kprov=Kprovided
Kprov must be greater than Kreq

contributing subareas	Q100 (cfs)	slope	Kreq	Pipe Size (in)	Kprov	Kreq/Kprov
1A(2) (1/4)	1.8	0.050	8.0	6	7.3	110%
1A(1-2)	24.7	0.010	247.0	24	294.4	84%
1A(3) (1/4)	1.8	0.010	18.0	8	15.7	115%
1A(3) (half)	2.6	0.010	26.0	12	46.3	56%
1A(3)	5.2	0.020	36.8	12	46.3	79%
1A(1-3)	31.0	0.020	219.2	24	294.4	74%

Detention Volume for Attenuating Peak Runoff from Small Developed Areas

15498 Lapeyre Court
Moorpark, CA
job number **7167**

	undeveloped	developed
100-yr 1-d Rain in	6.5	6.5
Soil Type	2	2
Land Use	pasture, poor	farmstead
CN Exhibit 14	81	83
S = 1000/CN-10	2.35	2.05
Yield in	4.34	4.56
Volume Calculation		
Yield Difference in		0.22
Surface Storage		0.00
Net Yield		0.22
Impervious Area ac		0.360
Vol Increase CF- Max Basin Size Req'd		281.72
proposed detention basin volume		
bottom of basin (sq ft)		240
top of basin (at TG elevation) (sq ft)		617
depth of basin (ft)		1
volume (cubic ft)		428.5

Standpipe Calculations

15498 Lapeyre Court
Moorpark, CA

job number **7167**

Weir equation for sharp crested weir:
Q=K(2*g)^0.5*LH^1.5
K=0.4+0.05*(h/p), where p is equal to the height from the top of the debris to the top of the riser

BASIN 1

elevation of top of standpipe=	698.8	ft
elevation of bottom of basin=	697	ft
top of basin =	700	ft
discharge, Q100=	25.7	cfs
head above weir, H =	1.2	ft
p =	1.8	ft
weir coefficient, K	0.433333	
diameter of riser =	2	ft
length of weir (circumference), L =	6.28	ft
top of standpipe capacity, Q =	**28.7**	cfs

24" PIPE ORIFICE CALCS

Project Description

Solve For	Headwater Elevation

Input Data

Discharge	25.70	ft³/s
Centroid Elevation	695.00	ft
Tailwater Elevation	696.18	ft
Discharge Coefficient	0.62	
Diameter	2.00	ft

Results

Headwater Elevation	698.89	ft
Headwater Height Above Centroid	3.89	ft
Tailwater Height Above Centroid	1.18	ft
Flow Area	3.14	ft²
Velocity	8.18	ft/s

STORM DRAIN ANALYSIS PLUS

Original version by Los Angeles County Public Works
Portions Copyrighted by CIVILSOFT, 1986, 1987, 1989

