COUNTY OF SANTA CRUZ

PLANNING DEPARTMENT
701 OCEAN STREET, 4TH FLOOR, SANTA CRUZ, CA 95060
(831) 454-2580 FAX: (831) 454-2131 TDD: (831) 454-2123
KATHY MOLLOY PREVISICH, PLANNING DIRECTOR

ENVIRONMENTAL COORDINATOR
NOTICE OF INTENT TO ADOPT A PROPOSED NEGATIVE DECLARATION

Pursuant to the California Environmental Quality Act, the following projects have been reviewed by the County Environmental Coordinator to determine if they have a potential to create significant impacts to the environment and, if so, how such impacts could be solved. A negative declaration has been prepared in cases where the project is determined not to have any significant environmental impacts. An environmental impact report (EIR) will be prepared for projects, which could have a significant impact.

Public review periods are provided for these environmental documents according to the requirements of the County Environmental Review Guidelines, depending upon whether State agency review is required or whether an EIR is required. The environmental documents are available for review at the County Planning Department at 701 Ocean Street, Santa Cruz. You may also view environmental documents on the web at www.sccoplanning.com under the Planning Department menu, Agendas link. If you have questions or comments about these determinations please contact Matt Johnston of the Environmental Review staff at (831) 454-3201

The County of Santa Cruz does not discriminate on the basis of disability, and no person shall, by reason of a disability, be denied the benefits of its services, programs or activities. If you require special assistance in order to review this information, please contact Bernice Romero at (831) 454-3137 (TDD number (831) 454-2123 or (831) 763-8123) to make arrangements.

1. 10-0069 NEAR TERMINUS OF TERFORD DR, CORRALITOS APN(S): 107-011-06

Proposal to divide an existing 305.83-acre parcel into 7 parcels ranging in size from 3.9 to 259 acres/square feet, grade approximately 3,894 cubic yards. Requires a Subdivision, Design Review, Preliminary Grading Approval, Soils and Geologic Report Review and Environmental Review. Project located on the east and west side of Enos Lane, about 1/2 mile west of the intersection with Rider Road.
ZONE DISTRICT: RA (RESIDENTIAL AGRICULTURE, TP (TIMBER PRODUCTION, AND SU (SPECIAL USE)
APPLICANT: JIM WEAVER, PACIFIC RIM PLANNING GROUP
OWNER: ALTA VISTA OCEAN VIEW ESTATES
STAFF PLANNER: ROBIN BOLSTET-GRANT, 454-5357
EMAIL: PLN111@co.santa-cruz.ca.us
ACTION: Negative Declaration with mitigations
REVIEW PERIOD: June 22, 2011 – July 22, 2011
This project will be considered at a public hearing by the Planning Commission. The time, date and location have not been set. When scheduling does occur, these items will be included in all public hearing notices for the project.

NAME: Alta Vista Ocean View Estates
APPLICATION: 10-0069
A.P.N: 107-011-06

NEGATIVE DECLARATION MITIGATIONS

1. In order to mitigate impacts of nighttime lighting on the adjacent woodland habitat, the applicant or property owner shall submit an exterior lighting plan for review and approval by the Planning Department prior to building permit issuance which shows: all exterior lighting directed away from wooded areas and adjacent properties; light sources shielded by landscaping, fixture design or other physical means; and all exterior lighting utilizing high-pressure sodium vapor, metal halide, fluorescent, or equivalent energy-efficient fixtures.

2. In order to mitigate impacts to Dusky-footed woodrats, prior to site disturbance, a qualified biologist shall survey the disturbance area for active woodrat nests. Any active nests that can be retained in place shall be fenced creating a 25-foot buffer for the duration of the project to ensure no disturbance of the nest area. The biologist shall be present for all vegetation removal. If, during the course of vegetation removal or during the pre-disturbance surveys, a nest is found that must be moved, the applicant shall follow the following measures to ensure no take of woodrats is allowed:

    a. Prior to nest disturbance, the biologist shall obtain from CDFG a scientific collection permit for the trapping of the dusky-footed woodrats.
    b. Nests shall be disturbed/dismantled only during the non-breeding season, between October 1 and December 31.
    c. At least two weeks prior to construction, the qualified biologist shall survey the project disturbance area to confirm the woodrat nest location and locate any other nests that may have been built in the project vicinity that may be affected by the proposed development.
    d. Prior to nest disturbance, woodrats shall be trapped at dusk of the night set for relocation of the nest(s).
    e. Any existing nest that may be disturbed by construction activities shall be mostly dismantled and the material spread in the vicinity of identified nest relocation site(s).
    f. In order to avoid the potential health effects associated with handling rodents and their milieu, all workers involved in the handling of the woodrats or the nest materials should wear protective gear to prevent inhalation of contaminant particulates, contact with conjunctiva (eyes), and protection against flea bites; a respirator, eye protection and skin protection should all be used.
    g. Dismantling shall be done by hand, allowing any animals not trapped to escape either along existing woodrat trails or toward other available habitat.
    h. If a litter of young is found or suspected, nest material shall be replaced,

and the nest left alone for 2-3 weeks before a recheck to verify that young are capable of independent survival before proceeding with nest dismantling.

i. Woody debris shall be collected from the area and relocated nests shall be partially constructed in an area determined by the qualified biologist to be both suitable for the woodrats and far enough away from the construction activities that they will not be impacted.
j. Woodrats that were collected at dusk shall be released 2 hours before dawn near the newly constructed nests to allow time for woodrats to find refuge.
k. Once construction of the roadway is complete, the biologist shall survey the nest area to note whether the new nests are in use, the woodrats have built new nests, or the nest area has been completely abandoned. This information shall be submitted in a letter report to the Environmental Planning Section of the Planning Department, and the local CDFG biologist.

3. In order to mitigate the impacts of temporary construction debris on regional landfills to less than significant, the applicant shall submit a plan to recycle and/or reuse excess post-construction materials, for review and approval by Planning Staff prior to building permit issuance. Implementation of this mitigation will maximize recycling and reuse of construction materials and will minimize contributions to the landfill.

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CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA) ENVIRONMENTAL REVIEW INITIAL STUDY

Date: June 13, 2011 **Application Number:** 10-0069

Staff Planner: Robin Bolster-Grant

I. OVERVIEW AND ENVIRONMENTAL DETERMINATION

APPLICANT: Jim Weaver
c/o Pacific Rim Planning Group

APN(s): 107-011-06

OWNER: Alta Vista Ocean View Estates

SUPERVISORAL DISTRICT: 2nd

PROJECT LOCATION: East and west side of Enos Lane, about ½ mile west of the intersection with Rider Road.

SUMMARY PROJECT DESCRIPTION: Proposal to divide an existing 305.83 acre parcel into 7 parcels ranging in size from 3.9 to 259 acres and to grade approximately 3,894 cubic yards of material.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED: 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
- ☐ Hydrology/Water Supply/Water Quality
- ☒ Biological Resources
- ☒ Agriculture and Forestry Resources
- ☐ Mineral Resources
- ☒ Visual Resources & Aesthetics
- ☐ Cultural Resources
- ☐ Hazards & Hazardous Materials
- ☐ Transportation/Traffic
- ☐ Noise
- ☐ Air Quality
- ☐ Greenhouse Gas Emissions
- ☐ Public Services
- ☐ Recreation
- ☐ Utilities & Service Systems
- ☐ Land Use and Planning
- ☐ Population and Housing
- ☐ Mandatory Findings of Significance

DISCRETIONARY APPROVAL(S) BEING CONSIDERED:

- ☐ General Plan Amendment
- ☒ Land Division
- ☐ Rezoning
- ☐ Development Permit
- ☐ Coastal Development Permit
- ☒ Grading Permit
- ☐ Riparian Exception
- ☐ Other:

NON-LOCAL APPROVALS

Other agencies that must issue permits or authorizations: None

DETERMINATION: (To be completed by the lead agency)
On the basis of this initial evaluation:

- ☐ 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 revisions in the project have been made or agreed to by the project proponent. 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.
- ☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- ☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Matthew Johnston
Environmental Coordinator

6/15/11
Date

II. BACKGROUND INFORMATION

EXISTING SITE CONDITIONS

Parcel Size: 305.89 acres
Existing Land Use: Vacant land/timber production
Vegetation: Mixed evergreen forest, madrone, chapparal
Slope in area affected by project: ☒ 0 - 30% ☒ 31 – 100%
Nearby Watercourse: Unnamed ephemeral stream; Rider Creek (perennial)
Distance To: Rider Creek located along northeastern parcel boundary; ephemeral streams traverse northern portion of parcel. All watercourses located outside of proposed development area.

ENVIRONMENTAL RESOURCES AND CONSTRAINTS

Water Supply Watershed: Mapped

Groundwater Recharge: Portion mapped
Timber or Mineral: Portion mapped timber
Agricultural Resource: N/A

Biologically Sensitive Habitat: None mapped; potential habitat identified in field; Biotic Report submitted
Fire Hazard: Portion mapped critical fire
Floodplain: None mapped

Erosion: Moderate to high potential

Landslide: No hazard identified within area of development
Liquefaction: Low potential

Fault Zone: Zayante Fault mapped within ¼ mile of subject parcel; Geology Report submitted with recommendations
Scenic Corridor: None mapped
Historic: None mapped
Archaeology: Mapped; reconnaissance completed with no resources found
Noise Constraint: None

Electric Power Lines: None
Solar Access: Good access; mildly sloping building sites with little tree cover
Solar Orientation: Northeast to southwest facing building envelopes
Hazardous Materials: None

SERVICES

Fire Protection: Calfire
School District: Pajaro Valley USD
Sewage Disposal: Private septic systems

Drainage District: Zone 7
Project Access: Telford Drive (private)
Water Supply: Private wells

PLANNING POLICIES

Zone District: RA (Residential Agriculture), TP (Timber Production) and SU (Special Use)
General Plan: R-M (Mountain Residential)

Special Designation: None

Urban Services Line: ☐ Inside ☒ Outside
Coastal Zone: ☐ Inside ☒ Outside

ENVIRONMENTAL SETTING AND SURROUNDING LAND USES:

The subject property is a large vacant site located near the terminus of Telford Drive in the Corralitos area of Santa Cruz County. The parcel occupies the top and northeast flanks of the ridge located between Pleasant Valley and Rider Creek. The parcel is characterized by a level to moderate east-facing slope. The slopes within the proposed building envelopes are gentle. The proposed area of development is vegetated with open grassland, chaparral, interspersed with native and non-native conifers, oak and madrone. Surrounding parcels are developed with single family residences (south), and acreage designated for timber production.

Primary access to the site is via Telford Road, off of Enos Lane. The site is also developed with an existing secondary access road that extends north through the parcel and connects with Rider Road. Enos Lane ranges from 12 to 15 feet in width and does not currently meet the required Calfire standards. The project includes a provision for bringing the road up to current standards by providing emergency vehicle turnouts at 500 foot intervals.

The northern two-thirds of the parcel contain timber resources and this portion of the site is zoned for Timber Production (TP). A Timber Harvest Plan was prepared for the site in 1988.

The bulk of the development for the proposed subdivision is to be located on a broad ridge crest at the southern end of the property, where the terrain relief is gentle. Drainage of surface water from the development area at the ridge crest flows to the northeast toward Rider Creek and the southwest toward Pleasant Valley. A side hill swale on the northeastern flank appears to capture some flow, but the flow appears to dissipate to the northwest and southeast.

There is evidence of minor concentrated surface flow in the form of rills and gullies in various locations across the site, where the ground has been disturbed by past grading. No seeps, springs or any other evidence of high groundwater levels have been observed in the building envelope areas.

PROJECT BACKGROUND:

In 2007 the property obtained a rural matrix in order to determine the minimum lot size to facilitate a land division (Attachment 14). The matrix was revised in 2009 following receipt of a biotic assessment, which did not find suitable habitat for special status species on the property (Attachment 10). The revised matrix calculation resulted in a minimum average developable parcel size of 25 acres, thereby allowing seven parcels to be created.

DETAILED PROJECT DESCRIPTION:

The proposal is to divide a 305.83 acre parcel into 7 parcels ranging in size from 3.9 to 259 acres and to create six building envelopes. The remaining undeveloped parcel of approximately 270 acres (Lot 1) would be reserved for future timber harvests. Geologic building envelopes have been identified on the six residential parcels (lots 2-7) to protect against geologic hazards due to seismic events associated with the Zayante Fault zone, located 0.25 miles to the southwest.

The six developed parcels would take access via a newly constructed access road off of Telford Drive. There is an existing 12-18 foot secondary access road that extends northward through the site to Rider Road. The proposal includes improvements to Enos Lane in order to bring the road into compliance with Calfire standards. These improvements would add turnouts at approximate 500-foot intervals in those areas where the road does not meet the required 18-foot minimum width. In addition, the existing secondary access road would be improved to meet current fire protection district regulations. These improvements include minor grading for road widening, and the placement of rolling dips and berms for drainage.

The project includes approximately 3,144 cubic yards of excavation and 1,739 cubic yards of fill for the purposes of creating the new access road and to provide the six individual driveways for the residential lots.

Proposed drainage improvements include the construction of a bio-swale along the new access road, and a 190 foot long percolation trench at the terminus of the new access road. The bio-swale would outlet into six or seven energy dissipaters to maintain storm water runoff on site.

Each of the six residential lots will be served by individual wells and septic systems.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact

III. ENVIRONMENTAL REVIEW CHECKLIST

A. GEOLOGY AND SOILS

Would the project:

1.	Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
	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 based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☒	☐
	B. Strong seismic ground shaking?	☐	☐	☒	☐
	C. Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
	D. Landslides?	☐	☐	☒	☐

Discussion (A through D): The project site is located outside of the limits of the State Alquist-Priolo Special Studies Zone (County of Santa Cruz GIS Mapping, California Division of Mines and Geology, 2001). However, the project site is located approximately 0.25 miles northeast of the Zayante fault zone, and approximately 1.8 miles southwest of the San Andreas fault zone. While the San Andreas fault is larger and considered more active, each fault is capable of generating moderate to severe ground shaking from a major earthquake. Consequently, large earthquakes can be expected in the future. The October 17, 1989 Loma Prieta earthquake (magnitude 7.1) was the second largest earthquake in central California history.

A geologic investigation for the project was prepared by Zinn Geology, dated October 2, 2009 and updated February 22, 2011 (Attachment 3), and a geotechnical investigation was prepared by Bauldry Engineering, Inc., dated January 7, 2010 (Attachment 5). These reports have been reviewed and accepted by the Environmental Planning Section of the Planning Department (Attachment 4). The geologic investigation found a "possible fault" trace of the Zayante fault that extends into the southwestern portion of the subject lot. The project geologist created a 100-foot wide buffer zone to either side of the fault trace to ensure that habitable structures

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact

would be adequately setback from the faulting hazard. The geologic investigation concluded that ground cracking would be unlikely to affect the geologic building envelopes. To further ensure that the proposed development is not significantly impacted by geologic hazards, site-specific geologic investigations will be required as part of the project conditions of approval for individual home sites prior to building permit approval. Additionally, project conditions require the submittal and review of engineered grading and drainage plans prior to approval of any building permits. The drainage plans must demonstrate control of all storm water runoff and avoidance of concentrated runoff. The grading and drainage plans will be required to be reviewed and approved by both the project geologist and geotechnical engineer prior to building permit approval.

The geological investigation also noted shallow landsliding in the southwestern portion of the parcel. In addition, the geotechnical investigation included a slope stability analysis in order to corroborate the geologic building envelope and ensure that it adequately protects future development from geologic hazards associated with ground movement in this area. The project geologist concluded that there is low probability for landsliding within the proposed building envelopes.

Following the recommendations in the geologic and geotechnical reports referenced above, as well as the requirements included in the review letter prepared by Environmental Planning staff (Attachment 4) will serve to further reduce the potential risk of seismic shaking and landsliding to less than significant.

2.	Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	☐	☐	☒	☐

Discussion: The reports cited above concluded that there is a potential risk from adverse settlement adjacent to the proposed access road, co-seismic ground cracking, slope stability at the southwestern portion of the property, and cut/fill transition at proposed building pads. The recommendations contained in the geotechnical report: removal and recompaction of loose materials along the access road, employing structural mat or grid foundation systems, adhering to the geologic building envelopes and overexcavation and recompaction of building pads, will be implemented to reduce this potential hazard to a less than significant level. Additionally, all project conditions referenced in the report review letter prepared by the County Geologist (Attachment 4) will be required prior to any building permit issuance. Implementing these project conditions will reduce the potential risk of instability in the vicinity of the proposed development to less than significant.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
3. Develop land with a slope exceeding 30%?	☐	☐	☒	☐

Discussion: There are slopes that exceed 30% on the property; however, no improvements are proposed on or adjacent to these slopes.

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

Discussion: Some potential for erosion exists during the construction phase of the project, however, this potential is minimal because erosion control measures such as the installation of silt fencing have been proposed as part of the project and no land clearing, grading or excavation would take place after October 15th or prior to April 15th. 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 Section 1802.3.2 of the California Building Code (2007), creating substantial risks to life or property?	☐	☐	☒	☐

Discussion: The geotechnical report for the project did not identify any elevated risk associated with expansive soils.

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 where sewers are not available?	☐	☐	☒	☐

Discussion: The proposed project would use an onsite sewage disposal system, and County Environmental Health Services has determined that site conditions are appropriate to support such a system.

7. Result in coastal cliff erosion?	☐	☐	☐	☒

Discussion: The proposed project is not located in the vicinity of a coastal cliff or bluff; and therefore, would not contribute to coastal cliff erosion.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact

B. HYDROLOGY, WATER SUPPLY, AND WATER QUALITY

Would the project:

1.	Place development within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☒

Discussion: 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-year flood hazard area.

2.	Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	☐	☐	☐	☒

Discussion: 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-year flood hazard area.

3.	Be inundated by a seiche, tsunami, or mudflow?	☐	☐	☐	☒

Discussion: This is not applicable because the subject parcel is not located in the vicinity of an ocean bluff.

4.	Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☒	☐

Discussion: The project would rely on private wells for water supply. The pump tests and well locations have been reviewed and approved by County Environmental Health Services as appropriate for the area. The southwestern portion of the subject parcel is located within a mapped groundwater recharge area. The project drainage improvements include a bio-swale that runs along the southwesterly side of the access road. The bio-swale collects the adjacent upslope area runoff and releases to seven energy dissipaters below the road. The individual lots would be designed with separate individual storage and outlets separate from the road system. Drainage Calculations were prepared by Joe L. Akers, dated February 24, 2010 (Attachment 9) and the report

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact

indicates that the post-development runoff rate will not exceed the existing pre-development rate. The Drainage Section of the Department of Public Works has reviewed and accepted the Drainage Calculations and will review the drainage facilities for the individual lots prior to issuance of any building permits.

The proposed storm water runoff storage and outlet system will ensure that the increase in impervious surfaces represented by the project will not significantly impact groundwater supplies or interfere with groundwater recharge.

5. Substantially degrade a public or private water supply? (Including the contribution of urban contaminants, nutrient enrichments, or other agricultural chemicals or seawater intrusion).	☐	☐	☒	☐

Discussion: The project would not discharge runoff either directly or indirectly into a public or private water supply. However, runoff from this project may contain small amounts of chemicals and other household contaminants. No commercial or industrial activities are proposed that would contribute contaminants. Potential siltation from the proposed project will be addressed through implementation of erosion control measures

6. Degrade septic system functioning?	☐	☐	☒	☐

Discussion: There is no indication that existing septic systems in the vicinity would be affected by the project.

7. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding, on- or off-site?	☐	☐	☒	☐

Discussion: The proposed area of development is not located near any watercourses, and would not alter the existing overall drainage pattern of the site. In addition to the project drainage improvements discussed in Section B-4 above, a 160 foot wide percolation trench would be constructed at the terminus of the proposed access road. The overall drainage system is designed to ensure that storm water runoff be retained on site and allowed to percolate back into the groundwater without significantly altering the existing drainage patterns. Department of Public Works Drainage Section staff has reviewed and approved the proposed drainage plan.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
8. Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems, or provide substantial additional sources of polluted runoff?	☐	☐	☒	☐

Discussion: Drainage Calculations prepared by Joe L. Akers, dated February 24, 2010, have been reviewed for potential drainage impacts and accepted by the Department of Public Works (DPW) Drainage Section staff. The calculations show that the proposed runoff storage system is adequate to capture runoff using a 25-year storm. The overflow from the storage system will flow overland approximately 3,000 feet through a forested area before it reaches Rider Creek. Therefore downstream creek flows should not be significantly impacted by the proposed road improvements. The runoff rate from the property would be controlled by a proposed bio-swale along the road and the percolation trench at the terminus of the road. DPW staff have determined that existing 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. Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☒	☐

Discussion: The proposal includes storm water facilities which have been reviewed and approved by Department of Public Works staff with respect to their ability to adequately control storm water and to mitigate the risks of flooding on nearby drainage paths to less than a significant level.

10. Otherwise substantially degrade water quality?	☐	☐	☒	☐

Discussion: The Department of Public Works Drainage Section staff has determined that the proposed project would not substantially degrade water quality and has approved preliminary plans for site improvements which would include the bio-swale to be constructed along the proposed access road to control urban runoff pollution.

C. BIOLOGICAL RESOURCES

Would the project:

1. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish	☐	☒	☐	☐

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact

and Game, or U.S. Fish and Wildlife Service?

Discussion: According to the California Natural Diversity Data Base (CNDDB) maintained by the California Department of Fish and Game, there are no known special status plants or animal species in the site vicinity. However, two Biotic Report have been prepared for this project to evaluate the site for potential special status species and/or protected habitat. One study, performed by EcoSystems West, dated December 4, 2008 (Attachment 10) determined that no habitat existed in the vicinity of the proposed development. This report was reviewed and accepted by the Planning Department Environmental Section (Attachment 11). Following a site visit by Environmental Planning staff in 2010, potential San Francisco dusky-footed woodrat habitat was identified on the property and a Woodrat Survey was performed by Dana Bland & Associates, dated July 26, 2010 (Attachment 12). This woodrat species is listed as a California Species of Special Concern. The 2010 survey identified one woodrat house along the eastern edge of Lot 7. Recommendations made in the woodrat survey include establishing a 25-foot buffer around identified woodrat houses during site improvement and vegetation removal, and requiring a qualified biologist monitor the removal of thick vegetation areas and requiring construction of replacement woodrat houses in the event that an existing house is encountered. Implementing these measures, which will be included as required project conditions, will minimize any potential impacts of proposed development to the San Francisco dusky-footed woodrat.

2.	Have a substantial adverse effect on any riparian habitat or sensitive natural community identified in local or regional plans, policies, regulations (e.g., wetland, native grassland, special forests, intertidal zone, etc.) or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☒	☐

Discussion: While the parcel contains potential riparian habitat there are no mapped or designated sensitive biotic communities on or adjacent to the area proposed for development.

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

Discussion: The proposed project does not involve any activities that would interfere

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact

with the movements or migrations of fish or wildlife, or impede use of a known wildlife nursery site.

4.	Produce nighttime lighting that would substantially illuminate wildlife habitats?	☐	☒	☐	☐

Discussion: The subject property is located in rural area and is adjacent to areas which could be adversely affected by a new or additional source of light that is not adequately deflected or minimized. A condition of project approval would require the applicant or property owner to submit an exterior lighting plan for review and approval by the Planning Department prior to building permit issuance which shows: all exterior lighting directed away from wooded areas and adjacent properties; light sources shielded by landscaping, fixture design or other physical means; and all exterior lighting utilizing high-pressure sodium vapor, metal halide, fluorescent, or equivalent energy-efficient fixtures.

5.	Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☒

Discussion: There are no mapped wetlands or observed wetlands on the subject parcel.

6.	Conflict with any local policies or ordinances protecting biological resources (such as the Sensitive Habitat Ordinance, Riparian and Wetland Protection Ordinance, and the Significant Tree Protection Ordinance)?	☐	☐	☐	☒

Discussion: County Environmental Planning staff has determined that there are no protected biological resources on the parcel and the project would not conflict with any local policies or ordinances protecting biological resources.

7.	Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact

Discussion: The proposed project would not conflict with the provisions of any adopted Habitat Conservation Plan Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. Therefore, no impact would occur.

D. AGRICULTURE AND FOREST RESOURCES

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:

1.	Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒

Discussion: The project site does not contain any lands designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency. In addition, the project does not contain Farmland of Local Importance. Therefore, no Prime Farmland, Unique Farmland, Farmland of Statewide or Farmland of Local Importance would be converted to a non-agricultural use. No impact would occur from project implementation.

2.	Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒

Discussion: The project site is zoned Timber Production, Special Use and Residential Agriculture, which are not considered to be agricultural zone districts. Additionally, the project site's land is not under a Williamson Act Contract. Therefore, the project does not conflict with existing zoning for agricultural use, or a Williamson Act Contract. No impact is anticipated.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
3. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?	☐	☐	☒	☐

Discussion: Approximately 76% of the subject parcel is designated as Timber Resource and zoned for Timber Production. The proposed land division would create a new parcel that contains all mapped timber resources; therefore the resource will not be fragmented among separate parcels. According to the Assessment of Timber Production Compatibility performed by the project Registered Forester (Exhibit 15) the proposed development is expected to have a negligible impact on the timber resources and timber management activities on the Timber Production-zoned parcel given the proposed parcel configuration, which ensures compatibility between timber management and residential uses. The timber resource on the non-residential parcel may only be harvested in accordance with California Department of Forestry timber harvest rules and regulations.

4. Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☒	☐

Discussion: The Forester's Assessment referenced in Section D-3 states that the proposed development does not remove significant commercial timber from production and that the subdivision is not expected to have any measurable impact on the property's timber production capabilities. No encroachment of residential uses into the remaining timber production-zoned parcel would result from this project.

5. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☒	☐

Discussion: A parcel containing mapped Agricultural Resources is located approximately ¼ mile southeast of the project site. No development is proposed that would change the environment or extend any roads or other facilities such that is would impact agricultural resources in the vicinity of the project site; therefore, no impacts are anticipated.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact

E. MINERAL RESOURCES

Would the project:

1.	Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒

Discussion: The site does not contain any known mineral resources that would be of value to the region and the residents of the state. Therefore, no impact is anticipated from project implementation.

2.	Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒

Discussion: The project site is zoned RA (Residential Agriculture), TP (Timber Production) and SU (Special Use), which are not considered to be Extractive Use Zones (M-3) nor does it have a Land Use Designation with a Quarry Designation Overlay (Q) (County of Santa Cruz 1994). Therefore, no potentially significant loss of availability of a known mineral resource of locally important mineral resource recovery (extraction) site delineated on a local general plan, specific plan or other land use plan would occur as a result of this project.

F. VISUAL RESOURCES AND AESTHETICS

Would the project:

1.	Have an adverse effect on a scenic vista?	☐	☐	☐	☒

Discussion: The project would 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.

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 within a state scenic highway?	☐	☐	☐	☒

Discussion: The project site is not located along a County designated scenic road, public viewshed area, scenic corridor, within a designated scenic resource area, or within a state scenic highway. Therefore, no impact is anticipated.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
3. Substantially 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 ridgeline?	☐	☐	☒	☐

Discussion: The existing visual setting is largely rural, with newly developed single-family residences immediately to the south of the project site. Additionally, over 270 of the existing 305 acres are proposed to be maintained as undeveloped timber land. The proposed project is designed and landscaped so as to fit into the rural setting, including incorporating landscaping along both the proposed access road and individual driveways to screen the developed areas from surrounding properties. All landscaping is also proposed to consist of drought-tolerant native species. The residences are proposed to be staggered to avoid a linear feel to the front of the subdivision and will utilize natural materials and earth tone colors to further minimize the impact on the existing visual character of the project setting.

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

Discussion: The project would contribute an incremental amount of night lighting to the visual environment. However, the following project conditions will reduce this potential impact to a less than significant level: all exterior lighting directed away from adjacent properties; light sources shielded by landscaping, fixture design or other physical means; and all exterior lighting utilizing high-pressure sodium vapor, metal halide, fluorescent, or equivalent energy-efficient fixtures.

G. CULTURAL RESOURCES

Would the project:

1. Cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines Section 15064.5?	☐	☐	☐	☒

Discussion: The existing structure(s) on the property is/are not designated as a historic resource on any federal, state or local inventory.

2. Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5?	☐	☐	☒	☐

Discussion: 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

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact

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?	☐	☐	☒	☐

Discussion: 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.

4.	Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☐	☒

Discussion: No unique paleontological resources, sites, or geological features have been identified within the proposed disturbance area.

H. HAZARDS AND HAZARDOUS MATERIALS

Would the project:

1.	Create a significant hazard to the public or the environment as a result of the routine transport, use or disposal of hazardous materials?	☐	☐	☐	☒

Discussion: No hazardous materials would be transported, used, or disposed as a part of the land division or resulting single-family dwelling construction and use; therefore there is no impact.

2.	Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☐	☒

Discussion: Construction of the site improvements and future single-family residences would not involve the release of hazardous materials into the environment which would

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact

create a significant hazard to the public or environment; therefore there is no impact.

3.	Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒

Discussion: The site is not located within one quarter mile of an existing or proposed school and there are no hazardous emissions, hazardous materials, substances, or waste that would be associated with the proposed land division and improvements. Therefore there is no impact. See Section H-1 regarding recycling of paint and other construction materials.

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

Discussion: The project site is not included on the April 8, 2011 list of hazardous sites in Santa Cruz County compiled pursuant to the specified code.

5.	For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒

Discussion: The parcel is not located within an airport land use plan or within two miles of a public or public use airport; therefore there is no impact.

6.	For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒

Discussion: The parcel is not located within the vicinity of a private airstrip; therefore there is no impact.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
7. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐

Discussion: The proposed project does not conflict with the County's adopted Emergency Management Plan (April 2002). Specific countrywide evacuation routes are not designated in the Emergency Management Plan; rather, feasible routes are determined based on particular events. Therefore, the portion of the existing access road that extends northward through the parcel and connects to Rider Road, could perform as a potential evacuation route in an emergency event; however the construction of six additional single-family residences will not permanently impact through access.

8. Expose people to electro-magnetic fields associated with electrical transmission lines?	☐	☐	☒	☐

Discussion: Electric lines associated with the proposed land division would be located underground and would not be high voltage transmission; therefore, people would not be exposed to electromagnetic fields.

9. Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☒	☐

Discussion: The western portion of the subject parcel is mapped as a fire hazard area, however there is no proposed development within the mapped portion of the property and the project design incorporates all applicable fire safety code requirements and includes fire protection devices as required by the local fire agency.

These requirements include providing vehicular turnouts along Enos Lane at 500-foot intervals, as well as improving the secondary access road to meet minimum required width and surfacing standards. Additionally, the secondary access road is proposed to be governed by a maintenance agreement to ensure that future property owners keep the road in compliance with fire standards in perpetuity. The project would result in an improvement over the existing primary and secondary road conditions and would reduce the exposure of residents to significant risk due to wildland fires.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact

I. TRANSPORTATION/TRAFFIC

Would the project:

1.	Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☐	☐	☒	☐

Discussion: The project would 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 would not cause the Level of Service at any nearby intersection to drop below Level of Service D.

2.	Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	☒

Discussion: The proposed project does not impact air traffic patterns, therefore there is no impact.

3.	Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☒	☐

Discussion: The proposed project would result in seven parcels, six of which would be developed with a single-family dwelling. The proposed new parcels would take access from the existing road. The project includes improvement along Enos Road to bring it into compliance with fire department standards. Improvements include widening portions and providing adequate turnouts. As a result of the proposed improvements, the increase in traffic associated with six new residences will not result in significant hazards.

4.	Result in inadequate emergency access?	☐	☐	☒	☐

Discussion: The project's road access does not currently meet county standards in that it is less than 18 feet wide and does not provide the required turnouts every 200

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact

feet. The deficiency will be brought into compliance with County standards as a result of the proposed development and has been approved by California Department of Forestry.

5.	Cause an increase in parking demand which cannot be accommodated by existing parking facilities?	☐	☐	☒	☐

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

6.	Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	☐	☐	☒	☐

Discussion: The proposed project would comply with current road requirements to prevent potential hazards to motorists, bicyclists, and/or pedestrians as the property owner proposes to bring the private road into compliance with current county standards.

7.	Exceed, either individually (the project alone) or cumulatively (the project combined with other development), a level of service standard established by the County General Plan for designated intersections, roads or highways?	☐	☐	☒	☐

Discussion: See response I-1 above.

J. NOISE

Would the project result in:

1.	A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐

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

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
2. Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐

Discussion: No excessive groundborne vibrations or noise levels will be created as a result of the proposed minor land division and single family dwellings.

3. Exposure of persons to or generation of noise levels in excess of standards established in the General Plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☒	☐

Discussion: Per County policy, average hourly noise levels shall not exceed the General Plan threshold of 50 L_{eq} during the day and 45 L_{eq} during the nighttime. Impulsive noise levels shall not exceed 65 db during the day or 60 db at night. The proposed minor land division and residential use will not exceed these limitations in that the noises associated with a residential use are below the maximum thresholds for noise in the County General Plan and are consistent with surrounding rural residential land uses. While the residences will be located adjacent to timber resources and future timber harvests in the vicinity may be expected to occur, such timber harvest activities are temporary not expected to create a significant impact.

4. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐

Discussion: Noise generated during construction would increase the ambient noise levels for adjoining areas. Construction would be temporary, however, and given the limited duration of this impact it is considered to be less than significant. See Section J-4 for a discussion of temporary noise impacts associated with timber harvest activities in the area.

5. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

Discussion: The project site is not located within an airport land use plan or within two miles of a public airport, therefore there is no impact.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
6. For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

Discussion: The project site is not located within the vicinity of a private airstrip; therefore, there is no impact.

K. AIR QUALITY

Where available, the significance criteria established by the Monterey Bay Unified Air Pollution Control District (MBUAPCD) may be relied upon to make the following determinations. Would the project:

1. Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	☒	☐

Discussion: The North Central Coast Air Basin does not meet state standards for ozone and particulate matter (PM_{10}). Therefore, the regional pollutants of concern that would be emitted by the project are ozone precursors (Volatile Organic Compounds [VOCs] and nitrogen oxides [NO_x]), and dust.

Given the modest amount of new traffic that would be generated by the project there is no indication that new emissions of VOCs or NO_x would exceed MBUAPCD thresholds for these pollutants and therefore there would 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 the applicable air quality plan?	☐	☐	☒	☐

Discussion: The project would not conflict with or obstruct implementation of the regional air quality plan. See K-1 above.

3. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☐	☐	☒	☐

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact

Discussion: See K-1 above.

4.	Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐

Discussion: No substantial pollutant concentrations would be emitted during or as a result of the proposed minor land division, with the exception of CO_2 emissions from construction vehicles and large events, which would be temporary and not substantial.

5.	Create objectionable odors affecting a substantial number of people?	☐	☐	☐	☒

Discussion: No objectionable odors would be created during construction or as a result of the proposed project therefore there is no impact.

