

COUNTY OF SANTA CRUZ

PLANNING DEPARTMENT 701 OCEAN STREET, 4[™] FLOOR. SANTA CRUZ. CA 95060 (831) 454-2580 FAX: (831) 454-2131 TDD: (831) 454-2123 TOM BURNS, PLANNING DIRECTOR

NOTICE OF ENVIRONMENTAL REVIEW PERIOD

SANTA CRUZ COUNTY

APPLICANT: Reid Lerner Architects, for Joseph Naenele

APPLICATION NO .: 07-0140

APN: <u>103-011-55</u>

The Environmental Coordinator has reviewed the Initial Study for your application and made the following preliminary determination:

XX Negative Declaration

(Your project will not have a significant impact on the environment.)

_ Mitigations will be attached to the Negative Declaration.

XX No mitigations will be attached.

Environmental Impact Report

(Your project may have a significant effect on the environment. An EIR must be prepared to address the potential impacts.)

As part of the environmental review process required by the California Environmental Quality Act (CEQA), this is your opportunity to respond to the preliminary determination before it is finalized. Please contact Matt Johnston, Environmental Coordinator at (831) 454-3201, if you wish to comment on the preliminary determination. Written comments will be received until 5:00 p.m. on the last day of the review period.

Review Period Ends: January 16,2008

Kathv Graves

Staff Planner

Phone: 454-3141

Date: December 13,2007



Date: September 24,2007 Staff Planner: Cathy Graves

I. OVERVIEW AND ENVIRONMENTAL DETERMINATION

APPLICANT: Reid Lerner Architects
Attn: Kurt RossAPN: 103-011-55
SUPERVISORAL DISTRICT: FirstOWNER: Joseph Naegele, SrSUPERVISORAL DISTRICT: First

LOCATION: The property is located on the east side of North Rodeo Gulch Road about 820 feet south of the intersection with Sage Road at 5000 N. Rodeo Gulch Road, Soquel.

SUMMARY PROJECT DESCRIPTION: A proposal to establish a winery producing over 1,000 gallons annually, to construct a 4,000 square foot metal structure **for** the production and storage of wine, and grade approximately 1,810 cubic yards of material.

ALL OF THE FOLLOWING POTENTIAL ENVIRONMENTAL IMPACTS ARE EVALUATED IN THIS INITIAL STUDY. CATEGORIES THAT ARE MARKED HAVE BEEN ANALYZED IN GREATER DETAIL BASED ON PROJECT SPECIFIC INFORMATION.

_ ∠ Geology/Soils	Noise
✓ Hydrology/Water Supply/Water Quality	Air Quality
✓ Biological Resources	Public Services & Utilities
Energy & Natural Resources	Land Use, Population & Housing
Visual Resources & Aesthetics	Cumulative Impacts
Cultural Resources	Growth Inducement
Hazards & Hazardous Materials	Mandatory Findings of Significance
Transportation/Traffic	

County of Santa Cruz Planning Department 701 Ocean Street, 4th Floor, Santa Cruz CA 95060

DISCRETIONARY APPROVAL(S) BEING CONSIDERED

General Plan Amendment	Grading Permit
Land Division	Riparian Exception
Rezoning	Other:
_ ✓ Development Permit	
Coastal Development Permit	·····

NON-LOCAL APPROVALS

Other agencies that must issue permits or authorizations:

Regional Water Quality Control Board

ENVIRONMENTAL REVIEW ACTION

On the basis of this Initial Study and supporting documents:

 \underline{X} I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

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 attached mitigation measures have been added to the project. A MITIGATED NEGATIVE DECLARATION will be prepared.

_____ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

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For: Claudia Slater Environmental Coordinator

II. BACKGROUND INFORMATION

EXISTING SITE CONDITIONS Parcel Size: 33.6 acres Existing Land Use: Residential Vegetation: Grasses, shrubs and oak trees Slope in area affected by project: ____ 0 - 30% ____ 31 - 100% Nearby Watercourse: Love Creek (Soquel Creek tributary) Distance To: Approx. 1,000 feet from proposed building site ENVIRONMENTAL RESOURCES AND CONSTRAINTS Groundwater Supply: n/a Liquefaction: n/a Water Supply Watershed: nla FaultZone: n/a Groundwater Recharge: Development outside Scenic Corridor: nla Timber or Mineral: Development outside Historic: nla Agricultural Resource: nla Archaeology: nla Biologically Sensitive Habitat: n/a Noise Constraint: nla Fire Hazard: Development outside critical area Electric Power Lines: nla Floodplain: nla Solar Access: nla Erosion: nla Solar Orientation: nla Landslide: n/a Hazardous Materials: nla

SERVICES

Fire Protection: Central Fire School District: n/a Sewage Disposal: Septic

Drainage District: None Project Access: N. Rodeo Gulch Road Water Supply: Private well

PLANNING POLICIES

Zone District: Special Use (S	U)	Special Desig	gnation:	None
General Plan: Rural Resident	tial (R-R)			
and Mountain Resid	lential (R-M)			
Urban Services Line:	Inside	¥	Outside	
Coastal Zone:	Inside	ـــــ	Outside	

PROJECT SETTING AND BACKGROUND:

The proposed project, construction of a 50' by 80' "Butler" type wine processing and storage building, would be located on the south side of the existing paved driveway on a gently sloping meadow containing several oak trees. Slope gradients in the vicinity of the building envelope are approximately 12 percent. There is a steeply sloped drainage ravine located about 100 feet south of the building site.

North Rodeo Gulch Road borders the parcel on the west. A paved driveway off North Rodeo Gulch Drive runs east along the base of a steep slope to the north to serve the site and will also provide access to the proposed agricultural building. Development on

the parcel consists of an existing single-family dwelling, approved under building permit 86880, and a second unit, approved under discretionary permit 90-1260 and building permit 101480.

The project site has two dominant habitat types, a mixed chaparral area north of the existing driveway and the dwellings, and a mixed evergreen forest. Plant species found in the chaparral area include manzanita, chamise, black sage, monkey flower, coyote brush and poison oak. This portion of the site has also been identified as a critical fire hazard area. The mixed evergreen forest contains evergreen trees such as coast redwood, coast live oak, California bay, and madrone. The understory within this forest consists of shrubs and ferns such as hazelnut, poison oak, blackberries, and wood fem. This area was determined not to be a critical fire hazard area, per Biotic Assessment 90-1260 associated with the application for a second unit (Attachment 10). A perennial stream (Love Creek, a tributary of Soquel Creek) is located on the southeastern portion of the parcel, over 1,000 feet from the proposed project site.

The area surrounding the subject parcel is very low density, consisting primarily of large parcels developed with residential uses. Zoning in the area is Special Use (SU), Residential Agriculture (RA) and Timber Production (TP) (Attachment 2). A small portion of the parcel (the southeastern corner near the perennial stream) is designated as a Timber Resource, but this area is located over 500 feet from the proposed building envelope.

DETAILED PROJECT DESCRIPTION:

The applicant proposes to construct a new agricultural building for wine processing and storage on a parcel with an existing single family dwelling and a second unit. The building would be 4,000 square feet in area (80' by 50') and would be located to the south of an existing paved driveway, on a meadow area with a slope of approximately 12%. The wine processing building would be partially excavated into the slope with retaining walls on the upslope side. A paved parking area will be provided on the downslope side of the proposed building, connected to the existing driveway.

To provide better access, the existing paved driveway is proposed to be widened with cuts and fills. Total grading for the project is estimated at 2,050 cubic yards of cut and 240 cubic yards of fill, for a total grading volume of 1,810 cubic yards. The proposed development, including road widening, the proposed building and new parking area, would result in approximately 14,444 square feet of new impervious area. Due to the large size of the parcel, however, this new impervious area, when added to the existing impervious area, will only result in 3.57% of the total parcel covered with impervious area.

The parcel has a number of mature trees, mostly consisting of oaks. The proposed construction will have an impact on a total of seven oak trees and one has been recommended for removal by the project arborist. Removal is recommended since the tree will be impacted by construction of the parking lot and it is located under the canopy of a very old oak. Removal of the tree will contribute to the overall health of the older tree. The project arborist has made recommendations to avoid construction impacts to the remaining six trees.

Uses in the proposed building are wine production and storage. The applicant does not propose wine tastings or other events that would have a negative impact on roads or traffic in the vicinity.

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.	<u>ENVIR</u>	ONMENTAL REVIEW CHECKLIST				
<u>A.</u> Do	Geolog es the p	ry and Soils project have the potential to:				
1.	Exp pote risk invo	oose people or structures to ential adverse effects, including the of material loss, injury, or death olving:				
	A.	Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or as identified by other substantial evidence?			¥	
	В.	Seismic ground shaking?			¥	
	C.	Seismic-related ground failure, including liquefaction?			v	
	D.	Landslides?				

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All of Santa Cruz County is subject to some hazard from earthquakes. However, the project site is not located within or adjacent to a county or State mapped fault zone. A geotechnical investigation for the proposed project was performed by Dees and Associates, Inc in February 2007 (Attachment 7). The report concluded that the proposed development was suitable for the site, which is located 2.0 miles southwest of the San Andreas Fault zone and 7.4 miles southwest of the Zayante Fault, if the structure is designed utilizing current Uniform Building Code (UBC) seismic design standards. The report also identified a low potential for liquefaction at the site, due to the depth of groundwater and the high density of the subsoils below the groundwater table. There are steep slopes covered with a layer of loose sandy soil south of the building site, but the report identified a low potential for landsliding to affect the proposed building site because the building is proposed to be set back approximately 100 feet from the top edge of the slope.

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2. Subject people or improvements to damage from soil instability as a result of on- or off-site landslide, lateral spreading, to subsidence, liquefaction, or structural collapse?

The geotechnical report cited above did not identify a significant potential for damage caused by any of these hazards.

3. Develop land with a slope exceeding 30%?

There are slopes that exceed 30% on the property. However, no improvements are proposed on slopes in excess of 30%. Slope gradients in the vicinity of the building envelope are approximately 12%.

4. Result in soil erosion or the substantial loss of topsoil?

Some potential for erosion exists during the construction phase of the project, however, this potential is minimal because the proposed structure would be located on relatively gentle slopes and standard erosion controls are a required condition of the project. Prior to approval of a grading or building permit, the project must have an approved Erosion Control Plan, which will specify detailed erosion and sedimentation control measures. The plan will include provisions for disturbed areas to be planted with ground cover and to be maintained to minimize surface erosion.

5. Be located on expansive soil, as defined in Table 18-1-B of the Uniform BuildingCode(1994), creating substantial risks to property?

The geotechnical report for the project did not identify any elevated risk associated with expansive soils based on the subsurface soil conditions identified (Purisima Sandstone).

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6. Place sewage disposal systems in areas dependent upon soils incapable of adequately supporting the use of septic tanks, leach fields, or alternative waste water disposal systems?

The proposed project will use an existing onsite sewage disposal system, and County Environmental Health Services has determined that the existing system and site conditions are appropriate to support the proposed additional bathroom proposed.

7. Result in coastal cliff erosion?

B. Hvdroloav. Water Supply and Water Quality

Does the project have the potential to:

1. Place development within a 100-year flood hazard area?

According to the Federal Emergency Management Agency (FEMA) National Flood Insurance Rate Map, dated March 2, 2006, no portion of the project site lies within a 100-yearflood hazard area.

2. Place development within the floodway resulting in impedance or redirection of flood flows?

According to the Federal Emergency Management Agency (FEMA) National Flood Insurance Rate Map, dated March 2, 2006, no portion **d** the project site lies within a 100-yearflood hazard area.

3. Be inundated by a seiche or tsunami?

Enviro Page 9	nmental Review Initial Study	Significant Or Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Or No Impact	Not Applicable
4.	Deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit, or a significant contribution to an existing net deficit in available supply, or a significant lowering of the local groundwater table?			¥	
The p adequ area.	roject will rely on an existing private well fo uate in the area and the project is not loca	or water s ted in a m	upply. Grc apped grou	undwater undwater i	supply is echarge
5.	Degrade a public or private water supply? (Including the contribution of urban contaminants, nutrient enrichments, or other agricultural chemicals or seawater intrusion).			•	
No co conta with the the co Poter erosic	ommercial activities are proposed that wou minants to a public or private water supply ne project will incrementally contribute pol pontribution will be minimal given the size o atial siltation from the proposed project will on control measures.	ld genera v. The pa lutants to f the drive be mitiga	te a signific rking and d the enviror way and p ted throug	cant amou riveway a iment; hov arking are n impleme	int of ssociated wever, a. entation of
6.	Degrade septic system functioning?			~	
There the pr	e is no indication that existing septic system oject.	ms in the v	vicinity wou	ıld be affe	cted by
7.	Alter the existing drainage pattern of the site or area, including the alteration of the course of a stream or river, in a manner which could result in flooding, erosion, or siltation on or off-site?			v	
The p existir	proposed project is not located near any wang overall drainage pattern of the site. De	atercours epartment	es, and will of Public V	not alter Vorks Dra	the inage

Section staff has reviewed and approved the proposed drainage plan.

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Environmental Review Initial Study Page 10	significant Or Potentially Significant Impact	Less than significant with Mitigation Incorporation	Less than Significant Or No Impact	Not Applicable

8. Create or contribute runoff which would exceed the capacity of existing or planned storm water drainage systems, or create additional source(s) of polluted runoff?

Drainage Calculations prepared by C2G/Civil Consultants Group, dated 6/18/2007 and a culvert analysis and stormwater retention calculations prepared by C2G dated July 2007, have been reviewed for potential drainage impacts and accepted by the Department of Public Works (DPW) Drainage Section staff. The calculations show that post development runoff for a IO-year storm will increase by approximately 2.7% over existing conditions and runoff for a 100-year storm will increase by approximately 1.8%. The runoff rate from the property will be controlled by the use of a "T" dissipater downslope from the new building and the construction of a "rain garden" designed to percolate runoff into the ground. Overflow from the rain garden will be collected in a culvert and discharged into a dissipater located below the proposed improvements. DPW staff have determined that the proposed storm water facilities are adequate to handle the increase in drainage associated with the project. Refer to response B-5 for discussion **of** urban contaminants and/or other polluting runoff.