Version 1.20
Serial Number 07010233

May 23, 2018 10:53:45

Input file : 7167A100.DAT
Output file: 7167A100.OUT

INPUT FILE LISTING

```
T1 HGL FOR LINE A (100-YEAR FREQUENCY)
T2 JOB NUMBER 7167
T3 BY: MM 3/27/18
SO    100.00 661.00  1      .013
JX    110.00 661.20  1  2   .013     5.2         661.65        90.00
R     225.00 691.90  1      .013
R     435.00 694.00  1      .013
SH                   1
1                                                  SP
                                  WATER SURFACE PROFILE - CHANNEL DEFINITION LISTING                                  PAGE    1
0 CARD  SECT  CHN   NO OF  AVE PIER  HEIGHT 1  BASE    ZL    ZR   INV   Y(1)  Y(2)  Y(3)  Y(4)  Y(5)  Y(6)  Y(7)  Y(8)  Y(9)  Y(10)
  CODE   NO   TYPE  PIERS   WIDTH    DIAMETER  WIDTH             DROP

  CD      1    4                      2.00
  CD      2    4                      1.00
1                                                                                                                PAGE NO   1
0                              WATER SURFACE PROFILE - TITLE CARD LISTING
0HEADING LINE NO 1 IS -
0                               HGL FOR LINE A (100-YEAR FREQUENCY)
0HEADING LINE NO 2 IS -
0                               JOB NUMBER 7167
0HEADING LINE NO 3 IS -
0                               BY: MM 3/27/18
1                                                                                                                PAGE NO   2
0                              WATER SURFACE PROFILE - ELEMENT CARD LISTING
0 ELEMENT NO   1 IS A SYSTEM OUTLET      *       *      *
                    U/S DATA   STATION    INVERT  SECT                                    W S ELEV
                               100.00     661.00    1                                        .00
0 ELEMENT NO   2 IS A JUNCTION           *       *      *      *                *                *              *
                    U/S DATA   STATION    INVERT  SECT LAT-1 LAT-2   N      Q3       Q4     INVERT-3 INVERT-4  PHI 3   PHI 4
                               110.00     661.20    1     2     0   .013      5.2       .0   661.65      .00    90.00     .00
0 ELEMENT NO   3 IS A REACH              *       *      *
                    U/S DATA   STATION    INVERT  SECT               N                                RADIUS  ANGLE  ANG PT  MAN H
                               225.00     691.90    1               .013                                 .00     .00     .00      0
0 ELEMENT NO   4 IS A REACH              *       *      *
                    U/S DATA   STATION    INVERT  SECT               N                                RADIUS  ANGLE  ANG PT  MAN H
                               435.00     694.00    1               .013                                 .00     .00     .00      0
0 ELEMENT NO   5 IS A SYSTEM HEADWORKS                  *                      *
```

U/S DATA STATION INVERT SECT W S ELEV
435.00 694.00 1 .00
NO EDIT ERRORS ENCOUNTERED-COMPUTATION IS NOW BEGINNING

** WARNING NO. 2 ** - WATER SURFACE ELEVATION GIVEN IS LESS THAN OR EQUALS INVERT ELEVATION IN HDWKDS, W.S.ELEV = INV + DC

1 PAGE 1

WATER SURFACE PROFILE LISTING

HGL FOR LINE A (100-YEAR FREQUENCY)
JOB NUMBER 7167
BY: MM 3/27/18

0 STATION / 0 L/ELEM	INVERT ELEV / SO	DEPTH OF FLOW	W.S. ELEV	Q	VEL	VEL HEAD / SF AVE	ENERGY GRD.EL. / HF	SUPER ELEV	CRITICAL DEPTH / NORM DEPTH	HGT/ DIA	BASE/ ID NO.	ZL / ZR	NO PIER	AVBPR
0 100.00	661.00	.91	661.91	30.9	22.13	7.61	669.53	.00	1.88	2.00	.00	.00	0	.00
0JUNCT STR	.02000					.17723	1.77					.00		
0 110.00	661.20	.65	661.85	25.7	29.23	13.27	675.12	.00	1.78	2.00	.00	.00	0	.00
0JUNCT STR	.02000					.25205	.00					.00		
0 110.00	661.20	.65	661.85	25.7	29.23	13.27	675.12	.00	1.78	2.00	.00	.00	0	.00
0 21.81	.26696					.24533	5.35		.64			.00		
0 131.81	667.02	.66	667.68	25.7	28.67	12.77	680.45	.00	1.78	2.00	.00	.00	0	.00
0 26.43	.26696					.22394	5.92		.64			.00		
0 158.24	674.08	.68	674.76	25.7	27.33	11.61	686.37	.00	1.78	2.00	.00	.00	0	.00
0 14.60	.26696					.19631	2.87		.64			.00		
0 172.84	677.98	.70	678.68	25.7	26.06	10.55	689.23	.00	1.78	2.00	.00	.00	0	.00
0 9.85	.26696					.17205	1.69		.64			.00		
0 182.69	680.60	.73	681.33	25.7	24.85	9.59	690.93	.00	1.78	2.00	.00	.00	0	.00
0 7.29	.26696					.15084	1.10		.64			.00		
0 189.97	682.55	.75	683.30	25.7	23.69	8.72	692.03	.00	1.78	2.00	.00	.00	0	.00
0 5.69	.26696					.13228	.75		.64			.00		
0 195.66	684.07	.78	684.85	25.7	22.59	7.93	692.78	.00	1.78	2.00	.00	.00	0	.00
0 4.59	.26696					.11609	.53		.64			.00		
0 200.25	685.29	.81	686.10	25.7	21.54	7.21	693.31	.00	1.78	2.00	.00	.00	0	.00
0 3.79	.26696					.10191	.39		.64			.00		
0 204.04	686.30	.84	687.14	25.7	20.53	6.55	693.70	.00	1.78	2.00	.00	.00	0	.00
0 3.18	.26696					.08947	.28		.64			.00		