L. GREENHOUSE GAS EMISSIONS

Would the project:

1.	Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐

Discussion: The proposed project, like all development, would be responsible for an incremental increase in green house gas emissions by usage of fossil fuels during the site grading and construction. At this time, Santa Cruz County is in the process of developing a Climate Action Plan (CAP) intended to establish specific emission reduction goals and necessary actions to reduce greenhouse gas levels to pre-1990 levels as required under AB 32 legislation. Until the CAP is completed, there are no specific standards or criteria to apply to this project. All project construction equipment would be required to comply with the Regional Air Quality Control Board emissions requirements for construction equipment. The proposed project is designed at the density and intensity of development allowed by the General Plan and zoning designations for the subject parcel. As a result, impacts associated with the temporary increase in green house gas emissions are expected to be less than significant.

2.	Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐

Discussion: See the discussion under L-1 above. No impacts are anticipated.

M. PUBLIC SERVICES

Would the project:

1.	Result in substantial adverse physical impacts associated with the provision				

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:				
a. Fire protection?	☐	☐	☒	☐
b. Police protection?	☐	☐	☒	☐
c. Schools?	☐	☐	☒	☐
d. Parks or other recreational activities?	☐	☐	☒	☐
e. Other public facilities; including the maintenance of roads?	☐	☐	☒	☐

Discussion (a through e): While the project represents an incremental contribution to the need for services, the increase would be minimal. Moreover, the project meets all of the standards and requirements identified by the local fire agency or California Department of Forestry, as applicable, and school, park, and transportation fees to be paid by the applicant would be used to offset the incremental increase in demand for school and recreational facilities and public roads.

N. RECREATION

Would the project:

1. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☒	☐

Discussion: The proposed project would result in the development of six new single-family dwellings, which would potentially increase the use of an existing neighborhood or regional park or other recreational facilities; however, given the minimal increase in population associated with six single-family dwellings the additional impact would substantially add to or accelerate the physical deterioration of the facility. Additionally,

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact

capital improvement fees will be assessed for the construction of the new dwellings, which will further reduce the potential for accelerated physical deterioration of community parks and recreational facilities.

2.	Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒

Discussion: No recreational facilities would be constructed or expanded as a part of the project.

O. UTILITIES AND SERVICE SYSTEMS

Would the project:

1.	Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☒	☐

Discussion: Drainage analysis of the project by Joe L. Akers (dated February 22, 2010) concluded that the proposed drainage facilities to be constructed as a part of the project would hold post-development runoff to pre-construction rates. The proposed system would include the construction of a bio-swale along the proposed access road as well as a percolation trench at the end of the new road. The proposed systems will not significantly impact the environment. Department of Public Works Drainage staff have reviewed the drainage information and have determined that downstream storm facilities are adequate to handle the increase in drainage associated with the project.

2.	Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☒	☐

Discussion: The project would rely on an individual well for water supply and on-site septic systems for sewage disposal. Both proposed systems have been determined by the County Environmental Health Services Department as adequate to accommodate the relatively light demands of the project. Public water delivery facilities and wastewater treatment facilities would not have to be expanded to support the project.

3.	Exceed wastewater treatment requirements of the applicable Regional Water Quality Control	☐	☐	☒	☐

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact

Board?

Discussion: The project's wastewater flows would not violate any wastewater treatment standards.

4.	Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☒	☐

Discussion: The County Environmental Health Services Department has determined that the proposed wells will be sufficient to serve the proposed project and that no new entitlements or expanded entitlements are needed. Each resulting parcel would be served by an individual well.

5.	Result in determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☒	☐

Discussion: Refer to Sections O-2 and O-4.

6.	Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☒	☐	☐

Discussion: The project would make a one-time contribution to the reduced capacity of regional landfills during construction. However, the property is currently vacant and no demolition is required. Regional landfills are reaching capacity, therefore in order to mitigate the impacts of temporary construction debris to less than significant, a project condition will require the applicant to submit a plan to recycle and/or reuse excess post-construction materials, for review and approval by Planning Staff, prior to building permit issuance. Implementation of this mitigation will maximize recycling and reuse of construction materials and will minimize contributions to the landfill.

7.	Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☒	☐

Discussion: solid waste accumulation is anticipated to increase slightly as a result of the new residential uses; however, the increase would be minimal and is not anticipated to result in a breach of federal, state, or local statutes and regulations.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact

P. LAND USE AND PLANNING

Would the project:

1.	Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒

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

2.	Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☒

Discussion: There are no habitat conservation plans or natural community conservation plans applicable to the subject property.

3.	Physically divide an established community?	☐	☐	☒	☐

Discussion: The project would not include any element that would physically divide an established community.

Q. POPULATION AND HOUSING

Would the project:

1.	Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☒	☐

Discussion: The proposed project would not induce substantial population growth in an area because the project does not propose any physical or regulatory change that would remove a restriction to or encourage population growth in an area including, but limited to the following: new or extended infrastructure or public facilities; new commercial or industrial facilities; large-scale residential development; accelerated conversion of homes to commercial or multi-family use; or regulatory changes including General Plan amendments, specific plan amendments, zone reclassifications, sewer or water annexations; or LAFCO annexation actions.

The proposed project is designed at the density and intensity of development allowed by the General Plan and zoning designations for the parcel.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
2. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

Discussion: The proposed project would not displace any existing housing since the site is currently vacant.

3. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

Discussion: The proposed project would not displace a substantial number of people since the site is currently vacant.

R. MANDATORY FINDINGS OF SIGNIFICANCE

	Potentially Significant Impact	Less than Significant with Mitigation	Less than Significant Impact	No Impact
1. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐

Discussion: The potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory were considered in the response to each question in Section III of this Initial Study. The subject parcel does not contain biotic resources that would be negatively impacted by the project; however there are potential impacts of nighttime lighting on adjacent and surrounding animal habitats. A project condition of approval would require the property owner to submit an exterior lighting plan which shows all proposed exterior lighting shielded downward and away from adjacent potential animal habitats to ensure that any such habitat are protected from nighttime lighting impacts. The property owner would be required to obtain planning staff approval of the exterior plan prior to building permit issuance. As a result of this evaluation there is no substantial evidence that, after mitigation, significant effects associated with this project would result. Therefore, this project has been determined not to meet this Mandatory Finding of Significance.

	Potentially Significant Impact	Less than Significant with Mitigation	Less than Significant Impact	No Impact
2. Does the project have impacts that are individually limited, but cumulatively considerable? ("cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☐	☐	☒

Discussion: In addition to project specific impacts, this evaluation considered the project's potential for incremental effects that are cumulatively considerable. As a result of this evaluation, it has been determined that there is no substantial evidence that there are cumulative effects associated with this project. Therefore, this project has been determined not to meet this Mandatory Finding of Significance.

	Potentially Significant Impact	Less than Significant with Mitigation	Less than Significant Impact	No Impact
3. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☐	☒

Discussion: In the evaluation of environmental impacts in this Initial Study, the potential for adverse direct or indirect impacts to human beings were considered in the response to specific questions in Section III. As a result of this evaluation, there were determined to be no poten tially significant effects to human beings associated with this project. Therefore, this project has been determined not to meet this Mandatory Finding of Significance.

IV. TECHNICAL REVIEW CHECKLIST

	REQUIRED	DATE COMPLETED
Agricultural Policy Advisory Commission (APAC) Review	Yes ☐ No ☒	
Archaeological Review	Yes ☐ No ☒	
Biotic Report/Assessment	Yes ☒ No ☐	12/4/08, 07/26/10
Geologic Hazards Assessment (GHA)	Yes ☐ No ☒	
Geologic Report	Yes ☒ No ☐	10/2/09
Geotechnical (Soils) Report	Yes ☒ No ☐	01/07/10
Riparian Pre-Site	Yes ☐ No ☒	
Septic Lot Check	Yes ☒ No ☐	8/14/06
Timber Resource Assessment	Yes ☒ No ☐	4/2/10

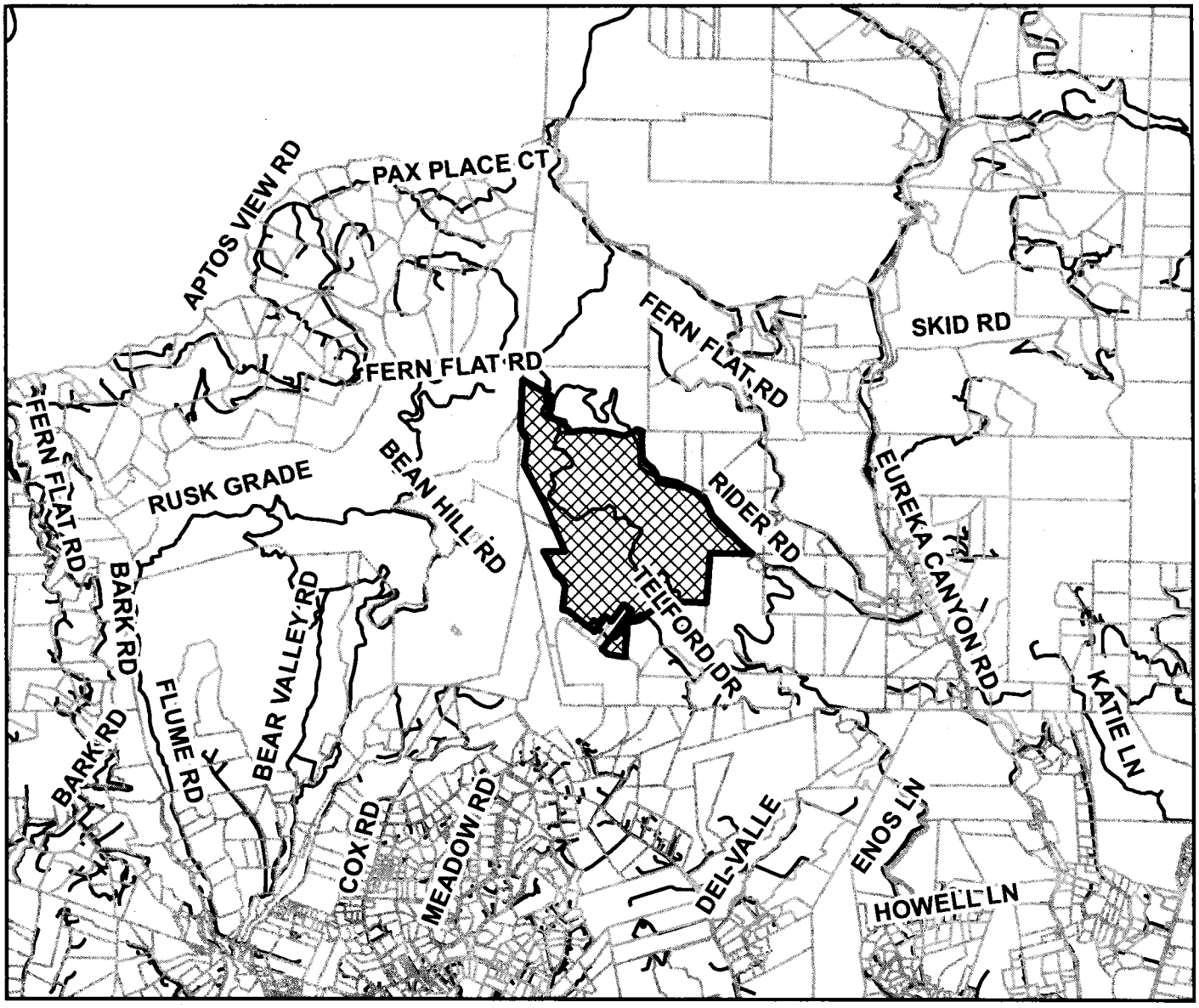
V. REFERENCES USED IN THE COMPLETION OF THIS ENVIRONMENTAL REVIEW INITIAL STUDY

County of Santa Cruz 1994.
1994 General Plan and Local Coastal Program for the County of Santa Cruz, California. Adopted by the Board of Supervisors on May 24, 1994, and certified by the California Coastal Commission on December 15, 1994.

VI. ATTACHMENTS

1. *Vicinity Map, Map of Zoning Districts; Map of General Plan Designations; and Assessors Parcel Map.*
2. *Tentative Map & Preliminary Improvement Plans*, prepared by Joe L. Akers, dated 11/13/09; revised 12/28/10
3. *Geologic Investigation and Update (Report Summary, Conclusions, Recommendations, Map & Cross Sections)*, prepared by Zinn Geology, dated 10/2/09 and 02/22/11
4. *Geologic and Geotechnical Report Review Letter*, prepared by Joe Hanna, County geologist, dated 03/20/11
5. *Geotechnical Investigation (Conclusions and Recommendations)*, prepared by Bauldry Engineering, Inc.,dated 01/07/10
6. *Site Evaluation for Septic System Feasibility*, prepared by BioSphere Consulting, dated August 14, 2006.
7. *Well Yield and Pump Test Report* 6/6/08
8. *Discretionary Application Comments*, dated 4/19/10 and 06/08/11
9. *Drainage Calculations*, prepared by Joe L. Akers, dated 2/24/10
10. *Biotic Report*, prepared by EcoSystems West, dated 12/4/08
11. *Biotic Report Review Letter*, prepared by Matt Johnston, dated 12/05/08
12. *Woodrat Survey,* prepared by Dana Bland & Associates, dated 07/26/10
13. *Registered Professional Forester's Assessment of TPZ Compatibility,* prepared by Cassady Bill Vaughan, dated April 2, 2010
14. *Rural Residential Density Matrix 07-0499,* prepared by County Planning Staff, dated September 2007, revised June 2011

Location Map



LEGEND

APN: 107-011-06

Assessors Parcels

Streets

N

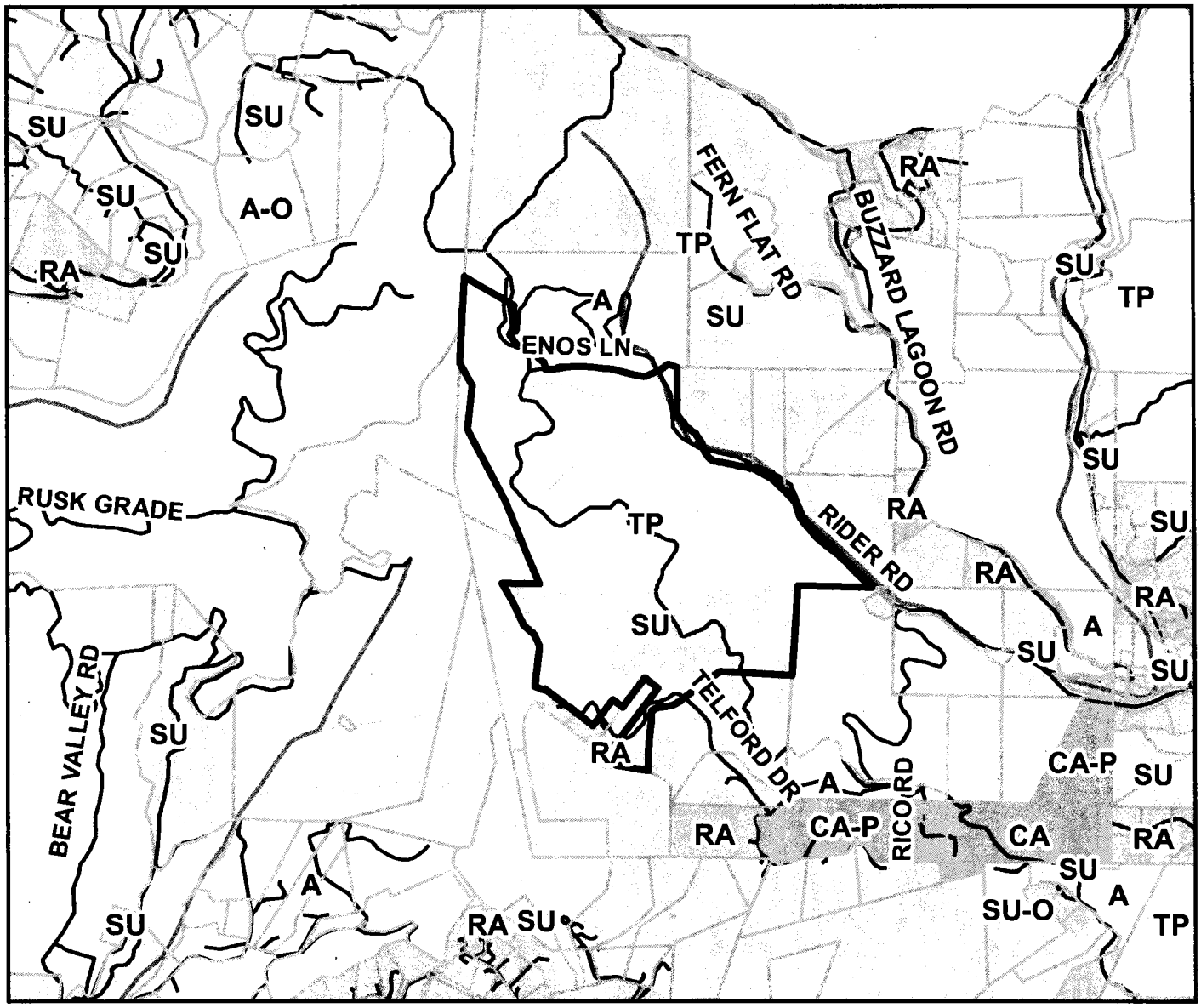
W E

S

Map Created by
County of Santa Cruz
Planning Department
June 2011

ATTACHMEN 1

Zoning Map



LEGEND

- APN: 107-011-06
- Assessors Parcels
- Streets

Streams

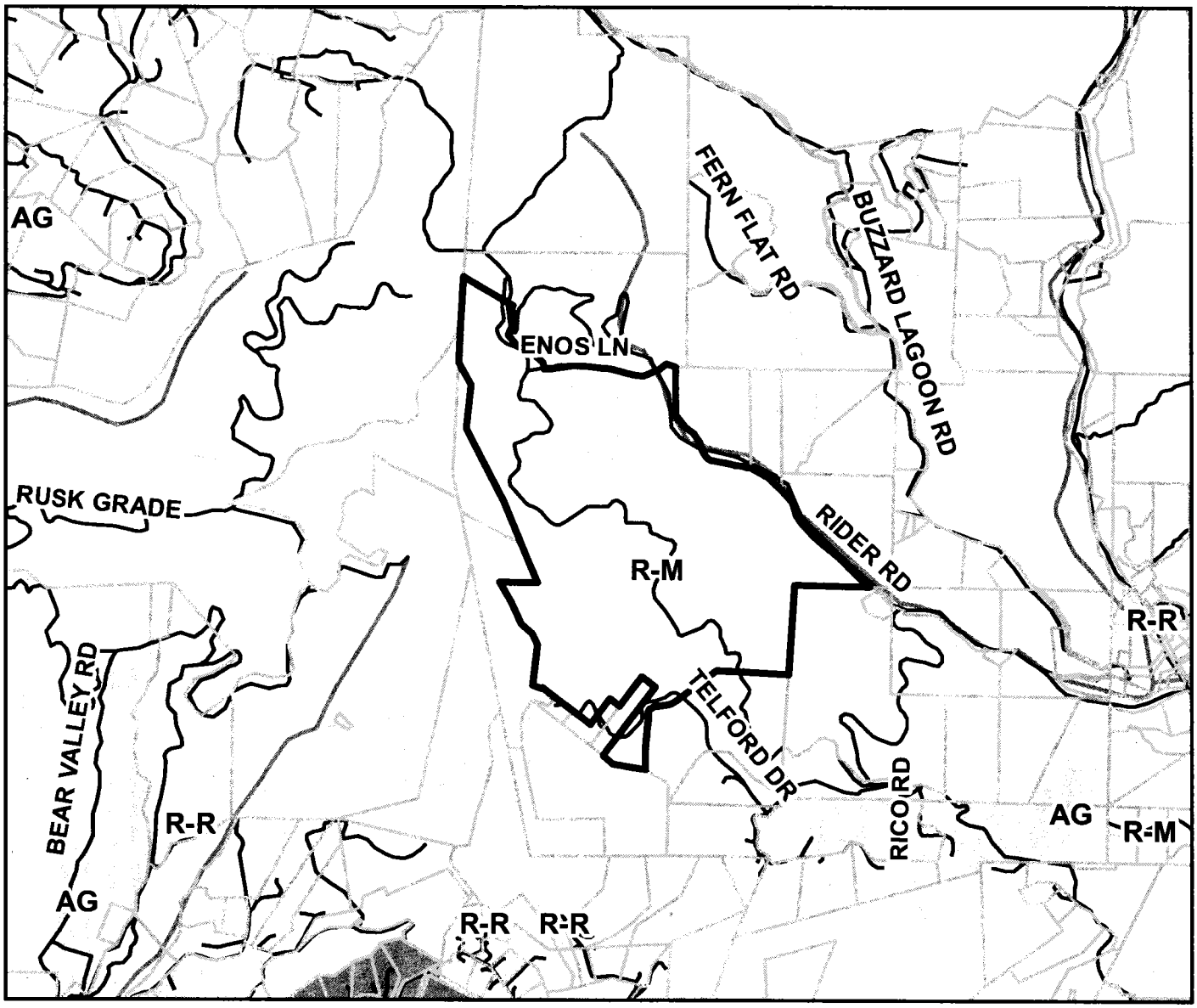
- PERENNIAL
- SWALE
- TIMBER PRODUCTION
- SPECIAL USE
- AGRICULTURE RESIDENTIAL
- AGRICULTURE
- AGRICULTURE COMMERCIAL

N
W E
S

Map Created by
County of Santa Cruz
Planning Department
June 2011

ATTACHMENT 1

General Plan Designation Map



2,700 1,350 0 2,700 5,400 8,100 10,800 Feet

LEGEND

- APN: 107-011-06
- Assessors Parcels
- Streets

Streams

- PERENNIAL
- SWALE
- Residential-Mountain
- Residential-Rural
- Agriculture

N
W E
S

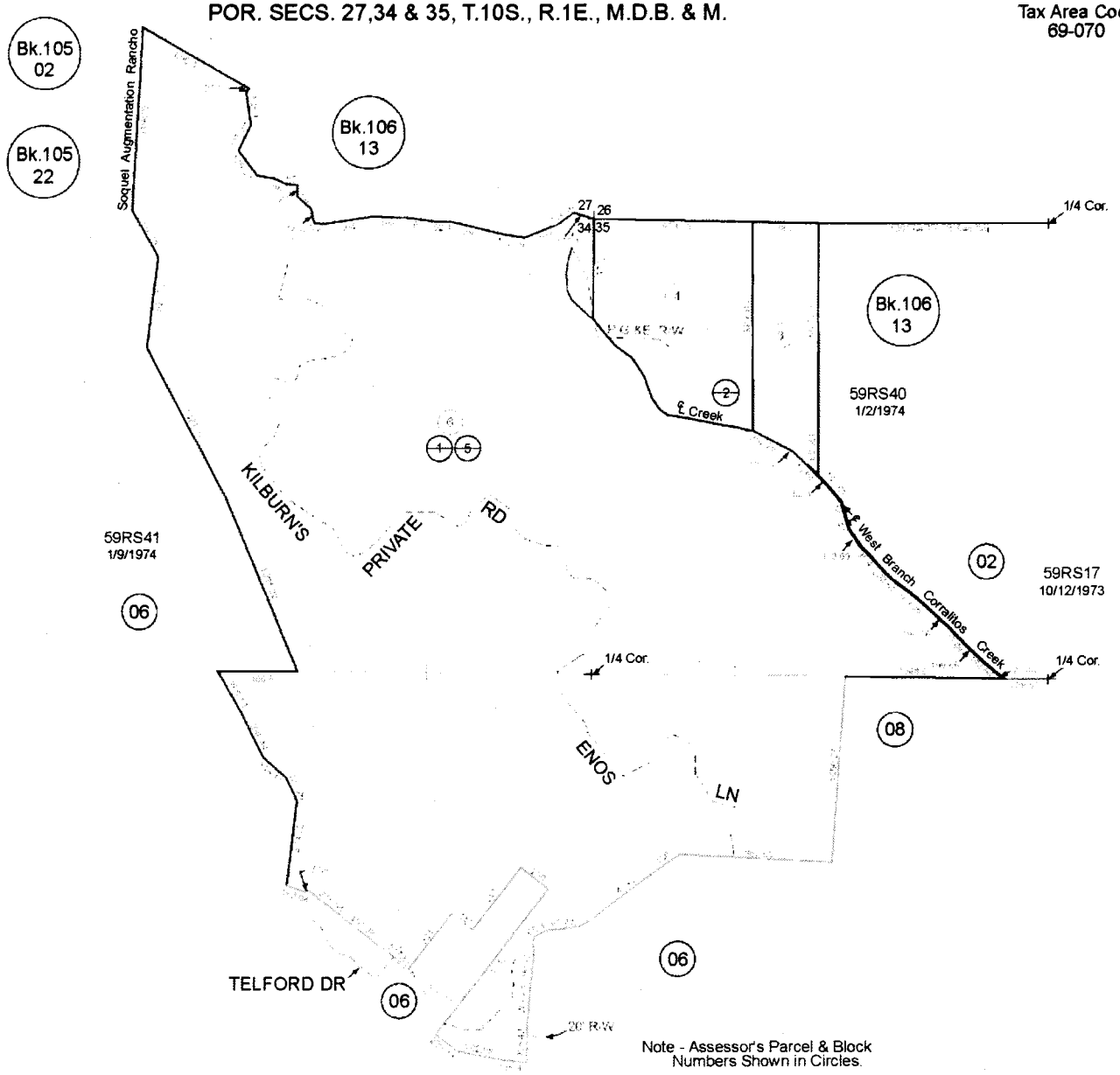
Map Created by
County of Santa Cruz
Planning Department
June 2011

ATTACHMENT 1

ATTACHMENT 2

107-01

FOR TAX PURPOSES ONLY



Note - Assessor's Parcel & Block Numbers Shown in Circles.

Assessor's Map No. 107-01
County of Santa Cruz, Calif.
Nov. 1997

Electronically drawn 11/26/97 KSA
Rev 10/15/01 mm (changed page refs.)
Rev 8/24/09 CB (Portrait, pg 07)
Rev 8/24/09 CB (9-000/142, LBA 1-06)

ATTACHMENT

TENTATIVE MAP

FOR TRACT NO. 1558

ALTA VISTA OCEAN VIEW ESTATES

APN 107-011-06

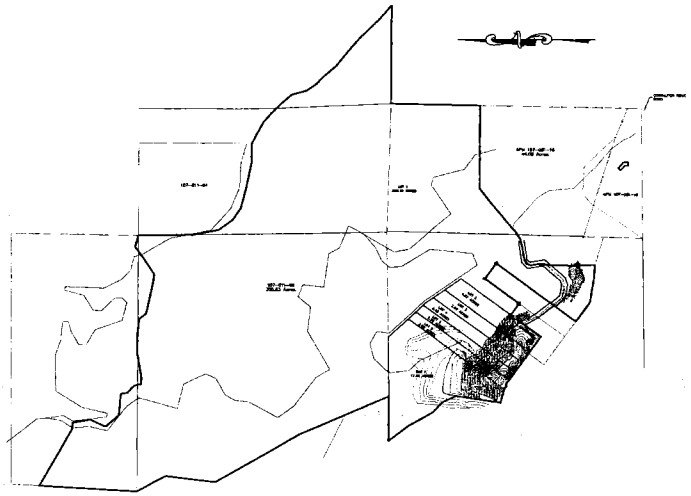
GENERAL NOTES

1. ALL CONSTRUCTION SHALL COMPLY WITH APPLICABLE REQUIREMENTS IN THE CURRENT EDITION OF THE "COUNTY OF SANTA CRUZ DESIGN CRITERIA".
2. ALL FIGURE (FIG.) REFERENCES, UNLESS OTHERWISE SPECIFIED, REFER TO STANDARD DRAWINGS IN THE CURRENT EDITION OF THE "COUNTY OF SANTA CRUZ DESIGN CRITERIA".
3. NO CHANGES IN THE APPROVED IMPROVEMENT PLANS SHALL BE MADE WITHOUT PRIOR APPROVAL OF THE DEPARTMENT OF PUBLIC WORKS.
4. THE DIRECTOR OF PUBLIC WORKS OR HIS AUTHORIZED REPRESENTATIVE SHALL HAVE THE AUTHORITY TO "STOP WORK" IF THE WORK IS NOT BEING DONE IN ACCORDANCE WITH THE APPROVED IMPROVEMENT PLANS.
5. THE CONTRACTOR SHALL NOTIFY THE COUNTY CONSTRUCTION ENGINEER AT (831) 454-2160 24 HOURS PRIOR TO START OF CONSTRUCTION.
6. ----- DELETED -----
7. ----- DELETED -----
8. ----- DELETED -----
9. ----- DELETED -----
10. ----- DELETED -----
11. UNDERGROUND UTILITY LOCATIONS SHOWN ARE COMPILED FROM INFORMATION SUPPLIED BY THE APPROPRIATE UTILITY AGENCY. CONTRACTOR SHALL VERIFY LOCATION OF AFFECTED UTILITY LINES AND POTHOLE THOSE AREAS WHERE POTENTIAL CONFLICTS ARE LIKELY OR DATA IS OTHERWISE INCOMPLETE.
12. ANY EXISTING UTILITIES THAT ARE REQUIRED TO BE RELOCATED AS A PART OF THIS CONSTRUCTION SHALL BE RELOCATED AT THE DEVELOPER'S EXPENSE.
13. IN THOSE INSTANCES WITHIN ROADWAY OR UNDER CURB, GUTTER OR SIDEWALK, ALL UNDERGROUND UTILITIES SHALL BE IN PLACE PRIOR TO PLACING THE PERMANENT PAVING ON SAID ROADWAY OR PLACING ANY CURB, GUTTER OR SIDEWALK THEREON. ALL SANITARY SEWERS WITHIN THE ROADWAY OR UNDER CURB, GUTTER OR SIDEWALK SHALL BE IN PLACE, VIDEOTAPED, AND APPROVED FOR ACCEPTANCE PRIOR TO PLACING THE PERMANENT PAVING ON SAID ROADWAY OR PLACING ANY CURB, GUTTER OR SIDEWALK THEREON.
14. IF SIDEWALK IS NOT PLACED MONOLITHICALLY WITH CURB AND GUTTER, PLACE #4 DOWELS 18" LONG AT 4' OC IN THE BACK OF CURB 3" BELOW THE TOP OF CURB, 6" INTO CONCRETE. (FIG ST-4A).
15. THE TOP 6" OF SUBGRADE UNDER ALL PAVED SURFACES SUBJECT TO VEHICULAR USE SHALL BE COMPACTED TO A MINIMUM 85% RELATIVE COMPACTION. THE CONTRACTOR'S ATTENTION IS ALSO REFERRED TO FIGURES SS-2A, SS-2B, CP-1 AND CP-2 FOR ADDITIONAL BACKFILL AND COMPACTION STANDARDS. REFER TO SS-11 FOR CONCRETE CAP AND ENCASEMENT REQUIREMENTS.
16. WATER SERVICE FOR THE SITE SHALL BE INSTALLED BY THE CONTRACTOR ACCORDING TO THE DETAILS BY THE ARCHITECT AND/OR ENGINEER.
17. BETWEEN OCTOBER 15 AND APRIL 15, AND OTHER TIMES WHEN CONDITIONS WARRANT, EXPOSED SOIL SHALL BE PROTECTED FROM EROSION AT ALL TIMES. DURING CONSTRUCTION, SUCH PROTECTION MAY CONSIST OF MULCHING AND/OR PLANTING OF NATIVE VEGETATION OF ADEQUATE DENSITY. BEFORE COMPLETION OF THE PROJECT, ANY EXPOSED SOIL ON DISTURBED SLOPES SHALL BE PERMANENTLY PROTECTED FORM EROSION.
18. AS-BUILT DIGITAL FILE FOR ALL DRAINAGE FACILITIES SHALL BE SUBMITTED PRIOR TO THE BOARD OF SUPERVISORS' ACCEPTANCE OF THE SUBDIVISION. THE SUBMITTAL SHALL CONTAIN THE FOLLOWING CRITERIA:
    PROJECTION: STATE PLANE COORDINATE SYSTEM – CALIFORNIA III – FEET
    HORIZONTAL DATUM: NAD 83
    VERTICAL DATUM: 83
    ANY CAD IS ACCEPTABLE – AUTOCAD IS PREFERRED
    FILE CAN BE EMAILED TO THE GIS STAFF OR SUBMITTED ON CD
19. FOR ROAD WORK INVOLVING A PAVEMENT CONFORM SECTION BETWEEN THE LIP OF GUTTER AND THE EXISTING PAVED ROAD, THE CONFORM SHALL BE EXTENDED AS FAR AS NECESSARY TO ACHIEVE A STREET CROSS SLOPE WITHIN TOLERABLE LIMITS (2% TO 4%), WITH THE COUNTY CONSTRUCTION INSPECTOR'S APPROVAL.
20. MONUMENTATION WILL BE VERIFIED BY THE COUNTY CONSTRUCTION ENGINEER. LOCATION OF EXTERNAL MONUMENTS WILL BE VERIFIED FOR ALL TRACTS. LOCATION OF OTHER MONUMENTATION WILL BE VERIFIED AT RANDOM.
21. ----- DELETED -----
22. THE CONTRACTOR SHALL OBTAIN AN ENCROACHMENT PERMIT FROM COUNTY, DPW FOR ANY UTILITY TRENCH WITHIN COUNTY RIGHT OF WAY NOT SPECIFICALLY SHOWN ON THESE PLANS.