9. Contribute to flood levels or erosion in natural water courses by discharges of newly collected runoff?

See discussion B-8, above.

10. Otherwise substantially degrade water supply or quality?

C. Biological Resources

Does the project have the potential to:

1. Have an adverse effect on any species identified as a candidate, sensitive, or special status species, in local or regional plans, policies, or regulations, or by the California Department of Fish and Game, or US. Fish and Wildlife Service?

A Biotic Report was prepared for a previous project (Minor Land Division/Second Unit) by the Habitat Restoration Group, dated November 8, 1990 (Attachment 10). While this report was intended to establish the areas on site subject to critical fire hazards, it **also** includes a description of the habitat types and species found on site. No special status

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Not Applicable

species have been identified on the subject property in either the Biotic Report or in site visits by Planning Department staff.

2. Have an adverse effect on a sensitive biotic community (riparian corridor), wetland, native grassland, special forests, intertidal zone, etc.)?

There are **no** mapped or designated sensitive biotic communities on or adjacent to the proposed development site, which is located over 1,000 feet from the perennial stream located on the Southeastern portion of the property.

3. Interfere with the movement of any native resident or migratory fish or wildlife species, or with established native resident or migratory wildlife corridors, or impede the use of native or migratory wildlife nursery sites?

The proposed project does not involve any activities that would interfere with the movements or migrations of fish or wildlife, or impede use of a known wildlife nursery site.

4. Produce nighttime lighting that will illuminate animal habitats?

The development area is not adjacent to a riparian corridor, and there are no sensitive animal habitats within or adjacent to the project site which could be adversely affected by a new or additional source of light that is not adequately deflected or minimized.

5.	Make a significant contribution to the	
	reduction of the number of species of	
	plants or animals?	

Refer to C-1 and C-2 above.

Enviror Page 12	nmental Review Initial Study 2	significant Or Potentially Significant Impact	Less than significant with Mitigation Incorporation	Less than Significant Or No Impact	Not Applicable
6.	Conflict with any local policies or ordinances protecting biological resources (such as the Significant Tree Protection Ordinance, Sensitive Habitat Ordinance, provisions of the Design Review ordinance protecting trees with trunk sizes of 6 inch diameters or greater)?				•
The p Desig	roject will not conflict with any local policie n Review Ordinance as agricultural buildin	s or ordina gs are exe	ances. It is empt from t	not subje hose prov	ct to the /isions.
7.	Conflict with the provisions of an adopted Habitat Conservation Plan, Biotic Conservation Easement, or other approved local, regional, or state habitat conservation plan?				v
D. En Doest	ergy and Natural Resources the project have the potential to:				
1.	Affect or be affected by land designated as "Timber Resources" by the General Plan?			~	
The protect the pr	roposed development is near land designa oject will not affect the resource or access mber resource may only be harvested in a estry timber harvest rules and regulations, ximately 500 feet from any portion of the s	ated as Tir to harves ccordance , and the c ite design	mber Resor It the resou e with Calife developmen ated as Tin	urce. How rce in the ornia Dep nt site is lo nber Reso	vever, future. artment ocated ource.
2.	Affect or be affected by lands currently utilized for agriculture, or designated in the General Plan for agricultural use?				~
The p	roject site is not currently being used for a sed for the site or surrounding vicinity.	griculture	and no agr	icultural u	ises are

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3. Encourage activities that result in the use of large amounts of fuel, water, or energy, or use of these in a wasteful manner?

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Less than Significant Or No Impact

Not Applicable

4. Have a substantial effect on the potential use, extraction, or depletion of a natural resource (i.e., minerals or energy resources)?

E. Visual Resources and Aesthetics

Does the project have the potential to:

1. Have an adverse effect on a scenic resource, including visual obstruction of that resource?

The project will not directly impact any public scenic resources, **as** designated in the County's General Plan (1994), or obstruct any public views of these visual resources. The structure itself will not be visible from any public roads or from adjacent properties.

2. Substantially damage scenic resources, within a designated scenic corridor or public view shed area including, but not limited **to**, trees, rock outcroppings, and historic buildings?

The project site is not located along a County designated scenic road or within a designated scenic resource area. The structure itself will not be visible from any public roads or from adjacent properties.

3. Degrade the existing visual character or quality of the site and its surroundings, including substantial change in topography or ground surface relief features, and/or development on a ridge line?

The existing visual setting is very low density residential development on large lots. The proposed project is designed and landscaped **so** as to fit into this setting. The structure itself will not be visible from any public roads or from adjacent properties.

4. Create a new source of light or glare which would adversely affect day or nighttime views in the area?

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The project will create an incremental increase in night lighting. However, this increase will be small, and will be similar in character to the lighting associated with the surrounding existing residential uses.

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Not Applicable

5. Destroy, cover, or modify any unique geologic or physical feature?

There are no unique geological or physical features on or adjacent to the site that would be destroyed, covered, or modified by the project.

F. Cultural Resources

Does the project have the potential to:

Cause an adverse change in the significance of a historical resource as defined in CEQA Guidelines 15064.5?

The existing structures on the property are not designated as a historic resource on any federal, State or local inventory.

2. Cause an adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines 15064.5?

No archeological resources have been identified in the project area. Pursuant to County Code Section 16.40.040, if at any time in the preparation for or process of excavating or otherwise disturbing the ground, any human remains of any age, or any artifact or other evidence of a Native American cultural site which reasonably appears to exceed 100 years of age are discovered, the responsible persons shall immediately cease and desist from all further site excavation and comply with the notification procedures given in County Code Chapter 16.40.040.

3. Disturb any human remains, including those interred outside of formal cemeteries?

Pursuant to Section 16.40.040 of the Santa Cruz County Code, if at any time during site preparation, excavation, or other ground disturbance associated with this project, human remains are discovered, the responsible persons shall immediately cease and desist from all further site excavation and notify the sheriff-coroner and the Planning Director. If the coroner determines that the remains are not of recent origin, a full archeological report shall be prepared and representatives of the local Native California Indian group shall be contacted. Disturbance shall not resume until the significance of the archeological resource is determined and appropriate mitigations to preserve the resource on the site are established.

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Not Applicable

4. Directly or indirectly destroy a unique paleontological resource or site?

There are no unique paleontological resources on or adjacent to the site that would be destroyed, covered, or modified by the project.

G. Hazards and Hazardous Materials

Does the project have the potential to:

1. Create a significant hazard to the public or the environment as a result of the routine transport, storage, use, or disposal of hazardous materials, not including gasoline or other motor fuels?

No use or transport of hazardous materials is proposed as part of the project.

2. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5and, as a result, would it create a significant hazard to the public or the environment?

The project site is not included on the list of hazardous sites in Santa Cruz County compiled pursuant to the specified code.

- 3. Create a safety hazard for people residing or working in the project area as a result of dangers from aircraft using a public or private airport located within two miles of the project site?
- 4. Expose people to electro-magnetic fields associated with electrical transmission lines?

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Enviro Page 1	onmental Review initial Study 6	Significant Or Potentially Significant Impact	Less than Significant dth Mitigation Incorporation	Less than Significant Or No Impact	Not Applicable
5.	Create a potential fire hazard?			•	

The project design incorporates all applicable fire safety code requirements and will include fire protection devices as required by the local fire agency. A Biotic Report was prepared for a previous project (Minor Land Division/Second Unit) by the Habitat Restoration Group, dated November 8, 1990 (Attachment 10), which established that the project site is not within a critical fire hazard area.

6. Release bio-engineered organisms or chemicals into the air outside of project buildings?

H. Transportation/Traffic

Does the project have the potential to:

1. Cause an increase in traffic that **is** substantial in relation to the existing traffic load and capacity of the street system (i.e., substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?

The project will create a small incremental increase in traffic on nearby roads and intersections. However, given the small number of new trips created by the project this increase is less than significant. Further, the increase will not cause the Level of Service at any road segment or nearby intersection to drop below Level of Service D.

2. Cause an increase in parking demand which cannot be accommodated by existing parking facilities?

The project meets the code requirements for the required number of parking spaces and therefore new parking demand will be accommodated on site.

3. Increase hazards to motorists, bicyclists, or pedestrians?

The proposed project will comply with current road requirements to prevent potential hazards to motorists, bicyclists, and/or pedestrians.

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4. Exceed, either individually (the project alone) or cumulatively (the project combined with other development), a level of service standard established by the county congestion management agency for designated intersections, roads or highways?

See response H-1 above.

I. Noise

Does the project have the potential to:

1. Generate a permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

The project will create an incremental increase in the existing noise environment. However, this increase will be small, and will be similar in character to noise generated by the surrounding existing uses.

2. Expose people to noise levels in excess of standards established in the General Plan, or applicable standards of other agencies?

Per County policy, average hourly noise levels shall not exceed the General Plan threshold of 50 Leq during the day and 45 Leq during the nighttime. Impulsive noise levels shall not exceed 65 db during the day or 60 db at night. Because all processing and storage will occur within the new building, and the project site is located a significant distance from parcel boundaries, the activities at the wine storage and processing building will not exceed County noise levels.

3. Generate a temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

Noise generated during construction will increase the ambient noise levels for adjoining areas. Construction will be temporary, however, and given the limited duration of this impact it is considered to be less than significant.

Enviror Page 18	nmental Review Initial Study 3	Significant Or Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Or No Impact	Not Applicable
<u>J. Air</u> Does t (Wher establ upon t	Quality the project have the potential to: e available, the significance criteria ished by the MBUAPCD may be relied to make the following determinations).				
1.	Violate any air quality standard or contribute substantially to an existing or projected air quality violation?			✓	

The North Central Coast Air Basin does not meet State standards for ozone and particulate matter (PM10). Therefore, the regional pollutants of concern that would be emitted by the project are ozone precursors (Volatile Organic Compounds [VOCs] and nitrogen oxides [NOx]), and dust. Given the modest amount of new traffic that will be generated by the project there is no indication that new emissions of VOCs or NOx will exceed Monterey Bay Unified Air Pollution Control District (MBUAPCD) thresholds for these pollutants and therefore there will not be a significant contribution to an existing air quality violation.

Project construction may result in a short-term, localized decrease in air quality due to generation of dust. However, standard dust control best management practices, such as periodic watering, will be implemented during construction to reduce impacts to a less than significant level.

2. Conflict with or obstruct implementation of an adopted air quality plan?

The project will not conflict with or obstruct implementation of the regional air quality plan. See J-1 above.

3. Expose sensitive receptors to substantial pollutant concentrations? ✓

There are no sensitive receptors in the vicinity, and the project will not produce substantial pollutants. See J-1 above.

4. Create objectionable odors affecting a substantial number of people?

Significant Or Potentially Significant Impact Less than Significant with Mitigation Incorporation

Less than Significant Or No Impact

Not Applicable

K. Public Services and Utilities

Does the project have the potential to:

1. Result in the need for new or physically altered public facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:

a. Fire protection?

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The project design incorporates all applicable fire safety code requirements and will include fire protection devices as required by the local fire agency. A Biotic Report was prepared for a previous project (Minor Land **Division/Second** Unit) by the Habitat Restoration Group, dated November 8, 1990 (Attachment 10), which established that the project site $\dot{\mathbf{x}}$ not within a critical fire hazard area.

b.	Police protection?	✓
C.	Schools?	✓
d.	Parks or other recreational activities?	✓
e.	Other public facilities; including the maintenance of roads?	¥

While the project represents an incremental contribution to the need for services, the increase will be minimal. Moreover, the project meets all of the standards and requirements identified by the local fire agency and transportation fees to be paid by the applicant will be used to offset the incremental increase in demand for public roads.

Enviroi Page 20	nmental Review Initial Study	Significant Or Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Or No Impact	Not Applicable
2.	Result in the need for construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?			•	

Drainage Calculations prepared by C2G/Civil Consultants Group, dated 6/18/2007(See project plans) and a culvert analysis and stormwater retention calculations prepared by C2G dated July 2007 Attachment 8), have been reviewed for potential drainage impacts and accepted by the Department of Public Works (DPW) Drainage Section staff. The calculations show that post development runoff for a IO-year storm will increase by approximately 2.7% over existing conditions and runoff for a 100-year storm will increase by approximately 1.8%. The runoff rate from the property will be controlled by the use of a "T" dissipater downslope from the new building and the construction of a "rain garden" designed to percolate runoff into the ground. Overflow from the rain garden will be collected in a culvert and discharged into a dissipater located below the proposed improvements. DPW staff have determined that the proposed storm water facilities are adequate to handle the increase in drainage associated with the project.

3. Result in the need for construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

The project will rely on an individual well for water supply. Public we er delivery facilities will not have to be expanded.

The project will be served by an on-site sewage disposal system, which will be adequate to accommodate the relatively light demands of the project.

4. Cause a violation of wastewater treatment standards of the Regional Water Quality Control Board?

The project's wastewater flows will not violate any wastewater treatment standards.

Enviror Page 21	nmental Review Initial Study I	significant Or Potenti≴lly Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Or No Impact	Not Applicable
5.	Create a situation in which water supplies are inadequate to serve the project or provide fire protection?			✓	
The lo confor supply	ocal fire agency has reviewed and approve mity with fire protection standards that inc r for fire protection.	d the proj lude mini	ject plans, a mum requi	assuring rements fo	or water
6.	Result in inadequate access for fire protection?			✓	
The pi local fi	roject's road access meets County standa ire agency (Attachment 13).	rds and h	as been ap	proved by	/ the
7.	Make a significant contribution to a cumulative reduction of landfill capacity or ability to properly dispose of refuse?			~	
The pr landfill Count magni	roject may make an incremental contributi ls, as grape residue that cannot be compo y landfill. However, this contribution will b tude to that created by existing land uses	on to the sted on s e relative around th	reduced ca ite will be ti ly small and le project.	pacity of r ransported d will be o	regional d to the f similar
8.	Result in a breach of federal, state, and local statutes and regulations related to solid waste management?				~
<u>L ,a</u> Does t 1.	the project have the potential to: Conflict with any policy of the County ∋ for ∉ purpose f avoiding or ti an r al eff ?				~

The proposed project does not conflict with any policies adopted for the purpose of **avoiding or** mitigating an environmental effect.