1 PAGE 2

WATER SURFACE PROFILE LISTING

HGL FOR LINE A (100-YEAR FREQUENCY)
JOB NUMBER 7167
BY: MM 3/27/18

0 STATION / 0 L/ELEM	INVERT ELEV / SO	DEPTH OF FLOW	W.S. ELEV	Q	VEL	VEL HEAD / SF AVE	ENERGY GRD.EL. / HF	SUPER ELEV	CRITICAL DEPTH / NORM DEPTH	HGT/ DIA	BASE/ ID NO.	ZL / ZR	NO PIER	AVBPR
0 207.22	687.15	.87	688.02	25.7	19.58	5.96	693.98	.00	1.78	2.00	.00	.00	0	.00
0 2.71	.26696					.07861	.21		.64			.00		
0 209.93	687.88	.90	688.78	25.7	18.67	5.42	694.19	.00	1.78	2.00	.00	.00	0	.00
0 2.32	.26696					.06910	.16		.64			.00		
0 212.24	688.49	.94	689.43	25.7	17.80	4.92	694.35	.00	1.78	2.00	.00	.00	0	.00
0 2.00	.26696					.06078	.12		.64			.00		
0 214.24	689.03	.97	690.00	25.7	16.97	4.48	694.48	.00	1.78	2.00	.00	.00	0	.00
0 1.73	.26696					.05350	.09		.64			.00		
0 215.98	689.49	1.01	690.50	25.7	16.18	4.07	694.57	.00	1.78	2.00	.00	.00	0	.00
0 1.51	.26696					.04712	.07		.64			.00		
0 217.48	689.89	1.05	690.94	25.7	15.43	3.70	694.64	.00	1.78	2.00	.00	.00	0	.00

0	1.31	.26696					.04155	.05			.64			.00		
0	218.79	690.24	1.09	691.33	25.7	14.71	3.36	694.69	.00	1.78		2.00	.00	.00	0	.00
0	1.14	.26696					.03667	.04			.64			.00		
0	219.93	690.55	1.13	691.68	25.7	14.03	3.06	694.74	.00	1.78		2.00	.00	.00	0	.00
0	.99	.26696					.03239	.03			.64			.00		
0	220.93	690.81	1.18	691.99	25.7	13.37	2.78	694.77	.00	1.78		2.00	.00	.00	0	.00
0	.86	.26696					.02864	.02			.64			.00		
0	221.79	691.04	1.22	692.27	25.7	12.75	2.53	694.79	.00	1.78		2.00	.00	.00	0	.00
0	.74	.26696					.02537	.02			.64			.00		
0	222.52	691.24	1.28	692.51	25.7	12.16	2.30	694.81	.00	1.78		2.00	.00	.00	0	.00
0	.63	.26696					.02252	.01			.64			.00		
1															PAGE	3

WATER SURFACE PROFILE LISTING

HGL FOR LINE A (100-YEAR FREQUENCY)