NOTE:

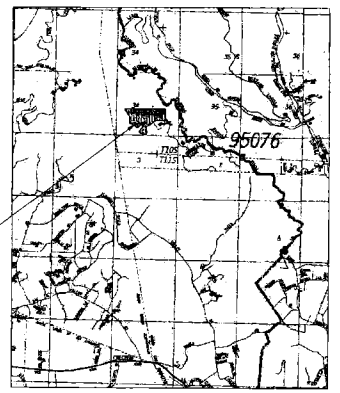
ALL WORK SHALL COMPLY WITH THE RECOMMENDATIONS OF THE GEOLOGY REPORT PREPARED BY:
ZINN GEOLOGY
DATED JAN. 31, 2007 PROJECT NO. 2006002-G-SC
3085 CARRIKER LANE, SUITE B
SOQUEL, CA. 95073

ALL GRADING SHALL COMPLY WITH THE RECOMMENDATIONS OF THE SOILS REPORT PREPARED BY:
BAUDRY ENGINEERING
DATED JANUARY 7, 2010 PROJECT NO. 0602-52974-G11
718 SOQUEL AVE.
SANTA CRUZ, CA. 95062 PH. (831) 457-1223



SITE VIEW

SCALE: 1"=600'



VICINITY MAP

SCALE: NTS

COUNTY STANDARD NOTES:

1. NO LAND CLEARING, GRADING OR EXCAVATING SHALL TAKE PLACE BETWEEN OCTOBER 15 AND APRIL 15 UNLESS THE PLANNING DIRECTOR APPROVES A SEPARATE WINTER EROSION-CONTROL PLAN THAT MAY OR MAY NOT BE GRANTED.
2. NO LAND DISTURBANCE SHALL TAKE PLACE PRIOR TO ISSUANCE OF BUILDING PERMITS (EXCEPT THE MINIMUM REQUIRED TO INSTALL REQUIRED IMPROVEMENTS, PROVIDE ACCESS FOR COUNTY REQUIRED TESTS OR TO CARRY OUT WORK REQUIRED BY ANOTHER OF THESE CONDITIONS).
3. PURSUANT TO SECTIONS 16.40.040 AND 16.42.100 OF THE COUNTY CODE, IF AT ANY TIME DURING SITE PREPARATION, EXCAVATION, OR OTHER GROUND DISTURBANCE ASSOCIATED WITH THIS DEVELOPMENT, ANY ARTIFACT OR OTHER EVIDENCE OF AN HISTORIC ARCHAEOLOGICAL RESOURCE OR A NATIVE AMERICAN CULTURAL SITE IS DISCOVERED, THE RESPONSIBLE PERSONS SHALL IMMEDIATELY CEASE AND DESIST FROM ALL FURTHER SITE EXCAVATION AND NOTIFY THE SHERIFF-CORONER IF THE DISCOVERY CONTAINS HUMAN REMAINS, OR THE PLANNING DIRECTOR IF THE DISCOVERY CONTAINS NO HUMAN REMAINS. THE PROCEDURES ESTABLISHED IN SECTIONS 16.40.040 AND 16.42.100, SHALL BE OBSERVED.
4. TO MINIMIZE NOISE, DUST AND NUISANCE IMPACTS OF SURROUNDING PROPERTIES TO INSIGNIFICANT LEVELS DURING CONSTRUCTION, THE OWNER/APPLICANT SHALL OR SHALL HAVE THE PROJECT CONTRACTOR, COMPLY WITH THE FOLLOWING MEASURES DURING ALL CONSTRUCTION WORK:
    A. LIMIT ALL CONSTRUCTION TO THE TIME BETWEEN 8:00 AM AND 5:00 PM WEEKDAYS UNLESS A TEMPORARY EXCEPTION TO THIS TIME RESTRICTION IS APPROVED IN ADVANCE BY COUNTY PLANNING TO ADDRESS AND EMERGENCY SITUATION; AND
    B. EACH DAY IT DOES NOT RAIN, WET ALL EXPOSED SOIL FREQUENTLY ENOUGH TO PREVENT SIGNIFICANT AMOUNTS OF DUST FROM LEAVING THE SITE.
    C. THE APPLICANT SHALL DESIGNATE A DISTURBANCE COORDINATOR AND A 24-HOUR CONTACT NUMBER SHALL BE CONSPICUOUSLY POSTED ON THE JOB SITE. THE DISTURBANCE COORDINATOR SHALL RECORD THE NAME, PHONE NUMBER, AND NATURE OF ALL COMPLAINTS RECEIVED REGARDING THE CONSTRUCTION SITE. THE DISTURBANCE COORDINATOR SHALL INVESTIGATE COMPLAINTS AND TAKE REMEDIAL ACTION, IF NECESSARY, WITHIN 24 HOURS OF RECEIPT OF THE COMPLAINT OR INQUIRY.
5. CONSTRUCTION OF IMPROVEMENTS SHALL COMPLY WITH THE REQUIREMENTS OF THE GEOTECHNICAL REPORT (BAUDRY ENGINEERING, DATED JAN. 7, 2010). THE GEOTECHNICAL ENGINEER SHALL OBSERVE THE COMPLETED PROJECT AND STATE IN WRITING THAT TO THE BEST OF THEIR KNOWLEDGE, THE IMPROVEMENTS HAVE BEEN CONSTRUCTED IN GENERAL CONFORMANCE WITH THE GEOTECHNICAL REPORT.
6. ALL REQUIRED LAND DIVISION IMPROVEMENTS SHALL BE INSTALLED AND INSPECTED PRIOR TO FINAL INSPECTION CLEARANCE FOR ANY NEW STRUCTURE ON THE NEW LOTS.

SHEET INDEX

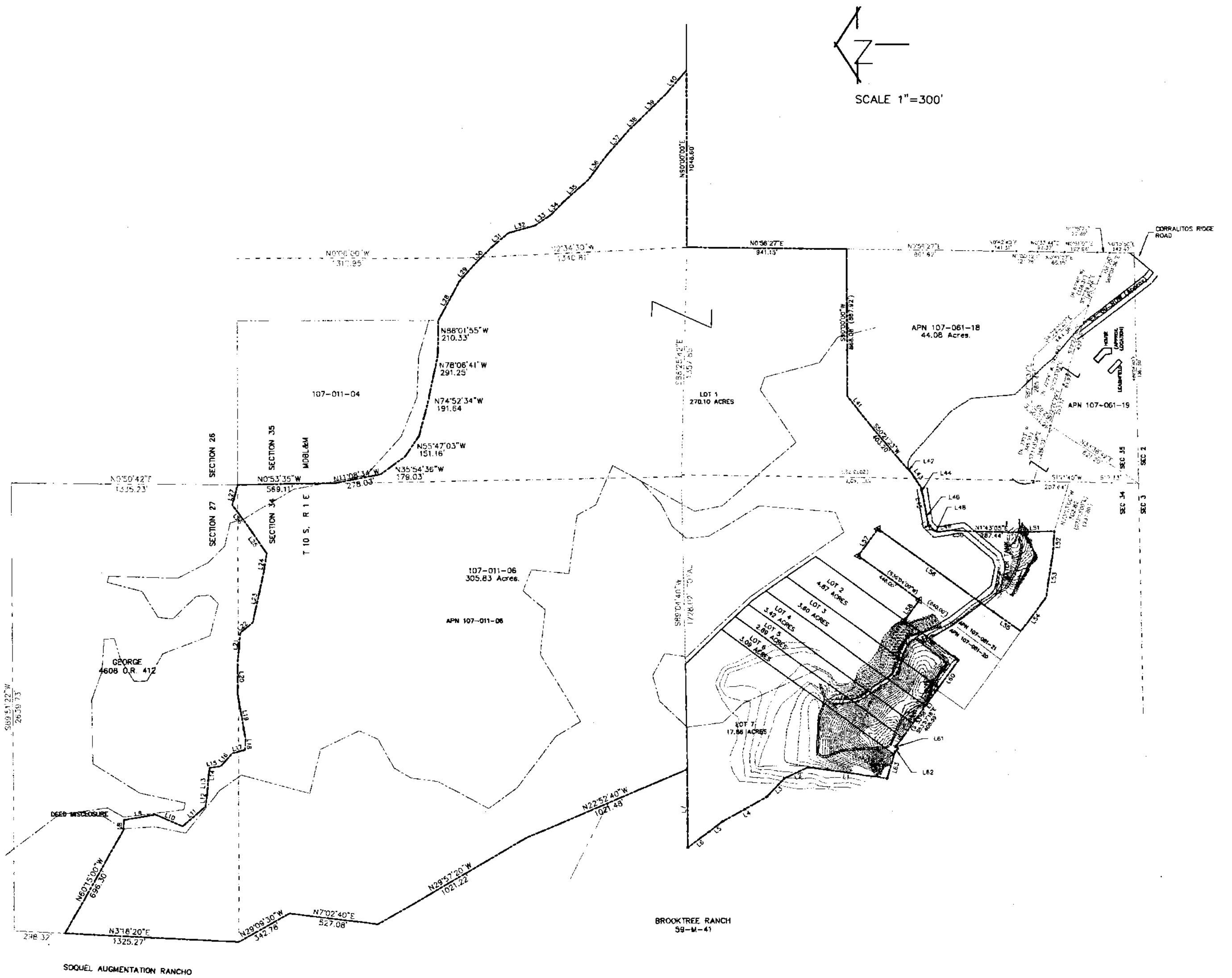
DATE	REVISION	BY
12.28.10	COUNTY PLAN CHECK	JA

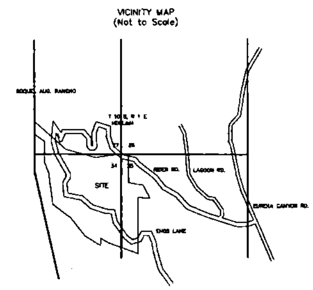
JOE L. AKERS
CIVIL ENGINEER
8301-E BAY AVE. CAPITOLA, CA 95010 (831) 479-8887

TENTATIVE MAP
TRACT NO. 1558
ALTA VISTA OCEAN VIEW ESTATES
APN 107-011-06

M1558-C1-COVER
DATE: 11.13.09
DRAWN: ALN
SCALE: AS SHOWN

SHEET
C1 OF C19





LINE NUMBER	BEARING	DISTANCE	RECORDED BEARING	RECORDED BEARING
L1	S 8°14'58" W	474.25'	(S 8°11'40" W)	(473.90')
L2	S 24°55'55" E	155.24'	(S 24°50'20" E)	(155.32')
L3	S 46°12'17" E	146.11'	(S 46°12'20" E)	(146.16')
L4	S 28°36'41" E	297.83'	(S 28°55' E)	(299.56')
L5	S 37°26'08" E	101.48'	(S 37°10' E)	(100.23')
L6	S 37°05'59" E	159.63'	(S 37°10' E)	(160.00')
L7	S 89°56'18" W	466.38'	(N 89°57'20" W)	(465.37')
L8	N 86°34'20" W	62.54'	--	--
L9	N 9°30'00" W	168.10'	--	--
L10	N 24°00'00" E	175.56'	--	--
L11	N 40°30'00" W	179.52'	--	--
L12	N 83°00'00" W	96.36'	--	--
L13	N 86°00'00" W	66.00'	--	--
L14	N 82°45'00" W	66.00'	--	--
L15	N 7°00'00" W	66.00'	--	--
L16	N 48°00'00" W	102.30'	--	--
L17	N 14°00'00" W	77.22'	--	--
L18	N 86°10'00" W	66.00'	--	--
L19	S 80°00'00" W	264.00'	--	--
L20	N 89°35'00" W	198.00'	--	--
L21	N 84°05'00" W	165.00'	--	--
L22	N 36°00'00" W	92.40'	--	--
L23	N 77°15'00" W	297.00'	--	--
L24	N 80°30'00" W	122.76'	--	--
L25	S 56°30'00" W	198.00'	--	--
L26	S 53°25'00" W	156.98'	--	--
L27	N 74°20'00" W	122.10'	--	--
L28	N 61°24'00" W	257.28'	--	--
L29	N 48°31'20" W	121.56'	--	--
L30	N 45°59'00" W	146.94'	--	--
L31	N 40°07'20" W	140.61'	--	--
L32	N 15°19'30" W	183.47'	--	--
L33	N 34°01'30" W	113.63'	--	--
L34	N 5°41'00" W	95.40'	--	--
L35	N 1°47'40" W	202.81'	--	--
L36	N 52°17'40" W	189.06'	--	--
L37	N 49°01'30" W	196.76'	--	--
L38	N 43°24'20" W	83.09'	--	--
L39	N 44°39'40" W	199.66'	--	--
L40	N 49°36'20" W	192.64'	--	--
L41	S 52°00'00" W	150.00'	--	--
L42	S 44°34'03" W	40.38'	--	--
L43	S 56°16'20" W	94.05'	--	--
L44	S 73°46'14" W	59.63'	--	--
L45	S 80°05'47" W	87.28'	--	--
L46	S 79°55'40" W	50.31'	--	--
L47	S 59°17'22" W	86.80'	--	--
L48	S 17°08'17" W	36.31'	--	--
L49	S 8°10'35" E	73.99'	--	--
L50	S 4°04'43" W	90.92'	--	--
L51	N 2°13'04" W	225.42'	--	--
L52	--	--	(S 86°04'00" E)	(135.83')
L53	--	--	(S 81°00'00" E)	(262.98')
L54	--	--	(S 53°58'00" E)	(250.35')
L55	--	--	(N 36°04'00" E)	(200.00')
L56	--	--	(N 36°04'00" E)	(840.00')
L57	--	--	(N 53°56'00" W)	(200.00')
L58	--	--	(S 53°56'00" E)	(150.00')
L59	--	--	(N 36°04'00" E)	(384.00')
L60	S 53°56'44" E	217.69'	(S 53°56' E)	--
L61	N 57°19'13" E	17.23'	(N 58°15'00" E)	(17.54')
L62	S 47°13'24" E	27.63'	(S 47°08'59" E)	(27.72')
L63	S 73°46'21" E	162.29'	(S 73°50'00" E)	(162.12')

DATE	REVISION	BY
12.28.10	COUNTY PLAN CHECK	KA

JOE L. AKERS
CIVIL ENGINEER
630-E BAY AVE. CAPITOLA, CA 95010 (831) 475-6557

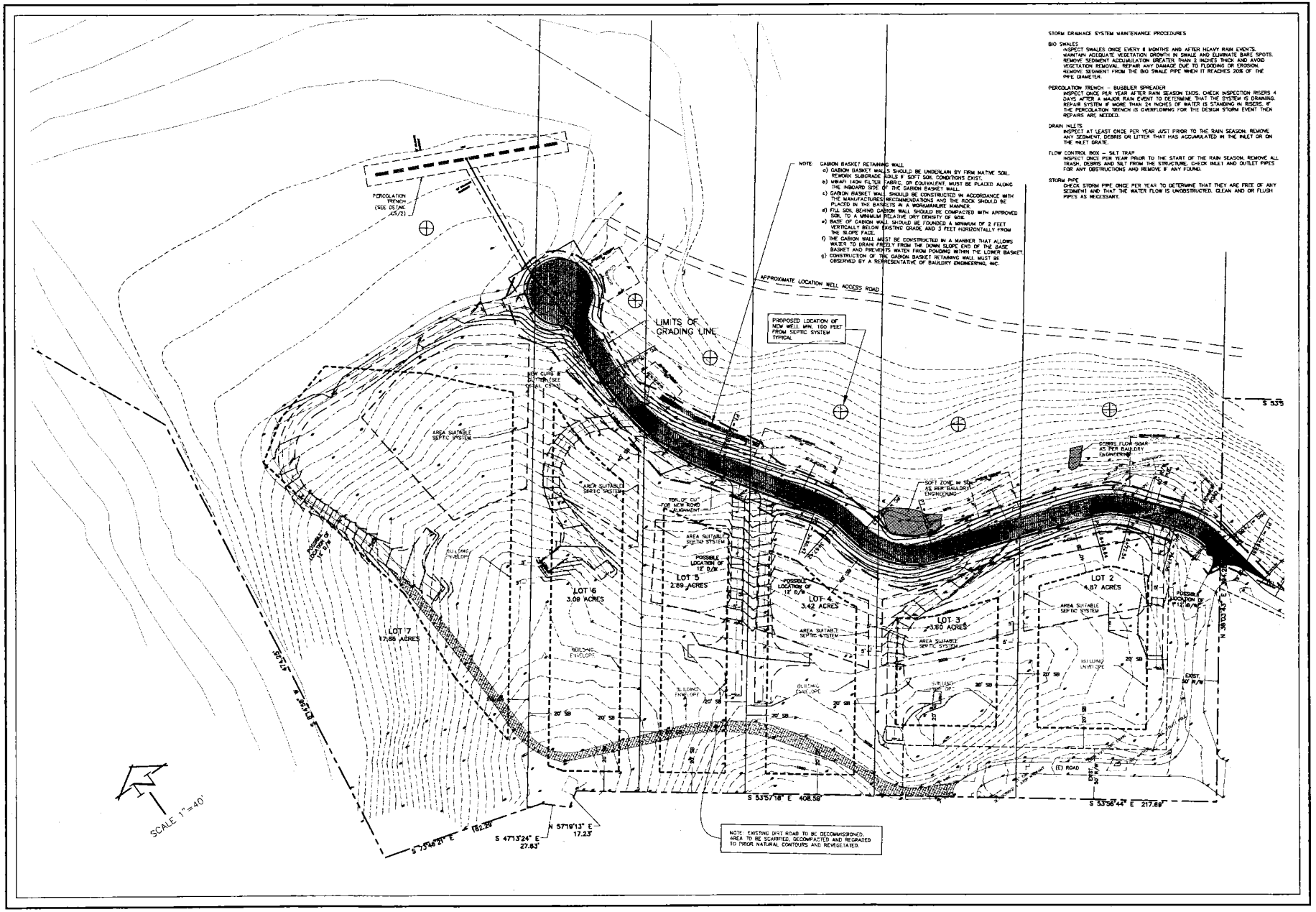
REGISTERED PROFESSIONAL ENGINEER
JOE L. AKERS
No. 20372
EXP. 6-30-11
CIVIL
STATE OF CALIFORNIA

SITE PLAN
TRACT NO. 1558
ALTA VISTA OCEAN VIEW ESTATES
APN 107-011-06

WE55-TOPO
DATE: 11.13.09
DRAWN: ALN
SCALE: 1"=300'

SHEET
C3 OF C19

ATTACHMENT 2



DATE	REVISION	BY
2.25.10	COUNTY PLAN CHECK	AA

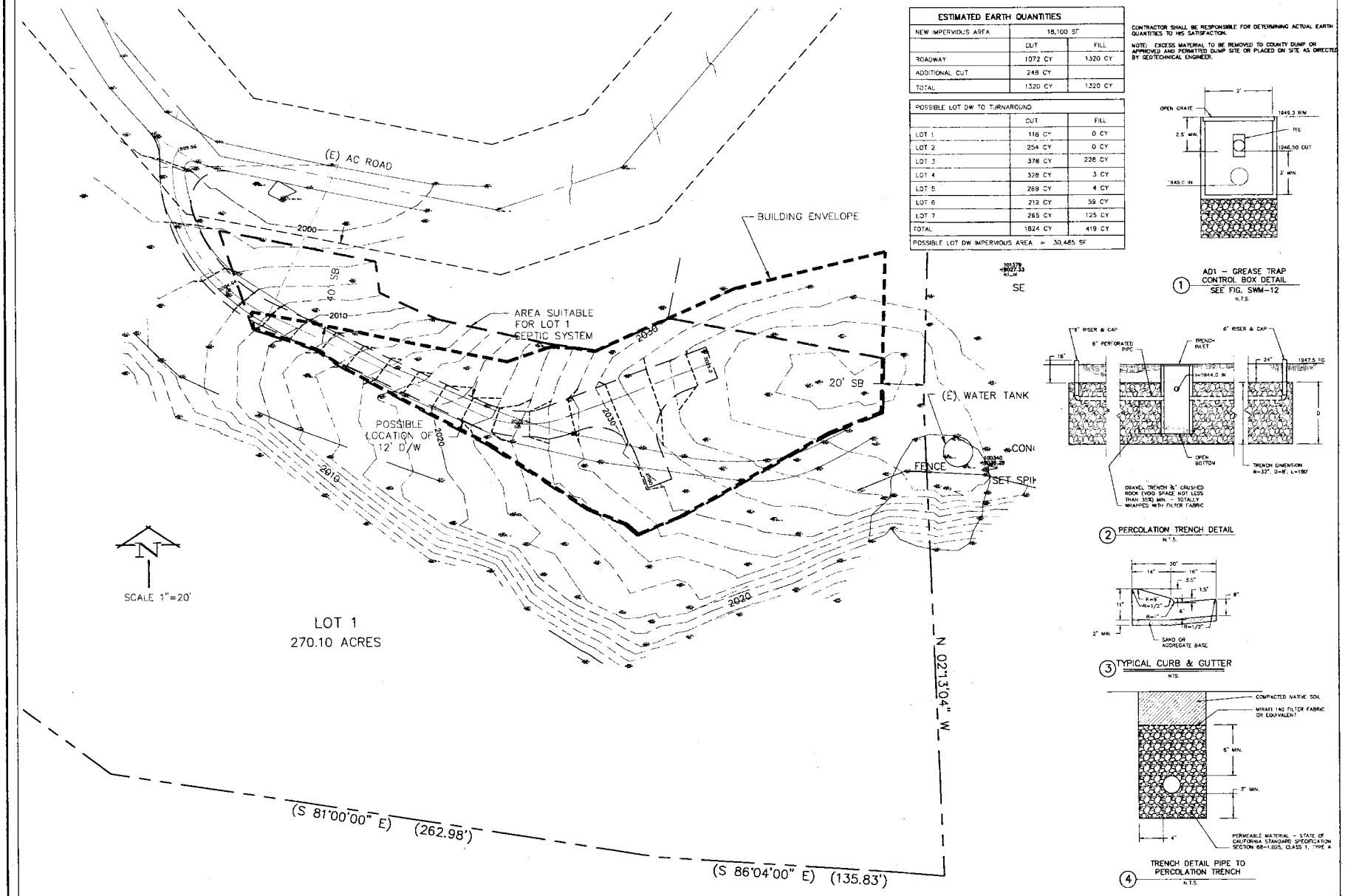
JOE L. AKERS
CIVIL ENGINEER
630-E BAY AVE. CAPITOLA, CA 95010 (831) 475-8387

SITE PLAN
TRACT NO. 1558
ALTA VISTA OCEAN VIEW ESTATES
APN 107-011-06

WEBSITE	
DATE:	11.13.09
DRAWN:	ALN
SCALE:	1"=40'

SHEET
C4 OF C19

ATTACHMENT



ESTIMATED EARTH QUANTITIES		
NEW IMPERVIOUS AREA	18,100 SF	
	CUT	FILL
ROADWAY	1072 CY	1320 CY
ADDITIONAL CUT	248 CY	
TOTAL	1320 CY	1320 CY

POSSIBLE LOT DW TO TURNAROUND		
	CUT	FILL
LOT 1	118 CY	0 CY
LOT 2	254 CY	0 CY
LOT 3	378 CY	228 CY
LOT 4	328 CY	3 CY
LOT 5	269 CY	4 CY
LOT 6	212 CY	59 CY
LOT 7	265 CY	125 CY
TOTAL	1824 CY	419 CY
POSSIBLE LOT DW IMPERVIOUS AREA = 30,485 SF		

CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING ACTUAL EARTH QUANTITIES TO HIS SATISFACTION.

NOTE: EXCESS MATERIAL TO BE REMOVED TO COUNTY DUMP OR APPROVED AND PERMITTED DUMP SITE OR PLACED ON SITE AS DIRECTED BY GEOTECHNICAL ENGINEER.

1 AD1 – GREASE TRAP CONTROL BOX DETAIL SEE FIG. SWM-12 N.T.S.

2 PERCOLATION TRENCH DETAIL N.T.S.

3 TYPICAL CURB & GUTTER N.T.S.

4 TRENCH DETAIL PIPE TO PERCOLATION TRENCH N.T.S.

DATE	REVISION	BY
12.28.10	COUNTY PLAN CHECK	JA

JOE L. AKERS
CIVIL ENGINEER
630-E BAY AVE. CAPITOLA, CA 95010 (831) 479-8997

SITE PLAN
TRACT NO. 1558
ALTA VISTA OCEAN VIEW ESTATES
APN 107-011-06

WESSITE	
DATE:	11.13.09
DRAWN:	ALN
SCALE:	1"=20'

SHEET
C5 OF C19

SHEET
C6 OF C19

DATE: 11.13.09
DRAWN: ALN
SCALE: 1"=20'

PROFILES

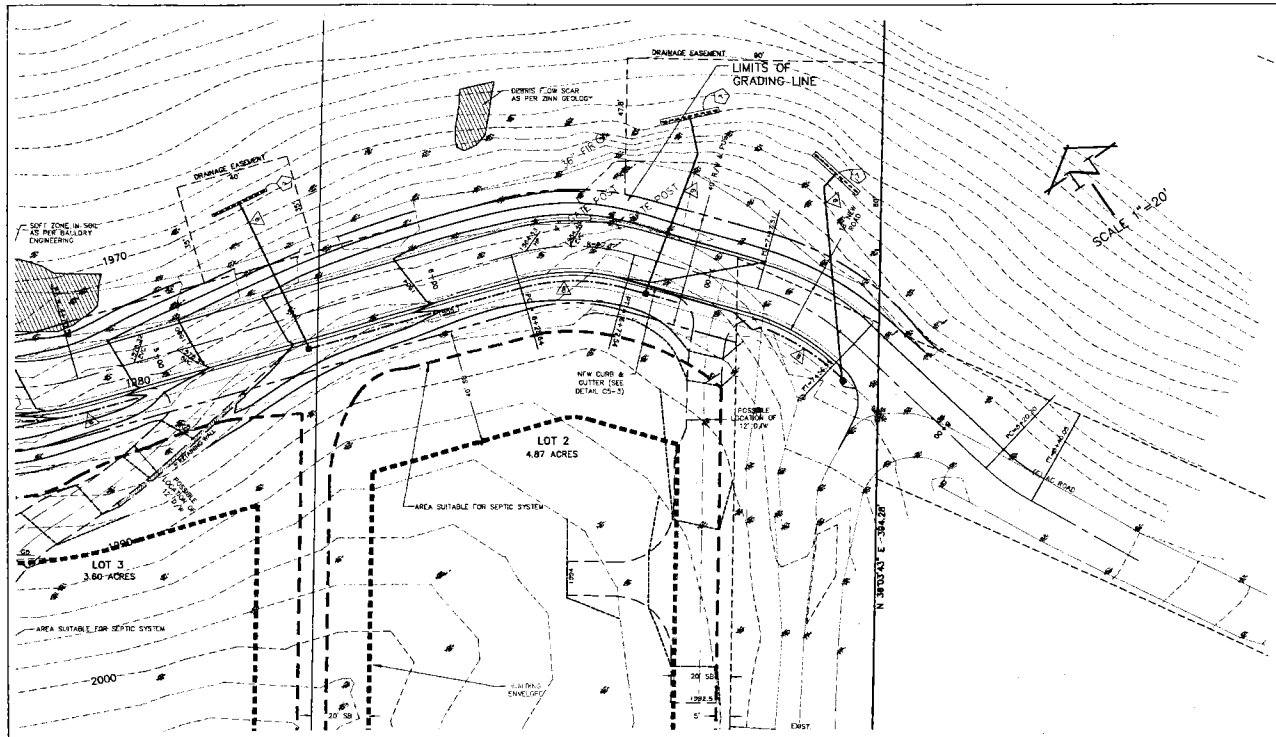
TRACT NO. 1558
ALTA VISTA OCEAN VIEW ESTATES
APN 107-011-06

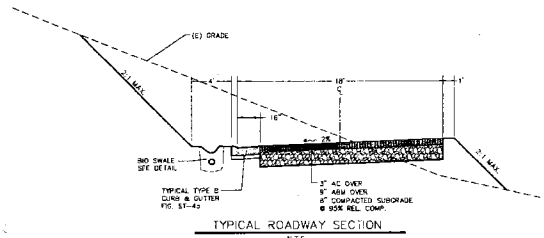
JOE L. AKERS
CIVIL ENGINEER
830-E BAY AVE. CAPITOLA, CA 95010 (831) 475-8587

DATE	REVISION	BY
12.28.10	COUNTY PLAN CHECK	JLA

ATTACHMENT 2

ATTACHMENT





TYPICAL ROADWAY SECTION
N.T.S.

STORM DRAIN SYSTEM

PIPE LABEL	LENGTH (FEET)	SIZE	SLOPE	BETWEEN INLETS
1	132	10"	1.89%	1 – PERF. TRENCH
2	----	"	---	DELETED
3	46	10"	3.90%	1 – 2
4	75	10"	11.64%	2 – 3
5	80	10"	8.95%	3 – 4
6	171	10"	4.36%	4 – 5
7	101	10"	1.36%	5 – 6
8	588–TOTAL	6"	BIO–SWALE SEE DETAIL	
9	380–TOTAL	6"	SOLID PVC @ 3% MIN. 7 LOCATIONS	

NOTE: PROVIDE BOLD PERMANENT MARKINGS AT EACH INLET THAT READ "NO DUMPING – DRAINS TO BAY"

INLET LABEL	STATION	RIM	INVERT	NOTES
1	0+27.5	1949.35	1945.00	*1
2	0+19.19	1951.35	1946.75	JUNCTION BOX CHRISTY U2
3	0+49.19	1959.84	1955.48	
4	1+71.30	1966.63	1962.84	
5	3+39.70	1974.06	1970.10	
6	4+40.00	1979.45	1971.47	
7	---	---	---	*2

*1 CONSTRUCT SILT & GREASE TRAP – COUNTY FIG. SWM-12 SEE DETAIL 1/C5

*2 ENERGY DISSIPATORS SEE DETAIL

DRAINAGE NOTES:

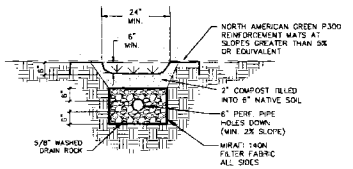
ALL PIPES SHALL BE ADS-N12 UNLESS NOTED OTHERWISE.

ALL INLETS SHALL BE CHRISTY V64 UP TO 6" PIPES AND SHALL BE U21 FOR PIPES GREATER THAN 6"

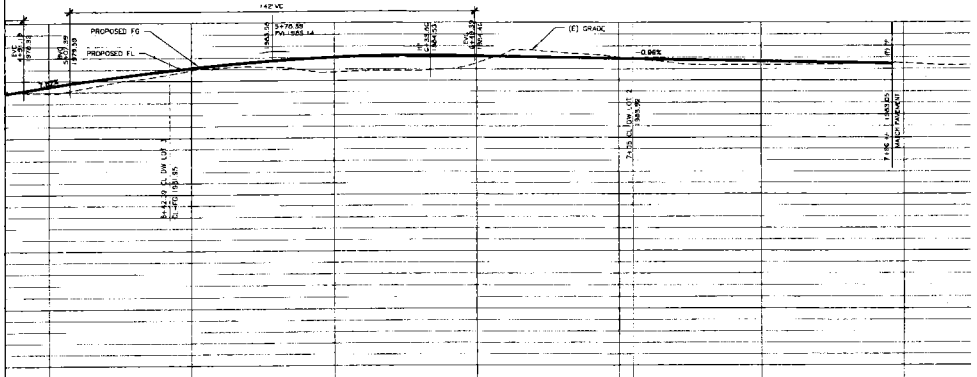
ALL INLETS IN BIO-SWALE SHALL BE CHRISTY V64

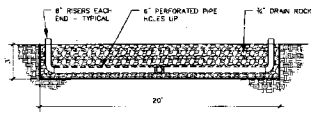
ALL INLETS IN ROAD WAY SHALL BE CALTRANS G1 CURB INLET.

NOTE: PROPERTY OWNER IS REQUIRED TO MAINTAIN THE DRAINAGE SYSTEM AS SHOWN ON THE PLANS AND INSTALLED BY THIS DEVELOPMENT TO MAINTAIN CAPACITY AND FUNCTION AS INTENDED BY THE DESIGN.