Significant	Less than	
Or	Significant	Less than
Potentially	with	Significant
Significant	Mitigation	Or
Impact	Incorporation	No Impact

Not Applicable

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2. Conflict with any County Code regulation adopted for the purpose of avoiding or mitigating an environmental effect?

The proposed project does not conflict with any regulations adopted for the purpose of avoiding or mitigating an environmental effect.

3. Physically divide an established community?

The project will not include any element that will physically divide an established community.

4. Have a potentially significant growth inducing effect, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

The proposed project will not extend the road or increase its capacity.

5. Displace substantial numbers of people, or amount of existing housing, necessitating the construction of replacement housing elsewhere?

The proposed project will not affect existing housing.

M. Non-Local Approvals

Does the project require approval of federal, state, or regional agencies?

N. Mandatory Findings of Sinnificance

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, substantially reduce the number or restrict the range of a rare or endangered plant, animal, or natural community, or eliminate important examples of the major No 🗹 periods of California history or prehistory? Yes 2. Does the project have the potential to achieve short term, to the disadvantage of long term environmental goals? (A short term impact on the environment is one which occurs in a relatively brief, definitive period of time while long term impacts endure well into Yes No the future) 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, and the effects of reasonably foreseeable future projects which have entered the Yes No Environmental Review stage)?

Yes

Yes

No

- 🗸

No

4. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

TECHNICAL REVIEW CHECKLIST

	REQUIRED	COMPLETED*	NIA
Agricultural Policy Advisory Commission (APAC) Review			
Archaeological Review			<u> </u>
Biotic Report/Assessment	No	11/8/1990	
Geologic Hazards Assessment (GHA)			¥
Geologic Report			
Geotechnical (Soils) Report	Yes	2/2007	
Riparian Pre-Site			<u> </u>
Septic Lot Check	*		
Other: Arborist Report	Yes	5/25/2007	
			<u></u>

Attachments:

- 1. Vicinity Map
- 2. Map of Zoning Districts
- 3. Map of General Plan Designations
- 4. Project Plans (on file)
- 5. Assessors Parcel Map
- 6. Geotechnical Review Letter prepared by Rebecca L. Dees, Dees and Associates, dated May 22, 2007
- 7. Geotechnical Investigation (Conclusions and Recommendations) prepared by Dees and Associates, dated 2/2007
- a. Culvert analysis and storm water retention calculations prepared by Todd Creamer, P.E., dated July 2007
- 9. Biotic Report Review Letter prepared by William Davilla, dated February 15, 1991
- 10. Biotic Report prepared by Mara Noelle, Biologist, for The Habitat Restoration Group, dated November a, 1990
- 11. Discretionary Application Comments, dated September 17, 2007
- 12. Arborists Report prepared by Christine-Sara Bosinger dated May 25, 2007
- 13. Letter from Jeanette Devery, Central Fire Protection District, dated July 25, 2007
- 14. Program statement from project applicant
































Dees & Associates, Inc.

Geotechnical Engineers 501 Mission Street, Suite 8A Santa Cruz, CA 95060

Phone (831) 427.1770 Fax (831) 427-1794

May 22,2007

Project No SCR-0216

JOSEPH NAEGELE AND KATY LOVELL 5000 North Rodeo Gulch Road Soquel, California 95073

Subject Geotechnical Plan Review Letter

Reference Proposed Wine Processing Building 5000 North Rodeo Gulch Road APN 103-01-55 Santa Cruz County, California

Dear Mr Naegele and Ms Lovell

At your request, we have reviewed the geotechnical aspects of the project plans (Sheets A-I, A-2, A-4 to A-7 and C1 toC4) for the wine processing building proposed at the referenced site. Sheets A-I, A-2 and A-4 to A-7 were prepared by Reid Lerner. Architect. Sheets A-I and A-2 are dated March 20, 2007. Sheets A 4 to A-7 are dated March 21, 2007. Sheets C1 to C4 were prepared by C2G Civil Consultants Group. Sheets C1 to C3 are dated May 1,2007. Sheet C4 is dated May 15, 2007. Geotechnical recommendations were presented in our report, dated February 20, 2007.

The existing paved driveway will be widened with cuts and fills. Cuts will be retained with retaining walls. Fills will be keyed and benched into firm soil. The actual depths of keys and benches should be determined in the field at the time of grading. A paved parking area will be provided on the downslope side of the proposed building. A short driveway will connect the existing driveway to the new parking area.

The plans indicate the wine processing building will be partially excavated into the slope with retaining walls along the upslope side. Structural plans for the building foundation and retaining walls have not been developed at this time. Foundations should be embedded into compacted engineered fill.

Surface runoff from the driveway will be collected on the upslope side and carried to the other side of the driveway in existing culverts. Two culverts will collect runoff. The uppermost culvert will be extended and discharged into a "*T*" dissipater located in the meadow area north of the new structure. The lower culvert will be discharged into a swale then picked up in a new culvert that passes below the paved parking area. The new culvert will discharge into a "Rain Garden" designed to percolate runoff into the ground. Overflow from the rain garden will be collected in a culvert and discharged into a dissipater located just below the proposed improvements.

SCR-0216 | May 22, 2007



Our review indicates the plans are in general accordance with our recommendations. If you have any questions, please call our office.

Very truly yours,

DEES **a** ASSOCIATES INC.

Rebecca L. Dees Geotechnical Engineer G.E. 2623



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Copies: 1 to Addressee 3 to Reid Lerner, Architect 1 to C2G, Civil Consultants Group

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SCR-0216 May 22.2007

GEOTECHNCIAL INVESTIGATION For PROPOSED WINE PROCESSING BUILDING

5000 North Rodeo Gulch Road, Soquel APN 103-011-55 Santa Cruz County, California

Prepared For JOSEPH NAEGELE AND KATY LOVELL Soquel, California

Prepared By DEES & ASSOCIATES, INC.

Geotechnical Engineers Project No. SCR-0216 February 2007

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GEOTECHNICAL INVESTIGATION

Introduction

This report presents the results of our Geotechnical Investigation for the new wine processing building proposed at the referenced site in Santa Cruz County, California. The wine processing building will be a 50 foot wide by 70 foot long "Butler" type building constructed on the south side of the existing paved driveway on a gently sloping meadow.

Purpose and Scope

The purpose of our investigation was to evaluate surface and subsurface soil conditions at the site in order to provide geotechnical recommendations for design and construction of the proposed improvements.

The specific scope of our services included:

- 1) A site reconnaissance and review of available data in our files regarding the site and region and discussions with Joseph Hanna and Katy Lovell regarding the proposed improvements.
- 2) Exploration of subsurface soil conditions with three (3) exploratory borings drilled with 6-inch diameter auger equipment mounted on a truck. The soil samples obtained from the test borings were sealed and returned to the laboratory for testing.
- 4) Laboratory classification of selected samples obtained. Moisture content and dry density tests were performed to evaluate the consistence of the in situ soils. Grain size analyses were performed to aid in soil classification. Shear strength properties of the subsoils were determined from saturated direct shear performed in the laboratory and with Standard Penetration Testing during sampling.
- 5) Engineering analysis and evaluation of the resulting data. Based on our findings we have developed geotechnical design criteria and recommendations for site grading, foundations, retaining walls, concrete slabs-on-grade, pavements and site drainage.
- 6) Submittal of this report presenting the results of **our** investigation.

Project Location and Description

The project site is located at 5000 North Rodeo Gulch in Santa Cruz County, California, Figure 1. The 33.6-acre site is situated in the Santa Cruz Mountains and consists of a gently sloping meadow with a very steep slope rising to the north and a steeply incised drainage valley *to* the south, Figures 2 and 4. North Rodeo Gulch Road borders the west side of the site. A paved driveway comes off North Rodeo Gulch Road and travels east along the base of the steep northern slope to two existing structures. The proposed wine

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processing building will be located in the gently sloping meadow south of the driveway, Figure 3. Slope gradients in the vicinity of the building envelope are on the order of 12 percent. The steeply sloped drainage ravine lies about 100 feet south of the building site.

Although final plans have not been developed for the project, we understand the wine processing building will consist of a 50 foot wide by 70 foot long "Butler" type building with slab-on-grade floors. Gravel or paved driveways and parking will be provided around the structure. The site is gently sloping and we anticipate minor grading will be performed to achieve final pad grades.

Field Investigation

Subsurface conditions at the site were explored on January 19, 2007 with three (3) exploratory borings drilled to depths of 16 to 26 feet below existing grades. The borings were drilled with 6-inch continuous flight auger equipment mounted on a truck. The approximate location of our test borings are indicated on our Boring Site Plan, Figure 3. Our boring site plan is based on the reduced copy of the topographic map provided to us.

Representative soil samples were obtained from the exploratory borings at selected depths, or at major strata changes. These samples were recovered using the 3.0 inch O.D. Modified California Sampler (L) or the Standard Terzaghi Sampler (T). The penetration resistance blow counts for the (L) and (T) noted on the boring logs were obtained as the sampler was dynamically driven into the in-situ soil. The test was performed by dropping a 140-poundhammer a 30-inch free fall distance enough times to drive the sampler 6 to 18 inches. The number of blows required to drive the sampler through each 6-inch penetration interval was recorded. The "blow count" recorded on the boring logs present the accumulated number of blows that were required to drive the sampler through the last 12 inches of that sample interval.

The soils encountered in the exploratory borings were continuously logged in the field and described in accordance with the Unified Soil Classification System (ASTMD2487), Figure 5. The test boring logs are included on Figures 6 through 8 of this report. The logs denote subsurface conditions at the locations and time observed, and it **is** not warranted that they are representative of subsurface conditions at other locations or times.

Laboratory Testing

The field and laboratory testing program was directed toward a determination of the physical and engineering properties of the soils underlying the site. Percent moisture content (by weight) tests were performed on select samples to determine the moisture variation of the subsoils. Grain size analyses were determined on the subsoils to aid in soil classification. Soil strength parameters were determined using saturated direct shear tests performed in the laboratory and Standard PenetrationTesting during sampling. The results of field and laboratory testing appear on our Test Boring Logs.

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Subsurface Conditions

The USGS Santa Cruz County Geologic Map, Figure 9, indicates the site is underlain by Purisima Bedrock (Tp), which is described as, "Very thick bedded yellowish-gray tuffaceous and diatomaceous siltstone containing thick interbeds of bluish-gray, semifriable, fine-grained andesitic sandstone. **As** shown, includes Santa Cruz Mudstone east of Scotts Valley and north of Santa Cruz. Thickness approximately 3,000 fl in the Corralitos Canyon area".

Our borings indicate the proposed building site is underlain by Purisima Sandstone with a thin sandy cover. The sandstone is loose at the ground surface then becomes increasingly dense with depth. The top 3 to 9 feet of sand is loose to very and becomes dense to very dense at a depth of 5 to 15 feet below existing grades. The top few feet of sand had about 16 percent silt. The underlying sand had little to no silt with 3 to 6 percent fines. Refer to our logs of test borings for a detailed description of the subsoils.

<u>Groundwater</u>

Groundwater was encountered **24** to 24.5 feet below existing grades. The sands were damp to moist above the groundwater table

It should be noted that groundwater levels may vary due to seasonal variations and other factors not evident during our investigation.

<u>Seismicity</u>

The project site is located about 2.0 miles southwest of the San Andreas Fault zone and 7.4 miles southwest of the Zayante Fault, Figure 10.

The San Andreas Fault is considered to be a Seismic Fault Source Type **A**, according to the 1997 UBC and the Zayante Fault is considered to be Seismic Fault Source Type B, according to the 1997 UBC. Type **A** faults have Moment magnitudes greater than 7 and a creep rate greater than 5mm per year. Type B faults have Moment magnitudes between 6.5 and 7 and a creep rate between 2 and 5mm per year.

The San Andreas Fault is the largest and most active of the faults, however, each fault is considered capable of generating moderate to severe ground shaking. It is reasonable to assume that the proposed development will be subject to at least one moderate to severe earthquake from one of the faults during the next fifty years.

Liquefaction

Soil liquefaction is a phenomenon in which loose, saturated, fine grained sands located within 50 feet of the ground surface lose strength during an earthquake. During loss of strength, the soil may undergo both horizontal and vertical movements. The extent and influence of liquefaction on a site depend on the subsurface soil conditions, earthquake magnitude, duration of shaking, and depth of groundwater. Due to the depth of groundwater and the high density of the subsoils below the groundwater table there is a low probability of liquefaction to occur below the proposed building site.

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Slope Stability and Landsliding

The slopes along the drainage ravine are steep and covered with a layer of loose sandy soil. Several shallow slump slides were evident along the margins of the ravine south of the proposed building site. There is a low potential for landsliding to affect the proposed building site because the building site is set back about 100 feet from the top edge of the slope.

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DISCUSSIONS AND CONCLUSIONS

Based on the results of our investigation. the new wine processing building is feasible for the site from a geotechnical standpoint provided the recommendations presented in this report are incorporated into the design and construction of the proposed improvements. Primary geotechnical concerns for the project include setting all improvements back from the edge of the ravine south of the building site, controlling site drainage, providing a firm base for foundation support and designing for strong seismic shaking.

Landsliding along the ravine can be initiated with concentrated storm runoff. To reduce erosion and landsliding along the slope edges, we recommend dispersing concentrated runoff from improvements and not allowing concentrated runoff to flow over the top of the slope. All improvements should be set back at least 50 feet from the top edge of the ravine slope.

The top 3 to 9 feet of soil is loose to very loose below the proposed building site. In order to mitigate excessive differential settlements, we recommend compacting the native soils below foundations and slabs-on-grade to provide a firm base for foundation support. The soil within 18 inches of the structure should be excavated to a depth of 18 inches below the base of the proposed footings and slabs and replaced as compacted engineered fill. The top 12 inches of soil below exterior pavements and load bearing slabs should also be compacted.

The proposed structures will most likely experience strong seismic shaking during the design lifetime. The foundations and structures should be designed utilizing current Uniform Building Code (UBC) seismic design standards. Structures designed in accordance with the most current seismic design codes should react well to seismic shaking. The underlying soils are classified as a "Soil Type S_D" for analysis using the 1997 UBC seismic design provisions.