JOB NUMBER 7167

BY: MM 3/27/18

0 STATION	INVERT ELEV	DEPTH OF FLOW	W.S. ELEV	Q	VEL	VEL HEAD	ENERGY GRD.EL.	SUPER ELEV	CRITICAL DEPTH		HGT/ DIA	BASE/ ID NO.	ZL	NO PIER	AVBPR
0 L/ELEM	SO					SF AVE	HF			NORM DEPTH			ZR		
0 223.16	691.41	1.33	692.74	25.7	11.59	2.09	694.83	.00	1.78		2.00	.00	.00	0	.00
0 .53	.26696					.02002	.01			.64			.00		
0 223.69	691.55	1.39	692.94	25.7	11.05	1.90	694.84	.00	1.78		2.00	.00	.00	0	.00
0 .44	.26696					.01785	.01			.64			.00		
0 224.14	691.67	1.45	693.12	25.7	10.54	1.73	694.84	.00	1.78		2.00	.00	.00	0	.00
0 .35	.26696					.01597	.01			.64			.00		
0 224.49	691.76	1.52	693.28	25.7	10.05	1.57	694.85	.00	1.78		2.00	.00	.00	0	.00
0 .27	.26696					.01436	.00			.64			.00		
0 224.76	691.84	1.59	693.43	25.7	9.58	1.43	694.85	.00	1.78		2.00	.00	.00	0	.00
0 .18	.26696					.01301	.00			.64			.00		
0 224.93	691.88	1.68	693.56	25.7	9.13	1.30	694.86	.00	1.78		2.00	.00	.00	0	.00
0 .07	.26696					.01194	.00			.64			.00		
0 225.00	691.90	1.78	693.68	25.7	8.71	1.18	694.86	.00	1.78		2.00	.00	.00	0	.00
0 22.18	.01000					.01135	.25			2.00			.00		
0 247.18	692.12	1.92	694.04	25.7	8.30	1.07	695.11	.00	1.78		2.00	.00	.00	0	.00
0 27.43	.01000					.01194	.33			2.00			.00		
0 274.62	692.40	2.00	694.40	25.7	8.18	1.04	695.44	.00	1.78		2.00	.00	.00	0	.00
0 160.38	.01000					.01278	2.05			2.00			.00		
0 435.00	694.00	2.47	696.47	25.7	8.18	1.04	697.51	.00	1.78		2.00	.00	.00	0	.00
1															

Energy Dissipator Design - RIP RAP PAD

Pinneo
Job Number 7167
27-Mar-18

Discharge, Q =	30.9	cfs
pipe diameter, D =	2	ft
flow area at end of pipe, Ao =	1.39	sq ft
equivalent depth, y_e=(A/2)*0.5 =	0.83	ft
depth, y_n =	0.91	ft
velocity, V_o=	20.9	ft/sec
Froude number, Fr=Vo/(g*y_e)1/2=	4.04	
tailwater depth, TW=	0.96	ft
D_{50}=0.2*D*(Q/($g^{0.5}$)($D^{2.5}$))$^{1.33}$*(D/TW)	0.79	ft
D'=(D+y_n)/2	1.46	ft
from table 10.1, HEC-14, Apron Length=5D=	10.00	ft
from table 10.1, HEC-14, Apron Depth=2.4*D_{50}=	1.90	ft
Width of Apron=W1=3*D	6.00	ft
Width of Apron=W2=W1+2*L/3	9.33	ft

Table 10.1. Example Riprap Classes and Apron Dimensions

Class	D_{50} (mm)	D_{50} (in)	Apron Length[1]	Apron Depth
1	125	5	4D	$3.5D_{50}$
2	150	6	4D	$3.3D_{50}$
3	250	10	5D	$2.4D_{50}$
4	350	14	6D	$2.2D_{50}$
5	500	20	7D	$2.0D_{50}$
6	550	22	8D	$2.0D_{50}$

[1]D is the culvert rise.