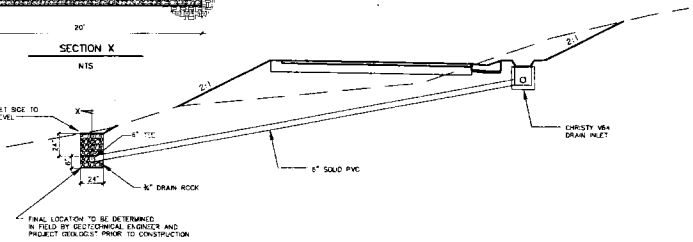


① BIO–SWALE DETAIL
NTS





SECTION X
NTS



② BIO–SWALE OUTLET AND ENERGY DISSIPATOR DETAIL
NTS

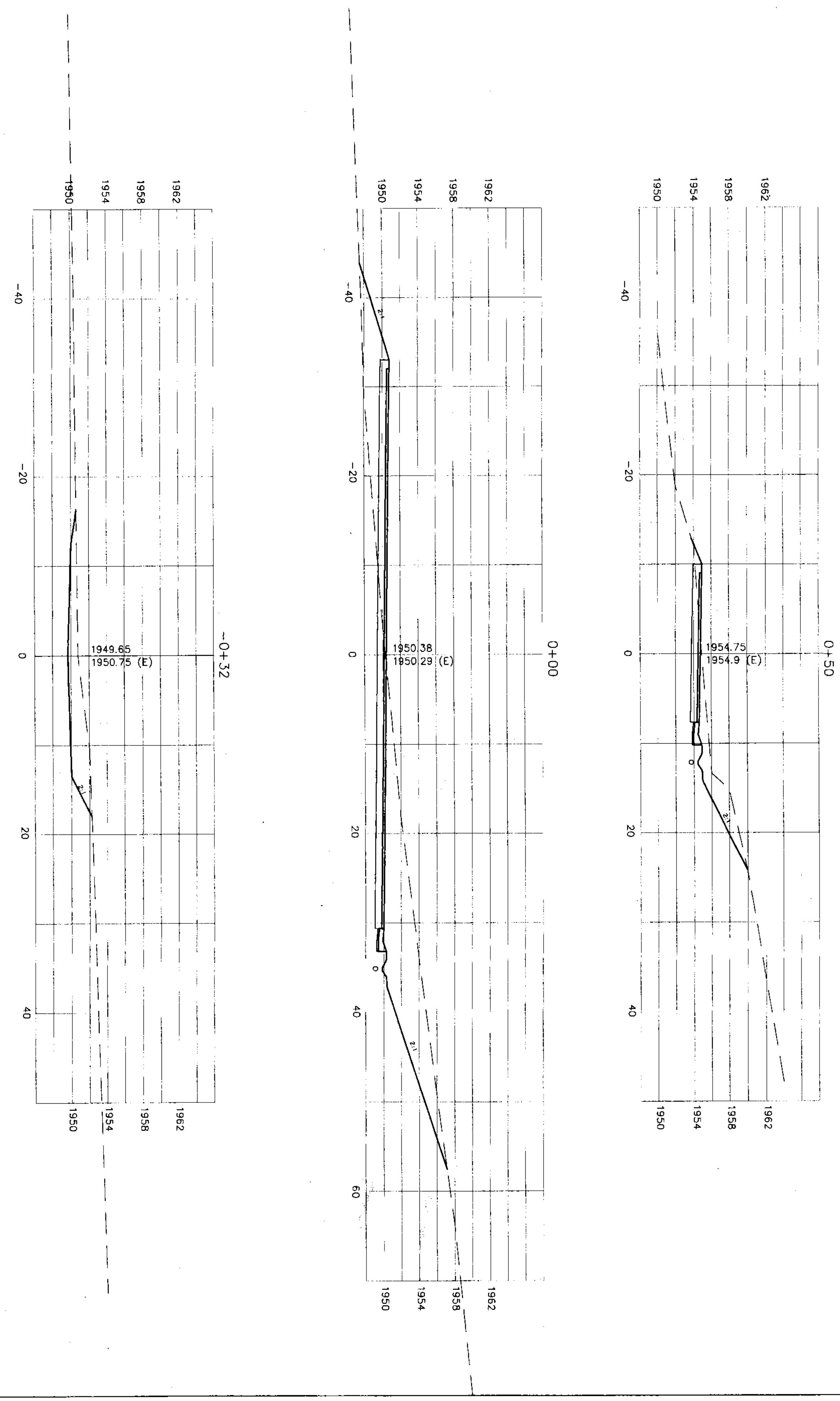
DATE	REVISION	BY
12.28.10	COUNTY FLOW CHECK	AA

JOE L. AKERS
CIVIL ENGINEER
830-E BAY AVE., CAPITOLA, CA 95010 (831) 475-8557

PROFILES
TRACT NO. 1558
ALTA VISTA OCEAN VIEW ESTATES
APN 107-011-06

WEISS SITE-PROFILES	
DATE:	11.13.09
DRAWN:	ALN
SCALE:	1"=20'

SHEET
C7 OF C19



SHEET
C8 OF C19

W255-SITE-PROFILES
DATE: 11.13.09
DRAWN: ALN
SCALE: 1"=5'

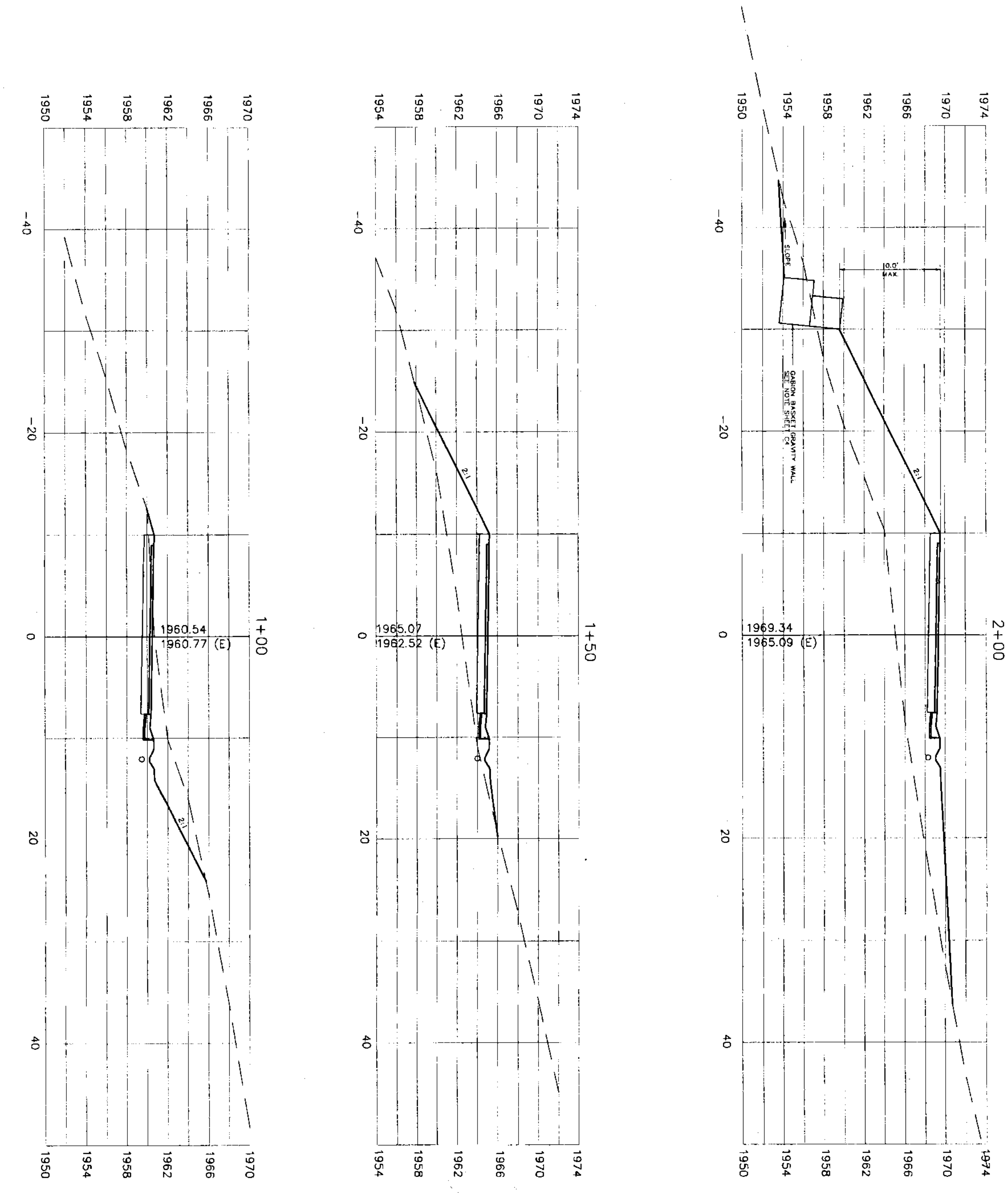
CROSS SECTIONS
TRACT NO. 1558
ALTA VISTA OCEAN VIEW ESTATES
APN 107-011-06

JOE L. AKERS
CIVIL ENGINEER
830-E BAY AVE. CAPITOLA, CA 95010 (831) 475-8567

REGISTERED PROFESSIONAL ENGINEER
JOE L. AKERS
No. 26372
EXP. 9-30-11
CIVIL
STATE OF CALIFORNIA

DATE	REVISION	BY
12.28.10	COUNTY PLAN CHECK	JLA

ATTACHMENT 2



SHEET C9 OF C19

DATE: 11.13.09
DRAWN: ALN
SCALE: 1"=5'

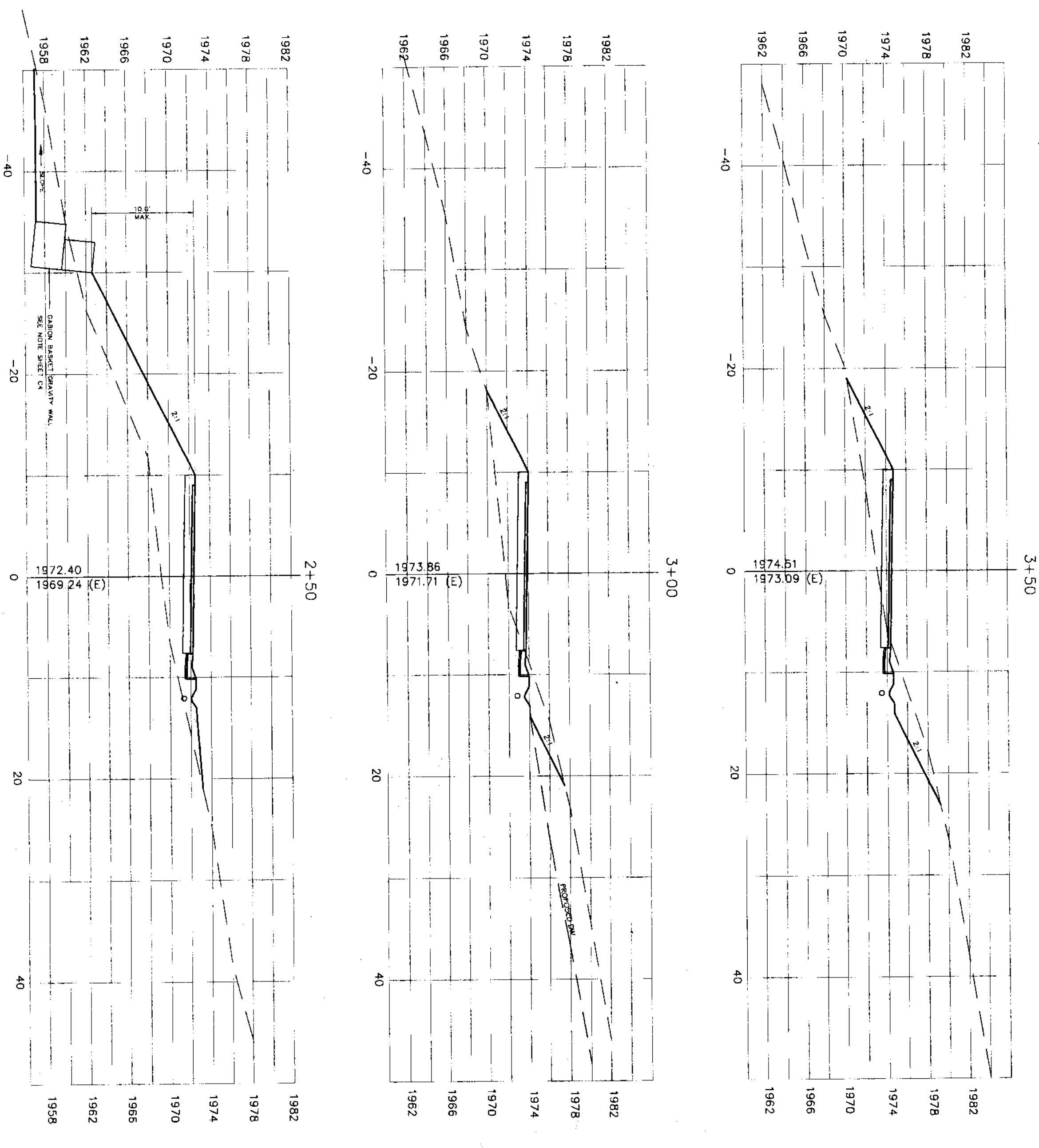
CROSS SECTIONS

TRACT NO. 1558
ALTA VISTA OCEAN VIEW ESTATES
APN 107-011-06

JOE L. AKERS
CIVIL ENGINEER
830-E BAY AVE. CAPITOLA, CA 95010 (831) 475-8557

DATE	REVISION	BY
12.28.10	COUNTY PLAN CHECK	JLA

ATTACHMENT 2



SHEET C10 OF C19

DATE: 11.13.09
DRAWN: ALN
SCALE: 1"=5'

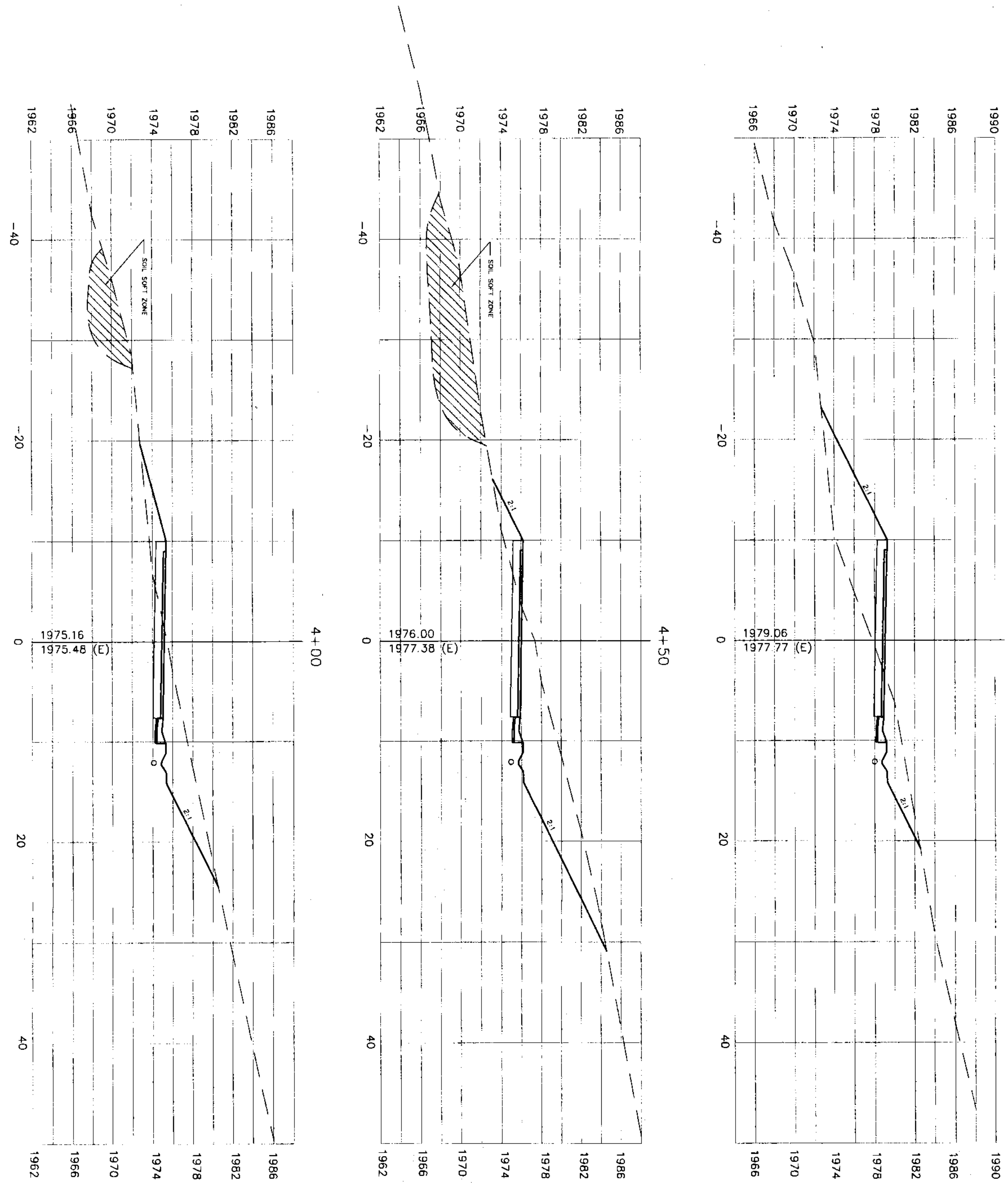
CROSS SECTIONS

TRACT NO. 1558
ALTA VISTA OCEAN VIEW ESTATES
APN 107-011-06

JOE L. AKERS
CIVIL ENGINEER

DATE	REVISION	BY
12.26.10	COUNTY PLAN CHECK	JLA

ATTACHMENT 2



SHEET
C11 OF C19

WCSS-SITE-PROFILES
DATE: 11.13.09
DRAWN: ALN
SCALE: 1"=5'

CROSS SECTIONS

TRACT NO. 1558
ALTA VISTA OCEAN VIEW ESTATES
APN 107-011-06

JOE L. AKERS
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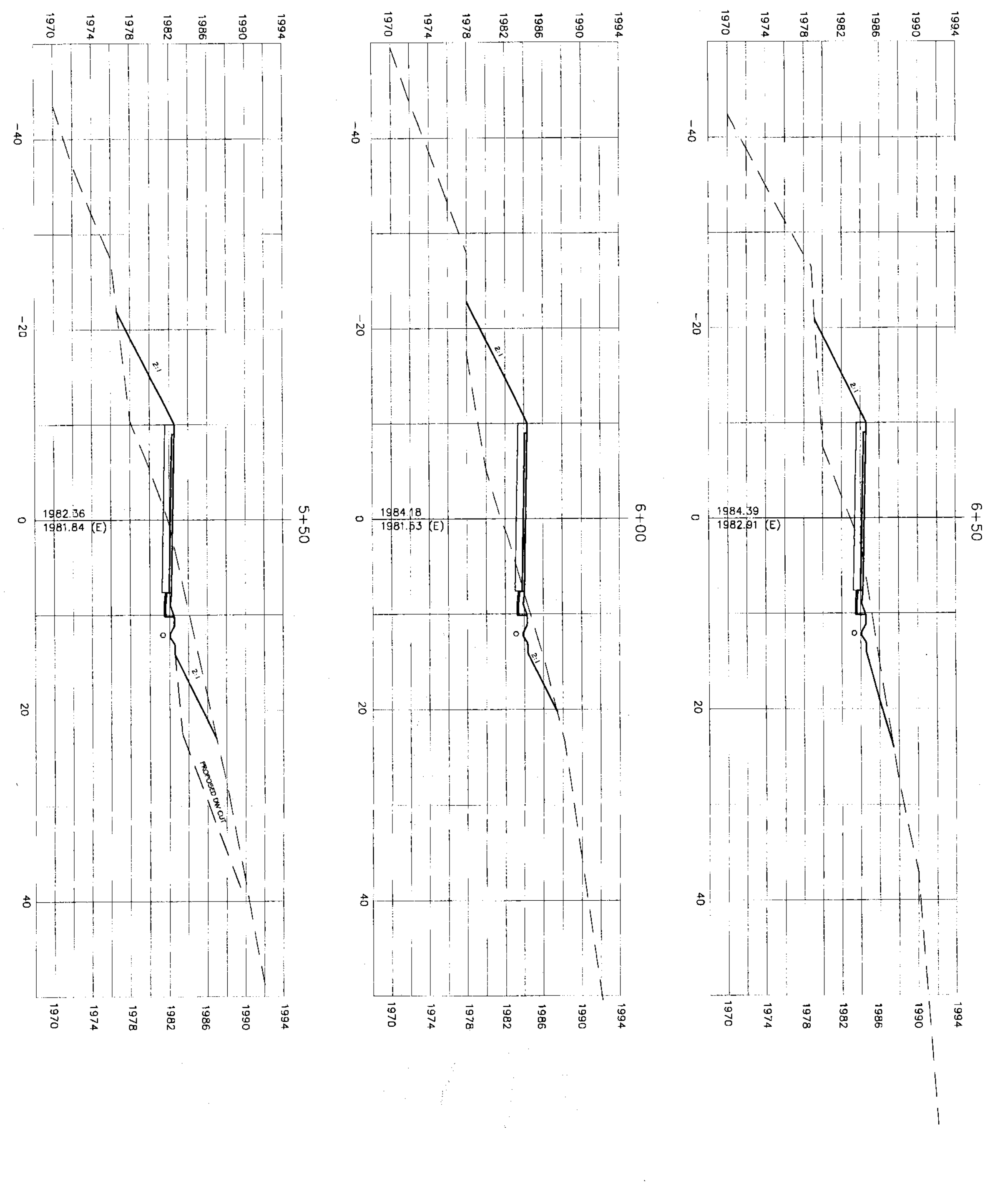
REGISTERED PROFESSIONAL ENGINEER
JOE L. AKERS
No. 20372
EXP. 9-30-11
CIVIL
STATE OF CALIFORNIA

DATE	REVISION	BY
12.28.10	COUNTY PLAN CHECK	JLA

ATTACHMENT 2



SHEET
C12 OF C19

DATE: 11.13.09
DRAWN: ALN
SCALE: 1"=5'

CROSS SECTIONS
TRACT NO. 1558
ALTA VISTA OCEAN VIEW ESTATES
APN 107-011-06

JOE L. AKERS
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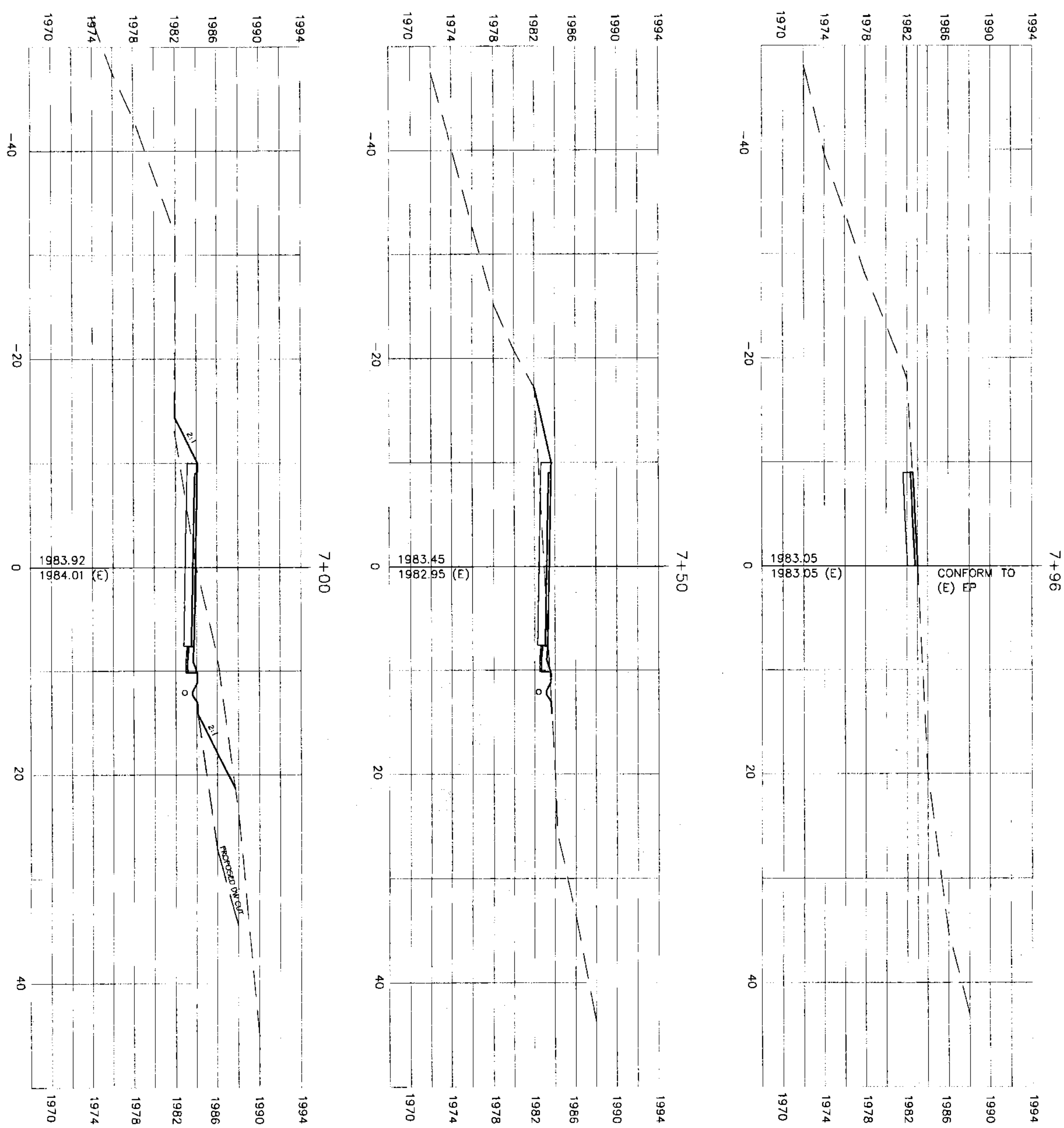
REGISTERED PROFESSIONAL ENGINEER
JOE L. AKERS
No. 20372
EXP. 9-30-11
CIVIL
STATE OF CALIFORNIA

DATE	REVISION	BY
12.28.10	COUNTY PLAN CHECK	JLA

ATTACHMENT 2



SHEET	C13 OF C19

WEBSITE PROFILES
DATE: 11.13.09
DRAWN: ALN
SCALE: 1"=5'

CROSS SECTIONS

TRACT NO. 1558
ALTA VISTA OCEAN VIEW ESTATES
APN 107-011-06

JOE L. AKERS
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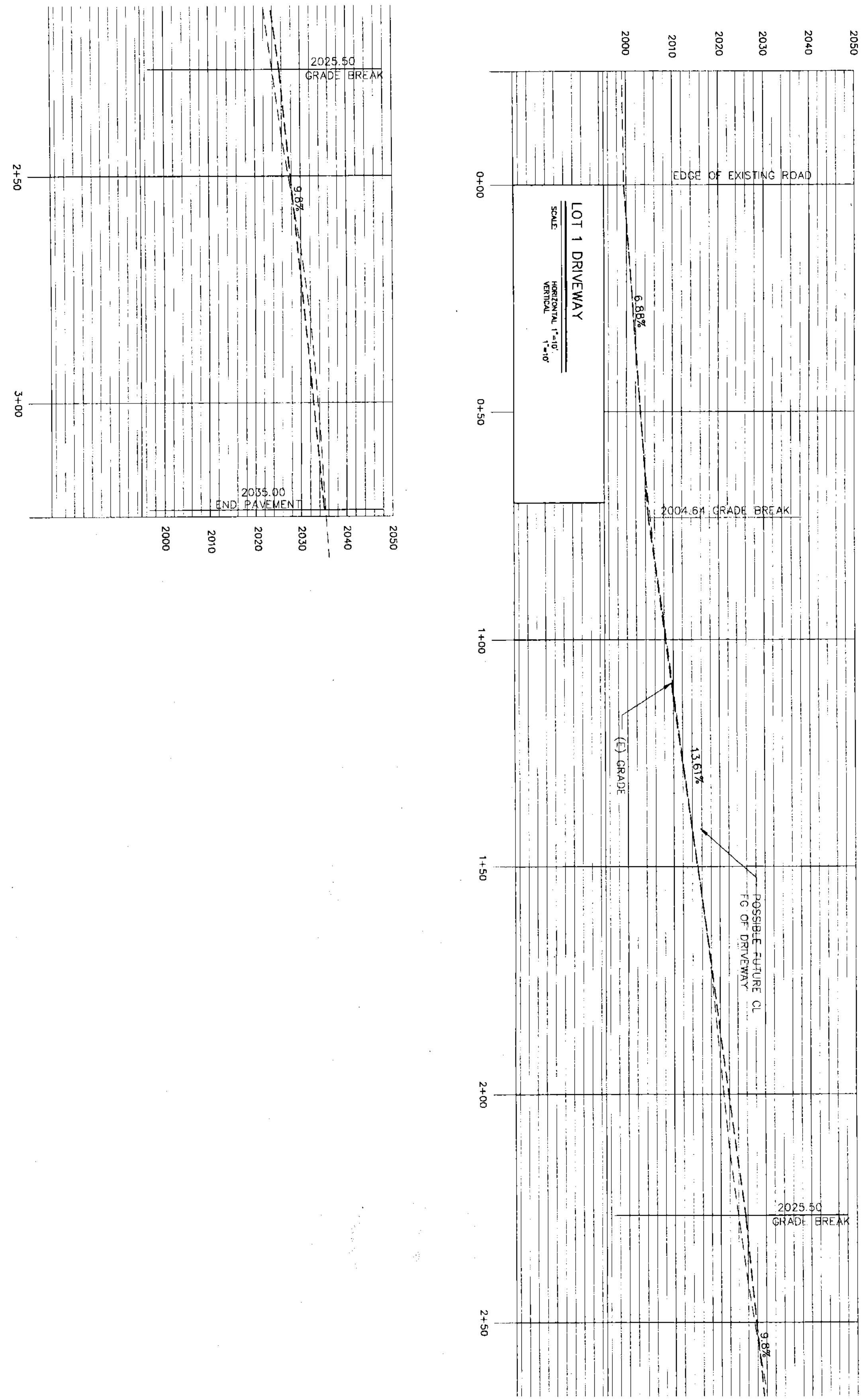
REGISTERED PROFESSIONAL ENGINEER
JOE L. AKERS
No. 28372
EXP. 9-30-11
CIVIL
STATE OF CALIFORNIA

DATE	REVISION	BY
12.28.10	COUNTY PLAN CHECK	JLA

ATTACHMENT 2



SHEET C14 OF C19

NKESSITEPROFILES
DATE: 11.13.09
DRAWN: ALN
SCALE: 1"=10'

DRIVEWAY PROFILES
TRACT NO. 1558
ALTA VISTA OCEAN VIEW ESTATES
APN 107-011-06

JOE L. AKERS
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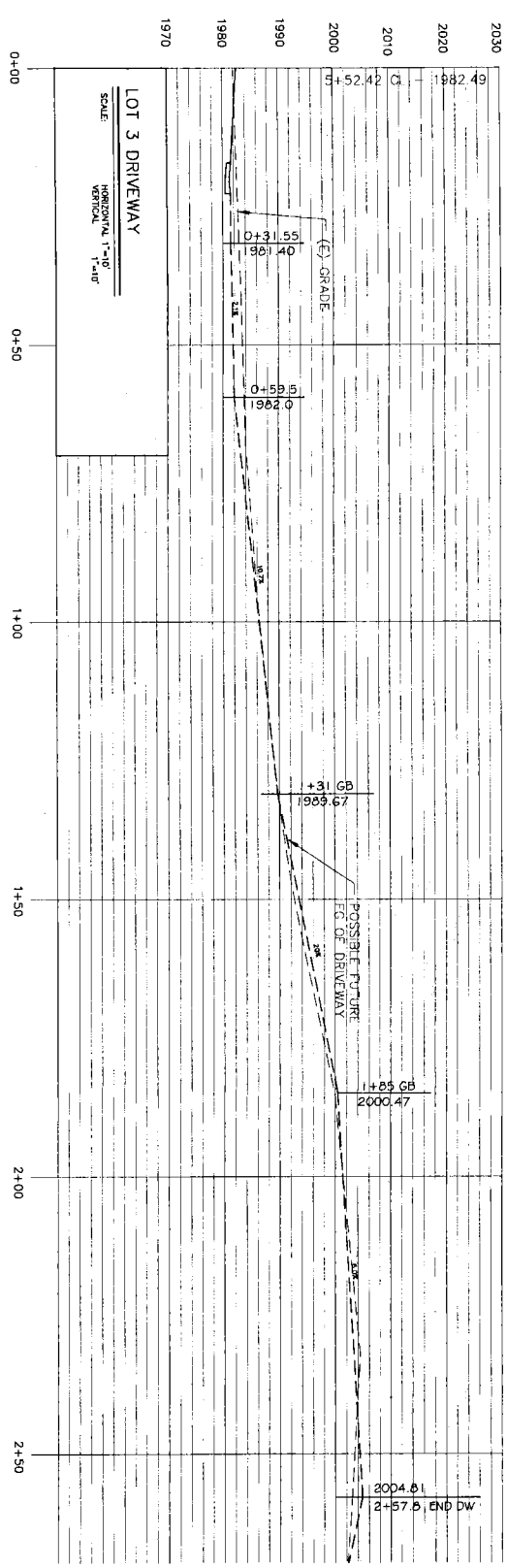
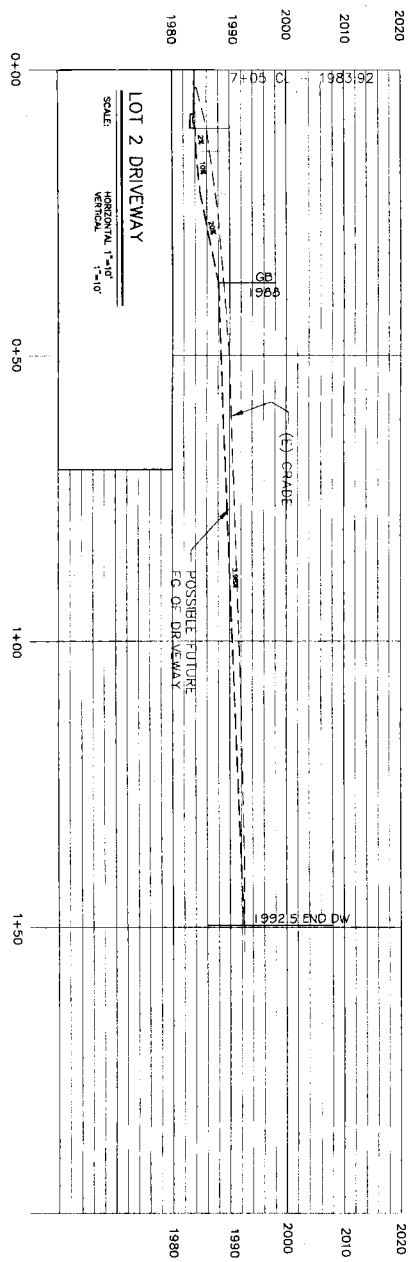
830-E BAY AVE. CAPITOLA, CA 95010 (831) 475-6587

REGISTERED PROFESSIONAL ENGINEER
JOE L. AKERS
No. 20372
EXP. 9-30-11
CIVIL
STATE OF CALIFORNIA

DATE	REVISION	BY
12.28.10	COUNTY PLAN CHECK	JLA

ATTACHMENT 2





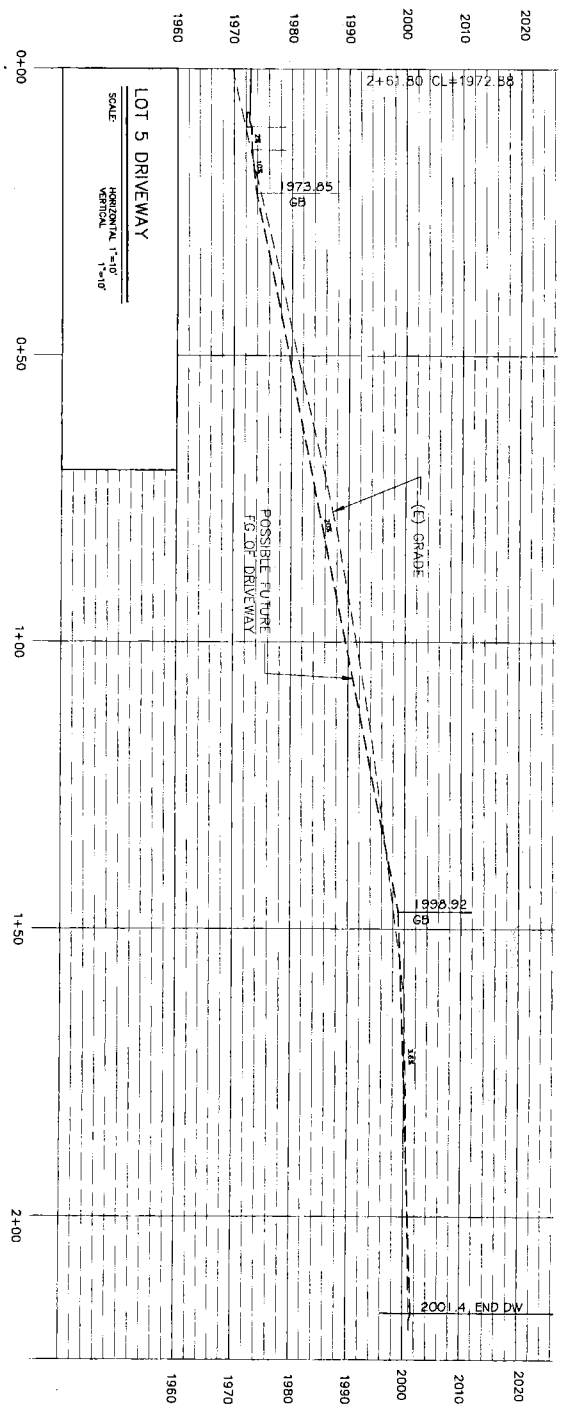
SHEET	C15 OF C19
WEISSER HOMES	
DATE:	11.13.09
DRAWN:	ALN
SCALE:	1"=10'