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RECOMMENDATIONS

The following recommendations should be used as guidelines for preparing project plans and specifications:

Site Grading

1. The soil engineer should be notified at least four (4) working days prior to any site clearing or grading to make arrangements for construction observation and testing services. The recommendations of this report are based on the assumption that the soil engineer will perform the required testing and observation during grading and construction. It is the owner's responsibility to make the necessary arrangements for these required services.

2. Areas to be graded should be cleared of obstructions and other unsuitable material. Voids created during site clearing should be backfilled with engineered fill.

3. Where fill is planned to raise grade, the area to receive engineered fill should be scarified **6** inches, moisture conditioned to 2 to **4** percent over optimum moisture content and compacted to 90 percent relative compaction. Where referenced in this report, Percent Relative Compaction and Optimum Moisture Content shall be based on ASTM Test Designation D1557-00.

4. Native soils used as engineered fill should be moisture conditioned 2 to 4 percent over optimum moisture content prior to compaction, Soils used for engineered fill should be free of organic material, and contain no rocks or clods greater than 6 inches in diameter, with no more than 15 percent larger than 4 inches. We estimate shrinkage factors of about 15 to 20 percent for the on-site materials when used in engineered fills.

5. Engineered fill should be placed in thin lifts not exceeding 6 inches in loose thickness, moisture conditioned 2 to 4 percent over optimum moisture content and compacted to 90 percent relative compaction.

6. The upper 12 inches of subgrade below driveway pavements and load bearing slabs should be moisture conditioned 2 to **4** percent over optimum moisture content and compacted to 95 percent relative compaction. The aggregate base below driveways and pavements should also be compacted to 95 percent relative compaction.

7. Engineered fill slopes and permanent cutslopes should be inclined less than 2:1 (horizontal to vertical) and keyed and benched into firm native soil. Firm native soil is located 'at least 3 feet below existing grade. The back of keys and benches exposing potential seepage zones should be drained. The face of cut and fill slopes should be groomed and protected from erosion.

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8. After the earthwork operations have been completed and the soil engineer has finished their observation of the work, no further earthwork operations shall be performed except with the approval of and under the observation of the soil engineer.

Spread Footings

9. Spread footings, embedded into compacted engineered fill may be used to support structures. The soil within 18 inches of the structure should be excavated to a depth of 18 inches below the base of the proposed footings and slabs and replaced as compacted engineered fill. Engineered fill should be compacted to at least 90 percent relative compaction.

10. Foundations should be embedded at least 12 inches below the lowest adjacent grade for one-story structures and at least 18 inches below the lowest adjacent grade for two-story structures.

11. Foundations designed in accordance with the above may be designed for an allowable soil bearing pressure of 2,500 psf. The allowable bearing capacity may be increased by 1/3 for short term seismic and wind loads.

12. Total and differential settlements under the proposed building loads are anticipated to be less than 1 inch and $\frac{1}{2}$ inch respectively for footings designed and constructed in accordance with the above.

13. Lateral load resistance for structures supported on footings may be developed in friction between the foundation bottom and the supporting subgrade. A friction coefficient of 0.35 is considered applicable. Where footings are poured neat against firm native soil a passive lateral pressure of 300 pcf. equivalent fluid weight, may be assumed

14. Footings and utility trenches located adjacent to other footings should not extend within an imaginary 1.5:1 plane projected downward from the bottom edge of the adjacent footing.

15. The foundation trenches should be kept moist and be thoroughly cleaned of slough or loose materials prior to pouring concrete.

16. Prior to placing concrete, foundation excavations should be thoroughly cleaned and observed by the soils engineer.

Retaining Wall Lateral Pressures

17. Retaining walls should be designed to resist both lateral earth pressures and any additional surcharge loads. Walls up to 8 feet high should be designed to resist an active equivalent fluid pressure of 35 pcf for level backfills, and 48 pcf for sloping backfills inclined up to 3: 1 (horizontal to vertical). Restrained walls should be designed to resist uniformly applied wall pressure of 21 H psf, where H is the height of the wall for level backfills and 29 H psf for sloping backfills up to 2:1 (horizontal to vertical).

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designed to resist any surcharge loads imposed on the backfill behind the walls

18. The above lateral pressures assume that the walls are fully drained to prevent hydrostatic pressure behind the walls. Drainage materials behind the wall should consist of Class 1, Type A permeable material (Caltrans Specification 68-1.025) or an approved equivalent. The drainage material should be at least 12 inches thick. The drains should extend from the base of the wall to within 12 inches of the top of the backfill. A perforated pipe should be placed (holes down) about 4 inches above the bottom of the wall and be tied to a suitable drain outlet. Wall backdrains should be plugged at the surface with clayey material to prevent infiltration of surface runoff into the backdrains.

19. Lateral loads on spread footings may be designed for passive resistance acting along the face of the footings. Where footings are poured neat against firm native soils, an equivalent fluid pressure of 300 pcf acting along the face of the footings is considered applicable. Topsoil or other loose materials should be neglected when computing passive resistance.

Slabs-on-Grade

20. Non load bearing concrete slabs-on-grade should be founded on firm, well compacted ground. Load bearing concrete slabs-on-grade should be founded on a compacted subgrade surface. The top 12 inches of subgrade below load bearing slabs should be compacted to 95 percent relative compaction.

21. Dees & Associates, Inc. are not experts in the field of moisture proofing and vapor barriers. In areas where wetness would be undesirable, an expert, experienced with moisture transmission and vapor barriers should be consulted. At a minimum, a blanket of 4 inches of free-draining gravel should be placed beneath floor slabs to act as a capillary break. In order to minimize vapor transmission, an impermeable membrane should be placed over the gravel. The membrane should be covered with 2 inches of sand or rounded gravel to protect it during construction. The sand or gravel should be lightly moistened just prior to placing the concrete to aid in curing the concrete.

22. Reinforcing should be provided in accordance with the anticipated use and loading of the slab. The reinforcement of exterior slabs <u>should not</u> be tied to the building foundations.

Pavements

23. It is important that the grading recommendations provided in this report are closely followed to allow a reasonable life span for pavements. Subgrade preparation is very important to the life of pavement and due to the very loose condition of the surface soils, we recommend the top twelve inches (12") of subgrade below pavements be scarified, moisture conditioned to 2 to 4 percent above laboratory optimum value and compacted to a minimum relative compaction of 95 percent prior to placing aggregate base material. The base material should also be compacted to at least 95 percent relative compaction.

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25. Only quality materials of the type and thickness (minimum) specified should be used. Baserock (R=78 minimum) should meet CALTRANS Standard Specifications for Class 2 Untreated Aggregate Base. Subbase (R=50 minimum) should meet CALTRANS Standard Specifications for Class 2 Untreated Aggregate Subbase.

26. Place the asphaltic concrete only during periods of fair weather when the free air temperature is within prescribed limits.

27. Develop a maintenance program and perform routine maintenance,

Site Drainage

28. Controlling surface and subsurface runoff is important to the performance of the project and to reduce the potential for landslides along the ravine slope.

29 Surface drainage should include provisions for positive gradients so that surface runoff is not permitted to pond adjacent to foundations or other improvements. Minimum slope gradients of 2 to 5 percent should divert runoff away from improvements. The ground surface within 5 feet of buildings should be sloped away from foundations with a 2 percent minimum slope gradient.

30. Roof gutters should be placed around the eves of the structure. Roof runoff should be discharged at least 5 feet from foundations or discharged onto an impermeable surface that carries the water at least 5 feet away from the structure.

31. Collected runoff from improvements should be discharged away from foundations and pavements in a controlled manner and should not be discharged within 50 feet of the ravine slope. The discharge area should be adequately sloped to prevent ponding water. Energy dissipaters should be used on earthen slopes steeper than 10 percent. The exact discharge locations should be observed and approved in the field prior to installation.

31. The migration of water or spread of extensive root systems below foundations, slabs, or pavements may cause undesirable differential movements and subsequent damage to these structures. Landscaping should be planned accordingly.

Plan Review, Construction Observation, and Testing

32. Dees & Associates, Inc. should be provided the opportunity for a general review of the final project plans prior to construction to evaluate if our geotechnical recommendations have been properly interpreted and implemented. If our firm is not accorded the opportunity of making the recommended review, we can assume no responsibility for misinterpretation of our recommendations. We recommend that our office review the project plans prior to submittal to public agencies, to expedite project review. Dees & Associates also request

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the opportunity to observe and test grading operations and foundation excavations at the site. Observation of grading and foundation excavations allows anticipated soil conditions to be correlated to those actually encountered in the field during construction.

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LIMITATIONS AND UNIFORMITY OF CONDITIONS

- The recommendations of this report are based upon the assumption that the soil conditions do not deviate from those disclosed in the borings. If any variations or undesirable conditions are encountered during construction, or if the proposed construction will differ from that planned at the time, our firm should be notified so that supplemental recommendations can be given.
- 2. This report is issued with the understanding that it is the responsibility of the owner, or his representative, to ensure that the information and recommendations contained herein are called to the attention of the Architects and Engineers for the project and incorporated into the plans, and that the necessary steps are taken to ensure that the Contractors and Subcontractors carry out such recommendations in the field. The conclusions and recommendations contained herein are professional opinions derived in accordance with current standards of professional practice. No other warranty expressed or implied is made.
- 3. The findings of this report are valid as of the present date. However, changes in the conditions of a property can occur with the passage of time, whether they are due to natural processes or to the works of man, on this or adjacent properties. In addition, changes in applicable or appropriate standards occur whether they result from legislation or the broadening of knowledge. Accordingly, the findings of this report may be invalidated, wholly or partially, by changes outside our control. Therefore, this report should not be relied upon after a period of three years without being reviewed by a soil engineer.

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APPENDIX A

Site Vicinity Map

Topographic Map

Boring Site Plan

Cross-Section A-A'

Unified Soil Classification System

Logs of Test Borings

Geologic Map

Fault Map

Laboratory Test Results

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MODIFIED FROM SANTA CRUZ COUNTY DATA







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	BT. <u>BD</u> DATE DRILLED. <u>1-19-2007</u> BO			E. <u>0</u>							_ <u>+</u>
D≲¤TH (FT)	SOIL DESCRIPTION	USC SOIL TYPE	BLOW COUNT	DRY DENSITY (PCF)	MDISTURE INLSITU	MOISTURE SATURATED	COHESION (PSF)	PHI ANGLE	% PASSING 200 SIEVE	PLASTICITY INDEX	MISC. LAB RESULTS
	3rown fine SAND with Silt, damp, very loose	1									
2			5	353	100				16.2		
3		1	5	555	122						
4											
5	/ellow brown hne Silly SAND, damp, medium dense		4 1 1								
6			27		10 2						
7											
8			Į								
9											
10	Dark yellow gray SAND, fine lo medium grained, noist, very dense		50/							;	
11			5"		83		-				
12											
14											
15				02							
16	3rown fine Silty SAND, very moist, very dense		50/ 4"	92	201	29.1	480	36.3			
17	Bray brown medium SAND. moist. very dense	1									-
18											
19											
20											
21					 Fr	Virona	nental	Revie	w Inita	l Shud	
22				AT	TACH	MEN	IT Ē		200	EZ	Y
23	Croundwatar at 24 5 East			Ar	PLIC		N	07	-0	141	P
25	Gloundwater at 24.3 Feet	-									
26	Gray brown SAND with Silt and small iron cemented Sand particles, saturated. very dense		50/ 5"		27 4						
<u>_</u>	Borino Terminated At 26 Feet				_			l			<u> </u>
DEES	& ASSOCIATES, INC. MISSION STREET, SUITE SA						P	roject	No. <u>S</u>	SCR-C)216
SAI	NTA CRUZ. CA 95060						Fi	gure 1	No	6	
² h: (831) 4	27-1770 Fax: (831) 427-1794										