APPENDIX C

LEGEND

1A — SUBAREA DESIGNATION

SUBAREA BOUNDARY

1A(4) — INTERIOR AREA DESIGNATION

INTERIOR AREA BOUNDARY

HYDROLOGIC DATA

SOIL NUMBER: 2

RAINFALL ZONE: J'

interior subarea	area (acres)	discharge (10-year) (cfs)	discharge (100-year) (cfs)
1A(1)	9.2	7.9	18.5
1A(2)	3.6	3.1	7.2
1A(3)	2.6	2.2	5.2
1A(4)	4.4	3.8	8.9

1A
AREA=19.8 AC
% IMPERVIOUS=5%
Q_1=12.44 CFS
Q_{10}=16.94 CFS
Q_{50}=32.15 CFS
Q_{100}=39.82 CFS

1A(1)
$Q_{10(OFFSITE)}$=7.87 CFS
$Q_{50(OFFSITE)}$=14.94 CFS
$Q_{100(OFFSITE)}$=18.50 CFS

1A(2)
Q_{10}=10.95 CFS
Q_{50}=20.79 CFS
Q_{100}=25.74 CFS

1A(3)

1A(4)

PARCEL 4
56 PM 84
ARENA

PARCEL 3

EX. RIPRAP PAD

PROP. 24"PVC

PROP. 12"PVC

PROPOSED 10'X9' RIPRAP PAD

EXIST. TRAIL ARENA

EXIST. TURNOUT

EXIST. MARE MOTEL

EXIST. ROUND PEN

EXIST. SEEPAGE PIT

EX. BARN

EX. BASIN

F.D. TANK

HOUSE PAD=718.0

SINGLE FAMILY RESIDENCE

PROPOSED 10' DIAMETER WATER TANK

PROPOSED BARN W/LOUNGE

PROPOSED SEEPAGE PIT

PROPOSED SAND FILTER

1000 GAL SEPTIC TANK

ADD 6' DIA. SEPTIC TANK

ADD GAL SEPTIC TANK

DETENTION BASIN
BOTTOM AREA=582.50 FT
VOLUME=
RIM=666.00
FO=664.50
BOTTOM=661.50

EXIST. WHITE RAIL FENCE

10" PEPPER

EXIST. CHAIN LINK FENCE

LAPEYRE COURT (PRIVATE)

30' WIDE ACCESS EASEMENT OR PARCEL 55 PM

JAE TBM EL. 750.0

APN 500-039-306

APN 500-039-322

APN 594-003-010

APN 594-003-006

APN 594-0-030-11

APN 594-0-030-12

APN 594-002-010

APN 594-002-011

S89°47'25"W 1062.19'

S89°57'07"E 1062.06'

N89°57'04"E 1061.87'

S00°01'46"E 1151.00'

S00°01'46"E 1062.01'

S00°01'46"E 303.41'

S00°01'05"W 921.10'

SCALE: 1"=60'

0 60 120 180

REGISTERED PROFESSIONAL ENGINEER
LEONARD T. LISTON
No.31902
Exp. Dec. 2018
CIVIL
STATE OF CALIFORNIA

APN: 5940-030-11
5940-030-12

GP 17-0019

1		31902				
△	DESCRIPTION OF REVISION	RCE	DATE	APP.	DATE	

REV. APRIL-2009

DESIGN ENGINEER
LC ENGINEERING GROUP, INC.
CONSULTING ENGINEERS
889 Pierce Court, Suite 101, Thousand Oaks, California 91360
818-991-7148 • 805-497-1244 • lcegroupinc.com • workfiles@lcegroupinc.com

31902
LEONARD LISTON RCE DATE

APPROVED: COUNTY OF VENTURA

BY _____ MANAGER, DEVELOPMENT SERVICES

DATE: _____

COUNTY OF VENTURA
PUBLIC WORKS AGENCY
DEVELOPMENT SERVICES

SPEC. NO.