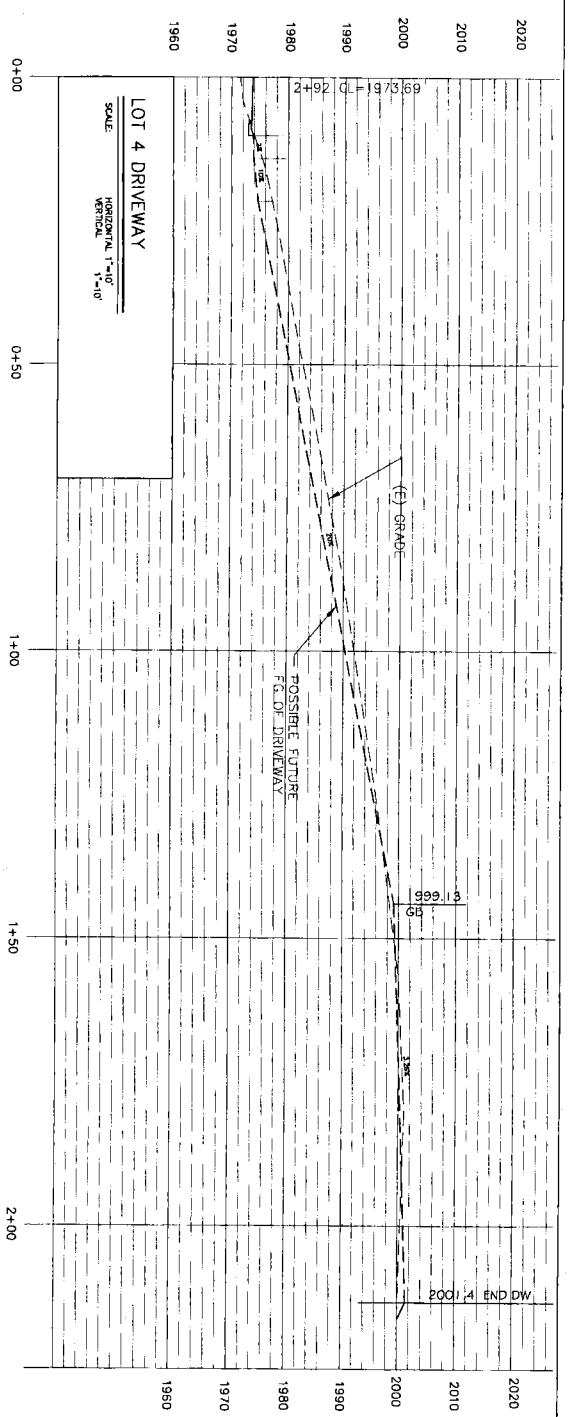
DRIVEWAY PROFILES
TRACT NO. 1558
ALTA VISTA OCEAN VIEW ESTATES
APN 107-011-06

JOE L. AKERS
CIVIL ENGINEER
830-E BAY AVE. CAPITOLA, CA 95010 (831) 475-8557

DATE	REVISION	BY
12.28.10	COUNTY PLAN CHECK	KA

ATTACHMENT 2





SHEET
C16 OF C19

WEISS-SITE PROFILES
DATE: 11.13.09
DRAWN: ALN
SCALE: 1"=10'

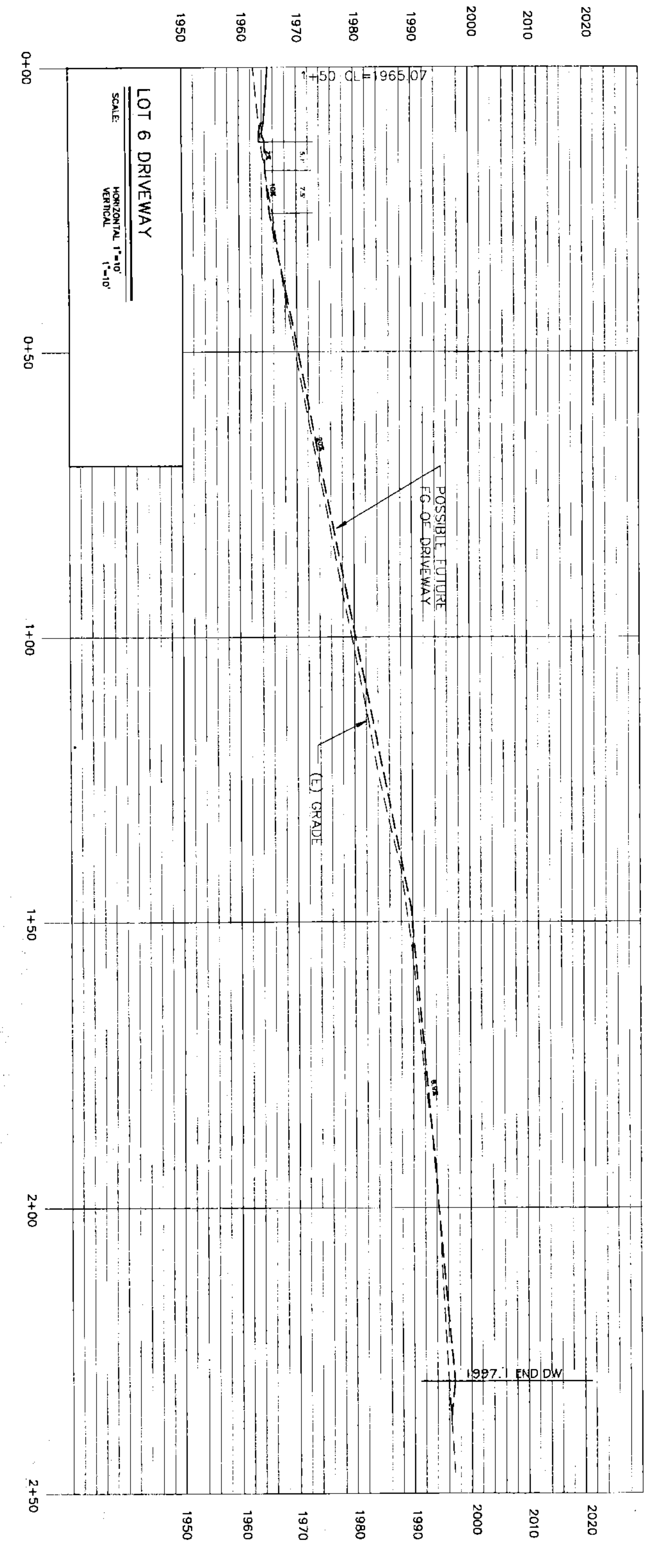
DRIVEWAY PROFILES
TRACT NO. 1558
ALTA VISTA OCEAN VIEW ESTATES
APN 107-011-06

JOE L. AKERS
CIVIL ENGINEER
630-E BAY AVE. CAPITOLA, CA 95010 (831) 475-8687

REGISTERED PROFESSIONAL ENGINEER JOE L. AKERS No. 20372 EXP. 9-30-11 CIVIL STATE OF CALIFORNIA

DATE	REVISION	BY
12.28.10	COUNTY PLAN CHECK	JLA

ATTACHMENT 2



SHEET C17 OF C19

WEISS-STE-PROFILES
DATE: 11.13.09
DRAWN: ALN
SCALE: 1"=10'

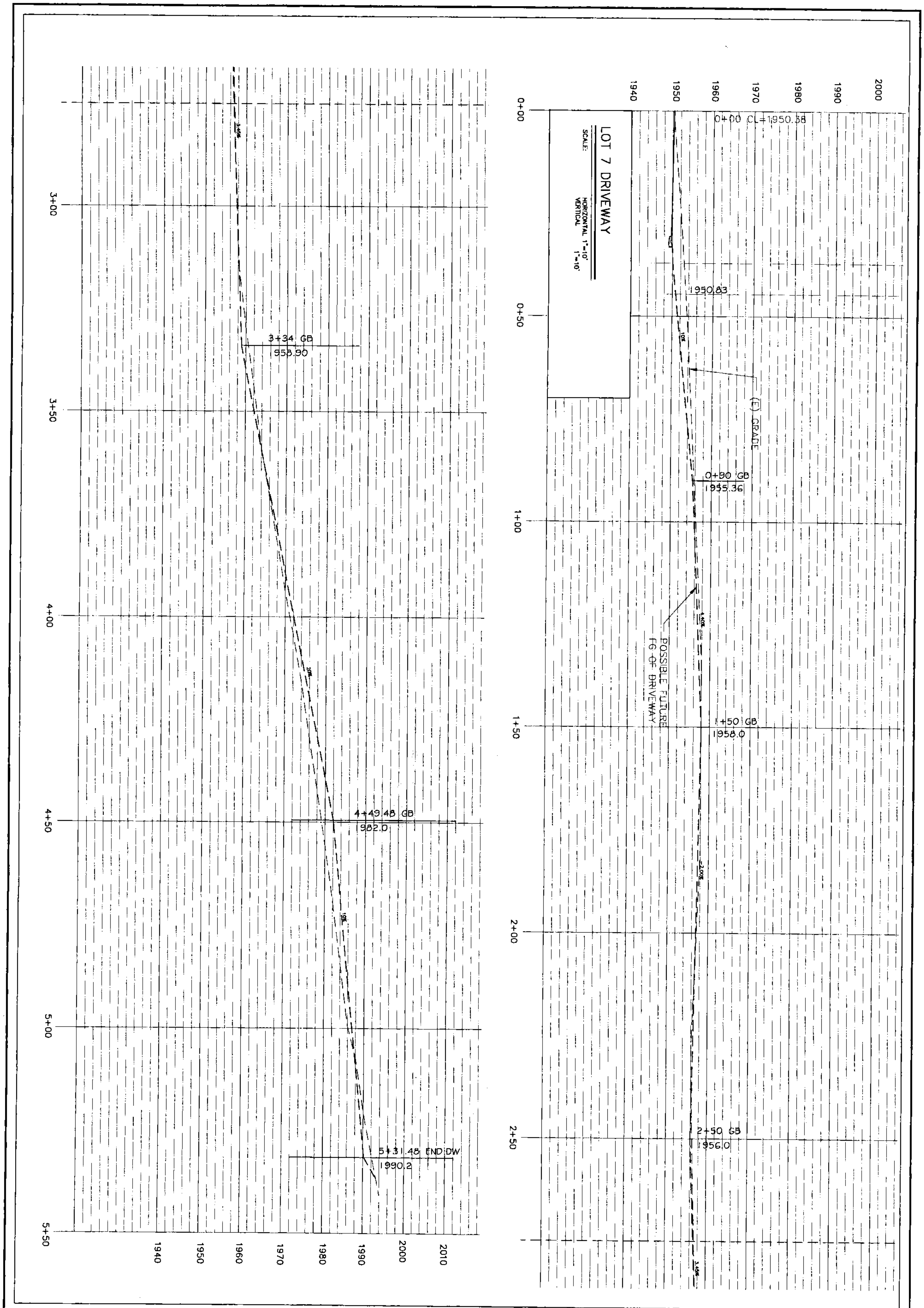
DRIVEWAY PROFILES
TRACT NO. 1558
ALTA VISTA OCEAN VIEW ESTATES
APN 107-011-06

JOE L. AKERS
CIVIL ENGINEER
830-E BAY AVE. CAPITOLA, CA 95010 (831) 475-6557

REGISTERED PROFESSIONAL ENGINEER JOE L. AKERS No. 20372 EXP. 9-30-11 CIVIL STATE OF CALIFORNIA

DATE	REVISION	BY
12.28.10	COUNTY PLAN CHECK	JLA

ATTACHMENT 2



SHEET C18 OF C19

DATE: 11.13.09
DRAWN: ALN
SCALE: 1"=10"

DRIVEWAY PROFILES

TRACT NO. 1558
ALTA VISTA OCEAN VIEW ESTATES
APN 107-011-06

JOE L. AKERS
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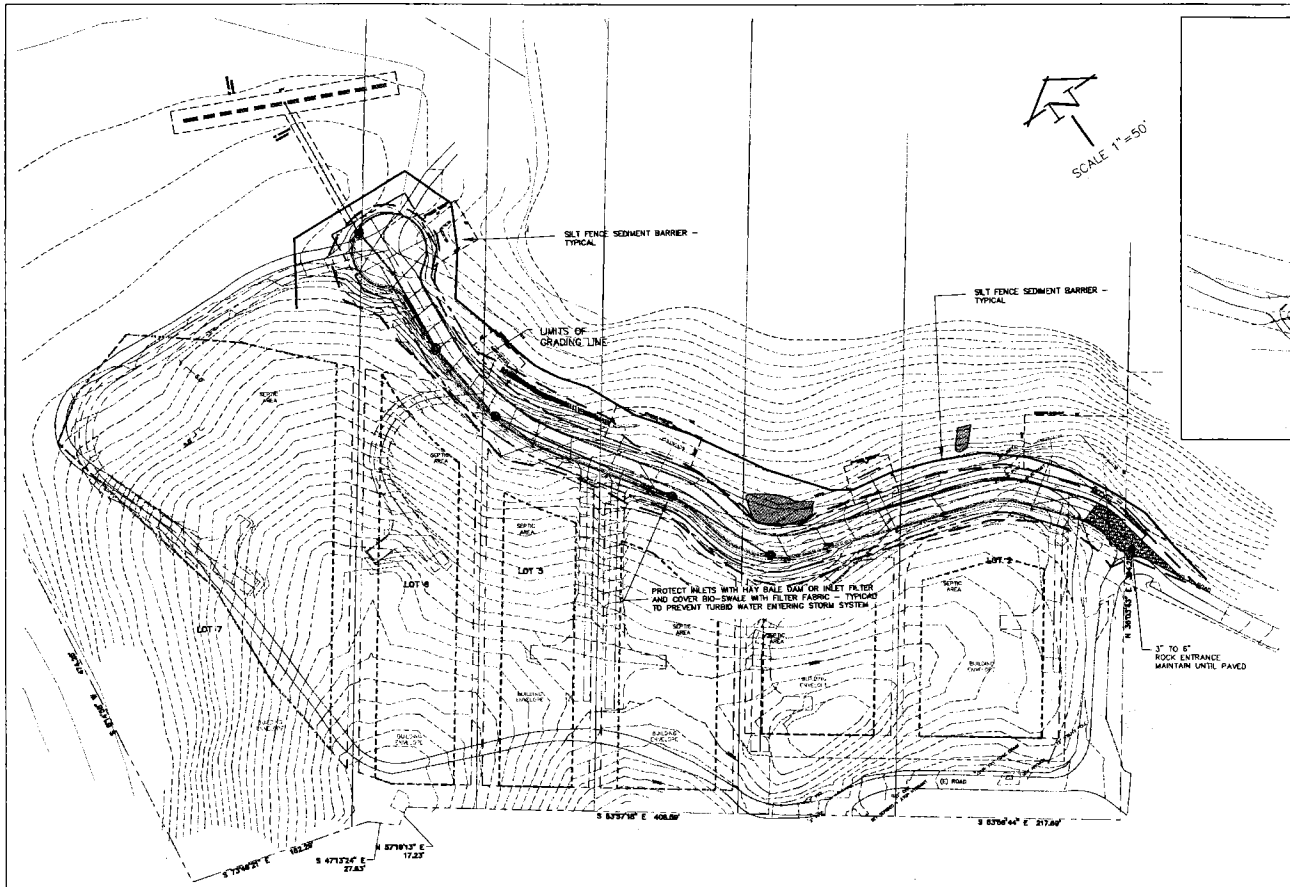
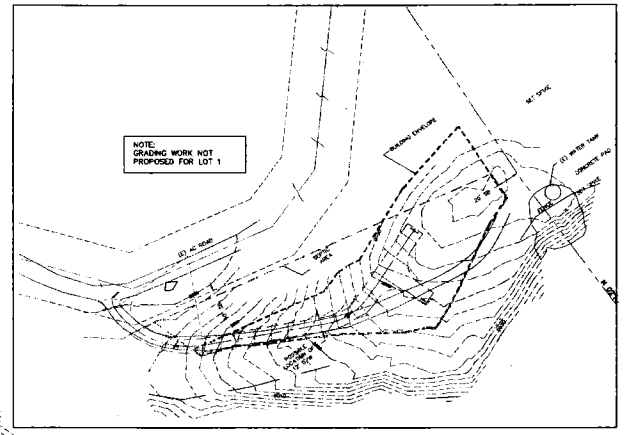
830-E BAY AVE. CAPITOLA, CA 95010 (831) 475-8357

DATE	REVISION	BY
12.28.10	COUNTY PLAN CHECK	JLA

ATTACHMENT 2



SCALE 1" = 50'



EROSION CONTROL NOTES

1) NO WINTER GRADING (OCT. 15TH THROUGH APR 15TH) CAN BE PERFORMED WITHOUT PRIOR APPROVAL FROM THE COUNTY PLANNING DEPARTMENT

2) BETWEEN OCTOBER 15 AND APRIL 15, EXPOSED SOIL SHALL BE PROTECTED FROM EROSION AT ALL TIMES. HAY BALES, FILTER BERMS, OR OTHER MEANS SHALL BE EMPLOYED TO PREVENT TURBID RUNOFF TO ADJOINING PROPERTY

3 a.) ALL AREAS, ON OR OFF SITE EXPOSED DURING CONSTRUCTION, IF NOT PERMANENTLY LANDSCAPED PER PLANS, SHALL BE PROTECTED BY MULCHING AND/OR PLANTING OF THE FOLLOWING EROSION CONTROL MIX AT THE RATE OF 35 LBS. PER ACRE:

	SOIL
B. ANDO BROME	50%
ROSE CLOVER (PELLET INOCULATED)	35%
CREEPING RED FESCUE	15%
ZORROW ANNUAL FESCUE	TRACE
WILD FLOWERS	TRACE

b.) THE FILL AND EXCAVATED AREAS SHALL BE SEEDED AND STRAW MULCHED AS NECESSARY TO PREVENT EROSION. NORTH AMERICAN GREEN CONTROL FABRIC NUMBER SC150 SHALL BE USED TO COVER SLOPES STEEPER THAN 4:1 GRADIENT

4) TIMING OF PLANTING: SEEDING SHALL TAKE PLACE BETWEEN SEPTEMBER 15 AND NOVEMBER 1. SEEDING AT THIS TIME WILL ALLOW SEEDLINGS TO GROW BEFORE THE ONCOMING WINTER LOW TEMPERATURES SLOW GROWTH. SEEDING MAY BE DONE MORE THAN ONCE.

5) METHOD OF PLANTING: SEEDS MAY BE APPLIED BY BROADCASTING. IF MULCHING IS DONE, THE MULCH SHOULD BE APPLIED LAST.

6) FERTILIZING MAY BE APPLIED BY BROADCASTING IN AREAS OF INFERTILE SOILS. THE RECOMMENDED FERTILIZER IS AMMONIUM PHOSPHATE WITH SULFUR (16-20-0) APPLIED AT A RATE OF 400-500 POUNDS PER ACRE. THE FERTILIZER SHOULD BE APPLIED AT THE SAME TIME THAT SEEDING OCCURS, NOT BEFORE.

7) MULCHING: STRAW MULCH IS TO BE APPLIED AFTER SEEDING. THE STRAW IS TO BE APPLIED AT A RATE THAT WILL PROVIDE GROUND COVERAGE (APPROXIMATELY 2" THICK). THIS REQUIRES ABOUT 1 << TO 2 TONS/ACRE. IF THE STRAW IS BLOWN ON, MAINTAIN A MINIMUM STRAW LENGTH OF 6 INCHES

8) CRITICAL PLANTING SITES SHALL BE INSPECTED NO MORE THAN 14 DAYS AFTER PLANTING AND NO MORE THAN 14 DAYS AFTER THE FIRST RAIN. IF THE INSPECTION REVEALS THAT THE SEEDED AREAS NEED TO BE REPAIRED IN THAT THE SEED HAS NOT TAKEN OR EROSION HAS TAKEN PLACE, THE SEEDED AREAS SHALL BE RESEEDED AND/OR REPAIRED. (ALL AREAS WHERE SEEDING HAS NOT TAKEN SHALL BE RESEEDED.)

9) UNNECESSARY GRADING AND DISTURBING OF SOIL SHALL BE AVOIDED

10) UPON COMPLETION OF CONSTRUCTION, ALL REMAINING EXPOSED AREAS SHALL BE PERMANENTLY REVEGETATED PER LANDSCAPE PLANS IF REQUIRED.

11) DURING CONSTRUCTION NO TURBID SITE WATER SHALL BE PERMITTED TO ENTER STORM DRAIN SYSTEMS. USE OF SILT AND GREASE TRAPS OR FILTER BERMS OR HAY BALES MAY BE USED TO PREVENT SUCH DISCHARGE.

ALL CONSTRUCTION ENTRANCES SHALL HAVE ROCK ENTRANCE - MAINTAIN UNTIL PAVING. - CRUSHED AGGREGATE OVER GEOTEXTILE FABRIC TO AT LEAST 12" DEEP (OR AS RECOMMENDED BY GEOTECHNICAL ENGINEER). CRUSHED AGGREGATE SHALL BE GREATER THAN 3" BUT SMALLER THAN 6".

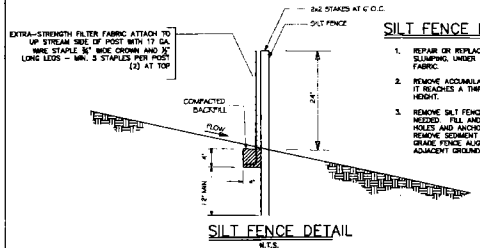
NOTE:

1) WINTER GRADING (BETWEEN OCT. 15 THROUGH APRIL 15) REQUIRES APPROVAL OF A WINTER GRADING PERMIT BY ENVIRONMENTAL PLANNING.

2) SEEDING SHALL OCCUR PRIOR TO OCT. 15, AND BE MAINTAINED THROUGH APRIL 15, AND AT FINAL INSPECTION.

3) ALL BARE SOIL AREAS ARE TO BE TREATED WITH SEED.

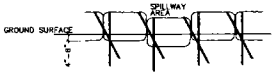
4) THERE ARE NO GRADIENTS THAT REQUIRE THE INSTALLATION OF EROSION CONTROL BLANKET MATERIAL.



SILT FENCE NOTES

1. REPAIR OR REPLACE SPLIT, TORN, SLUMPING, UNDER CUT OR WEAKENED FABRIC.
2. REMOVE ACCUMULATED SEDIMENT WHEN IT REACHES A THIRD OF THE BARRIER HEIGHT.
3. REMOVE SILT FENCE WHEN NO LONGER NEEDED. FILL AND COMPACT POST HOLES AND ANCHORAGE TRENCH. REMOVE SEDIMENT ACCUMULATION AND GRADE FENCE ALIGNMENT TO BLEND WITH ADJACENT GROUND.

SILT FENCE DETAIL
N.T.S.



STRAW BALE CHECKDAM DETAIL

DATE	REVISION	BY
12.20.10	COUNTY PLAN CHECK	JLA

ATTACHMENT

JOE L. AKERS
CIVIL ENGINEER
530-E BAY AVE. CAPITOLA, CA 95010 (831) 475-8837

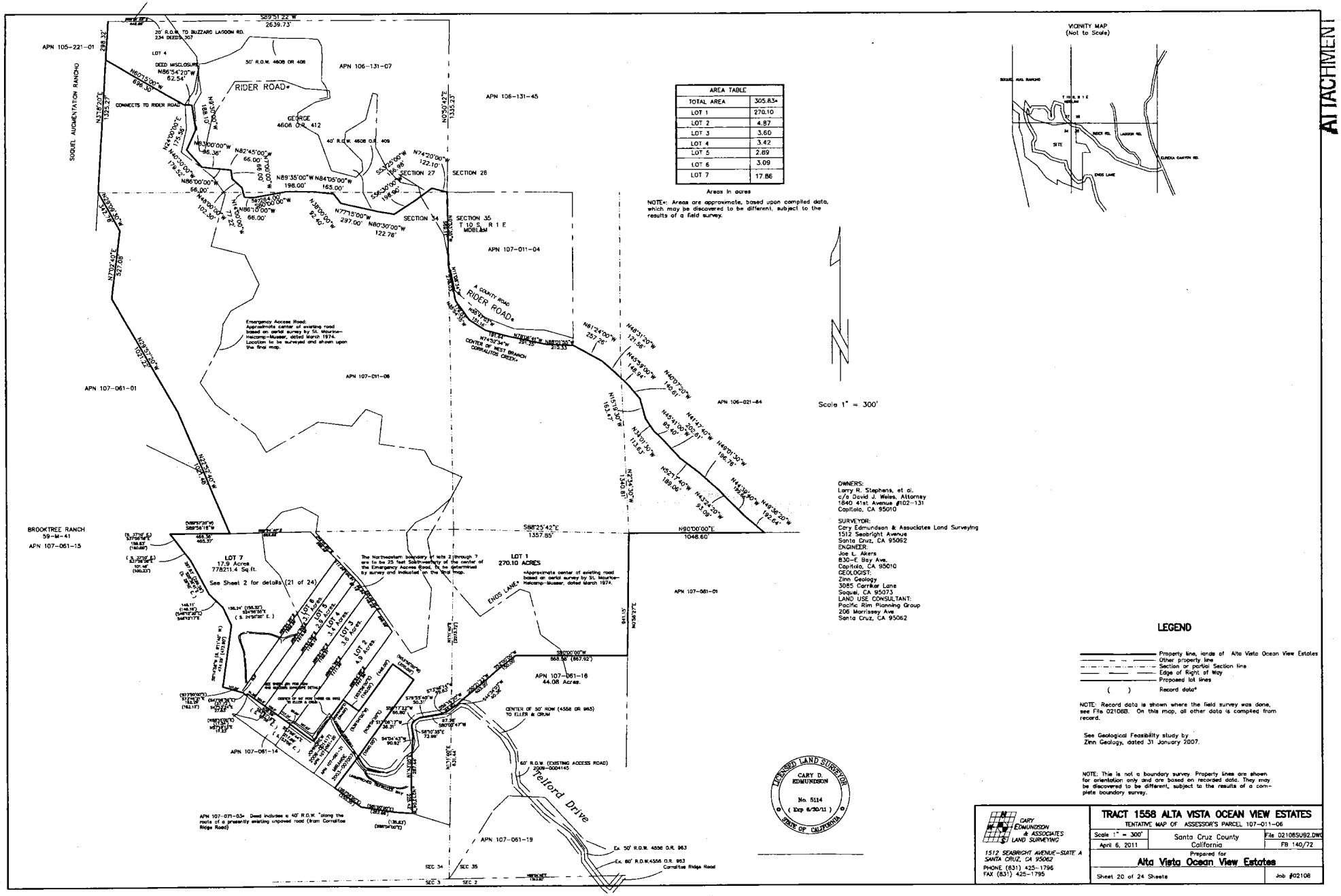
EROSION CONTROL PLAN

TRACT NO. 1558
ALTA VISTA OCEAN VIEW ESTATES
APN 107-011-06

WCDS-EROSION CONTROL	
DATE:	11.13.09
DRAWN:	ALN
SCALE:	1"=50'

SHEET
C19 OF C19

ATTACHMENT



AREA TABLE	
TOTAL AREA	305.83±
LOT 1	270.10
LOT 2	4.87
LOT 3	3.60
LOT 4	3.42
LOT 5	2.89
LOT 6	3.09
LOT 7	17.86

Areas in acres

NOTE*: Areas are approximate, based upon compiled data, which may be discovered to be different, subject to the results of a field survey.

OWNERS:
Larry R. Stephens, et al.
c/o David J. Weiss, Attorney
1840 41st Avenue #102-131
Capitola, CA 95010

SURVEYOR:
Cary Edmundson & Associates Land Surveying
1512 Seabright Avenue
Santa Cruz, CA 95062
ENGINEER:
Joe L. Akers
830-E Bay Ave.
Capitola, CA 95010
GEOLOGIST:
Zinn Geology
3085 Corriker Lane
Soquel, CA 95073
LAND USE CONSULTANT:
Pacific Rim Planning Group
206 Morrissey Ave.
Santa Cruz, CA 95062

LEGEND

Property line, lands of Alta Vista Ocean View Estates
Other property line
Section or partial Section line
Edge of Right of Way
Proposed lot lines
( ) Record data*

NOTE: Record data is shown where the field survey was done, see File 02108B. On this map, all other data is compiled from record.

See Geological Feasibility study by Zinn Geology, dated 31 January 2007.

NOTE: This is not a boundary survey. Property lines are shown for orientation only and are based on recorded data. They may be discovered to be different, subject to the results of a complete boundary survey.

LICENSED LAND SURVEYOR
CARY D. EDMUNDSON
No. 5114
(Exp 6/30/11)
STATE OF CALIFORNIA

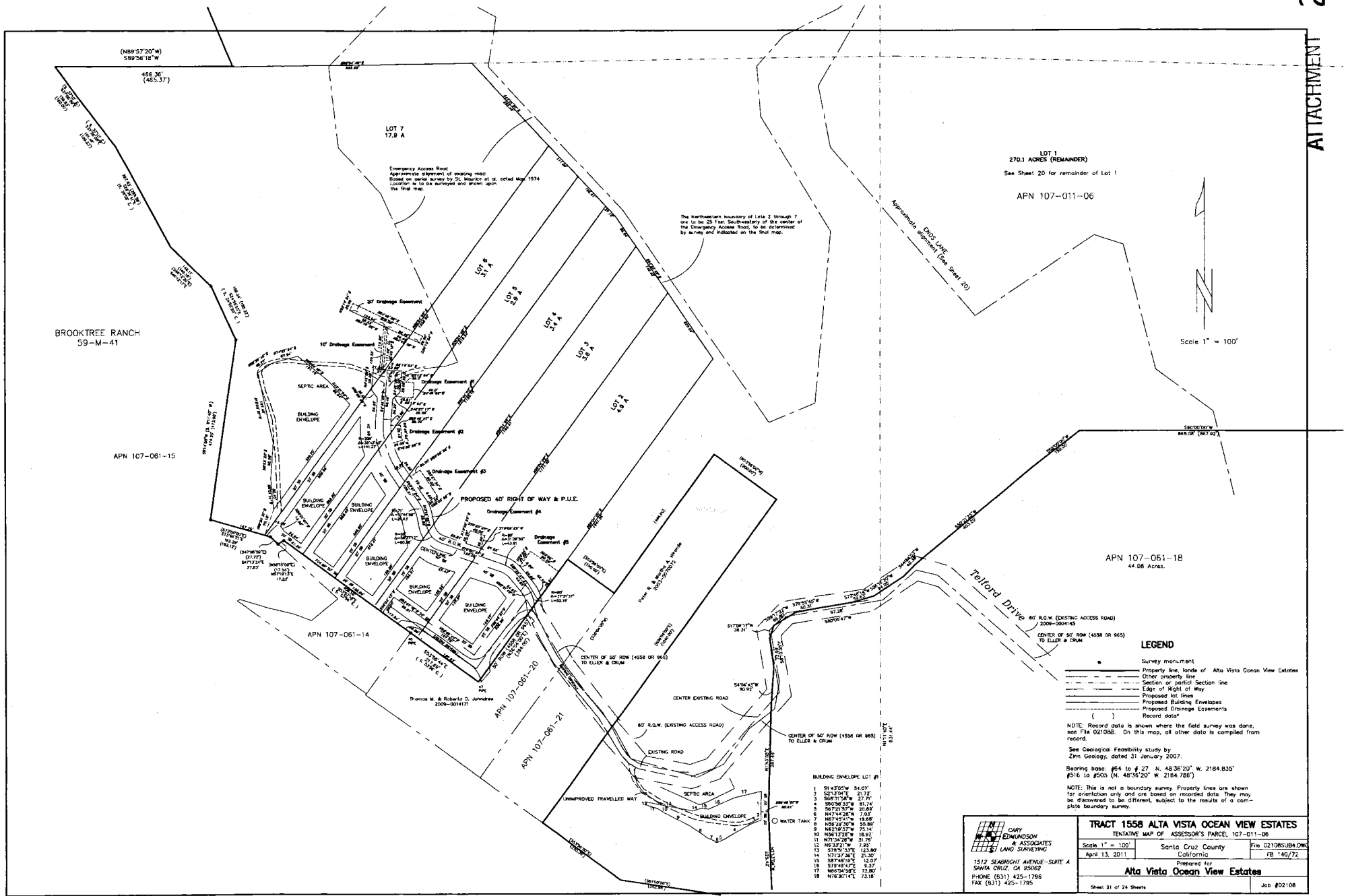
CARY EDMUNDSON & ASSOCIATES LAND SURVEYING
1512 SEABRIGHT AVENUE-SUITE A
SANTA CRUZ, CA 95062
PHONE (831) 425-1796
FAX (831) 425-1795

TRACT 1558 ALTA VISTA OCEAN VIEW ESTATES

TENTATIVE MAP OF ASSESSOR'S PARCEL 107-011-06

Scale 1" = 300'	Santa Cruz County California	File 02108SUB2.DWG
April 6, 2011		FB 140/72
Sheet 20 of 24 Sheets	Prepared for Alta Vista Ocean View Estates	Job #02108

ATTACHMENT 2



CARY EDMONDSON & ASSOCIATES LAND SURVEYING
1512 SEABRIGHT AVENUE-SUITE A
SANTA CRUZ, CA 95062
PHONE (831) 425-1796
FAX (831) 425-1795

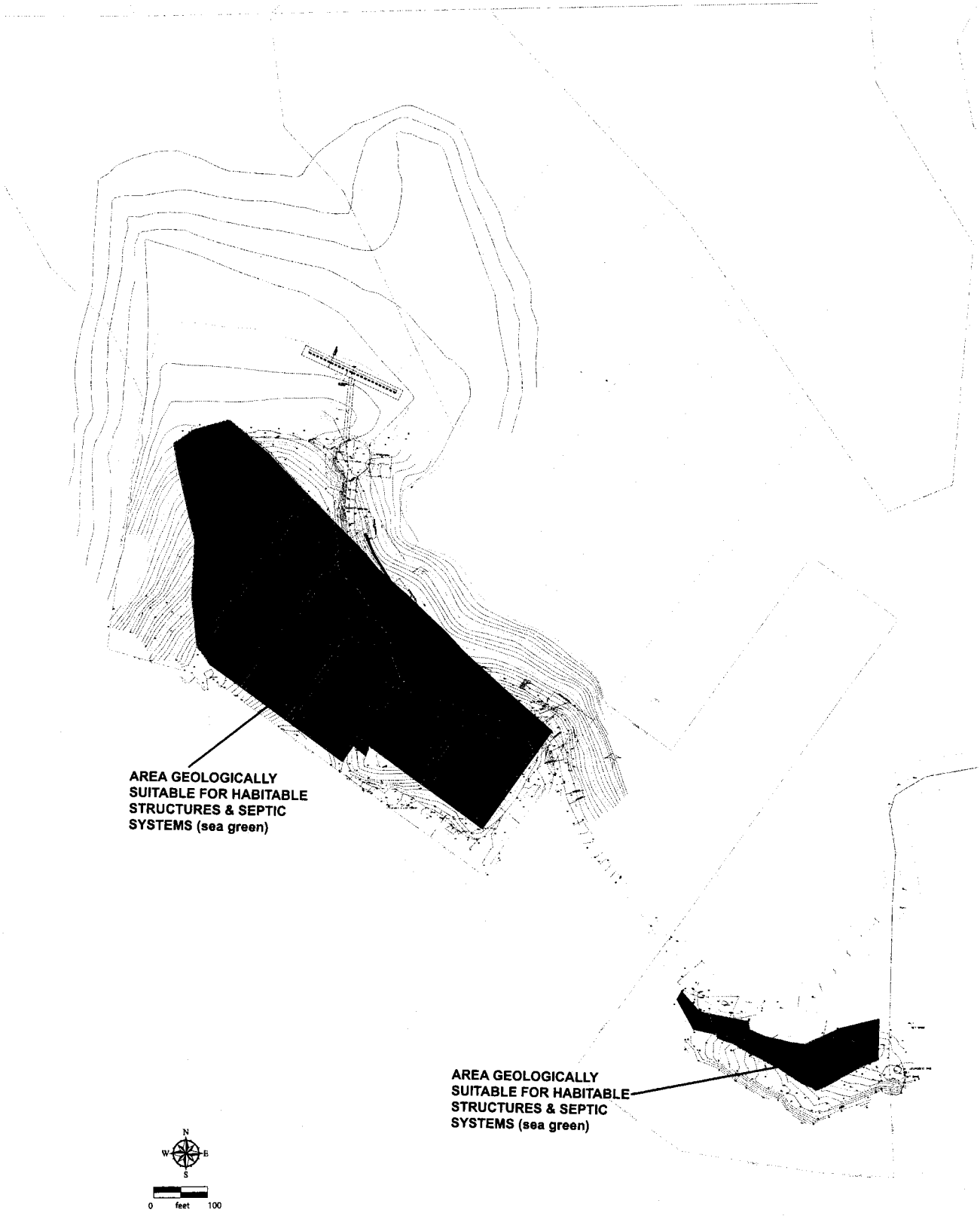
TRACT 1558 ALTA VISTA OCEAN VIEW ESTATES