LOGGED BT: DU DATE DRILLED:	1.00				NG	LC	OGS						0.10	
CL QL T SOIL DESCRIPTION L L L U <thu< th=""> <thu< th=""> <thu< th=""></thu<></thu<></thu<>		GEDE	51: <u>E</u>	<u>3D</u> DATE DRILLED: <u>1-19-2007</u> BO			'E: <u>6" 3</u>		tem		В		G NO:	<u>_2</u>
1 2:1-1 Olive brown SAND with Silt, medium grained, damp, losse 12 101.4 12.3 5 2:2 Dark brown SAND with Sill and trace Mica, damp, losse 7 10.7 6 T Image: Constraint of the second seco	D≤µTH (FT)	SAMPLE NO.		SOIL DESCRIPTION	USC SOIL TYPE	BLOW COUNT (N60)	DRY DENSITY (PCF)	MO TURE IN-S.ru	MOISTURE SATURATED	COHESION (PSF)	PHI ANGLE	% PASSING 200 SIEVE	PLASTICITY INDEX	MISC. LAB RESULTS
3 L L 12 101.4 123 123 4 5 2-2 Dark brown SAND with Sill and trace Mica, damp, loose 7 10.7 10.7 6 T - Dark brown SAND with Sill and trace Mica, damp, loose 7 10.7 10.7 9 - Olive brown SAND with Silt, moist, medium dense 11 10.1 10.1 11 1 - Olive brown SAND, with Silt, moist, medium dense 11 10.1 13 - Olive brown SAND, moist, very dense 66 18.0 3.3 14 - Olive brown SAND, moist, very dense 50/ 23.3 - 14 - Olive gray fine SAND, moist, very dense 50/ 23.3 - 18 - - - - - - 21 T - - - - - - 22 - - Olive gray fine SAND, moist, very dense 50/ 23.3 - - 23 - - - - - - - -	1	2-1-1		Olive brown SAND with Silt, medium grained, damp, loose										
5 2-2 Dark brown SAND with Sill and trace Mica, damp, loose 7 10 7 10 7 8 7 10 7 10 7 10 7 10 7 9 9 9 10 2-3 Olive brown SAND with Silt, moist, medium dense 11 10 1 10 1 11 1 1 10 1 10 1 10 1 10 1 12 7 Olive brown SAND, with Silt, moist, medium dense 11 10 1 10 1 14 1 0 0 0 0 0 0 16 7 0 0 0 0 0 0 0 18 0 2.5 0 0 0 0 0 0 0 20 2.5 0	3 4					12	101.4	12 3						
7 8 9 0 2-3 0 001 ve brown SAND with Silt, moist, medium dense 11 10 1 10	5 6 7	2-2 - T		Dark brown SAND with Sill and trace Mica, damp, loose		7		10 7						
10 2:3 Olive brown SAND with Silt, moist, medium dense 11 1 10 1 12 7 1 10 13 1 1 10 1 14 1 1 10 1 15 2.4 Olive brown SAND, moist, very dense 68 18 3.3 16 T 1 507 23.3 3.3 18 1 507 23.3 1 1 20 2.5 Olive gray fine SAND, moist, very dense 507 23.3 3.3 18 1 1 1 1 1 1 21 T Groundwater at 24 Feet 507 23.3 1 1 24 Yellowish dark gray medium grained SAND, saturated, very dense 10 1 1 1 1 1 25 2.6 Yellowish dark gray medium grained SAND, to the saturated, very dense 1 1 1 1 1 1 1 26 T Boring Terminated At 26 Feet 1 1 1 1	7 8 9													
13 14 15 2.4 0 Olive brown SAND, moist. very dense 68 18.0 3.3 16 T 18.0 3.3 3.3 3.3 18 19 0 2.5 0 00// ery fine SAND, moist, very dense 50// 5" 23.3 3.3 20 2.5 0 0// ery fine SAND, moist, very dense 50// 5" 23.3 10 21 T 1 17 10 18.0 3.3 10 22 1 1 17 10 19.8 10 10.1 10 24 Yellowish dark gray medium grained SAND, saturated, very dense 50// 5" 19.8 19.8 19.8 19.8 25 2.6 Yellowish dark gray medium grained SAND, saturated, very dense 19.8 19.8 19.8 19.8 19.8 26 T Boring Terminated At 26 Feet 19.8 19.8 19.8 19.8 19.8 10.1 DEES & ASSOCIATES, INC. SO1 MISSION STREET, SUITE 84	10 11 12	2-3 - T _		Olive brown SAND with Silt, moist, medium dense		11		10 1		- - - -				
16 T <	13 14 15	2-4 -		Olive brown SAND, moist. very dense										
19 2-5 Olive gray fine SAND, moist, very dense 50/ 5" 23 3 23 3 21 T T Environmental Review Initial Study ATTAC HMENT 7 20 9/ 7 9/ 7 23 V Groundwater at 24 Feet Feet ATTAC HMENT 7 20 9/ 7 9/ 7 24 Vellowish dark gray medium grained SAND, isaturated, very dense 50/ 50/ 5 19.8 19.8 19.8 DEES & ASSOCIATES, INC. 501 MISSION STREET, SUITE 8A Project No. SCR-0216	16 17 18	Τ.				68		18 0	· · · · · · · · · · · · · · · · · · ·			3.3		
22 23 Image: Constraint of the sector of t	19 20 21	2-5 - T -		Olive gray fine SAND, moist, very dense		50/ 5"		23 3		1				
25 2-6 Yellowish dark gray medium grained SAND, isaturated, very dense gi0/f 19.8 26 T Boring Terminated At 26 Feet 19.8 DEES & ASSOCIATES, INC. SOI MISSION STREET, SUITE 8A	22 23 24			▼ Groundwater at 24 Feet		A		Enviro HME CATI	^{nment} ENT ON	al Rev 7.	iew I	inital s	indy	4
Boring Terminated At 26 Feet DEES & ASSOCIATES, INC. 501 MISSION STREET, SUITE 8A	25 26	2-6 - T		Yellowish dark gray medium grained SAND, saturated, very dense		tio/		19.8			*		<u> </u>	
DEES & ASSOCIATES, INC. 501 MISSION STREET, SUITE 8A Project No. SCR-0216]	[Boring Terminated At 26 Feet		1								
JUL MIDDAW JIKEEI, JUHE OA	DE	EES &	A	SOCIATES, INC.						Pr	ojec	t No.	<u>SCR-0</u>	<u>)216</u>
SANTA CRUZ. CA 95060 Figure No. 7		SANTA	CRI	IZ. CA 95060						Fin	IUre	No		7

			TEST BORING	G L	OG	S							
LOC	GED B	Y: <u>E</u>	DATE DRILLED: <u>1-19-2007</u> BORIN		′PE: <u>(</u>	6" So	lid S	tem		B	ORIN	G NO:	<u>3</u>
DE JTH (FT)	AMPLS NO.	USC SYMBOL	SOIL DESCRIPTION	BLOW COUNT	(N ₆₀) DRY DENSITY	(PCF) MOISTURE	IN-SITU	MOISTURE SATURATED	COHESION (PSF)	PHI ANGLE	% PASSING 200 SIEVE	PLASTICITY INDEX	MISC. LAB
1 2 3 4	3-1-1 L		Olive brown SAND with trace Silt, fine grained, moist, very loose	4	93.	3 9.1	1						
5 6 7 a	3-2 т		Brown fine SAND, moisl. very dense	80		11	.3				6.1		
9 10 11 12 13	³⁻³ T		Dark yellow gray fine SAND, moist, very dense	50/ 5"		12	.4						
14 15 16	3-4 T		Yellow gray SAND. moist, very dense BoringTerminated At 16 Feet	50/ <u>5"</u>									
17 18													
19 20							:						
21 22													
23 24						F	nvir	anman	tal De		. I 14		
24 25 26					ATT		HM AT	ENT	7	2 Z		Study 22 40	1
DE	ES &	AS	SSOCIATES, INC.]	[Pr	ojec	t No.	SCR-(021
'h: (8	501 MIS SANTA 31) 427-	CRU 1770	N STREET, SUITE 8A Z. CA 95060) Fax: (831) 427–1771						Fig	jure	No	8	



- Qal ALLUVIAL DEPOSITS
- Qof OLDER FLOOD-PLAIN DEPOSITS
- Tp PURISIMA FORMATION
- STRIKE AND DIP (ORIENTATION) OF GEOLOGIC UNITS



Project No. SCR-0216	FIGURE 9
CALIFORNIA	Drawn By: SB
APN 103-011-55 5000 NORTH RODEO GULCH	FEB. 2007
GEOLOGIC MAP	SCALE 1 IN=2000 FT





CULVERT ANALYSIS AND STORM WATER RETENTION (PERCOLATION METHOD) CALCULATIONS

Poetic Cellars - New Wine Production Building (APN 103-011-55) City of Soquel, California

> <u>OWNER</u> Joseph Naegele & Katy Lovell Soquel, California

> > July, 2007

PREPARED BY: Todd Creamer, P.E.

C2G/Civil Consultants Group, Inc. Engineers/Planners 4444 Scotts Valley Drive/Suite 6 Scotts Valley, CA 95066 831/438-4420 [Tel] • 831/438-5829 [Fax] c2gengrs.com [E-mail]

> Environmental Review Initial Study ATTACHMENT Solution APPLICATION 07-0/40



i

Culvert DesignerlAnalyzer Report Culvert 14+75

Analysts Component						
Slorm Event		Design	Discharge		0 66	cfs
Peak Discharge Method	. Ralionai					
Design Return Period		25 year	Check Return Pe	eriod	25	year
Design Peak Discharge		0.66 cfs	Check Peak Dise	charge	0.66	cfs
Total Area		0.78 acres	Time of Concent	ration	12.00	min
Weighted C		0.35	Intensity		2.39	in/hr
Subwatershed (acres)	С					
07	8 0.35					
Tailwater properties irre	gular Channel					
Slope		0 150000 ft/ft	Mannings Coeffi	cient	0 000	
Tailwater conditions lor	Design Storm					
Discharge		066 cfs	Depth		000	ft
Velocity		000 ft/s				
Name	Description	Discharge	HW Eiev	Velocity		
Culvert-I 1-1	8 inch Circular	0 66 cfs	245 38 ft	5 22 ft/s		
Weir N	ot Considered	N/A	NIA	N/A		

Environmental Review Initial Study ATTACHMENT <u>3.2019</u> APPLICATION <u>07-0140</u>

Culvert DesignerlAnalyzer Report Culvert 14+75

Component:Culvert-1

Culvert Summary					
Computed Headwater Elevation	245.38	ft	Discharge	0.66	cfs
Inlet Control HW Elev	245.20	ft	Tailwater Elevation	0.00	ft
Outlet Control HW Elev	245.38	fl	Control Type	Entrance Control	
Headwater Depth/ Height	0.33				
Grades					
Upstream Invert	244 88	ft	Downstream Invert	242.38	ft
lenalh	20.00	ft	Constructed Slope	0.125000	ft/ft
Drofilo			Depth Downstroom	A 10	n
Slope Type	32 Steen		Normal Depth	0.19	a
Elow Regime	Supercritical		Critical Depth	010	а #
Velocity Downstream	522	ft/s	Critical Slope	0.017208	# ft/ft
Polocity Download	522	100		0 011200	
Section					
Section Shape	Circular		Mannings Coefficient	0.024	
Section Material	CMP		Span	1.50	ft
Section Size	1.3 inch		Rise	1.50	ft
Number Sections	1				
Outlet Control Properties					
Outlet ConIrol HW Elev	245.38	n	Upstream Velocity Head	0.11	ft
Ke	0 90		Entrance Loss	009	ft
Inlet Control Properties					
Inlet Control HW Elev	24520	ft	Flow Control	Unsubmerged	
Inlet Type	Projecting		Area Full	18	ft²
К	0 03400		HDS 5 Chart	2	
Μ	150000		HDS 5 Scale	3	
С	0 05530		Equation Form	1	
	0.54000				

ATTACHMENT 5. 3 4-9 APPLICATION 07-0140

 Project Title: Poetic Vineyards
 Project

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 Civil Consultants Group/C2G

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 37 Brookside Road
 Waterbury. CT 06708 USA
 (203) 755-1666

Project Engineer: Todd R. Creamer CulvertMaster v1.0 Page 2 of 2

Culvert DesignerlAnalyzer Report culvert 12+60

Analysis Component					
Storm Event	Design	Discharge		0.14	cfs
Peak Discharge Method: Rational					
Design Return Period	25 year	Chech Return Pe	riod	25	year
Design Peak Discharge	0.14 cfs	Check Peak Disc	harge	0.14	cfs
Total Area	0.16 acres	Time of Concentr	ation	10.00	min
Weighted C	0.35	Intensity		2 46	in/hr
Area					
Subwatershed (acres) C					
1 0.16 0.35					
Tailwater properties Irregular Channel					
Slope	0 150000 ft/ft	Mannings Coeffic	ient	0 000	
Tailwater conditions for Design Storm					
Discharge	0 14 cfs	Depth		000	ft
Velocity	000 ft/s				
				_	
Name Description	Discharge	HW Elev	Velocity		
Culvert 1 1 15 inch Circular	0 14 cfs	276 49 ft	3.71 ft/s		
Weir Not Considered	NIA	N/A	N/A		



Culvert DesignerlAnalyzer Report culvert 12+60

Component:Culvert-1

Culvert Summary					
Computed Headwater Elevation	27649	ft	Discharge	0.14	cfs
Inlet Control HW Elev	276 34	ft	Tailwater Elevation	000	ft
Outlet Control HW Elev	27649	ft	Control Type	Entrance Control	
Headwater Depth/ Height	0 19				
Grades					
Upstream Invert	27625	fl	Downstream Invert	27315	ft
Length	1850	ft	Constructed Slope	0 167568	fl/ft
Hydraulic Profile					
Profile	S2		Deplh, Downstream	0.09	ft
Slope Type	Steep		Normal Depth	0.09	ft
Flow Regime	Supercritical		Critical Depth	014	ft
Velocity Downstream	371	ft/s	Critical Slope	0020323	ft/ft
Section					
Section Shape	Circular		Mannings Coefficient	0 024	
Section Material	CMP		Span	1.25	ft
Section Size	15 inch		Rise	1.25	ft
Number Sections	1				
Outlet Control Properties					
Outlet Control HW Elev	276.49	ft	Upstream Velocity Head	0.05	ft
Ke	O 90		Entrance Loss	0.04	ft
Inlet Control Properties					
Inlet Control HW Elev	27634	ft	Flow ConIrol	Unsubmerged	
Inlet Type	Projecting		Area Full	12	ft²
K	0 03400		HDS 5 Chart	2	
Μ	150000		HDS 5 Scale	3	
С	0 05530		Equation Form	1	
Y	0 54000				

Environmental Review inital Stu	vhi
ATTACHMENT S. 5, 19	·
APPLICATION 07-014	<u>)</u> -

 Project Title: Poetic Vineyards

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ds Project Engineer: To poetic v.cvm Civil Consultants Group/C2G Culv © Haestad Methods, Inc. 37 Brookside Road Waterbury, CT 06708 USA (203) 755-1666

Culvert DesignerlAnalyzer Report New culvert parking lot

Analysis Component			
Storm Event	Design	Discharge	067 cfs
Peak Discharge Method Rational			
Design Return Period	25 year	Check Return Period	25 year
Design Peak Discharge	0 67 cfs	Check Peak Discharge	0 67 cfs
Total Area	0 79 acres	Time of Concentration	1200 min
Weighted C	0 35	Intensity	2 39 in/hr
Area Subwatershed (acres) C			
1 079 03	5		
Tailwater properties Irregular Chan	nel		
Slope	0 150000 ft/ft	Mannings Coefficient	0 000
Tailwater conditions for Design Slor	m		
Discharge	067 cfs	Depth	000 n
Velocity	000 fVs		
Name Description	Discharge	HW Eiev Ve	locity
Culvert 1 1-18 inch Circ	ular 0 67 cfs	237 46 ft 7	 83 ft/s
Weir Not Consider	ed N/A	N/A	NIA



Npoetic v.cvm Clvil Consultants Group/C2G © Haestad Methods, Inc 37 Brookside Road Waterbury CT 06708 USA (203) 755-1666
Culvert Designer/Analyzer Report New culvert parking lot