PROJ. NO. 7167

DEVELOPED CONDITIONS HYDROLOGY MAP
PARCEL 4 56 PM 84
15498 LAPEYRE CT., MOORPARK, CA. 93021

SHEET 1 OF 1

DRAWING NO.

X:\LCE GROUP\Civil\2085\7160\7167 Pioneo\CIVIL\DWG\DTL AND EXHIBIT\7167 HYDROLOGY.dwg May 23, 2018, 1:50pm Michelle Meehan

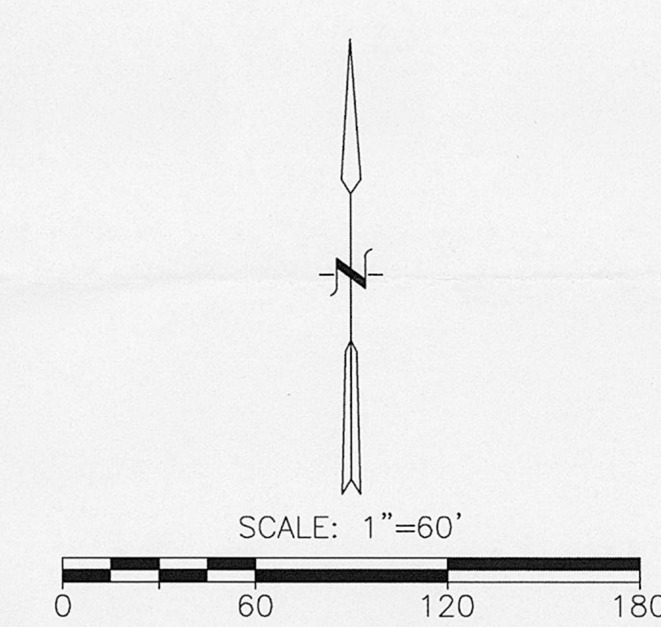
LEGEND

(1A)	*SUBAREA DESIGNATION*
▬▬▬	*SUBAREA BOUNDARY*
1A(4)	*INTERIOR AREA DESIGNATION*
– – – – – –	*INTERIOR AREA BOUNDARY*

HYDROLOGIC DATA

SOIL NUMBER: 2

RAINFALL ZONE: J'



REGISTERED PROFESSIONAL ENGINEER
LEONARD I. LISTON
No.31902
Exp. Dec. 2018
CIVIL
STATE OF CALIFORNIA

APN: 5940-030-11
5940-030-12

GP 17-0019

1		31902			
△	DESCRIPTION OF REVISION	RCE	DATE	APP.	DATE

REV. APRIL-2009

DESIGN ENGINEER

LC ENGINEERING GROUP, INC.
CONSULTING ENGINEERS
889 Pierce Court, Suite 101, Thousand Oaks, California 91360
818-991-7148 • 805-497-1244 • lcegroupinc.com • workfiles@lcegroupinc.com

LEONARD LISTON	31902 RCE	DATE

APPROVED: COUNTY OF VENTURA

BY ______________________
MANAGER, DEVELOPMENT SERVICES

DATE: ______________________

COUNTY OF VENTURA
PUBLIC WORKS AGENCY
DEVELOPMENT SERVICES

SPEC. NO.

PROJ. NO. 7167

EXISTING CONDITIONS HYDROLOGY MAP
PARCEL 4 56 PM 84
15498 LAPEYRE CT., MOORPARK, CA. 93021

SHEET 1 OF 1

DRAWING NO.

X:\LCE GROUP\Civil\JOBS\7100\7167 Pinneo\CIVIL\DWG\DTL AND EXHIBIT\7167 HYDROLOGY.dwg May 23, 2018, 2:05pm Michelle Meehan

ATTACHMENT 6

ATTACHMENT 6 – WORKS CITED

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