TENTATIVE MAP OF ASSESSOR'S PARCEL 107-011-06

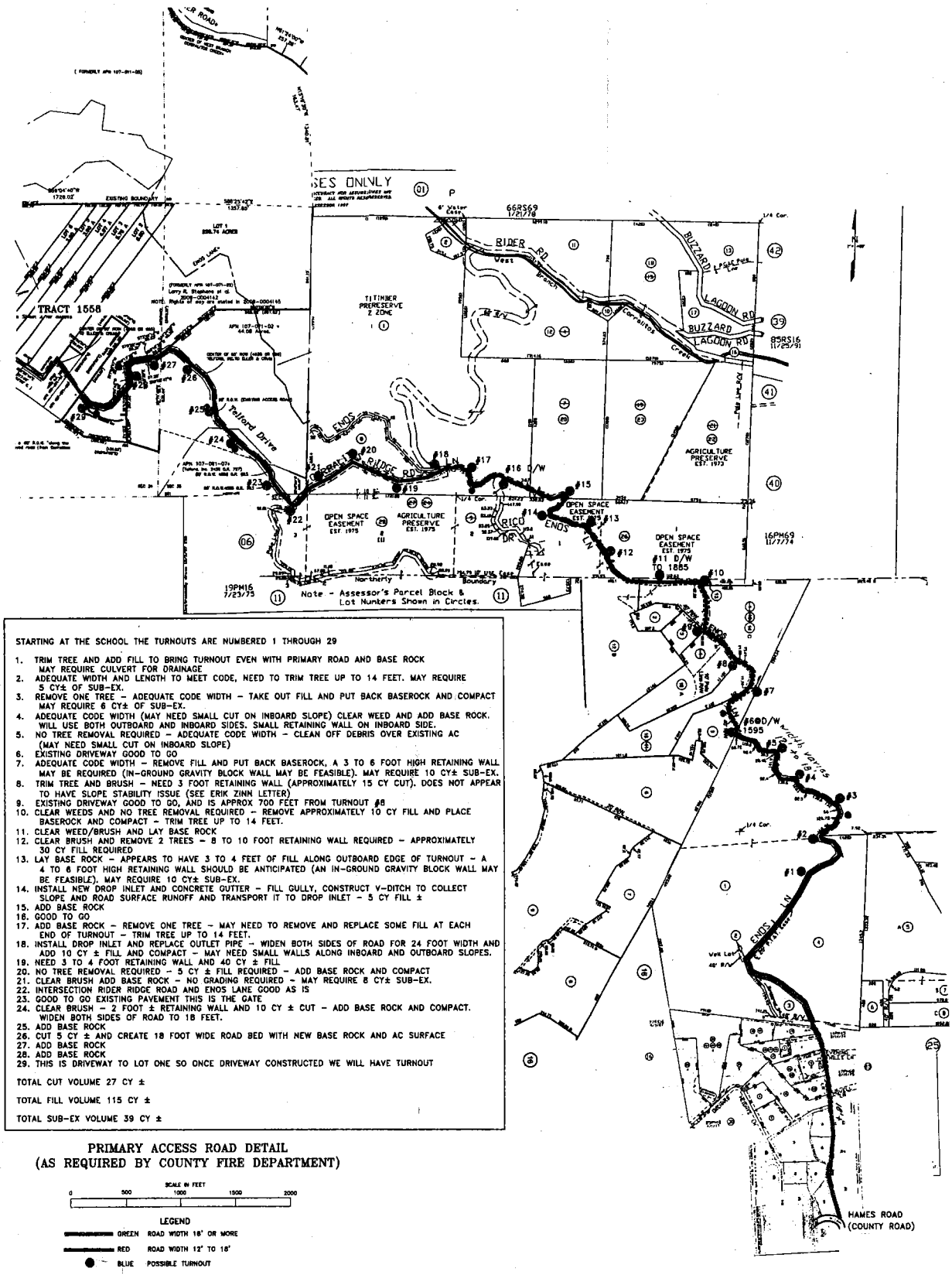
Scale 1" = 100'	Santa Cruz County California	File 02108SUB4.DWG
April 13, 2011		FB 140/72

Prepared for
Alta Vista Ocean View Estates

Sheet 21 of 24 Sheets | Job #02108



ATTACHMENT 2



STARTING AT THE SCHOOL THE TURNOUTS ARE NUMBERED 1 THROUGH 29

1. TRIM TREE AND ADD FILL TO BRING TURNOUT EVEN WITH PRIMARY ROAD AND BASE ROCK MAY REQUIRE CULVERT FOR DRAINAGE
2. ADEQUATE WIDTH AND LENGTH TO MEET CODE, NEED TO TRIM TREE UP TO 14 FEET. MAY REQUIRE 5 CY± OF SUB-EX.
3. REMOVE ONE TREE – ADEQUATE CODE WIDTH – TAKE OUT FILL AND PUT BACK BASEROCK AND COMPACT MAY REQUIRE 6 CY± OF SUB-EX.
4. ADEQUATE CODE WIDTH (MAY NEED SMALL CUT ON INBOARD SLOPE) CLEAR WEED AND ADD BASE ROCK. WILL USE BOTH OUTBOARD AND INBOARD SIDES. SMALL RETAINING WALL ON INBOARD SIDE.
5. NO TREE REMOVAL REQUIRED – ADEQUATE CODE WIDTH – CLEAN OFF DEBRIS OVER EXISTING AC (MAY NEED SMALL CUT ON INBOARD SLOPE)
6. EXISTING DRIVEWAY GOOD TO GO
7. ADEQUATE CODE WIDTH – REMOVE FILL AND PUT BACK BASEROCK, A 3 TO 6 FOOT HIGH RETAINING WALL MAY BE REQUIRED (IN-GROUND GRAVITY BLOCK WALL MAY BE FEASIBLE). MAY REQUIRE 10 CY± SUB-EX.
8. TRIM TREE AND BRUSH – NEED 3 FOOT RETAINING WALL (APPROXIMATELY 15 CY CUT). DOES NOT APPEAR TO HAVE SLOPE STABILITY ISSUE (SEE ERIK ZINN LETTER)
9. EXISTING DRIVEWAY GOOD TO GO, AND IS APPROX 700 FEET FROM TURNOUT #8
10. CLEAR WEEDS AND NO TREE REMOVAL REQUIRED – REMOVE APPROXIMATELY 10 CY FILL AND PLACE BASEROCK AND COMPACT – TRIM TREE UP TO 14 FEET.
11. CLEAR WEED/BRUSH AND LAY BASE ROCK
12. CLEAR BRUSH AND REMOVE 2 TREES – 8 TO 10 FOOT RETAINING WALL REQUIRED – APPROXIMATELY 30 CY FILL REQUIRED
13. LAY BASE ROCK – APPEARS TO HAVE 3 TO 4 FEET OF FILL ALONG OUTBOARD EDGE OF TURNOUT – A 4 TO 6 FOOT HIGH RETAINING WALL SHOULD BE ANTICIPATED (AN IN-GROUND GRAVITY BLOCK WALL MAY BE FEASIBLE). MAY REQUIRE 10 CY± SUB-EX.
14. INSTALL NEW DROP INLET AND CONCRETE GUTTER – FILL GULLY, CONSTRUCT V-DITCH TO COLLECT SLOPE AND ROAD SURFACE RUNOFF AND TRANSPORT IT TO DROP INLET – 5 CY FILL ±
15. ADD BASE ROCK
16. GOOD TO GO
17. ADD BASE ROCK – REMOVE ONE TREE – MAY NEED TO REMOVE AND REPLACE SOME FILL AT EACH END OF TURNOUT – TRIM TREE UP TO 14 FEET.
18. INSTALL DROP INLET AND REPLACE OUTLET PIPE – WIDEN BOTH SIDES OF ROAD FOR 24 FOOT WIDTH AND ADD 10 CY ± FILL AND COMPACT – MAY NEED SMALL WALLS ALONG INBOARD AND OUTBOARD SLOPES.
19. NEED 3 TO 4 FOOT RETAINING WALL AND 40 CY ± FILL
20. NO TREE REMOVAL REQUIRED – 5 CY ± FILL REQUIRED – ADD BASE ROCK AND COMPACT
21. CLEAR BRUSH ADD BASE ROCK – NO GRADING REQUIRED – MAY REQUIRE 8 CY± SUB-EX.
22. INTERSECTION RIDER RIDGE ROAD AND ENOS LANE GOOD AS IS
23. GOOD TO GO EXISTING PAVEMENT THIS IS THE GATE
24. CLEAR BRUSH – 2 FOOT ± RETAINING WALL AND 10 CY ± CUT – ADD BASE ROCK AND COMPACT. WIDEN BOTH SIDES OF ROAD TO 18 FEET.
25. ADD BASE ROCK
26. CUT 5 CY ± AND CREATE 18 FOOT WIDE ROAD BED WITH NEW BASE ROCK AND AC SURFACE
27. ADD BASE ROCK
28. ADD BASE ROCK
29. THIS IS DRIVEWAY TO LOT ONE SO ONCE DRIVEWAY CONSTRUCTED WE WILL HAVE TURNOUT

TOTAL CUT VOLUME 27 CY ±

TOTAL FILL VOLUME 115 CY ±

TOTAL SUB-EX VOLUME 39 CY ±

PRIMARY ACCESS ROAD DETAIL
(AS REQUIRED BY COUNTY FIRE DEPARTMENT)

SCALE IN FEET
0 500 1000 1500 2000

LEGEND

GREEN ROAD WIDTH 18' OR MORE

RED ROAD WIDTH 12' TO 18'

BLUE POSSIBLE TURNOUT

NOTE: The purpose of this study is to determine if the major access route to Alta Vista Ocean View Estates is currently wide enough for fire truck access (18' width) and to locate possible fire truck turnouts. The findings are plotted on current Assessor's maps, and do not represent a topographic or boundary survey. Additional surveying and engineering work may be needed to design and develop turnouts.

TRACT 1558
ALTA VISTA OCEAN VIEW ESTATES
ACCESS ROAD FEASIBILITY STUDY

Scale 1" = 400'
August 25, 2009
File 02108enos.FLX

Santa Cruz County, California

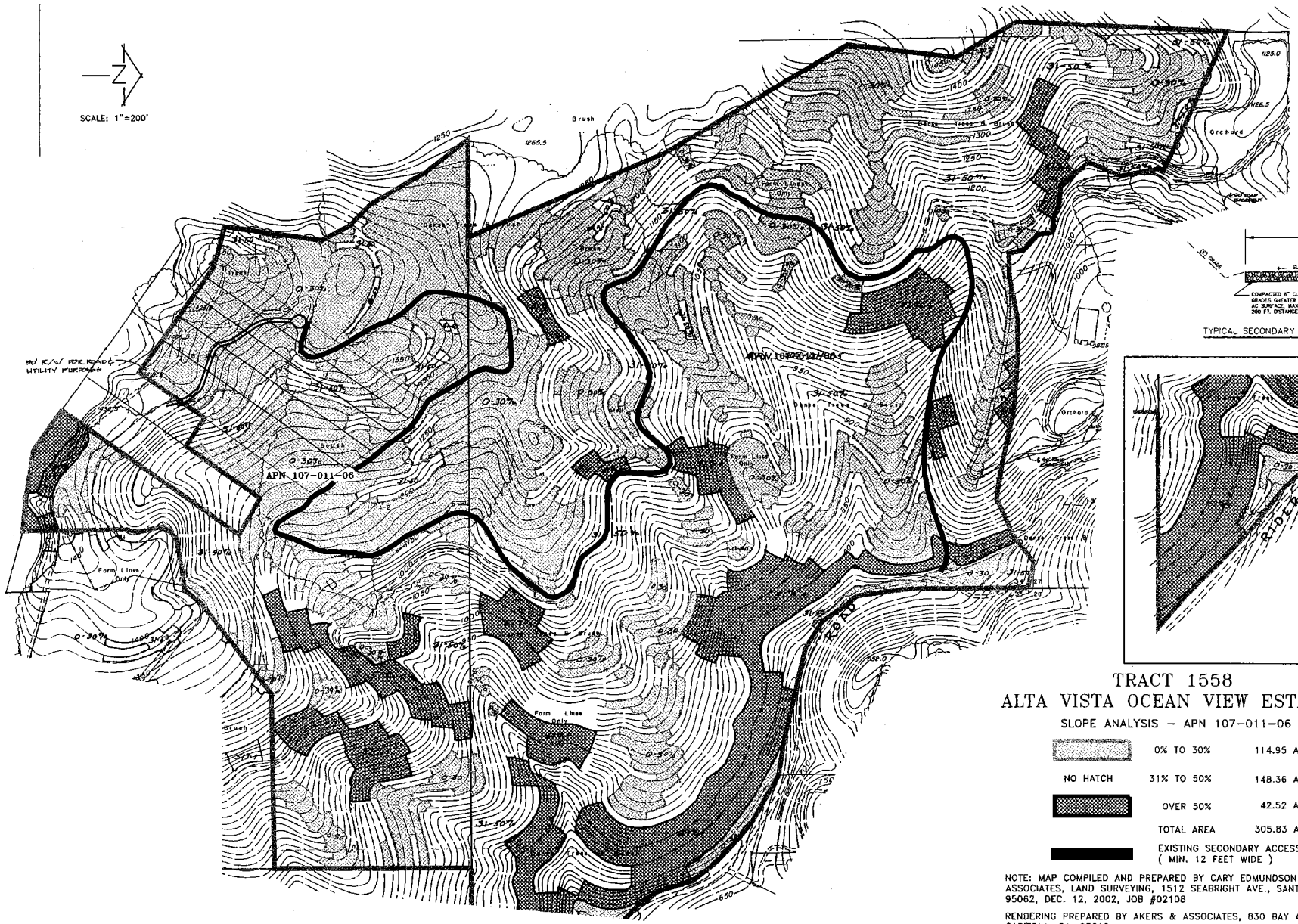
Edmundson Surveys
1512 Seabright Ave.
Santa Cruz, California 95062

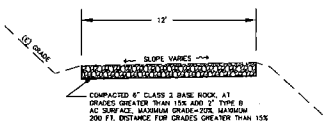
LICENSED LAND SURVEYOR
GARY D. EDMUNDSON
No. 5114
Expires 6/30/11
STATE OF CALIFORNIA

Gary O. Edmundson

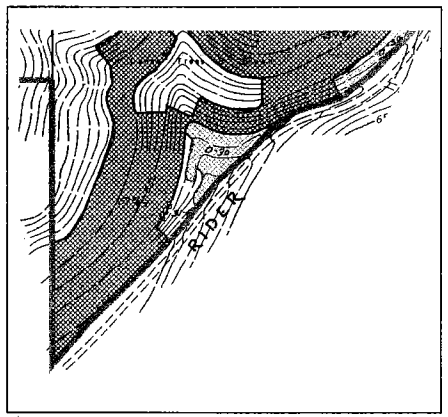
ATTACHMENT 2

ATTACHMENT 2





TYPICAL SECONDARY ACCESS ROADWAY SECTION
N.T.S.



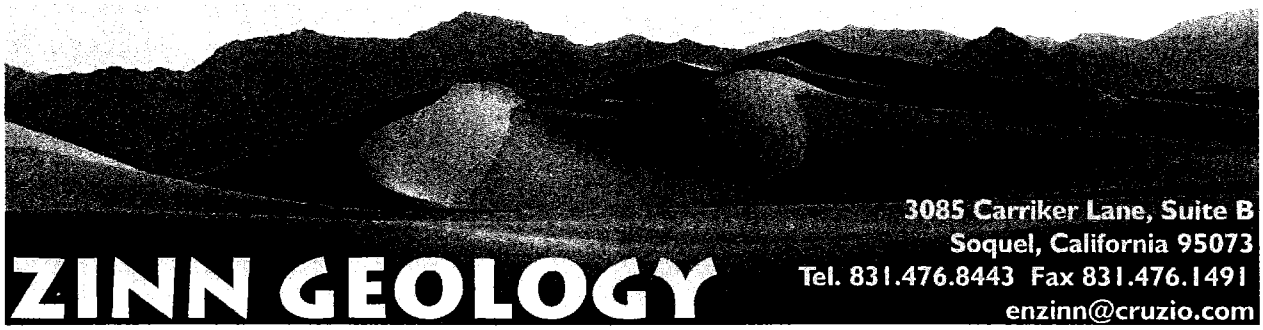
TRACT 1558
ALTA VISTA OCEAN VIEW ESTATES

SLOPE ANALYSIS – APN 107-011-06

	0% TO 30%	114.95 ACRES
NO HATCH	31% TO 50%	148.36 ACRES
	OVER 50%	42.52 ACRES
	TOTAL AREA	305.83 ACRES
	EXISTING SECONDARY ACCESS ROAD (MIN. 12 FEET WIDE)	

NOTE: MAP COMPILED AND PREPARED BY CARY EDMUNDSON & ASSOCIATES, LAND SURVEYING, 1512 SEABRIGHT AVE., SANTA CRUZ, CA. 95062, DEC. 12, 2002, JOB #02108

RENDERING PREPARED BY AKERS & ASSOCIATES, 830 BAY AVE., SUITE E, CAPITOLA, CA. 95010



ZINN GEOLOGY
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2 October 2009 Job #2006002-G-SC

Diversified Income Planning, Inc.
Attention: David J. Weiss
1840 41st Avenue, #102-131
Capitola, California 95010-2527

Re: Geologic investigation for proposed Alta Oceanview Estates subdivision
Telford Drive
Watsonville, California 95076
County of Santa Cruz APN 107-011-06

Dear Mr. Weiss:

Our geologic report on the property referenced above is attached. This report documents geologic conditions on the subject property and addresses potential hazards and attendant risks to the developments being proposed for this subdivision.

Based on the information gathered and analyzed, it is our opinion that the building envelopes portrayed upon Plate 1 are geologically feasible, provided our recommendations are followed. The residential development within the envelopes will be, in our opinion, subject to "ordinary risks" as defined in Appendix B, provided our recommendations are followed. Appendix B should be reviewed in detail by the developer and all property owners (current and future) to determine whether an "ordinary" risk as defined in the appendix is acceptable. If this level of risk is unacceptable to the developer and the property owners, then the geologic and geotechnical hazards in question should be mitigated to reduce the corresponding risks to an acceptable level. The acceptable level would need to be defined by the developer/owner in conjunction with a consultants having expertise in engineering geology and geotechnical engineering.

In our opinion, the potential for landsliding to occur on the native slopes within the geologically feasible building envelopes is low for the lifetime of a single-family residence. It is important to note, however, that slope stability issues may arise in the future, depending upon the decisions made about the proposed grading scheme for the development, as well as for grading that occurs on individual lots. It is important for this issue to be revisited by the project geologists and geotechnical engineers of record and carefully studied in regard to the forthcoming detailed grading plans.

The project geotechnical engineer and project civil engineer should take note of the area where a small debris scar is located slightly below the tentative proposed access road. They should issue mitigation recommendations where warranted with respect to the design of the cuts and fills for the roadway, as well as the collection and dispersion of drainage.

Severe erosion is common in the sandy soils present upon the hills in this region, particularly where the natural drainage is modified by the works of man and not properly controlled. Development of rills and gullies due to inadequate drainage design, construction or maintenance may significantly impact the proposed development. The project civil engineer that develops the grading plans will need to address this issue by providing erosion control measures, such as, energy dissipaters, lined ditches, catch basins, etc. that will reduce the potential of accelerated erosion. Provisions for maintenance will be a requirement in development of this property during and past construction.

It is important to note that the foundation design is critical for residences that derive support from both cuts and fills. Such a condition may result in differential consolidation of the underlying earth materials, which in turn will result in differential settlement under the foundation. If this process is not taken into account for the project design and construction, significant damage may occur to the foundation and residence. The project geotechnical engineer of record should investigate this problem once specific buildings and grading plans are generated for the individual lots.

The potential hazard level and attendant risk with respect to faulting is summarized in the following table:

ENVELOPE	POTENTIAL FOR FAULTING TO OCCUR	ATTENDANT RISK
For habitable structures and septic systems	Low	Ordinary
For septic systems only	Moderate to high	Ordinary (for septic systems)

The property is located in an area of high seismic activity and will be subject to strong seismic shaking in the future. Based on the results listed in Table 1, the mean peak ground acceleration expected at the property will be approximately 0.85 g, the maximum earthquake ground motion (mean acceleration plus one dispersion) expected at the property will be approximately 1.28 g, based on a M_w 7.0 earthquake (reverse-faulting event) centered on the Zayante fault zone 0.98 kilometer southwest of the site. An EPA of 0.64 g is associated with the mean peak horizontal ground acceleration of 0.85 g.

In our opinion significant coseismic ground cracks (greater than 2 inches in width at the surface, with greater than ½ inch of vertical displacement) are unlikely to affect the geologically feasible

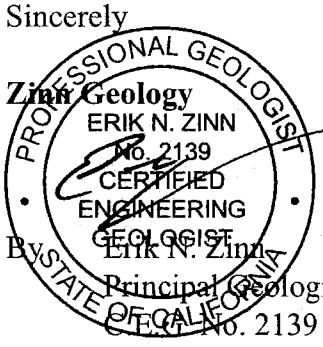
building envelopes within the design life of a single-family residence, with an attendant "ordinary" level of risk. However, considering the geologic setting of the property and the results of the aforementioned case history study by Nolan and Weber (1998), we consider it prudent to recommend that the ground cracking hazard and risk be further refined during design-level studies for all habitable structures by the project geologist of record once the footprints for the structures have been established. In lieu of such studies, we recommend that the foundation for all structures be designed to accommodate up to ½ inch vertical and 2 inches horizontal offset due to potential future ground cracking.

The hazards noted above and their attendant risks are covered in greater detail in the body of the report. We have issued mitigation recommendations where warranted to reduce any elevated risks to ordinary.

This report should be distributed to all the pertinent project design professionals. The project geotechnical, civil and structural engineers, landscape architect as well as the project architect should read this report prior to finalizing their respective investigations, plans and reports and incorporate our recommendations where warranted. We look forward to interacting with design team while they are finalizing their plans and reviewing the forthcoming plans issued by the project civil and structural engineers and project architect.

If you have any questions or comments regarding this report, please contact us at your earliest convenience.

Sincerely



Zinn Geology

By Erik N. Zinn
Principal Geologist
CEG No. 2139

ATTACHMENT 3
ZINN GEOLOGY

0.98 kilometer southwest of the site. An EPA of 0.64 g is associated with the mean peak horizontal ground acceleration of 0.85 g.

In our opinion significant coseismic ground cracks (greater than 2 inches in width at the surface, with greater than ½ inch of vertical displacement) are unlikely to affect the geologically feasible building envelopes within the design life of a single-family residence, with an attendant "ordinary" level of risk. However, considering the geologic setting of the subject properties and the results of the aforementioned case history study by Nolan and Weber (1998), we consider it prudent to recommend that the ground cracking hazard and risk be further refined during design-level studies for all habitable structures by the project geologist of record once the footprints for the structures have been established. In lieu of such studies, we recommend that the foundation for all structures be designed to accommodate up to ½ inch vertical and 2 inches horizontal offset due to potential future ground cracking.

RECOMMENDATIONS

1. We recommend that site-specific geologic investigations be pursued for individual home sites, pending the location of the proposed home sites. Prospective home sites located upon steep slopes should be investigated for potential slope stability hazards and their accompanying risks.

2. The project engineers should use the acceleration parameters that are appropriate for their particular analysis. If deterministic seismic shaking values are to be used, the values listed in our Table 1 should be consulted.

3. We recommend that the ground cracking hazard and risk be further refined during design-level studies for all habitable structures by the project geologist of record once the footprints for the structures have been established. In lieu of such studies, we recommend that the foundation for all structures be designed to accommodate up to ½ inch vertical and 2 inches horizontal offset due to potential future ground cracking.

The following recommendations are for future development plans that include proposed grading and drainage schemes:

4. Differential settlement due to the varying soil and geologic conditions should be anticipated. Structures that can tolerate differential settlements should be designed for these conditions.

   We recommend that the project geologist of record assist the design team in locating the proposed buildings in areas of cut/fill transitions where fills of 5 feet or greater in thickness are required. Uniform graded pads for buildings on lots with cut/fill transitions is recommended. The minimum depth of over-excavation should be subject to review by the project geotechnical engineer of record.

If the residences will be founded on conventional shallow foundations, we recommend that the project engineers develop a foundation and grading scheme that will create uniform bearing conditions for the structural foundation elements on the site in order to mitigate the differential settlement hazard.

If pier and grade beam foundations are utilized for the residences, we recommend that the project geologist and the project geotechnical engineer observe the drilling of the piers and solely determine the location of competent bedrock to be used for the embedment depth.

5. We recommend that all drainage from improved surfaces such as walkways, patios, roofs and driveways be collected in impermeable gutters or pipes and carried to a drainage system or natural drainage course. **However, no water generated or collected for the development should be discharged or allowed to flow onto any mapped landslides or into any existing gullies or rills.** At no time should any concentrated discharge be allowed to spill directly onto the ground adjacent to the proposed developments. Any water landing on paved areas should not be allowed to flow toward the proposed developments. At no time should concentrated runoff be allowed to spill onto steep slopes or to pond above steep slopes. Where development may interrupt natural drainage channels, a drainage scheme should be instituted to redirect runoff into natural drainages. The control of runoff is essential for erosion control and prevention of ponding water against embankments, cut banks, structure foundation, etc.

We do **not** recommend that any groundwater recharge structures be constructed on the subject properties, as injecting all the drain water from the development into a point source at depth will create an **unnatural** condition that may trigger future landsliding on the subject properties. As noted above, the preferred method is for all drainage from improved surfaces such as walkways, patios, roofs and driveways to be collected in impermeable gutters or pipes and carried to a natural drainage situated away from landslide deposits on the property.

The project geologist of record should review any future or forthcoming drainage plans for consistency with our geologic conclusions and recommendations. The designer or project civil engineer should also consult the County of Santa Cruz erosion control ordinances for additional requirements and restrictions.

Control of runoff water is the single most important thing developers and homeowners can do to reduce the potential for erosion. Avoiding the concentrated disposal of surface water runoff into existing drainages may significantly slow the development of the gullies and rills.

Where the proposed development may be significantly impacted by erosion due to the development of gullies or ravines, formal erosion control measures should be employed.

6. We recommend that the project geotechnical engineer, civil engineer, sanitarian, landscape architect and architect carefully review this report, particularly in regard to slope stability issues that may arise from grading, erosion control, irrigation and landscaping designs that don't adequately take the existing geologic conditions into account. We also recommend that the project geotechnical engineer and geologist of record be retained to review any plans issued by the aforementioned design professionals in the future to ensure that the conclusions and recommendations of this report have been properly implemented.

7. Our firm should be accorded the privilege of reviewing any additional geotechnical or geologic reports for this project and any new civil engineering plans, so that our recommendations may be properly interpreted and implemented. We do not intend to approve or disapprove the plans, but to provide an opportunity to update the this report and include additions or qualifications as necessary. If our firm is not accorded the opportunity of making the recommended review, we can assume no responsibility for misinterpretation of our recommendations.

8. We recommend that a representative from our firm be retained to inspect any future cuts made during grading for the foundation, prior to placement of the fill and construction of the footings. It is important for grading contractors to note that this includes observation of any keyways constructed for the fill, as well as for drilled piers.

   Field observation must be provided by a representative of Zinn Geology to enable us to form an opinion as to the degree of conformance of the site conditions exposed during construction to those described in our geologic report, and the extent to which the excavations (including pier holes) and drilling comply with the specification requirements. Any work related to excavation or drilling that is performed without the full knowledge and direct observation of Zinn Geology, the Project Geologist Of Record, will render the recommendations of our report invalid.

9. We strongly recommend that home owners implement the simple safety procedures outlined by Peter Yanev in his book, *Peace of Mind in Earthquake Country*. This book contains a wealth of information regarding earthquakes, seismic design, and precautions that the individual home owner can take to reduce the potential for loss of life, injury and property damage.

ZINN GEOLOGY
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enzinn@cruzio.com

Revised 22 February 2011 Job #2006002-G-SC

Diversified Income Planning, Inc.
Attention: David J. Weiss
1840 41st Avenue, #102-131
Capitola, California 95010-2527

Re: Response to County of Santa Cruz comments
Alta Vista Oceanview Estates
Watsonville, California 95076
County of Santa Cruz APN 107-011-06

Dear Mr. Weiss:

The County of Santa Cruz Planning Department's generated a letter, dated 7 April 2010, summarizing why they believe your application to be incomplete, with a series of requested additional information from various staff members in the Planning Department and Public Works Department. We have responded to the specific requests that are germane to our profession with this letter and its' appendices.

This letter represents a body of work that has been performed in phases since last summer. Our scope of services leading up to the production of this letter is as follows:

1. A meeting at the County of Santa Cruz Planning Department with your design team and key County personnel.
2. A field trip across your site with your Project Planner, Jim Weaver of Pacific Rim Planning Group, and County of Santa Cruz staff, Robin Bolster, Joseph Hanna and Carolyn Banti. The objective of the field trip was to focus on the issues surrounding the secondary access road and to attempt to negotiate an acceptable scope of work that would satisfy the County staff's requirements for this phase of the project.
3. A field traverse of the secondary access road with yourself, Jim Weaver, your Project Civil Engineer, Joe Akers of Akers & Associates and your Project Geotechnical Engineer, Brian Bauldry of Bauldry Engineering.
4. Mapping and photography of select mitigation sites and prospective turnout sites with Joe Akers and Brian Bauldry.
5. Several meetings with different members of the design team throughout this process.
6. Analysis of the data.

ATTACHMENT 3

7. Production of this letter with accompanying graphics.

The body of the text for this letter is organized similar to the County of Santa Cruz letter dated 7 April 2010. We have attempted to utilize their sectional divisions and enumeration for the sake of consistency.

Development Review (by Robin Bolster-Grant)

Item 4, Page 3

We have only addressed the issue of the secondary access road in this letter. The reader should refer to the responses by other members of the design team for the primary access road issues.

During our meetings and field trips with County personnel, it became apparent that mapping and performing detailed site-specific engineering calculations and plan preparation for the entire length of the secondary access road would be an onerous task for the design team, which would prove to be prohibitively expensive for a phase of this project whose main objective is to verify technical feasibility of the proposed improvements. We therefore procured permission from the staff to perform a reconnaissance-level observation and recording of the sites requiring mitigation and prospective turnouts along the length of the secondary access road. We toured the secondary access road with Robin Bolster-Grant, Joseph Hanna and Carolyn Banti, prior to finalizing our conclusions and recommendations for the secondary access road. During our tour, we explored the potential mitigation schemes that might work for the road.

We have summarized our geological conclusions and recommendations for the secondary access road with short notes and a one inch equals two hundred foot map that shows the approximate location of the mitigation sites and prospective turnout sites. The reader should turn to Appendix A for the notes and correlative photographs and the rear pockets for a copy of Plate 1 which shows the location of the sites in plan view.

The upshot of our supplemental work for the secondary access road is that the road is geologically feasible, provided that the recommended mitigation outlined in Appendix A is performed at the enumerated sites shown on Plate 1, along with the work prescribed for the prospective turnout sites (Appendix B).

Environmental Planning (by Joe Hanna)

Item 1, Page 3

As noted above, detailed grading plans were not prepared for the secondary access road. The products associated with the secondary access road are summarized in our response to Robin Bolster-Grant's Item 4 on page 3.

Item 2, Page 3

As noted above, plans were not prepared for the secondary access road. The products associated with the secondary access road are summarized in our response to Robin Bolster-Grant's Item 4 on page 3. We have issued brief comments and recommendations regarding the issues identified at the mitigation sites and the prospective turnout sites.

Item 3, Page 3

None of the products that our design team has produced have depicted a "closed depression" in plan view on the property. We assume that Mr. Hanna is referring to the County lidar generated topographic contours (1 foot pixels from lidar work performed by County vendor in 2008). The topographic contours shown on that map depict a long, narrow closed depression on the property, elongated in a northwesterly direction.

The county lidar map does not accurately depict the conditions on the ground, probably due to the dense forest and brush cover. There is indeed a linear swale in this area, associated with a fault zone, but the swale drains and is not a "closed depression".

Furthermore, the surface drainage for the proposed subdivision laid out by Joe Akers does not dispose of surface water in the vicinity of the hypothesized closed depression.

Item 4, Page 3

We have worked with Joe Akers to modify the envelopes in a way that makes our geologically feasible building envelopes consistent with Mr. Akers' building envelopes. The new building envelopes issued by Mr. Akers, on Sheets C4 and C5, dated 28 December 2010, are entirely encompassed by our geologically feasible building envelopes.

Item 5, Page 3

As noted above, plans were not prepared for the secondary access road. The products associated with the secondary access road are summarized in our response to Robin Bolster-Grant's Item 4 on page 3. We have issued brief comments and recommendations regarding the issues identified at the mitigation sites and the prospective turnout sites.

Item 6, Page 3

See attached Plate 2 for the requested geological cross section. We used the original topographic map generated for the property through aerial photogrammetric techniques and field surveying for the Smith Ranch by Darling, Nielsen and Ingram. The cross section was drawn at a scale of 1"=200', which was the most practicable scale, considering the geological elements that needed to be portrayed and the length of the cross section stretching almost 3/4 mile from the ridge crest

development area downslope to Rider Road. We plotted the alignment of the section on our original landslide compilation map at a scale of 1"=200', drawn under the auspices of Nolan, Zinn and Associates (2003) which depicts the aforementioned topography and our interpretation of landsliding, faulting and rock structure (see Plate 3). We apologize for the size of the scale, but we are attempting to keep the size of the plates for this regional assessment as small as practicable.

Item 7 and Item 8, Pages 3 and 4

We have worked closely with Mr. Bauldry and Mr. Akers to assist them with geological input on the desired drainage systems. We have reviewed Mr. Akers' most recent plans, issued on 28 December 2010, and have deemed the drainage scheme on those plans to be geologically acceptable. The current drainage scheme does differ from that recommended in our report dated 2 October 2009, but as noted above, we have assisted with Mr. Akers and Mr. Bauldry by giving them geological input on the drainage system design so as to have it be geologically suitable.

Mr. Hanna has brought up the concern that the drainage system for the subdivision doesn't conform to the intent of Santa Cruz County code 16.10.070(e)3. That code reads as follows:

"3. Drainage: Drainage plans designed to direct runoff away from unstable areas (as identified from the geologic hazards assessment or other technical report) shall be required. Such plans shall be reviewed and approved by the County Geologist."