Component:Culvert-1

Culvert Summary					
Computed Headwater Ele	vation 237.46	n	Discharge	0.67	cfs
Inlet Control HW Elev	237.36	n	Tailwater Elevation	0.00	n
Outlet Control HW Elev	237.46	ft	Control Type	Entrance Control	
Headwater Depth/ Height	0.31				
Grades					
Upstream Invert	237 00	ft	Downstream Invert	232.90	fl
Length	60.00	R	Constructed Slope	0.068333	ft/ft
Lhudroulie Drofile					
					-
Profile	S2		Depth. Downslream	0.14	fl 9
Slope Type	steep			0.14	n
Flow Regime	Supercritical	61.		0.30	[] A (0)
velocity Downstream	7.83	π/s	Critical Slobe	0.002983	זעת
Section					
Section Shape	Circular		Mannings Coefficient	0 010	
Section Material	PVC		Span	1 50	n
Section Size	18 inch		Rise	1.50	n
Number Sections	1				
Outlet Control Properties					
Outlet Control HW Elev	237 /6	Ð	Lingtroom Valagity Hood		n
	237.40	ц	Entrance Loss	0.11	n
	0.50		Entrance 2033	0.00	
Inlet Control Properties					
Inlet Control HW Elev	237.36	n	Flow Control	Unsubmerged	
Inlet Type S	quare edgew/headwall		Area Full	18	ft²
К	0 00980		HDS 5 Chart	1	
Μ	2 00000		HDS 5 Scale	1	
С	0 03980		Equation Form	1	
Y	0 67000				



 Project Title: Poetic Vineyards
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PROJECT: So	yquel winery	- APN: 104	cc-110-1				dalc by: TRC		Date:	5/15/2007
			RUNOFF RI	ETENTION E	3Y THE ST(DRAGE PE	RCOLATION METHOD			
Data Entry: DE	ZESS TAB KEY	& ENTER DES	IGN VALUES	Notes & Limit:	ations on Use				Ø	S Ver:1.0
									ulou toot to too	
Site Location F	60 Isopleth:	1.60	Fig. SWM-2	Saturated soil pe	irmeability values	may be used cor	servatively from the USDA-NRCS sol	il survey, or u	se actuai test valu	res. Afon area
Rational Coeffic	sients Cpre:	0.35		Site selection an	d design shall give	e proper considei	ation to the path for excess flows dow	wnstream or u	ie designateu rete	
-	Cpost:	0.92		Retention site loc	cation on, or imm∈	adiately above, sl	opes exceeding 15% will require cons	sulting a geot	schracal erigmen.	
lmpe	rvious Area:	0006 0006	ft ²	Gravel packed st	tructures shall use	s washed, angula Design Criteria	r, uniformly graded aggregate providir Stormwater Management - Section H,	ng not less th , for complete	an 35% void space method critería.	Q
Saturated Soil F	ermeability:	3.00	111/11			ß				
	VEAP DES	IGN STORN		RETENTION	@ 120 MIN.	STRUCTUF	TE DIMENSIONS FOR RETEN	ITION	DETENTION	(0 60 MIN.
V				Retention	Specified	196	ft ³ storage volume calculated		Detention	Specified
č	, , , , , ,			Rate To	Retained	40	% vold space assumed		Rate To	Detained
Storm	z - Year	((490	ft ³ excavated volume needed		Storage	Volume
Duration	Intensity	Qpre	(ofc)	Storage (rfc)		Structure	Length Width* D	Depth*#	(cfs)	(cf)
(uiu)	(in/nr)	(CIS)	(SIU) 250.0		-4473	Ratios	20.00 15.00	0.25	-0.014	-1245
1440	0,18	0.013	0.000	200.0-		Dimon (ft)	37 39 28 04	0.47	-0.012	-842
1200	0.19	0.014	0.037	0,001	2002-				-0.008	-466
096	0.21	0.016	0.041	0.004	-2572	0111			0.003	127
	0.24	0.018	0.046	0.009	-1678	777	ft effective surrace area		-0.005	1 1 1 1 1
	0.28	0.021	0.054	0.018	-846	1.0	hrs estimated structure draina	ade time	0.000 010	267
	0.32	0.023	0.061	0.025	-467					000
	0.38	0.028	0.072	0.036	-130	* For pipe, us	e the square root of the sectional area		0.024	000
	We 0.43	0.031	0.082	0.045	14	# If cell values	displayed are corrupted, enter zero to	or depth,	0.033	
120	0.50 uta	0.037	7 0.097	0.060	131	then re-enter a	i positive numeric vatue within allowed	d range.	0.048	040 000
	25 U R	0.041	0.109	0.072	172				0.000	070
		0.049	J 0.129	0.092	195	STRUCTU	RE DIMENSIONS FOR DETEI	NTION	0.080	287
	2 C	0.055	– 0.145	0.108	196	353	ft ³ storage volume calculated	-	0.096	259
	o 68 0 Inita	0.065	0.171	0.135	184	100	% void space assumed		0.122	220
	1 UB 8	0.077	0.203	0.166	165	353	ft ³ excavated volume needed		0,154	185
	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	0.087	0.228	0.192	150	Structure	Length Width ⁺	Depth*	0.179	161
<u>,</u>	A 141	0.103	0.270	0.233	128	Ratios	25.00 2.00	0.25	0.221	133 00
<u>ى ز</u>	1.88	0.137	0.360	0.323	94	Dimen. (ft)	76.15 6.09	0.76	0.311	83



Environmental Review Inital Study	
ATTACHMENT	;
APPLICATION	P

February 15, 1991



Mr. Peter Parkinson Planning Department County of Santa Cruz 701 Ocean Street Santa Cruz, **CA** 95060

Re: Hall Biotic Review No. 90-1260-EBS

Dear Pete:

This letter summarizes my review of the Kenneth Hall application for removal of portions of the property at 5000 North Rodeo Gulch (APN 103-011-43)in central Santa Cruz County from "Critical Fire" designation. The applicant was seeking approval for a minor land division and the construction of a second dwelling elsewhere on the 40 acre parcel. A determination of fire hazard potential on both the proposed 5.7 acre lot split and at the dwelling site was conducted by the Habitat Restoration Group. Their report concluded that the 5.7 acre lot does not support chaparral vegetation identified in County Ordinance as Critical Fire Hazard. However, portions of the remaining parcel was determined to support such vegetation. It was unclear in this review if the proposed second dwelling site supported any fire hazard vegetation cover.

Subsequent to this request for review, the applicant has chosen to drop the application for a second dwelling and to only apply for the MLD (based on faxed memo dated February 15, 1991). Based on this modification, the data provided in the HRG report is sufficient to conclude that the proposed new lot of record does not support critical fire hazard vegetation cover and therefore should be removed from the Critical Fire Map.

Should this application again include a proposed second dwelling on the larger original parcel, then a vegetation map should be submitted that accurately depicts the vegetation types and location on the parcel. Please don't hesitate to contact me if you have further questions on this matter.

Sincerely, 61-

William Davil Principal

The Habitat Restoration Group

JOHN STANLEY & ASSOCIATES

November 8, 1990

Kenneth W. Hall 5000 North Rodeo Gulch Road Soquel, California 95073

Environmental Review Initial Study ATTACHMENT / 0, / 1, 2 APPLICATION 07

Dear Mr. Hall,

The **40** acre parcel located at 5000 North Rodeo Gulch Road was surveyed on November **8**, 1990 to determine potential **fire** hazard. A lot split to create a 5.7 acre parcel for the construction of a caretaker home is proposed.

The plant communities on the 5.7 acre parcel are mixed evergreen forest and live *oak* woodland. The mixed evergreen forest occupies a majority of the proposed 5.7 acre parcel, occurring in the southwest. Much of the understory within the mixed evergreen forest consists of shrubs and ferns such as hazelnut (Corylus californica), poison oak (Toxicodendrondiversilobum) California blackberry (Rubus ursinus), and wood fern (Dryopreris arguta). The remainder of the parcel between the mixed evergreen forest and the driveway contains the proposed home site and consists of a live oak woodland community which appears to be an ecotone between the mixed evergreen forest and the chaparral communities. The density of the oak woodland area is open, yet the understory has been disced. Remnants of understory vegetation indicate that the species composition is dominated by grasses and low-growing vegetation such as deer tongue lotus, telegraph weed (Heterotheca grandiflora), California blackberry, and bracken fern (Pteridium aquilinum). An area between the north side of the driveway and the chaparral community which is dominated by grasses and deer tongue lotus is adjacent to the proposed parcel. In addition, the understory within a small area that borders Rodeo Gulch Road consists predominately of chapanal species such as deer tongue lotus (Lotus scoparius), coyote brush (Baccharis pilularis ssp. consanguinea), sticky monkey flower (Diplacus aurantiacus), and manzanita (Arctostaphylos sp.).

The remainder of the project site has two dominant habitat types. A mixed chaparral area occupies a portion of the site that is north of the existing driveway and home. Small stands of chaparral vegetation also occur south of the home. Dominant species in the dense chapanal community are manzanita, chamise (*Adenostoma fasciculatum*), black sage (*Salvia mellifera*), sticky monkey flower, coyote brush, deer tongue lotus, and poison *oak*. The second community on the project site is a mixed evergreen forest. This habitat is dominated by evergreen trees such as coast redwood (*Sequoia sempervirens*), coast live *oak* (*Quercus agrifolia*), California bay (*Umbellularia californica*), madrone (*Arbutus menziesii*). The dense understory predominately consists of the aforementioned shrubs and fern species for this habitat, yet also has small inclusions of grasses and scrub. The confluence of two drainages occurs on the project site near the border of the proposed new parcel. A portion of the northernmost drainage has been disced

6001 Butler Lane, Suite 1 • Scotts Valley, CA 95066 • (408) 439-5500 • FAX (408) 438-1142 • Branch Office • 216 F Street No. 63 • Davis, CA 95616 • (916) 753-3905

Kenneth W. Hall Page 2

November **12**, 1990 File No. 606-01

west of the confluence, thus eliminating the channel and the associated vegetation. Two **springs** also occur near the confluence of the drainages.

The fire hazard is high in the chaparral community where the vegetation is dense and **fire** intensity **will be** substantial. The slope throughout much of the chapanal community is **40%** or greater, **thus** increasing the fire hazard. **This** area ranges approximately 200' to **300'** from the proposed home site. **This** community does not occur on the 5.7 acre parcel.

The fire hazard is generally low within the mixed evergreen forest community. The slope within this habitat varies, but is generally greater that **40%** where it occurs in canyons. The steep slopes of this community could increase the fire hazard of adjacent habitats. This is the dominant community on the proposed 5.7 acre parcel, and occurs throughout much of the project site.

The *oak* woodland area south **of** the driveway and the area along Rodeo Gulch Road have moderate fire hazard potential due to low growing vegetation which may ignite easily, a close proximity to the road, a low *to* moderate fuel volume, and a relatively gradual slope ranging from 10% to 40%. This habitat does not provide sufficient fuel to substantiate dangerous fire intensity. The proposed building envelope occurs within this habitat.

A chaparral **area** which has high fire hazard potential occurs on an adjacent parcel along **Rocleo** Gulch Road across from the proposed 5.7 acre parcel.

In conclusion, the proposed 5.7 acre parcel consists of **an** area with moderate fire hazard potential where the building envelope is proposed, and **an** area of low **fire** hazard potential occupying the southern and southeastern portions of the project site. Adjacent communities *to* the north and west of the proposed parcel have a high fire hazard potential.

Cordially,

Kathle heros/m

Mara Noelle, Biologist

Environmental Review Initial Study ATTACHMENT 10 APPLICATION-C

The Habitat Restoration Group

COUNTY OF SANTA CRUZ DISCRETIONARY APPLICATION COMMENTS

Project Planner: Cathy Graves Application No.: 07-0140 APN: 103-011-55 Date: September 17, 2007 Time: 10:48:05 Page: 1

Environmental Planning Completeness Comments

The following are Completeness Comments in regards to soils and grading issues:

1. The soils report has NOT been accepted. The submitted report is neither signed nor stamped by the soils engineer. Please submit two wet-signed/stamped copies of the soils report for review by a staff engineer.

2. The soils report is incomplete, as it does not include "Appendix A" (boring maps, logs. lab test results) as listed. Please include Appendix A in the report resubmittal

3. The soils report should be revised to include an analysis of the ravine slope stability and the potential for future failures, as well as the rate of recedence of the top of bank

4. Please show existing and proposed contours on the grading plan. Existing contours should **be** shown as dashed lines. and proposed contours as bold lines

5. Please revise grading plan to include topography north of the roadway

6. The grading plan provided does not meet County minimum grading plan requirements. Please refer to the County Planning Department website:

www.sccoplanning.com/brochures/grading.htm for grading plan requirements. Due to the lack of information included on the submitted grading plans, we highly recommend that the applicant obtain the services of a registered Civil Engineer to prepare the grading plans.

7. Note: Once grading plans are submitted that meet our requirements, the plan will be reviewed for compliance with minimizing grading policies.

8. Please provide a profile for the widened asphalt concrete driveway. Both the site plan and profile for the driveway should extend to the entrance of the property (at the gate).

9. Please provide the gate code to allow staff access to the site for review.

10.Please revise plans to include a conceptual drainage plan for site runoff.

1. Submit an arborist's report that surveys all trees within the limits of grading



and makes recommendations regarding retention and protection of trees. See additional comments under Compliance Issues

5/30/07 - Comments by Carolyn Banti

The following are Completeness Comments with regards to soils and grading issues (Second Routing):

First routing responses:

Comments #1-#8, and #10 have been rectified in the resubmitted plans

Comment #9 - Please provide the gate code to facilitate staff access to the site.

Comment #11 - Prior to the discretionary application being deemed complete, a plan review letter from the soils engineer shall be submitted to Environmental Planning. The author of the soils report shall write the plan review letter. The letter shall state that the project plans conform to the report's recommendations.

Second routing comments:

12. The driveway cross sections show a retaining wall in the vicinity of Station 15+50. Please show the retaining wall in plan view, including begin/end points and top-of-wall and bottom-of-wall elevations, and revise the plan view for wall #1 to include the same information.

Additional Completeness Comments by Environmental Planning

1. Show removal of tree #4 as recommended by the arborist

2. It appears that tree #7 will need to be removed for the purpose of driveway widening/grading. Show this tree to be removed.

3. Four trees are shown to be removed for the purpose of driveway widening/grading at the beginning of the driveway. It appears that at least one additional tree should be removed in this area, as it is located in an area of proposed grading. Show removal of this additional tree.

4. Grading limit line is not accurately shown at the beginning of the driveway. All proposed grading contours should fall within the grading limit line.

> Environmental Review Initial Study ATTACHMENT 11 2 of 9

APPLICATION_

Date: September 17, 2007 Time: 10:48:05 Page: 3

Environmental Planning Miscellaneous Comments

The following are Compliance Comments in regards to soils and grading issues:

1. The proposed roadway should be kept to the 18' minimum width unless modifications are formally requested and approved in writing. The applicant's inquiry must provide an outline of the justification for the request for modification, as well as sufficient information to support claims. If approved, the widened roadway will not be allowed beyond the driveway to the wine production facility.

4/12/07

The following are Miscellaneous Comments/Permit Conditions in regards to soils and grading issues:

1. Winter grading will not be approved for this site

2. A plan review letter from the soils engineer will be required to be submitted with the building permit plans. The plan review letter must state that the respective plans are in conformance with the geotechnical recommendations.

Additional Compliance Issues from Environmental Planning:

1. Per General Plan policies 6.3.4 and 6.3.9, vegetation removal must be minimized

2. Per General Plan policies 6.3.9 and 8.2.2. grading must be minimized

Additional Conditions from Environmental Planning:

1. Arborist's reference and specifications for tree protection should be stamped on the final building permit plans.

Misc Comments from Environmental Planning:

1. 1990 Biotic report by The Habitat Restoration Group was completed to determine fire hazard potential.

2. Parcel is mapped as a biotic resource area. Upon inspection, it was determined that the resource does not exist on the parcel and will not be negatively impacted.



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5/30/07 - Comments by Carolyn Banti

The following are compliance comments in regards to soils and grading issues (Second Routing):

Comment #1 - The applicant has indicated that the 20 foot driveway width was requested by the Fire Department during a pre-development site review. Please provide a written, signed statement from the Fire Department verifying the minimum width requirement for the site

5/30/07 - Comments by Carolyn Banti

The following are miscellaneous comments/conditions of approval in regards to soils and grading issues (Second Routing):

No Additional Comments ------ UPDATED ON JUNE 18, 2007 BY ANTONELLA GENTILE

No misc.comments/conditions at this time. ===== UPDATED ON AUGUST 13, 2007 BY CAROLYN I BANTI ========

8/13/07 - Comments by Carolyn Banti

The following are Miscellaneous Comments/Conditions of Approval in regards to soils and grading issues (Third Routing):

The plans show a proposed stockpile area on 2:1 max. slopes. Please note that this area may only be used for temporary stockpiling of materials and erosion control plans must show the proper erosion control measures to retain soils in this area The building permit plans must state the destination of all off-hauled materials. If materials are to be distributed on-site, the locations to receive fill must be clearly labeled on the plans. If soils are to be placed on slopes greater than 20 percent or result in fill depths greater than 2 feet proposed contours will be required. ______ UPDATED ON AUGUST 14. 2007 BY CAROLYN I BANTI ______ (Third Routing) Compliance Comments - Carolyn Banti

1. Final building plans must state that, with the exception trees 4 and 7. all specifications from the arborist's report will be followed.

2. Removed trees must be replaced at a minimum one-to-one ratio with 24-inch boxsized trees.

Dpw Drainage Completeness Comnents

LATEST COMMENTS HAVE NOT YET BEEN SENT TO PLANNER FOR THIS AGENCY



Date: September 17, 2007 Time: 10:48:05 Page: 5

dated 3/20 and 3/21/07 has been received. Please address the following:

1) Please clarify the extent of proposed impervious area associated with the project. What is the extent of the driveway widening? Sheet A-3 shows widening for a section, how will this widened section tie into the existing driveway and road?

2) Please provide a drainage plan that describes how runoff from all new impervious areas (roof. driveway, parking areas, etc.) will be handled and mitigated for onsite. This project is required to limit post development runoff rates to predevelopment levels for a range of storms up to and including the 10 year storm. Utilizing detention to meet this requirement is only allowed if other measures are not feasible. Are facilities to retain and infiltrate added runoff due to additional impervious areas feasible on this site? If so. please incorporate retention/infiltration measures prior to detention. If not, please submit reasons and technical support of infeasibility for review.

3) Provide additional details including size, type, elevations, energy dissipation at outlet, etc. for the proposed driveway culvert

4) The geotechnical investigation for the site recommended that all improvements be set back 50 from the edge of the drainage ravine. It appears that the proposed plan includes covering up the ravine with parking and driveway and installing a culvert. Submit analysis demonstrating that the driveway culverts (existing and proposed) meet design criteria requirements (capacity, safe overflow, freeboard, velocity, etc.) based on the watershed draining to them. Please also provide a letter from the geotechnical engineer approving of the proposed alterations to the ravine, stating that the plan should result in a stable project.

5) The site survey shows a 16- driveway culvert around elevation 275 feet while the proposed plan does not show this culvert. How will this runoff be directed once this culvert is eliminated?

6) How will the proposed building be protected from upstream runoff?

All submittals for this project should be made through the Planning Department. For questions regarding this review Public Works stormwater management-staff is available 8-12 M-F at 454-2160.

======= UPDATED ON JUNE 13. 2007 BY ALYSON B TOM ====== Application with civil plans by C2G dated 5/1/07 and 5/15/07 has been received. Please address the following:

1) Per previous comment No. 4 please submit analysis demonstrating that the culverts, both existing and proposed are adequate in meeting design criteria requirements (capacity. safe overflow, freeboard, velocity, etc.) based on the watershed draining to them.

Please see miscellaneous comments

----- UPDATED ON AUGUST 7, 2007 BY ALYSON B TOM ----- Application with civil plans revised on 6/18/07 and analysis dated July 2007 by C2G Consultants has been received and is complete with regards to stormwater management for the discretionary



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stage.

Please note that analysis for the proposed rain garden was also received. This facility provides best management practices for the project. As designed **it** does not necessarily hold runoff at pre-development rates, however the design also includes dispersal of runoff over open large open areas, and this combination is considered adequate.

Dpw Drainage Miscellaneous Comments

LATEST COMMENTS HAVE NOT YET BEEN SENT TO PLANNER FOR THIS AGENCY

ments Pliance and permit conditions/additional information required.

1) Please provide the calculations for the proposed "rain garden" that are referenced on the detail. The note on the detail indicated the garden was sized for all new roof and parking runoff however it appears that at least a portion of the roof runoff discharges to a different location. Please clarify. A quick check using the spreadsheets from the Desgin Criteria and soils data from the USDA soils survey results in a requirement of almost 600 cubic feet of storage.

2) Provide a detail for the proposed drainage ditch above the driveway

3) Update the rain garden detail so that culvert sizes correspond to the rest of the plans. Please also show the proposed culvert that runs underneath the rain garden.

4) Will the two notches in the curb around the rain garden be sufficient for allowina all proposed driveway, parking and roof runoff to enter the rain garden without impacting the parking area?

Dpw Driveway/Encroachment Completeness Comnents

Dpw Driveway/Encroachment Miscellaneous Comments

Driveway to conform to County Design Criteria Standards.

Environmental Health Completeness Comments

LATEST COMMENTS HAVE NOT YET BEEN SENT TO PLANNER FOR THIS AGENCY

Envimnmental Review Initial Study ATTACHMENT //. 6 of APPLICATION 7-0/40

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The proposed restroom. It would be helpful to know WHERE the septic system will go Show on site plan. Winery will require RWQCB approval, as stated by the septic consultant.

No food facility permit will be required unless the owner intends to have large scale food production as part of wine tastings.

What did the septic consultant mean by 'the processing waste system' in his May 21 letter?

Environmental Health Miscellaneous Comments

LATEST COMMENTS HAVE NOT YET BEEN SENT TO PLANNER FOR THIS AGENCY

----- REVIEW ON APRIL 12, 2007 BY JIM G SAFRANEK

Cal Dept of Forestry/County Fire Completeness Comm

LATEST COMMENTS HAVE NOT YET BEEN SENT TO PLANNER FOR THIS AGENCY

DEPARTMENT NAME : CDF/COUNTY FIRE

Add the appropriate NOTES and DETAILS showing this information on your plans and RESUBMIT, with an annotated copy of this letter:

Note on the plans that these plans are in compliance with California Building and Fire Codes (2001) as amended by the authority having jurisdiction.

Each APN (lot) shall have separate submittals for building and sprinkler system plans.

The job copies of the building and fire systems plans and permits must be onsite during inspections

SHOW on the plans a public fire hydrant within 250 feet of any portion of the property, along the fire department access route. meeting the minimum required fire flow for the building. This information can be obtained from the water company. A minimum fire flow 500 GPM is required from 1 hydrant located within 150 feet. SHOW on the plans a 10,000 gallon water tank for fire protection with a "fire hydrant" as located and approved by the Fire Department if your building is not serviced by a public water supply meeting fire flow requirements. For information regarding where the water tank and fire department connection should be located, contact the fire department in your jurisdiction. THIS IS A MIMINUM CALCULATION OF WATER STORAGE.

NOTE on the plans that the building shall be protected by an approved automatic fire sprinkler system complying with the currently adopted edition of NFPA 13 and Chapter 35 of California Building Code and adopted standards of the authority having jurisdiction.

NOTE that the designer/installer shall submit three (3) sets of plans and calculations for the underground and overhead Residential Automatic Fire Sprinkler System

Environmental Review Inital Study ATTACHMENT 1/ 70 APPLICATION 07-0

Discretionary Comments - Continued

 Project Planner: Cathy Graves
 Date
 September 17. 2007

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 Time
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 Page
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to this agency for approval. Installation shall follow our guide sheet. NOTE on the plans that an UNDERGROUND FIRE PROTECTION SYSTEM WORKING DRAWING must be prepared by the designer/installer. The plans shall comply with the UNDERGROUND FIRE PROTECTION SYSTEM INSTALLATION POLICY HANDOUT. Building numbers shall be provided. Numbers shall be a minimum of 4 inches in height on a contrasting background and visible from the street, additional numbers shall be installed on a directional sign at the property driveway and street. NOTE on the plans that the roof covering shall be no less than Class "B" rated roof. NOTE on the plans that a 100 foot clearance will be maintained with non-combustible vegetation around all structures or to the property line (whichever is a shorter distance). Single specimens of trees, ornamental shrubbery or similar plants used as ground covers, provided they do not form a means of rapidly transmitting fire from native growth to any structure are exempt The access road shall be 12 feet minimum width and maximum twenty percent slope. All bridges. culverts and crossings shall be certified by a registered engineer. Minimum capacity of 25 tons. Cal-Trans H-20 loading standard. The access road shall be in place to the following standards prior to any framing construction. or construction will be stopped: - The access road surface shall be "all weather". a minimum 6" of compacted aggregate base rock, Class 2 or equivalent. certified by a licensed engineer to 95% compaction and shall be maintained. - ALL WEATHER SURFACE: shall be minimum of 6" of compacted Class 11 base rock for grades up to and including 5%, oil and screened for grades up to and including 15% and asphaltic concrete for grades exceeding 15%.but in no case exceeding 20%. The maximum grade of the access road shall not exceed 20%. with grades greater than 15% not permitted for distances of more than 200 feet at a time. The access road shall have a vertical clearance of 14 feet for its entire width and length. including turnouts. A turn-around area which meets the requirements of the fire department shall be provided for access roads and driveways in excess of 150 feet in length. Drainage details for the road or driveway shall conform to current engineering practices, including erosion control measures. All private access roads, driveways, turn-around and bridges are the responsibility of the owner(s) of record and shall be maintained to ensure the fire department safe and expedient passage at all times. SHOW on the plans, DETAILS of compliance with the driveway requirements. The driveway shall be 12 feet minimum'width and maximum twenty percent slope. The driveway shall be in place to the following standards prior to any framing construction. or construction will be stopped: - The driveway surface shall be "all weather". a minimum 6" of compacted aggregate base rock. Class 2 or equivalent certified by a licensed engineer to 95% compaction and shall be maintained. - ALL WEATHER SURFACE: shall be a minimum of 6" of compacted Class II base rock for grades up to and including 5%. oil and screened for grades up to and including 15% and asphaltic concrete for grades exceeding 15%, but in no case exceeding 20%. - The maximum grade of the driveway shall not exceed 20%. with grades of 15% not permitted for distances of more than 200 feet at a time. The driveway shall have an overhead clearance of 14 feet vertical distance for its entire width. - A turn-around area which meets the requirements of the fire department shall be provided for access roads and driveways in excess of 150 feet in length. - Drainage details for the road or driveway shall conform to current engineering practices, including erosion control measures. - All private access roads. driveways, turn-arounds and bridges are the responsibility of the owner(s) of record and shall be maintained to ensure the fire department safe and expedient passage at Environmental Review Inital Study

ATTACHMENT_// APPLICATION ___

Discretionary Comnents - Continued

Project Planner: Cathy Graves Application No.: 07-0140 APN: 103-011-55

all times. - The driveway shall be thereafter maintained to these standards at all times.

All Fire Department building requirements and fees will be addressed in the Building Permit phase.

Plan check is based upon plans submitted to this office. Any changes or alterations shall be re-submitted for review prior to construction.

72 hour minimum notice is required prior to any inspection and/or test.

Note: As a condition of submittal of these plans, the submitter, designer and installer certify that these plans and details comply with the applicable Specifications, Standards, Codes and Ordinances, agree that they are solely responsible for compliance with applicable Specifications, Standards, Codes and Ordinances, and further agree to correct any deficiencies noted by this review, subsequent review. inspection or other source, and, to hold harmless and without prejudice, the reviewing agency

When a fire alarm system is proposed in lieu of 110V/battery backup smoke detectors a separate fire alarm permit and fee is required by the fire department having Jurisdiction. Fire Alarm plans (3 sets) shall be submitted and approved prior to commencing work

YOUR WATER STORAGE WILL BE DETERMINED AFTER YOU PROVIDE INFORMATION TO THE FIRE' DEPARTMENT. SHOW ON THE PLANS A FIRE HYDRANT WITHIN 250' OF THE STRUCTURE. IF YOU ARE NOT ON A MUNICIPAL WATER SYSTEM, YOU WILL BE REQUIRED TO PROVIDE WATER AND A FIRE HYDRANT WITHIN 150 OF THE STRUCTURE.