The development area sits atop a ridge crest that overlooks a large, deep-seated bedrock landslide to the northeast. All of the natural drainage that falls and flows away from the proposed development does so via sheet flow to the northeast toward the existing landslide. It is important to note that the Project Civil Engineer is caught in the crossfire between different drainage codes in the County of Santa Cruz with conflicting objectives, resulting in the requirement that surface water be directed away from landslides while also requiring that the overall drainage scheme conform to the way that drainage naturally occurs on the site.

If we strictly and solely adhered to the specific code quoted above by the County of Santa Cruz, it would require pumping water up and over the ridge crest, away from the property to the southwest. Either that, or it would require an elaborate system of drains that would have to transport collected and concentrated rainfall obliquely across the hillside of the subdivision to the north-northeast where it could be disposed of with some sort of elaborate metering system in a natural drainage away from the landslide deposit. Both alternatives are not economically viable, nor are they particularly desirable from a geological perspective because they would likely create small scale geologic hazards through routing and disposal.

Finally, Mr. Hanna indicates that *"the bio-swale are {sic} concentrating drainage on slopes in areas of mapped landsliding and near the debris flows identified by the engineering geologist."*

The nature of the drainage scheme is to disperse it with level spreaders and revert the collected surface water runoff to sheet flow. Furthermore, we have worked closely with Mr. Akers in locating the level spreaders precisely in areas which are geologically suitable in our opinion. We presume that Mr. Hanna is referring to the small mapped debris flow scar slightly downslope from the proposed primary driveway, which appears to have been triggered by existing poorly concentrated roadway drainage, a condition which is actually being ameliorated by the proposed drainage improvements for the subdivision. We also assume that Mr. Hanna is referring to the proposed percolation trench near the terminus of the primary driveway and the cul-de-sac. This location appears to be in intact Purisima Formation sandstone, near the nose of the ridge. It is unlikely that the small volume of water that is being captured for this trench will in and of itself trigger any landsliding, particularly due to the fact that almost all of the drainage for the subdivision is actually being incrementally captured and dispersed via the level spreaders that are scattered along the primary driveway.

It is important to note that remobilization of the landslide has not been triggered by natural drainage conditions, even during the number of El Nino climatic events in the past 40 years that resulted in high seasonal rainfall totals for the Santa Cruz Mountains. Keeping this in mind, we modified our original drainage recommendations by requesting that the drainage collected for the project be broken up into discrete pieces and dispersed via level spreaders and percolation trenches in key locations. This will ensure that the collected drainage is reverted back to sheet flow. Furthermore, no more water is being captured and directed downslope for the proposed developments than is currently already falling on the ridge crest and its' northeastern flank.

In summary, the absolute language of Santa Cruz County Code 16.10.010(e)3 cannot be reasonably met, due to the fact that landslide is large and directly below the proposed subdivision. The landslide has not remobilized in recent historical times during rainfall seasons with high totals, indicating that the renewed movement on the landslide cannot be triggered solely by natural drainage. Hence, we have modified our original drainage recommendations and worked closely with the Project Civil Engineer in developing a drainage system that closely mimics the natural drainage on the property. In our opinion this meets the intent of the code by designing and constructing a drainage system that will not in and of itself trigger landsliding.

Mr. Hanna also requested in item 8 that we revise our recommendation language regarding future site-specific geologic investigations for each parcel. Mr. Hanna correctly interpreted the intent of our recommendation - to provide site specific investigations for each parcel once the development scheme, including detailed grading and drainage plans are known for the proposed residence. We therefore recommend that a revised recommendation number one on page 20 of our 2 October 2009 report should read as follows:

1. *We recommend that future site-specific geologic investigations be pursued for individual home sites, pending the location and extent of grading for each proposed home sites. The intent of this recommendation is to provide supplemental geological recommendations that are tailored to the specific grading and drainage objectives for*

COUNTY OF SANTA CRUZ

PLANNING DEPARTMENT
701 OCEAN STREET, 4TH FLOOR, SANTA CRUZ, CA 95060
(831) 454-2580 FAX: (831) 454-2131 TDD: (831) 454-2123
KATHLEEN MOLLOY PREVISICH, PLANNING DIRECTOR

March 20, 2011

Pacific Rim Planning Group
206 Morrissey Blvd.
Santa Cruz, CA 95062

Subject: Review of Engineering Geology by Zinn Geology and Bauldry Engineers; Dated October 2, 2009 and February 2011, Job # 2006002-G-SC; and, Geotechnical Engineering Report, Dated January 2010 and February 16, 2011; Project Number 0602-SZ974-G11

APN 107-011-06, Application #: 10-0069

Dear Pacific Rim Planning Group,

The purpose of this letter is to inform you that the Planning Department has accepted the subject reports and the following items shall be required:

1. All construction shall comply with the recommendations of the reports.

2. Final plans shall reference the report and include a statement that the project shall conform to the report's recommendations.

3. Prior to building permit issuance a *plan review letter(s)* shall be submitted to Environmental Planning. After plans are prepared that are acceptable to all reviewing agencies, please submit a geotechnical plan and engineering geology review letter(s) that state the project plans conform to the recommendations of the reports. *Please note that the letters must reference the final plan set by last revision date.* The authors of the reports shall write the *plan review letters.*

4. Please submit an electronic copy of the reports in .pdf format via compact disk or email to: pln829@co.santa-cruz.ca.us. Please note that the reports must be generated and/or sent directly from the consultants of record.

5. Prior to acceptance of the site improvements the engineering geologist and geotechnical engineer must review all grading improvements and indicate that the improvements meet the recommendations of their reports.

6. A declaration of geologic hazards must be recorded with the project. The declaration will be developed at the time of recordation of the final map.

After building permit issuance the soils engineer *must remain involved with the project* during construction. Please review the *Notice to Permits Holders* (attached).

Our acceptance of the report is limited to its technical content. Other project issues such as zoning, fire safety, septic or sewer approval, etc. may require resolution by other agencies.

(over) ATTACHMENT 4

Please note that this determination may be appealed within 14 calendar days of the date of service. Additional information regarding the appeals process may be found online at: http://www.sccoplanning.com/html/devrev/plnappeal_bldg.htm

Please call the undersigned at (831) 454-3175 if we can be of any further assistance.

Sincerely,

Joe Hanna CEG 1313
County Geologist

Carolyn Banti
Civil Engineer

Cc: Robin Bolster, Environmental Planning
Zinn Geology and Bauldry Engineers
owner (if different from applicant)

ATTACHMENT 4

NOTICE TO PERMIT HOLDERS WHEN A SOILS REPORT HAS BEEN PREPARED, REVIEWED AND ACCEPTED FOR THE PROJECT

After issuance of the building permit, the County requires your soils engineer and engineering geologist to be involved during construction. Several letters or reports are required to be submitted to the County at various times during construction. They are as follows:

1. **When a project has engineered fills and / or grading**, a letter from your soils engineer must be submitted to the Environmental Planning section of the Planning Department prior to foundations being excavated. This letter must state that the grading has been completed in conformance with the recommendations of the soils report. Compaction reports or a summary thereof must be submitted.

2. **Prior to placing concrete for foundations**, a letter from the soils engineer must be submitted to the building inspector and to Environmental Planning stating that the soils engineer has observed the foundation excavation and that it meets the recommendations of the soils report.

3. **At the completion of construction,** a *final letter(s)* from your soils engineer and engineering geologist is (are) required to be submitted to Environmental Planning that summarizes the observations and the tests that have been made during construction. The final letter(s) must also state the following: "Based upon our observations and tests, the project has been completed in conformance with our recommendations."

   If the *final letters* identifies any items of work remaining to be completed or that any portions of the project were not observed by the soils engineer or engineering geologist, you will be required to complete the remaining items of work and may be required to perform destructive testing in order for your permit to obtain a final inspection.

ATTACHMENT 4

(over)

Bauldry Engineering, Inc.

CONSULTING GEOTECHNICAL ENGINEERS

718 SOQUEL AVENUE, SANTA CRUZ, CA 95062 *(831) 457-1223* *FAX (831) 457-1225*

0602-SZ974-G11
January 7, 2010

Diversified Income Planning, Inc.
1840 41st Avenue, #102-131
Capitola, California 95010-2527

Attention: David Weiss

Subject: Geotechnical Investigation
Proposed 7 Lot Subdivision
Alta Vista Ocean View Estates
Telford Drive
Santa Cruz County, California
APN 107-011-06

Dear Mr. Weiss,

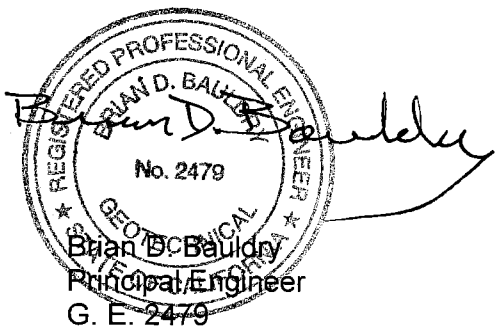
In accordance with your authorization, we have performed a geotechnical investigation for your proposed project located in Santa Cruz County, California.

The accompanying report presents our conclusions and recommendations as well as the results of the geotechnical investigation on which they are based. The conclusions and recommendations presented in this report are contingent upon our review of the plans during the design phase of the project, and our observation and testing during the construction phase of the project.

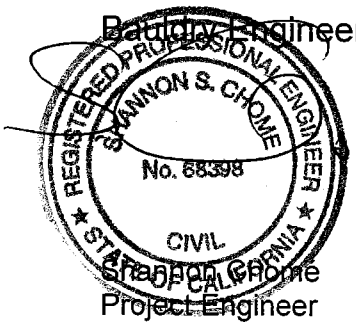
If you have any questions concerning the data, conclusions, or recommendations presented in this report, please call our office.

Very truly yours,

Bauldry Engineering, Inc.



Brian D. Bauldry
Principal Engineer
G. E. 2479
Exp. 12/31/10



Shannon Chome
Project Engineer
R.C.E. 68398
Exp. 9/30/11

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Copies: 1 to David Weiss
4 to Jim Weaver – Pacific Rim Planning Group
1 to Erik Zinn – Zinn Geology (via email)
1 to Joe Akers – Akers and Associates (via email)

ATTACHMENT 5

GEOTECHNICAL INVESTIGATION

PURPOSE OF INVESTIGATION

The purpose of our investigation was to explore the subsurface conditions in the area of the proposed development, and based on our findings provide geotechnical engineering recommendations for the proposed subdivision.

SCOPE OF SERVICES

This report describes the geotechnical investigation and presents results, including recommendations, for the proposed development. If the proposed design and construction differ significantly from that planned at the time this report was written, the conclusions and recommendations provided in this report are null and void unless the changes are reviewed by our firm, and the conclusions and recommendations presented in this report are modified, or verified, in writing.

Our scope of services for this project has consisted of:

1. Discussions with Jim Weaver the project planner, Erik Zinn the project geologist, and Andrew Brownstone the project sanitarian.

2. Review of the following maps and reports:
   a. Preliminary Subdivision Plans, Alta Vista Ocean View Estates, APN 107-011-06, prepared by Joe Akers, Sheets C1-C18, Dated 11.13.09.
   b. Geologic Investigation for Proposed Subdivision, Alta Vista Ocean View Estates, Telford Drive, County of Santa Cruz, APN 107-011-06, prepared by Zinn Geology, Dated 2 October 2009
   c. Geologic Map of Santa Cruz County, California, Brabb, 1989.
   d. Preliminary Landslide Deposits in Santa Cruz County, California, Cooper-Clark and Associates, 1975.
   e. Map Showing Quaternary Geology and Liquefaction Potential of Santa Cruz County, California, Dupré, 1975.
   f. Map Showing Faults and Their Potential Hazards in Santa Cruz County, California; Hall, Sarna-Wojcicki, Dupré, 1974.
   g. Geographic Information System – Santa Cruz County, "GISWEB Interactive Mapping Application" http://gis.co.santa-cruz.ca.us/internet/wwwgisweb/viewer.htm.

3. The drilling and logging of 18 test borings, 14 of which are presented in this report. The other 4 borings were located outside of the currently proposed subdivision and were drilled during our Feasibility Study dated February 7, 2007.

4. Laboratory analysis of retrieved soil samples.

5. Engineering analysis of the field and laboratory results.

6. Preparation of this report documenting our investigation and presenting recommendations for the design of the project.

ATTACHMENT 5

PRELIMINARY CONCLUSIONS AND RECOMMENDATIONS

PRIMARY GEOTECHNICAL ISSUES

1. Site Viability

The results of our investigation indicate that from a geotechnical engineering standpoint the areas of the proposed geologically suitable building envelopes are appropriate for residential development, provided our recommendations and the recommendations included in the Geologic Investigation prepared by Zinn Geology are implemented. It is our opinion that provided our recommendations are followed; the proposed access road and residences can be designed and constructed to an "ordinary" level of seismic and non-seismic risk as defined in Appendix C of this report.

If the property owner desires a higher level of performance for this project, supplemental design and construction recommendations will be required.

Site specific geotechnical investigations for each parcel will be required once a development scheme has been determined. This may include additional subsurface work in order to confirm soil conditions within proposed building footprints and driveways. All conclusions and recommendations presented herein are subject to review at that time. The recommendations provided in this report may be amended and will depend on the findings of supplemental investigations as well as final design.

2. Primary Geotechnical Constraints

Based on our field and laboratory investigations, it is our opinion that the primary geotechnical issues associated with the design and construction of the proposed subdivision including the access road, the proposed single family residences and their attendant driveways are the following:

a. **Loose surficial soils within proposed roadway alignment**. Loose near surface soils were observed along the proposed access road which will be constructed using cut/fill techniques. The proposed maximum cut and fill heights are on the order of 9 feet and 10 feet, respectively. Settlement may occur beneath the roadway and fill slopes which may damage the pavement and affect the proposed surface drainage characteristics if the surficial soils are left in place.

   To mitigate the potential for adverse settlement to occur, we recommend removal and recompaction of the loose near surface soils in the roadway and beneath the deeper fills on the project. At a minimum this will consist of the upper 2 feet of subgrade in roadway areas. Additionally, fill slope keyways may be deepened as necessary when conditions become exposed in the field during construction. Refer to the Earthwork and Grading section of this report for recommendations pertaining to subgrade preparation and cut and fill slope construction.

b. **Coseismic ground cracking**. The project Geologist has recommended all proposed structures be designed to accommodate up to ½ inch vertical and 2 inches horizontal offset due to potential future ground cracking until more refined site specific studies can be performed when building footprints are established.

ATTACHMENT 5

We recommend that these structures be founded on a structural mat or structural grid foundation system that is designed to resist horizontal and vertical displacement of the ground surface should it occur. Additionally, building pads should be constructed by overexcavation and recompaction of the bearing soils and placement of reinforcing geotextile at the bottom of these excavations. Refer to the Subgrade Preparation and Foundation sections of this report for details.

c. **Seismically Induced Settlement of Dry Sand**. Our analysis indicates that there is a potential for earthquake-induced settlement to occur due to the generally loose to very loose condition of the sand that overlies the sandstone formation at the subject site.

   To mitigate the adverse affects of seismically induced settlement, should it occur, we recommend that the foundation systems for the proposed structures be designed to move as a unit, resist differential ground settlement and span seismically induced voids. The building should be designed to tolerate re-leveling, should this become necessary. Preliminary design recommendations are provided in the Foundations section of this report.

d. **Stability of Slope south of Lot 1**. The southwestern flank of the ridge in the vicinity of Lot 1 is moderately sloping and some erosion and shallow slope failure has been observed. Based on our quantitative slope stability analysis and the recommendation of Zinn Geology, the building envelope for Lot 1 shall be set back a minimum of 40 feet from the crest of the southern slope.

e. **Cut/fill transition building pads**. The building envelopes for the proposed subdivision are situated on gently sloping terrain which will require cuts and fills to construct relatively flat building pads. Differential settlement may occur between the cut and fill sides of proposed structures if mitigation measures are not implemented.

   To help mitigate the problems associated with differential settlement, we recommend overexcavation and recompaction of the entire building pad in order to construct more uniform bearing conditions. Refer to the Subgrade Preparation section of this report for details.

POST REPORT SERVICES

3. Plan Review

Bauldry Engineering should be retained to review the proposed subdivision plans including grading, foundation, retaining wall and drainage plans during their preparation and prior to contract bidding to insure that the recommendations of this report have been included and to provide additional recommendations, if needed.

ATTACHMENT 5

4. Construction Observation and Testing
Field observation and testing must be provided during construction by a representative of Bauldry Engineering, Inc. to enable them to form an opinion regarding the adequacy of the site preparation, the acceptability of fill materials, and the extent to which the foundation, retaining wall, drainage, and earthwork construction, including the degree of compaction, comply with the specification requirements. Any work related to foundation, retaining wall, drainage, or earthwork construction, or grading performed without the full knowledge of, and not under the direct observation of Bauldry Engineering, Inc., the Geotechnical Engineer, will render the recommendations of this report null and void.

5. Notification and Preconstruction Meeting
The Geotechnical Engineer should be notified at least four (4) working days prior to any site clearing and grading operations on the property in order to observe the stripping and disposal of unsuitable materials, and to coordinate this work with the grading contractor. During this period, a pre-construction conference should be held on the site, with at least the owner's representative, the grading contractor and one of our engineers present. At this time, the project specifications and the testing and construction observation requirements will be outlined and discussed.

EARTHWORK AND GRADING

6. Initial Site Preparation
The initial site preparation for the proposed roadway and individual driveways and building pads will consist of the removal of trees as required, including rootballs and debris. Abandoned septic tanks and leaching lines found in the construction area must be completely removed. The extent of the soil, debris, and leach line removal will be designated by the Geotechnical Engineer in the field. This material must be removed from the site. All voids created by the removal of trees, septic tanks, and leach lines must be backfilled with properly compacted native soils that are free of organic and other deleterious materials or with approved import fill.

NOTE: Any abandoned wells encountered shall be capped in accordance with the requirements of the County Health Department. The strength of the cap shall be equal to the adjacent soil and shall not be located within 5 feet of a structural footing.

7. Stripping
Following the initial site preparation, surface vegetation and organically contaminated topsoil should be stripped from the area to be graded. This organic rich soil may be stockpiled for future landscaping. The required depth of stripping will vary with the time of year and must be based upon visual observations of the Geotechnical Engineer. It is anticipated that the depth of stripping may be 2 to 4 inches.

8. Subgrade Preparation
Access Road: Following the stripping, the exposed soils beneath the access road should be removed to a minimum depth of 24 inches below existing grade or design grades or as designated by the Geotechnical Engineer, whichever is deeper. The earth materials exposed at the base of the excavation should be scarified, moisture conditioned and compacted. The excavated soil may then be placed in thin lifts. This should result in a minimum 18 inches of engineered fill beneath the pavement and baserock section. Recompacted sections should extend 2 feet beyond pavement areas.

ATTACHMENT 5

Building Pads and Driveways: In preparation for a structural mat or a structural grid foundation system, the exposed soils in the building areas should be removed to a minimum depth of 48 inches below existing grade or as designated by the Geotechnical Engineer. The earth materials exposed at the base of the excavation should be scarified, moisture conditioned and compacted. A layer of Mirafi HP570 Geotextile, or equivalent, should then be placed at the bottom of the excavation. The excavated soil may then be placed in thin lifts. This should result in a minimum 36 inches of engineered fill beneath all foundation elements. The excavation and recompaction in the driveway areas should extend to a minimum depth of 24 inches below the original ground surface and should result in a minimum of 12 inches of recompacted material below all driveway sections Recompacted sections should extend 5 feet beyond building footprints and 2 feet beyond driveway areas.

The proposed building pads are likely to consist of both cuts and fills. Additional overexcavation of the cut side of the building pads may become necessary in order to balance fill thicknesses between the cut and fill sides of the pad. A fill differential in excess of 5 feet is not recommended beneath the proposed structures.

9. Compaction Requirements

With the exception of the upper 8 inches of subgrade in paved areas and driveways, the soil on the project should be compacted to a minimum of 90% of its maximum dry density. The upper 8 inches of subgrade in the pavement areas and all aggregate subbase and aggregate base should be compacted to a minimum of 95% of its maximum dry density.

The maximum dry density will be obtained from a laboratory compaction curve run in accordance with ASTM Procedure #D1557. This test will also establish the optimum moisture content of the material. Field density testing will be in accordance with ASTM Test #D2922.

10. Moisture Conditioning

The moisture conditioning procedure should result in soil with a relatively uniform moisture content of 1 to 3 percent over optimum at the time of compaction. If the soil is dry water may need to be added. If the soil is wet, it will need to be dried back. The native soil may require a diligent and active drying and/or mixing operation to reduce or raise the moisture content to the levels required to obtain adequate compaction.

11. Engineered Fill Material

The native soil and/or imported fill may be used as engineered fill for the project as indicated below.

Re-use of the native soil will require the following:

a. Segregation of all expansive soil encountered during the excavation operation under the observation of the Geotechnical Engineer. All excavated expansive soil should be removed from the construction area.
b. Removal of organics, deleterious material, and cobbles larger than 2 inches.
c. Thorough mixing and moisture conditioning of approved native soil.

All imported engineered fill material should meet the criteria outlined below:

a. Granular, well graded, with sufficient binder to allow utility trenches to stand open.
b. Minimum Sand Equivalent of 20 and Resistance "R" Value of 30.
c. Free of deleterious material, organics and rocks larger than 2 inches in size.
d. Non-expansive with a Plasticity Index below 12.

ATTACHMENT 5

Samples of any proposed imported fill planned for use on this project should be submitted to the Geotechnical Engineer for appropriate testing and approval not less than 4 working days before the anticipated jobsite delivery.

12. Erosion Control

The surface soils are classified as moderately to highly erodable. All finished and disturbed ground surfaces, including all cut and fill slopes, should be prepared and maintained to reduce erosion. This work, at a minimum, should include track rolling of the slopes and effective planting. The protection of the slopes should be installed as soon as practicable so that sufficient growth will be established prior to inclement weather conditions. It is vital that no slope be left standing through a winter season without the erosion control measures having been provided. The ground cover should be continually maintained to minimize surface erosion.

CUT AND FILL SLOPES

13. Cut and Fill Slope Height and Gradient

Cut and fill slopes shall not exceed a 2:1 (horizontal to vertical) gradient and a 10 foot vertical height unless specifically reviewed by the Geotechnical Engineer. All fill slopes should be constructed with engineered fill meeting the minimum density requirements of this report. Where the vertical height exceeds 15 feet, intermediate benches may be required. These benches should be at least 6 feet wide and sloped to control surface drainage. A lined ditch should be used on the bench. The above recommended gradients do not preclude periodic maintenance of the slopes, as minor sloughing and erosion may take place.

14. Fill Slope Keyways

Fill slopes should be keyed into the native slopes with a 10 foot wide base keyway that is sloped negatively at least 2% into the bank. The depth of the keyways will vary, depending on the materials encountered. It is anticipated that the depth of the keyways may be 3 to 6 feet, but at all locations shall be at least 2 feet into firm material. Subsequent keys may be required as the fill section progress upslope. The Geotechnical Engineer will designate keys in the field. See the Keyway Detail in Appendix A for general details.

15. Subsurface Drainage

Our recommended cut and fill slope gradients assume that the soil moisture is a result of precipitation penetrating the slope face, and not a result of subsurface seeps or springs, which can destabilize slopes with hydrostatic pressure. All groundwater seeps encountered during construction should be adequately drained to maintain stable slopes at the recommended gradients. Drainage facilities may include subdrains, gravel blankets, rock-filled surface trenches or horizontally drains. The Geotechnical Engineer will determine the drainage facilities required during the grading operations.

16. Fill Slope Setbacks

The toe of all unretained fill slopes should be set back at least 12 feet horizontally from the top of any existing cut or fill slopes. A lateral surface drain should be placed between the toe of the fill slope and the top of the existing cut or fill slope.

ATTACHMENT 5

FOUNDATIONS – STRUCTURAL MAT OR GRID

17. General

To mitigate the potential for excessive damage caused by coseismic ground cracking and seismically induced settlement, it is our opinion that a structural mat or a structural footing grid is an appropriate foundation system to support the proposed single family residences at the subject site.

This type of foundation system should be capable of withstanding a total settlement of 2 inches, a differential settlement of 1 inch across the least dimension of the structure and small vertical and horizontal offsets. In addition, the rigid foundation system should be designed for a total loss of soil support over an area with a 5 foot diameter occurring anywhere beneath the structure. Structures should be designed to tolerate re-leveling, should this become necessary.

Stepped foundations could accentuate the effects of coseismic ground cracking and are not advisable. Additional recommendations will be required if such a foundation system is proposed.

Structural mats and grids must be underlain by the reinforced engineered fill pad constructed in accordance with the recommendations provided in the Earthwork and Grading section of this report.

Foundations should be set back from the top and toe of slopes in accordance with County guidelines, unless an alternative is approved by our office.

All foundation excavations must be observed by a representative of Bauldry Engineering, Inc. before steel is placed and concrete is poured to insure firm subgrade conditions.

The foundation excavations should be adequately moisture conditioned prior to placing concrete. Requirements for moisture conditioning the subgrade will depend on the soil type and seasonal moisture conditions, and will be determined by the Geotechnical Engineer at the time of construction.

18. Design Criteria

Structural mat and grid foundation systems constructed to the given criteria shall be designed for an allowable bearing capacity of 1,500 psf. The allowable bearing capacity may be increased by 1/3 for short duration loads such as those imposed by wind and seismic forces.

The mat or grid foundation system may be designed using a "coefficient of friction" of 0.35 between the base of the slab/grid and the subgrade soils.

For structural grids, footing widths should be based on allowable bearing values but not less than 18 inches. For 1 and 2 story structures, footings shall have a minimum embedment depth of 18 inches measured from lowest adjacent grade.

19. Moisture Control – Capillary Break

Structural slabs should be underlain by a minimum 4 inch thick capillary break of ¾ inch clean crushed rock. Neither Class 2 baserock nor sand should be used as the capillary break material.

ATTACHMENT 5

Where floor coverings are anticipated or vapor transmission may be a problem, a vapor retarder should be placed between the capillary break and the floor slab in order to reduce the potential for moisture to condensate under the floor coverings. We recommend using a robust vapor retarder such as Stego Wrap Class A Vapor Retarder, or an equivalent system, that has been designed to retard the passage of moisture from the ground into concrete slab-on-grade floors. Proprietary vapor retarders and moisture control systems must be designed and installed in accordance with the manufacturer's specifications.

NOTE: We have provided generalized recommendations associated with standard construction practices for the reduction of moisture transmission through concrete slab-on-grade floors. Bauldry Engineering, Inc. is not a moisture-proofing specialist. A waterproofing or moisture proofing specialist should be consulted for project specific moisture protection recommendations.

RETAINING WALLS

20. General

For retaining walls detached from structures, general recommendations are presented below. Retaining walls structurally integrated with structures may require additional recommendations once the proposed configuration is determined.

21. Foundations

Retaining walls may be founded using a spread footing foundation system. All footings should be embedded such that the base of the footing is a minimum of 18 inches into firm native soil and a minimum of 5 horizontal feet from the face of adjacent slopes.

Retaining wall footings may be designed for the following allowable bearing capacities. Should the footing sizes vary significantly from those provided below, supplemental design criteria should be provided.

Retaining Wall Footings

Footing Width	Embedment Depth*	Bearing Capacity
3 feet	18 inches	1,800 psf
4 feet	18 inches	2,100 psf
5 feet	18 inches	2,400 psf
6 feet	18 inches	2,700 psf

*Footing embedment depths are measured from lowest adjacent grade.

Design for a "coefficient of friction" of 0.35 between the base of footing and the soil.

22. Lateral Pressures

The retaining wall should be fully drained and designed using the following criteria:

a. When walls are free to yield an amount sufficient to develop the active earth pressure condition (about ½% of height), design for active earth pressures as listed below. When walls are restrained at the top design for at-rest pressures.

ATTACHMENT 5

Slope of Backfill	Active Earth Pressure	At-Rest Earth Pressure
Horizontal	40 psf/ft of depth	62 psf/ft of depth
2:1 (H:V)	60 psf/ft of depth	85 psf/ft of depth

Should the slope behind retaining walls be other than horizontal or 2:1 (H:V), supplemental design criteria will be provided for the active earth or at rest pressures for the particular slope angle.

b. For spread footings, use a resisting passive earth pressure against the footing of 350 psf/ft of depth. Neglect passive pressure in the upper 12 inches of soil.

c. For live or dead loads which transmit a force to the wall refer to the Surcharge Pressure Diagram in Appendix A.

d. Seismic forces should be applied to retaining walls as determined by the project structural engineer in accordance with applicable codes and standards. The lateral seismic forces listed in the following table are based on the Seed and Whitman pseudostatic method of analysis. The resultant seismic force on the wall acts at a point 0.6H up from the base of the wall. H is the height of the retained soil in feet. Supplemental recommendations will be provided if the structural engineer requires an alternative method of analysis.

Restraint Condition	Resultant Seismic Force (lbs)
Free to Yield (active pressure condition)	11 H^2
Non-Yielding (at-rest pressure condition)	31 H^2

23. Back Drain

The above criteria are based on fully drained conditions. We recommend the retaining wall be constructed with a drain in accordance with the Retaining Wall Drain Detail, in Appendix A, meeting the following criteria:

a. The drain should be constructed using permeable material meeting the State of California Standard Specification Section 68-1.025, Class 1, Type A.

b. The permeable material should be a minimum of 12 inches in width and should extend to within 12 inches of the ground surface.

c. Mirafi 140 filter fabric, or equivalent, should be placed horizontally over the top of the permeable material and then compacted native soil placed to the ground surface.

d. A 4-inch diameter rigid perforated plastic or metal drainpipe should be placed 3 inches above the base of the permeable material.

e. The drain line should discharged to an approved location away from the retaining wall and other structures.

ATTACHMENT 5

24. Surface Drainage
Retaining walls should be constructed with measures that prevent surface drainage from flowing over the top of the walls. A lined "V" ditch should be constructed adjacent to and along the top of walls, where necessary, to collect surface runoff from slopes directly above retaining walls. Cobbles placed over Mirafi 140 filter fabric, or equivalent, may be used to line "V" ditches. Surface runoff collected in "V" ditches should be transported via closed conduit and discharged at an approved location away from walls and other structures.

25. Compaction of Backfill
The area behind the wall and permeable material should be compacted with approved non-expansive soil to a minimum relative dry density of 90%.

UTILITIES

26. Set Backs
Utility trenches that are parallel to the sides of buildings should be placed so that they do not extend below a line with a 2:1 (H:V) gradient extending from the bottom outside edge of all footings.

27. Utility Trench Backfill
Trenches may be backfilled with the native materials or approved import granular material. The backfill soil should be compacted in thin lifts to a minimum of 95% of its maximum dry density in paved areas and 90% in all other areas. Jetting of the trench backfill is not recommended.

28. Shoring
Trenches must be shored as required by the local agency and the State of California Division of Industrial Safety construction safety orders.

29. Utility Connections
Utility lines connected to structures should be designed to mitigate potential damage resulting from the settlement of structures. Utility lines should be provided with flexible connections able to accommodate the total settlement listed in the Foundations section of this report.

SURFACE DRAINAGE

30. Surface Grades and Storm Water Runoff
Water must not be allowed to pond on building pads, parking areas or adjacent to foundations. Final grades should slope away from foundations such that water is rapidly transported to drainage facilities.

Concentrated surface water including roof discharge should be controlled using lined ditches, catch basins, and closed conduit piping, or other appropriate facilities, and should be discharged at an approved location away from structures and graded areas. We recommend that concentrated storm water runoff systems be provided with energy dissipators that minimize erosion.

31. Roof Discharge
All roof eaves should be guttered, with the outlets from the downspouts provided with adequate capacity to carry the storm water away from the structures and graded areas.

ATTACHMENT 5

32. Drain Pipes
Subsurface pipes used in storm water runoff systems must be robust rigid solid pipes capable of supporting the overburden loads. Flexible corrugated pipes must not be used.

33. Maintenance
The building and surface drainage facilities must not be altered, and there should be no modifications of the finished grades at the project site without first consulting Bauldry Engineering, Inc.

The building and surface drainage facilities must be inspected and maintained on a routine basis. Repairs, whenever necessary, must be made in a timely manner. We recommend that the property owner inspect the drainage systems prior to each rainy season, following the first significant rain, and throughout each rainy season. The civil and geotechnical engineers should be consulted if significant erosion or other drainage problems occur so that the conditions can be observed and supplemental recommendations can be provided, as necessary.

34. Stability of Slopes
Controlling surface drainage and landscape irrigation is critical to the long-term stability of the slopes at the subject site. It is imperative that irrigation activities and all concentrated surface water be effectively controlled. Uncontrolled surface drainage could cause slope instability.

35. Percolation Pits
Percolation pits are not an acceptable means for the disposal of storm water runoff at the project site. By saturating the subsurface soils, percolation pits would increase the potential for slope failure and are not recommended.

PAVEMENT DESIGN

36. General
The design of the pavement section was beyond our scope of services for this project. To have the selected pavement sections perform to their greatest efficiency, it is very important that the following items be considered:

a. Properly moisture condition the subgrade and compact it to a minimum of 95% of its maximum dry density, at a moisture content 1-3% over the optimum moisture content.

b. Provide sufficient gradient to prevent ponding of water.

c. Use only quality materials of the type and thickness (minimum) specified. All baserock must meet CALTRANS Standard Specifications for Class 2 Aggregate Base, and be angular in shape.

d. Compact the base and subbase uniformly to a minimum of 95% of its maximum dry density.

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

f. Maintenance should be undertaken on a routine basis.

ATTACHMENT 5

#10-0064

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A Limited Liability Company

andrew@biosphere-consulting.com

August 14, 2006

Ruben Sanchez, REHS
County of Santa Cruz
Environmental Health Service
701 Ocean St., Room 312
Santa Cruz, CA 95060

SUBJECT: Results of Site Evaluation for Septic System Feasibility
APN: 107-071-02 – Telford Drive, Corralitos, California

Dear Mr. Sanchez:

The purpose of this letter is to inform you that I have completed my site evaluation of the subject property located at the end of Telford Drive and consider the areas tested to be feasible with regards to installing conventional septic systems that meets requirements outlined in Chapter 7.38 of the county ordinance. I am writing on the behalf of the property owner David Weiss at the request of his land-used planning consultant Joel Schwartz. No portion of this evaluation pertains to potential risks posed by geologic hazards.

The 140.8 acre parcel was analyzed for the purposes of designing and permitting a septic system to serve new residential development on each of seven proposed lot subdivisions. Seven backhoe test-pits (T-1 through T-7) were excavated on June 15, 2006 to allow observation of the soil profile in each of the areas proposed for effluent dispersal. You were present, representing the County of Santa Cruz Environmental Health Service (EHS) to inspect the soils exposed in each of the test-pits. The general site characteristics are presented along with analysis of soil type, percolation rate and groundwater activity. Conclusions are drawn regarding recommended design of septic dispersal systems on each lot.

General Site Characteristics

The subject area incorporates moderately sloping rolling topography along the east side of a prominent ridge that is situated between 1,900 and 2,000 feet in elevation above sea level. The slope gradients in the areas tested range from approximately 8%-20%. No seasonal drainages or springs were identified within 200' of the areas tested. The entire area tested is mapped as being underlain by Santa Cruz County Soil Survey soil type 111-Ben Lomond sandy loam. The permeability of this soil type is described as being moderately rapid. The local geologic map depicts the site as being underlain by a thick sequence of sandstone belonging to the Purisima Formation (Tp). Vegetation in the areas tested is primarily wild grasses with scattered shrubs and oak, madrone and pine trees.