Cal Dept of Forestry/County Fire Miscellaneous Com

LATEST COMMENTS HAVE NOT YET BEEN SENT TO PLANNER FOR THIS AGENCY

======= REVIEW ON APRIL 23. 2007 BY COLLEEN L BAXTER =======

Environmental Review Inital Study CHMENT_// APPLICATION_

ARBORIST REPORT

Tree preservation for construction

LOCATI ON

5000 N. Rodeo Gulch Road **Soquel,** CA 95073 APN 103-011-55

PREPARED FOR

Kate Lovell & Joseph Nagele

PREPAREDBY

Christine-Sara Bosinger Certified Arborist WE-4309 Quality Arbor Care 831**-423-6441** PO Box 335 Capitola, CA 95010

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This evaluation was prepared to the best of our ability at Quality Arbor Care, in accordance with currently accepted standards of the International Society of Arboriculture. **No** warranty as to the contents of this evaluation is intended and none shall be inferred from statement **or** opinions expressed. Trees can and do fail without warning.

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ALACHMENT 12. AL	12
APPLICATION	ЧD

Nagele 5000 N. Rodeo Gulch Soquel, CA 95073

INTENT OF REPORT

This report is to assess the health and over all construction impacts of a wine production building and adjacent parking lot being placed near seven (7) Coast Live *Oaks, Quercus agrifolia*. This is a heavily wooded area and a complete tree inventory is not being done. I will be addressing only the trees that are within a forty foot, or shorter, distance of the proposed construction.

All preconstruction and construction guidelines will also be given in **this** report.

SUMMARY

The construction of a wine production building and adjacent parking lot is being proposed. The location is a rural parcel located at 5000North Rodeo Gulch Road, Soquel. This parcel is a total of thirty-six acres, with two existing buildings on it. The parcel has a number of mature trees, mostly consisting of *oaks*. The proposed construction will have an impact on a total of seven *oak* trees with the recommendation of removing one of the seven trees.

The tree in which I recommend to be removed will be referred to **as** tree #4, please see tree inventory. This *oak* tree is the smallest of the trees that will be affected by the construction. The reason **for** the recommendation of this removal is because the construction of the parking lot will infringe on this trees critical root zone causing root damage. *Oaks* in general are sensitive to any type of construction damage, while I feel that we can keep the construction disturbance to a minimum with the rest of the trees, I feel that **this** one would decline rapidly.

I also recommend this trees removal because it is growing under the canopy of a very old oak, tree #5. This is causing tree #5 to have some structural problems. With the removal of tree #4 and some minor structural pruning on tree #5, **this** tree will continue to thrive.

Environmental Review Inital Stud ATTACHMENT 12. d APPLICATION 07 5/25/2007

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Nagele 5000 N. Rodeo Gulch Soquel, CA 95073

To follow you will find the tree inventory, again only the seven trees in which construction will impact, discussion and recommendations for each of the seven trees and lastly the construction specifications. I strongly feel that if all recommendations and specifications are followed, these seven trees shall have minimal construction stress.

TREE INVENTORY

Tree #1 *Quercus agrifolia*, Coast Live Oak 24 inches in diameter at 4.5 feet from soil grade Approximately 20 feet tall

Tree #2 *Quercus agrifolia*, Coast Live Oak 20 inches in diameter at 4.5 feet from soil grade Approximately 30 feet tall

Tree #3 *Quercus agrifolia*, Coast Live Oak 14 inches in diameter at 4.5 feet from soil grade Approximately 20 feet tall

Tree #4 *Quercus agrifolia*, Coast Live Oak 14 inches in diameter at 4.5 feet from soil grade Approximately 15 feet tall

Tree #5 *Quercus agrifolia*, Coast Live Oak 45 inches in diameter at 4.5 feet from soil grade Approximately 35 feet tall



5/25/2007

Nagele 5000 N .Rodeo Gulch Soquel, CA 95073

Tree #6 *Quercus agrifolia*, Coast Live Oak 22 inches in diameter at **4.5** feet fiom soil grade Approximately 15 feet tall

This tree is a multi standard tree; it appears to have at one point fallen. The tree then re-rooted itself and is growing in the manner as we see it today.

Tree #7 *Quercus agrifolia*, Coast Live Oak 26 inches in diameter at 4.5 feet fiom soil grade Approximately 20 feet tall

DISCUSSION AND RECOMMENDATIONS

<u>Tree #1</u>

This tree is in good health with nice structure. I would recommend that it is pruned to have its canopy cleaned, removal of dead wood and any crossing and rubbing limbs.

Also, part of the canopy is over hanging the existing driveway. The fire department needs a 14% foot clearance in order for their trucks to pass safely. This **pruning** should take place before any construction starts, please see pruning specifications.

This tree is located near an existing culvert. The new plans have an additional 18" storm pipe being placed under the new parking lot, carrying the water down grade and away fiom the tree. This tree has already established itself in this location next to the culvert. Usually, *oaks* do not thrive in situations where there is an excess of water but since the culvert is not a new construction I see no problems with this. **As** a matter of fact with the addition of the new pipe to carry away the water, the tree shall only benefit.



Quality Arbor Care

Nagele 5000 N . Rodeo Gulch Soquel, CA 95073

Some root pruning may need to take place while the trenching to lay the new storm pipe takes place. If any roots are encountered it is vital that root **pruning** specifications are strictly adhered to.

<u>Tree #2</u>

This tree is in good health. It is far enough away from construction that I see no problems to mitigate. Also, due to its location I would not recommend any pruning; instead I would simple let it grow **as** it has been, giving the area a natural look.

<u>Tree #3</u>

This tree **is** also in good health. It **is** located at the back side of tree #2. I have the same comments for **this** tree as well.

<u>Tree #4</u>

This tree *is* located approximately six feet from the proposed parking lot. While the tree is in good health, **I** would recommend its removal due to the fact that it is so close to the new proposed construction. Also, with its removal it will open up canopy space for tree #5.

<u>Tree #5</u>

This tree is in fair health. **This** is very mature tree; I would place its age to be about 200 years old. There are two large pockets of decay in the truck of the tree, which is to be expected in a tree of **this** age. The tree has done a fairly good job at compartmentalizing the decay and creating tension wood around the wounds. **This** is important because while a tree can be hollow in the center of the tree as long as there is enough healthy wood supporting the weight of the canopy there should be no problems. By compartmentalization, the tree has stopped decay in the healthy outer wood, where it continues to grow.

The tree is far enough from the construction area that there should be little impact to it **as** long as construction specifications are followed. However, when grading for the parking lot you may encounter some woody roots to **this** tree. **If woody roots are encountered they must be dug out by hand.** I

Envimnmental Review Inital Study

Quality Arbor Care

5/25/2001

Nagele 5000 N. Rodeo Gulch Soquel, CA 95073

can not stress enough that the root pruning specifications be followed. Root damage to this tree will send the tree into a quick decline.

The tree should have all deadwood removed, the canopy lifted and shaped for balance. Please see pruning specifications.

<u>Tree #6</u>

This tree is in good health. At on point in its life it fell over, however, it was able to re-establish itself and is doing fine. I would recommend that it is cleaned of dead wood but, that is all.

<u>Tree #7</u>

This tree is in good health. This tree is also near the existing road. Its canopy should be lifted for the 14% foot clearance in order for their trucks to pass safely. All dead wood should be removed.

Environmental Review Inital Study ATTARHMENT_/2 APPLICATION.

Quality Arbor Care

5/25/2007

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CONSTRUCTION SPECIFICATION

1. GENERAL

- 1.1.A 6' chain link fence with posts *sunk* into the ground shall be erected in what is known as the critical root zone. For all trees, but for #4, this is the area under the canopy of the trees. Trees #2 & #3 can be fenced together; trees #6 can also be fenced together.
- **1.2.A**4-6" layer of mulch shall be placed within the critical root zone but 12" from the trunk of the tree.
- 1.3.No construction debris or dirt shall be left under the canopy of these trees.
- 1.4.No equipment containing any type of toxic chemicals, paint, or cement shall be cleaned near *these* trees.
- 1.5.No storage of equipment of any type shall happen near these trees.

2. SPECIFICATIONS FOR ROOT PRUNING

- 2.1.The excavation contractor shall meet with the consulting arborist at the site prior to beginning **work** to review tree protection measures.
 - 2.1.1. All roots needing to be pruned shall be cut cleanly with a sharp hand tool, with oversight by the consulting arborist. If roots that have not been pruned are encountered during digging, heavy equipment operation will cease. The area will be dug by hand and



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the roots will then be properly pruned.

2.2.Exposed roots are extremely sensitive to drying, frost, and disease. All exposed and pruned roots shall be covered with burlap and kept moist until the roots are covered back by soil.

3. SPECIFICATIONS FOR PRUNING

- 3.1.Pruning of the trees needs to be done under the supervision of the consulting arborist.
- 3.2.All pruning of tree shall be in accordance with the American National Standards A300 (Part1)-2001 Pruning.
- 3.3.All pruning of trees shall **take** place prior to construction and placement of construction fencing.
- 3.4.Canopy clean 4 *oak* trees, removing decayed, dead and disorientated branches.
- **3.5.**Raise canopy of 2 *oak* trees for a 14% foot clearance for fire trucks. No cuts larger than 2" in diameter should be made in raising the canopy.

Environmental Review Inital Study ATTACHMENT _ APPLICATION

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Nagele 5000N.Rodeo Gulch Soquel, CA 95073

CONCLUSION

The proposed construction of a wine production building and parking lot will affect a total of seven trees on this parcel, which easily has over 100 mature trees. For the most part the construction is far enough away from these trees I feel, as long as all specifications and recommendations are strictly adhered to, that the impact to these trees will be minimal.

The removal of tree #4, the smallest of these trees, will aesthetically be of little consequence. However, it will help the overall health of tree #5, which is truly a remarkable tree.

Any questions or further discussion in regards to these trees or in regards to my recommendations may be made to my office.

Sincerely,

Christine Bosinger I.S.A.Certified Arborist #WE-4309

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ATTACHMENT 12 9 of 10-
APPLICATION 07-0141

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Nagele 5000N. Rodeo Gulch Soquel, CA 95073

REFERENCES

Hams, Clark, Matheny, 1999. *Arboriculture third edition*, Prentice-Hall, Inc., Upper Saddle River, NJ.

Matheny, Clark, 1998. *Trees and Development*, International Society of Arboriculture, Publishers, Champaign, Illinois

Street Tree Seminar, Inc., 2000. Street Trees Recommended for Southern California, STS inc., Anaheim, CA.

Costello, Jones, 2003. Reducing Infrastructure Damage by Tree Roots, International Society of Arboriculture, Publishers, Champaign, Illinois

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Nov 28 07 09:10a Christine-





p.1



P. O Box 335 Capitola, CA 95010 Fax: 831.462.4973 Tel: 831.423.6441

November 14,2007

Mr. Mathew Johnson

Deputy Environmental Coordinator

County of Santa Cruz

701 Ocean Si., 4" floor

Santa Cruz, CA 95060

RE: 5000 North Rodeo Gulch Road, Soquel, CA

Mr. Johnson;

Thank you for discussing with me the other day about the guidelines for oak woodlands. I have gone to inspect the trees that are in question for removal for the fire access. These trees are all small and under the canopy of larger oaks. The area that these trees are being removed from is a groove of oaks along the existing driveway. The removal of these smaller trees will not only have no impact on the total canopy coverage but in the long run will only help the more established trees by giving them more room to grow. The removal *d* these trees will not alter the overall oak canopy coverage for this piece of land.

If you should have any other questions in regards to this matter please feel free to contact me at my office.

Sincerely,

Christine Bosinger

Christine Bosinger

Certified Arborist WE4309

Environmental Review Inital Stud ATTACHMENT 12 APPLICATION

LICENSE NUMBERS Contractor 822241 Arborist WE4320 / WE-4309 Timber Operator A9621



CENTRAL FIRE PROTECTION DISTRICT of Santa Cruz County Fire Prevention Division

93017th Avenue, Santa Cruz, CA 95062 phone (831)479-6843 fax (831)479-6847

Date:	July 25, 2007
То:	Santa Cruz County Planning Dept
From:	Jeanette Devery, Division Chief/Fire Marshal
Subject:	Access mad
Address	5000 North Rodeo Gukh Road
APN:	103-011-55
occ	10301 155

A 'Code 2' run was conducted to the property located at 5000 North Rodeo Gulch Road and it was determined that lhe response time to such property is 12 – 14 minutes. During a true emergency this run would be "Code 3" and would have a quicker response time than referenced above.

The County General Plan slates that access roads to buildings (including commercial) located outside the urban services line shall be 18 feet in width.

However, if the use of this building or portion thereof changes in the future and \dot{s} open to the public for events then state code shall prevail and a 20 foot wide access road shall be required.

Environmen	tal Revie	w Inital Study
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APPLICATION	07-	-0140

Serving the communities of Capitola, Live Oak, and Soquel

Accessibility Completeness (Laura Brinson) Comment: **20** The building's occupancy is F. The two owners will perform all work. One

<u>+C</u>omment: 22

		1.	Description of activities.
			 Delivery of grapes from outside sources (only at harvest).
			Crush the grapes.
			Ferment the must.
			Press the juice.
			 Age in oak barrels and stainless steel tanks.
			Bottlewine.
		2.	Employees.
$ \downarrow $			None, two owners
٦		3.	Hours of Operation.
2			 The hours of operation are irregular.
5			 When wine is made the hours of operation will be 9:00am
-4			to 5:00pm.
4		4.	Sales of wine.
<u>a</u>			 Wholesale accounts
			Wine Club
- 2		5.	Method of grape residue disposal.
			 The pressed grape skins and seeds will be taken to Santa
ç			Cruz County Landfill.
, g		6.	Description of activities that will occur outside building.
σ			 None. The building has been designed to crush inside at
_			harvest.
	Co	mm	nent: 23