ATTACHMENT 6

Discussion of Site Evaluation

Soil textures and horizons varied only minimally in the seven backhoe test pits advanced over a distance of approximately 1,500'. The texture of the soils exposed in the backhoe test-pits, are primarily classified as sandy loam to loamy sand across the site. Soils were observed to have a slightly higher clay content to the northwest (nearer proposed lot #7). A thin (8" to 18") layer of indurated siltstone was observed at depths of approximately 10' to 12' in the test pits excavated on lots #3, #4 and #5. Aside from this discontinuous siltstone layer, three general soil horizons were identified in each of the seven test-pits. From about 0 to 5' below grade the soils were typically very dark grayish-brown (10YR 3/2) to dark yellowish-brown (10YR 4/4), fine- to medium-grained sandy loam. These upper "A" / "A/B" horizon soils had a moderate, sub-angular blocky structure with common small pores and roots and were very friable, with a non-sticky, non-plastic moist consistency. The soils from about 5' to 11' were typically brown (10YR 4/3), fine- to medium-grained sandy loam. These soils comprised of "B" / "B/C" soil horizons which had a moderate, angular blocky structure with few pores, no roots and a friable, non-sticky, non-plastic moist consistency. Below 11', the soils were typically brown (10YR 4/3), very friable, weathered, Purisima Formation sandstone (Tp) to depths of 14'. The spoils from these depths were typically loose, slightly moist to dry, fine- to medium-grained sand. While most of the soils exposed in the test-pits were observed to be moist, no evidence of groundwater or potential seasonally high groundwater conditions was observed. In our opinion, there is no reason to suspect seasonally high groundwater conditions in the areas tested due to the well-drained sandy earth material and the ridge top location. Short periods of soil column saturation may occur, however during significant rainfall events. All of the soils observed appeared well-drained and were expected to yield a high hydraulic conductivity as indicated by the resulting soil percolation rates. Three percolation test holes were installed on each proposed lot for a total of 21 test holes (see attached Site Evaluation Results Map for locations of backhoe test-pits and percolation test holes). Soil percolation testing was conducted on these test holes between June 24 and August 3, 2006. The percolation rate of the soil was measured at depths of approximately 2', 4' and 7' below grade on each lot. The results of the percolation testing ranged from less than 0.1 to 27.0 minutes per inch (MPI). The two shallowest test holes on proposed lot #7 resulted in significantly slower percolation rates than the rest of the 21 holes tested; however, the deepest hole tested on this lot resulted in a very rapid percolation rate. The average percolation rate for all 7 proposed lots is 4.6 MPI. Excluding proposed lot #7, the average percolation rate of the three holes tested on any particular lot resulted in less than 5 MPI (see attached Percolation Test Data Sheets). Using the percolation test results as a basis for the design of a dispersal system, a percolation rate of 1-5 MPI would be an appropriate design criterion for sizing of dispersal trenches in the areas tested on each lot, except #7. A percolation rate of 6-30MPI is required to be used for sizing of dispersal trenches on proposed lot #7.

Onsite Wastewater System Design

Based on the results of the site evaluation and soil analysis, a leach field consisting of conventional, 4.0'-deep, 18"-wide, rock-filled leaching trenches, is recommended for dispersal in the areas designated as "suitable" on the attached Site Evaluation Results Map. The number and length of dispersal trenches required to serve development of each lot is dependant on the number of bedrooms in the proposed dwelling(s).

ATTACHMENT 6

Please let me know if you concur with the leaching trench design criteria outlined above. Thank you for your help on this project. Please contact me if you have any questions or concerns regarding the information presented.

Sincerely,

BioSphere Consulting, LLC

By: Andrew Brownstone, Mbr, PG #7453

Attachments: Site Evaluation Results Map (one identical 24"x36" sheet showing all for each of the 7 lots)
Percolation Test Data Sheets (one specific data sheet for each of the 7 lots)

cc: David Weiss
Joel Schwartz

ATTACHMENT 6

HALSTEAD PUMP, INC

P.O. BOX 277
APTOS, CA 95001-0277
831-688-4731, FAX 831-688-7525
LICENSE #626042

WELL YIELD AND PUMP TEST REPORT

Location of well: 500 TELFORD / ADJOINING PROPERTY

Contact Person: PETE MIRADE Ph# 722-5127

Date of pump test: 6-6-08 Pump rate during test: 10 gpm. Pump horsepower: 3

Duration of continuous pumping hours 2 Total yield: 1200 gallons

Draw down during pumping test: APPROX 50' ft. Static water level: 50' ABOVE PUMP ft.

I certify that I have performed the above pump test and that the information provided here is correct to the best of my knowledge.

Anthony Marden
License #626042
(C-61) Pump and Mechanical

6-9-08
Date

NOTES: WELL PRODUCING APPROX. 10 GPM AT WELLHEAD.
3-HP GRUNDFOS PUMP INSTALLED IN 95. THE PUMP IS IN GOOD WORKING CONDITION.
THE PRESSURE SYSTEM CONSISTS OF A FIVE HORSEPOWER BOOSTER PUMP WITH 3 - 86 GAL PRESSURE TANKS. THE TANKS WERE INSTALLED IN 06.
OVERALL, THE WATER SYSTEM SEEMS TO BE IN GOOD ORDER WITH SUFFICIENT WATER FOR INSIDE AND OUTSIDE USES.
WATER QUALITY REPORT TO FOLLOW

ATTACHMENT 7

County of Santa Cruz, PLANNING DEPARTMENT

Discretionary Application Comments 10-0069

APN 107-011-06

Drainage Review

Routing No: 1 | Review Date: 04/20/2010

DAVID SIMS (DSIMS) : Complete

:Review Type= DPW DRAINAGE ========= REVIEW ON APRIL 19, 2010 BY DAVID W SIMS ========= ========= UPDATED ON APRIL 20, 2010 BY DAVID W SIMS ========= Review Comments 10-0069 Reference for County Design Criteria: http://www.dpw.co.santa-cruz.ca.us/DESIGNCRITERIA.PDF Applicable General Plan policies: http://www.sccoplanning.com/pdf/generalplan/toc.pdf 7.23.1 New Development 7.23.2 Minimizing Impervious Surfaces 7.23.3 On-Site Stormwater Detention 7.23.5 Control Surface Runoff Policy Compliance Items: Item 1) Calculations presented show a mitigation design for a 2-year, 2- hour storm. Calculations should demonstrate as well that the County standard 10 year storm is adequately controlled for predevelopment flow rates. This could require detention if other means are not adequate. Item 2) The percolation trench facility should be provided with vertical cleanouts on the outer ends of the perforated pipes. 6" minimum per CDC. Item 3) Existing roadway running along the southern edge of proposed lots 4, 5, 6 and portions of lot 3 and 7, if no longer to be used, should be decommissioned by decompacting, regrading to prior natural contours and revegetating, to meet policy requirements to minimize impervious areas. Please delineate and note this on the plans where it will occur. Item 4) Maintenance procedures for the drainage facilities and mitigation measures must be provided on the plans per CDC requirement. Item 5) General Note 18 on sheet C1 of the civil plans notes as-builts to be prepared by County staff. Per current CDC requirements (pg. 3, Section B, item 6), as-builts are to be submitted in digital CAD format from the applicant (project civil engineer). Please revise note. Item 6) Drainage easements will be needed around all drainage facilities and mitigation measures serving drainage areas that are in common. Information Items: No additional information needed at this stage of the application. Please see miscellaneous comments. MISCELLANEOUS COMMENT: ========= REVIEW ON APRIL 20, 2010 BY DAVID W SIMS ========= Miscellaneous: Prior to recording the final map and subdivision improvement plans, address the following: A) Future driveways appear to drain to the planned roadway without obviously feasible independent mitigation as is the stated intent in the Civil Engineer's report. It seems probable that the slope, steepness, and connectivity of these driveways would make treatment by the roadway mitigation system a likely solution. Please indicate a feasible means of alternate driveway mitigation if not included in the roadway mitigation facility. B) Can driveways on lot 4 and 5 be combined to reduce impervious surfacing? C) A drainage pipe (P1) crosses the fault trace. Please review backfill and pipe materials selection for this service condition to assure pipe rupture risk is minimized. It is noted on page 15 of the geotechnical report that "rigid solid pipes" are called out over flexible conduit. D) It is noted on page 15 of the geotechnical report that percolation pits are not recommended due to possible slope failure. While slopes are apparently very mild at the proposed percolation facility location, please review the proposal between the Civil Engineer and Geotechnical Engineer and resolve the conflict in recommendations if possible. Update any statements in reports or on plans as warranted. E) It is noted in the geotechnical boring logs that sandstone bedrock occurs frequently throughout the project site at approximate depths that correspond to the proposed bottom of the percolation facility.

County of Santa Cruz, PLANNING DEPARTMENT

Discretionary Application Comments 10-0069

APN 107-011-06

Drainage Review

Routing No: 1 | Review Date: 04/20/2010

DAVID SIMS (DSIMS) : Complete

Additionally, while most near surface soils are described as sand or silty sand, some areas contain appreciable clay content. Has the selected percolation site been checked by boring tests for these two conditions that may interfere with percolation occurring at the assumed design rate of 4 inches per hour? Such conditions should be checked and the design adjusted as warranted. F) Backfilled soil zones where existing septic tanks and leach fields are to be removed should be shown on the plans such that the potential for the creation of additional impervious extents due to soil modifications can be reviewed. G) Drainage outfall velocities should be checked against CDC figures SWM-19 a & b and presented in the drainage design report to assure erosion potential has been checked. H) Presumably the gabion gravity wall does not require any backdrains. If included please show discharge routings. I) A recorded maintenance agreement may be required for certain stormwater facilities. Please contact the County of Santa Cruz Recorder' office for appropriate recording procedures. J) Please note on the plans provision for permanent bold markings at each inlet that read: "NO DUMPING - DRAINS TO BAY". K) A drainage impact fee for zone 7 will be assessed on the net increase in impervious area. The fees are currently $1.06 per square foot, and are assessed upon permit issuance. Reduced fees are assessed for semi- pervious surfacing to offset costs and encourage more extensive use of these materials. L) Construction activity resulting in a land disturbance of one acre or more, or less than one acre but part of a larger common plan of development or sale must obtain the Construction Activities Storm Water General NPDES Permit from the State Water Resources Control Board. Construction activity includes clearing, grading, excavation, stockpiling, and reconstruction of existing facilities involving removal and replacement. For more information see: http://www.swrcb.ca.gov/stormwtr/constfaq.html Please call the Dept. of Public Works, Stormwater Management Section, from 8:00 am to 12:00 noon if you have questions. (831) 454-2160

Routing No: 2 | Review Date: 03/24/2011

GERARDO VARGAS (GVARGAS) : Incomplete

Application No.: 10-0069 Reviewed by: G_V Incomplete

Completeness Comments:

The proposed drainage plan appears to be acceptable, however the calculations dated February 17, 2011 cannot be accepted. The storage volume provided for the 10 year storm is significantly undersized. Please revise calculations accordingly.

Miscellaneous comments:

Miscellaneous comments made on April 20, 2010 still apply at the building application stage.

A drainage impact fee will be assessed on the net increase in impervious area. The fees are

Drainage Review

Routing No: 2 | Review Date: 03/24/2011
GERARDO VARGAS (GVARGAS) : Incomplete

currently $1.07 per square foot, and are assessed upon permit issuance. Reduced fees are assessed for semi-pervious surfacing to offset costs and encourage more extensive use of these materials.

The applicant is encouraged to discuss the above comments with the reviewer to avoid unnecessary additional routings. A $200.00 additional review fee shall be applied to all re-submittals starting with the third routing.

Please call the Dept. of Public Works, Stormwater Management Section, from 8:00 am to 12:00 noon if you have questions.

Routing No: 3 | Review Date: 05/06/2011
GERARDO VARGAS (GVARGAS) : Complete

Application No: 10-0069 G_V 5/6/2011

Completeness Comments

The civil plans with have been received and are approved for the discretionary application stage. Please see miscellaneous comments for comments to be addressed prior to recording the final map.

Miscellaneous Comments

The Percolation trench detail has been received and approved; please insure that the detail is provided on the plans prior to recording the final map.

1. Please submit the drainage calculations reflecting the change in the percolation trench.

2. A recorded maintenance agreement is required for the proposed retention system. Please contact the County of Santa Cruz Recorder's office for appropriate recording procedure. The maintenance agreement form can be picked up from the Public Works office or can be found online at: http://www.dpw.co.santa-cruz.ca.us/Storm%20Water/FigureSWM25.pdf

Please call the Dept. of Public Works, Storm Water Management Section, from 8:00 am to 12:00 noon if you have questions.

Environmental Health Review

ATTACHMENT 8

Environmental Health Review

Routing No: 1 | Review Date: 03/29/2010
JIM SAFRANEK (JSafranek) : Complete

:Review Type= ENVIRONMENTAL HEALTH ========= REVIEW ON MARCH 29, 2010 BY JIM G SAFRANEK ========= Fee for EHS review of this project is $3075, remainder is due. The well yield test that was sent w/ the appl. does not meet standards.The applicant should contact Troy Boone of EHS at 454-3069 if the intent isto pursue a Small Community Water System to serve the subdivsion. The applicant's septic consultant will need to do Septic Site Evaluations for all proposed lots.For info contact Ruben Sanchez of EHS, 454-2751 MISCELLANEOUS COMMENT: ========= REVIEW ON MARCH 29, 2010 BY JIM G SAFRANEK ========= NO COMMENT

Routing No: 2 | Review Date: 02/28/2011
ROBIN BOLSTER (RBOLSTER) : Incomplete

see email

Routing No: 3 | Review Date: 04/28/2011
JIM SAFRANEK (JSafranek) : Complete

Project is complete for EHS. Lots have received approved preliminary onsite sewage disposal evaluations, and proposed well locations are acceptable (though County Env Planning should also review these well sites illustrated on the latest revised sheet, C4).
Prior to BP approval the applicant(s) will need to obtain approved septic system and well applications from EHS.

Environmental Planning

Routing No: 1 | Review Date: 04/06/2010
ROBERT LOVELAND (RLOVELAND) : Complete

:Review Type= ENVIRONMENTAL PLANNING Comments by Joe Hanna (4/6/10): 1. A detailed grading plan, completed by a licensed civil engineer, for the secondary access road is required. The plan shall be in compliance with Fire Department standards, the Grading Code, identify easements and clarify the stability of the road way. (14.01.206 e, (e), and 14.01.432). 2. The project engineer must provide grading plans for all turnouts, and the geotechnical engineer shall examine the location of the proposed turnouts with regards to grading and or slope stability issues. (14.01.206 e and 14.01.432) 3. A depression exists partially on Lot 1 of the proposed subdivision. Is this depression a natural feature, and does it have a man-made outlet? Does any of the subdivision drainage enter the pond? (14.01.207 (a) Drainage) 4. The geologic map dated September 2009 indicates septic system envelopes, and building envelopes for habitable structures, and on sheet C4 of the project plans indicated building and septic areas that do not match with the geologic map. Please designate the areas for habitable structures and septic systems on C4 in a manner that is consistent with the geologic map. 5. If the existing roadways do not meet Fire Department, Public Works Department Standards, or other standards and required modifications, a

Environmental Planning

Routing No: 1 | Review Date: 04/06/2010
ROBERT LOVELAND (RLOVELAND) : Complete

grading plan must be submitted with plans and profiles prepared by a civil engieer that shows all grading or other improvements. These plans must be reviewed by the geotechnical engineer before submittal to the County. Completeness Questions for the Technical Studies: 6. The engineering geologist must provide a cross-section extending from the ridge top building envelopes to Rider Creek that demonstrates his interpretation of the geologic structure and landsliding on the property. (See Report Guidelines - cross section will be used in the Initial Study.) 7. The drainage system is different than what was envisioned in the engineering geology report. We have noticed two differences: a. Per the October 2, 2009 Engineering Geology Report item 5 all drainage should be taken to a natural drainage course in impermeable swales. The proposed improvement plans included a percolation trench for drainage at the end of the new driveway located near or within an area of possible landsliding, and a bio-swale on the inside of the driveway. b. Outlets to the bio-swale are concentrating drainage on slopes in areas of mapped landsliding and near the debris flows identified by the engineering geologist. 8. Code section (16.10.070 (e) 3) requires that all drainage be directed away from potentially unstable areas. The requirements from the October 2010 report closely follow Code requirements, but plans now appear to reflect another alternative. The geotechnical engineer and/or engineering geologist must explain why the different drainage system is appropriate for this subdivision and conclude that the goals of section 16.10.070 (e) are accomplished with the combination of bio-swales and percolation trenches. Recommendation 1 of the October 2, 2009 Engineering Geology report states, -Prospective home sites located upon steep slopes should be investigated for potential slope stability hazards and their accompanying risks.- Please rephrase this recommendation to avoid the appearance that the proposed building envelopes are subject to unknown level of slope instability. County of Santa Cruz Code requires that each lot have a building site that is not subject to significant instability (16.10.070 e 2 (ii)). The Recommendation 1 as written implies that further study is required to determine site stability. We believe the geologist has included this recommendation to prevent inappropriate lot grading which could induce slope instability. Please revise. ========= UPDATED ON APRIL 6, 2010 BY ROBERT S LOVELAND ========= 1. During the recent site visit to review the proposed access road a woodrat nest was identified west of the road alignment. Woodrats are a listed species and provided protection by the county under the "Sensitive Habitat Protection Ordinance". Please complete the following items: A. A qualified biologist shall check both the primary (Sheet C4) and secondary (to be provided) access road alignments, driveway alignments, and areas included in the "Limits of Grading" for additional woodrat nests. All locations shall be identified on respective plan sheets. NOTE: I am aware that a biotic assessment was completed under Application 08-0023 (APN: 107-071-02), but the areas listed above were not identified as development areas so were not reviewed in the assessment. Once the nest sites are identified, the primary goal in the design of this project is to avoid those areas and mitigation would be secondary. 2. The grading quantities identified for "Lot 3" on Sheet C5 are considerably higher in volume than any of the other lots. The volume of earthwork is excessive given the site conditions and need to be

Environmental Planning

Routing No: 1 | Review Date: 04/06/2010
ROBERT LOVELAND (RLOVELAND) : Complete

significantly minimized.Please provide grading calculations for this lot. The use of retaining walls and use of stepped foundations are recommendations to reduce grading volumes. MISCELLANEOUS COMMENT: 1. Septic Systems will be used rather than a community based sewer. To avoid confusion please modify General Notes 6, 7, 8,9, 10, and 21. 2. The project drainage study must include (at a minimum) the items listed in 14.01.207 (a) ========= REVIEW ON APRIL 6, 2010 BY JOSEPH L HANNA ========= ========= UPDATED ON APRIL 6, 2010 BY ROBERT S LOVELAND ========= Conditions of Approval: 1. The use of "Gabion Gravity Walls" along the outboard side of the new access road will need to be specifically approved in writing by the project geotechnical engineer. 2. The project geotechnical engineer will need to specifically approve, in writing, the fill extent locations for the access road and its proximity to the "Soil Soft Zone" areas.

Routing No: 2 | Review Date: 03/28/2011
ROBERT LOVELAND (RLOVELAND) : Incomplete

2nd Routing Comments by Bob Loveland:
1. I received a "Woodrat Survey" from Dana Bland & Associates, dated 7/26/10, and I have reviewed and accepted the survey. NOTE TO PLANNER: Please add the biologist recommendations to the "Conditions of Approval".
2. I have reviewed and accepted the following letters from the project geotechnical engineer and geologist:
"Response to County Review Comments", by Bauldry Engineering and dated 2/16/11.
"Gabion Basket Retaining Walls", by Bauldry Engineering and dated 12/29/10.
"Geologic Plan Review Letter" by Zinn Geology and dated 2/22/11. NOTE: An updated "Plan Review Letter" will be required during building permit applications.
3. During this routing I reviewed a report from the project civil engineer regarding "Primary Access Road Turnouts" and Sheet 23 of 24 (Primary Access Road Detail). I completed an additional site visit and have comments regarding the following turnouts:
Turnout 1: Identify size and number of trees to be removed in order to install approvable turnout. The fire department requirements for each turnout is 12 feet wide, 35 feet long with a 7 foot approach.
Turnout 2: Width and length issues at this location. What type of work will need to be completed to construct to required specifications?
Turnout 3: Any tree removal? Width issue.
Turnout 4: Width issue.
Turnout 5: Any tree removal? Width issue.
Turnout 7: Width and length issues
Turnout 8: Drainage concern and need for retaining wall.
Turnout 10: Any tree removal? Width issue.
Turnout 12: Need for retaining wall. Scope of earthwork?

Environmental Planning

Routing No: 2 | Review Date: 03/28/2011
ROBERT LOVELAND (RLOVELAND) : Incomplete

Turnout 14: Drainage concern.
Turnout 17: Any tree removal?
Turnout 18: How will gully area be dealt with? Retaining wall? Scope of earthwork?
Turnout 19: Retaining wall? Scope of earthwork?
Turnout 20: Any tree removal? Scope of earthwork?
Turnout 21: Scope of earthwork?
Turnout 24: Scope of earthwork? Retaining wall?
Turnout 26: Scope of earthwork? Retaining wall?
In order to construct the required turnout dimensions to specifications it will require more than just adding base rock. Please provide clear details on what work will need to be done to install turnouts to required specifications (length, heights of retaining walls, overexcavation/recompaction earthwork, keyways, tree removal etc.), and provide an estimate of earthwork quantities for all turnouts listed above.
Conditions of Approval:
1. All recommendations proposed by the project biologist (Dana Bland & Associates) regarding the "Woodrat Survey", dated 7/26/10, shall be identified on the grading plans.
2. The project geologist and geotechnical engineer shall provide "Plan Review Letters" for review and approval prior to building permit issuance.
3. Submit detailed grading and drainage plans, completed by a licensed civil engineer, for review and approval.
4. Submit a detailed erosion/sediment control plan for review and approval.

Routing No: 3 | Review Date: 05/06/2011
ROBERT LOVELAND (RLOVELAND) : Complete

NOTE TO PLANNER:
The grading quantities provided for the turnout areas we think are very conservative, but we are okay with the description of work to be completed at each turnout. Please note that we will be asking for more detailed grading information from a licensed civil engineer for the turnouts requiring upgrading to code requirements.
I have reviewed and accepted the letter ("Reconnaissance of turnout #8") from the project geologist dated 4/19/11.

Fire Review

Routing No: 1 | Review Date: 03/25/2010
COLLEEN BAXTER (CBAXTER) : Complete

:Review Type= CAL DEPT OF FORESTRY/COUNTY FIRE ========= REVIEW ON MARCH 25, 2010 BY COLLEEN L BAXTER ========= DEPARTMENT NAME:CALFIRE/SANTA CRUZ COUNTY FIRE Add the appropriate NOTES and DETAILS

Fire Review

Routing No: 1 | Review Date: 03/25/2010
COLLEEN BAXTER (CBAXTER) : Complete

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 (2007) 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, DETAILS of compliance with the Access Standards of the Santa Cruz County General Plan (Objective 6.5 Fire Hazards). The access road shall be _20____ 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 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 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 all times. - The driveway shall be thereafter maintained to these standards at all times. Provide an official copy of

Fire Review

Routing No: 1 | Review Date: 03/25/2010
COLLEEN BAXTER (CBAXTER) : Complete

the duly recorded road maintenance agreement. 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. Please see attached notes from the Santa Cruz County General Plan pertaining to road requirements. All requirements must be met. Please contact Deputy Fire Marshal Chris Walters at (831)335-6748 if you have any further questions. MISCELLANEOUS COMMENT: ========= REVIEW ON MARCH 25, 2010 BY COLLEEN L BAXTER =========

Routing No: 2 | Review Date: 04/26/2011
ROBIN BOLSTER (RBOLSTER) : Complete

Housing Review

Routing No: 1 | Review Date: 03/23/2010
PATRICK HEISINGER (PHEISINGER) : Complete

:Review Type= HOUSING ========= REVIEW ON MARCH 23, 2010 BY PATRICK J HEISINGER ========= NO COMMENT Developer will have an affordable housing obligation of 1.05. The developeould contact Patrick Heisinger at 454-2322 to discuss the ways in which thiligation can be addressed. It is my understanding that the developer, via tter, has already contacted the housing section requesting a meeting to dis the project-s obligation. MISCELLANEOUS COMMENT: ========= REVIEW ON MARCH 23, 2010 BY PATRICK J HEISINGER ========= NO COMMENT none

Project Review

Routing No: 1 | Review Date: 02/28/2011
ROBIN BOLSTER (RBOLSTER) : Incomplete

:Review Type= PROJECT REVIEW NO PROJECT REVIEW DESCRIPTION AVAILABLE

Routing No: 2 | Review Date: 04/26/2011
ROBIN BOLSTER (RBOLSTER) : Incomplete

incomplete pending review/acceptance by EP/Drainage/EH/Surveyor

Project Review

Routing No: 3 | Review Date: 05/13/2011
ROBIN BOLSTER (RBOLSTER) : Complete

Road Engineering Review

Routing No: 1 | Review Date: 04/02/2010
RODOLFO RIVAS (RRIVAS) : Complete

:Review Type= DPW ROAD ENGINEERING ========= REVIEW ON APRIL 2, 2010 BY RODOLFO N RIVAS ========= NO COMMENT MISCELLANEOUS COMMENT: ========= REVIEW ON APRIL 2, 2010 BY RODOLFO N RIVAS ========= NO COMMENT

Surveyor Review

Routing No: 1 | Review Date: 03/29/2010
KATE CASSERA (KCASSERA) : Complete

:Review Type= DPW SURVEYOR ========= REVIEW ON MARCH 29, 2010 BY KATE N CASSERA ========= 1. Sheet C1, remove signature blocks from tentative map. These are only required on final improvement plans. 2. Sheet C4, 40' right-of-way as shown should also be a public utility easement to serve all lots. 3. All drainage facilities located outside of or not completely contained within the 40'right-of-way and public utilities easement must be contained within a private storm drainage easement. 4. Sheet 20 of 24, please clarify bearing and distance information. Information as shown is illegible. 5. All rights of ways and easements must be specifically described with bearings and distances and record information used to obtain existing information must be referenced. MISCELLANEOUS COMMENT: ========= REVIEW ON MARCH 29, 2010 BY KATE N CASSERA =========

Routing No: 2 | Review Date: 03/14/2011
KATE CASSERA (KCASSERA) : Incomplete

1. Remove all contour lines from tentative parcel map sheets 20-24. These contour lines make the tentative parcel map impossible to read at the scale it is drawn. Contour information is to be shown on the improvement plans only. Once this is done, tentative parcel map will be reviewed.
2. Sheet 20 of 24, provide bearing information for all lines shown on tenative parcel map. If map scale is too large to do this, add an additional sheet for clarification.

Routing No: 3 | Review Date: 05/05/2011
KATE CASSERA (KCASSERA) : Complete

Urban Designer Review

Routing No: 1 | Review Date: 04/26/2011

Discretionary Application Comments 10-0069

APN 107-011-06

Urban Designer Review

ROBIN BOLSTER (RBOLSTER) : No Response

:Review Type= URBAN DESIGNER NO PROJECT REVIEW DESCRIPTION AVAILABLE

ATTACHMENT 8

COUNTY OF SANTA CRUZ | Planning Department

INTEROFFICE MEMO

APPLICATION NO: 10-0069

Date: April 19, 2010

To: Robin Bolster-Grant, Project Planner

From: Larry Kasparowitz, Urban Designer

Re: Alta Vista Ocean View Estates design guidelines

Landscaping –

- *use the term "low and moderate water use plants" – this is defined in the new Landscape Water Use Ordinance.*
- *use the term "appropriate native plants" – there are many native plants that are high water use.*
- *state that the installed landscape shall be subject to the State Landscape Water Use Ordinance or local equivalent.*

Fencing and walls –

- *where is the proposed 4-6 ft. fencing?*

Home Design –

- *garages should not face the front of the residence, where possible.*
- *should there be both a maximum and minimum home size?*
- *define home size.*
- *is pervious pavement recommended or encouraged?*

Open Space –

- *would the barn and associated facilities be on common open space?*

Fire Prevention Requirements –

- *please confirm if the Urban-Wildland portions of the building code apply and state in design criteria.*

Please submit a copy of the revised document for review. The last paragraph of the Home Design section needs revisions.

Robin Bolster

From: Jim Safranek
Sent: Friday, April 01, 2011 10:13 AM
To: Robin Bolster
Subject: 10-0069

HI RB
After too much fooling around on Fool's day, I finally received the revised sheet from Weaver; project is now complete for EHS
All parcels received approved preliminary septic system site evaluations from this dept.; well locations now appear suitable, accessible for service, and meet required setbacks.

JS

ATTACHMENT 8

JOE L. AKERS

CIVIL ENGINEER 830 BAY AVE. STE. E CAPITOLA, CA. (831) 475-6 557 FAX (831) 475-7158

ON-SITE DRAINAGE CALCULATIONS

JOB NO. WEI 6001 February 24, 2010

TRACT 1558
ALTA VISTA OCEAN VIEW ESTATES
TELFORD DRIVE
SANTA CRUZ COUNTY

APN 107-011-06

SHEET INDEX

PREPARED BY:
JOE L. AKERS
RCE 20372
EXP.9-30-11

Joe L Akers
3/01/10

REGISTERED PROFESSIONAL ENGINEER
JOE L. AKERS
No. 20372
Exp. 9-30-11
CIVIL
STATE OF CALIFORNIA

ATTACHMENT 9

JOE L. AKERS

CIVIL ENGINEER 830 BAY AVE. STE. E CAPITOLA, CA. (831) 475-6 557 FAX (831) 475-7158

SUMMARY

Site is located in the Aptos, Pajaro water basin and in the Lower Corralitos, Upper Corralitos, Aptos watershed. The improvement site is in a water supply watershed and is also in a ground water recharge area.

The upslope area runoff (Southwesterly of the road) is collected in a bio-swale that runs along the Southwesterly side of the road. The bio-swale releases to 7 energy dissipaters below the road. The bio-swale will keep the pervious uphill runoff from entering the storage system. The drainage system design for the lot improvements (house, driveway, walks etc.) will be prepared at the time of development for the individual lots. Their design should provide the necessary storage and outlets separate from the road system.

The storage volume is designed using all of the new proposed roadway impervious area. Pervious pavement was not considered because of the road longitudinal slope steepness. Area 7 does not flow toward the storage system. It flows to a energy dissipater located below the road. There is a high point in the road at station **6+33.86.** The storage system is sized using an average percolation rate for the NRCS area. The overflow from the storage system will flow overland approximately 3000 feet through a forested area before it reaches Rider Creek. Therefore downstream creek flows should not be significantly impacted by the proposed road improvements.

The road drainage system is designed using a 25 year storm. Flow analysis **A** uses 12 inch pipe in the roadway and an 8 inch pipe to the percolation trench. Flow analysis **B** uses 8 inch pipe for both roadway and release pipe. In order to provide a better flow velocity the 8" roadway pipe was used. The flow velocities for the 12 inch pipe were all less than 2 fps except for P-4 (steep slope) (see sheet 8). The pipe velocities for the 8 inch pipe were greater than 2 fps except P-6 (very small Q) and P-2 (pipe entering control box) (see sheet 14). P-2 velocity with the 12 inch pipe was 0.72 fps and with 8 inch pipe it was 1.58 fps. The 8 inch pipe is shown in the plan drawing table on sheet C7 of the improvement plans.

AKERS & ASSOCIATES - CIVIL ENGINEERING
830 BAY AVE. STE. E CAPITOLA, CA. 95010 (831) 475-6557

BY JA DATE 2/10 SUBJECT Tract 1558 SHEET 3 OF 22

Drainage Calcs

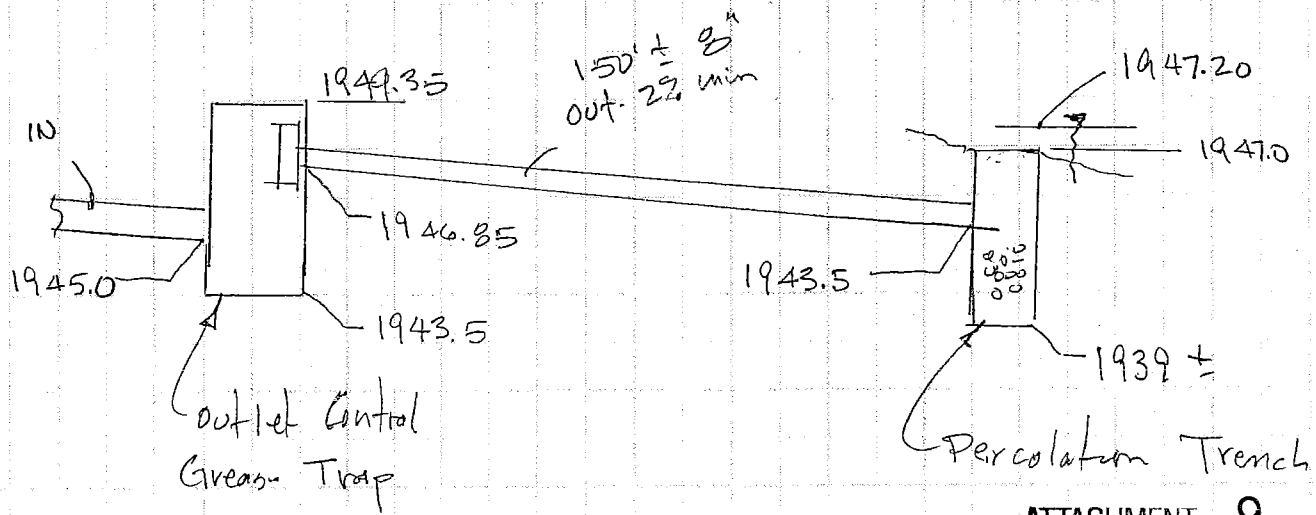
P60 value 1.7 $Q = C_a C i A$ for $T_c = 15$ min $i_{10} = 1.95$ in/hr

for 25 yr. $C_a = 1.1$ $C = 0.9$ $C_a C = 0.99$ $i_{25} = 2.34$ in/hr

Area #	Area	$C_a C A / 43200$	i_{25}	Q_{25} (cfs)
7	3243 sf.	0.074	2.34	0.17
6	3729	0.085		0.20
5	1938	0.044		0.10
4	3231	0.074		0.17
3	1481	0.034		0.08
2	J.B.	—		—
1	4517	0.104		0.24
	18,139			

System 6 thru 1 flow = 0.79 cfs

OUT TO PERCOLATION TRENCH



ATTACHMENT 9

4/22

AKERS & ASSOCIATES, INC.
830 BAY AVE. STE. E
CAPITOLA, CA. 95010

Project: Weiss Alta Vista Ocean View Estates Date: 25-Feb-10

REQUIRED STORAGE - PERCOLATION RETENTION METHOD

Design Data:

P60 Isopleth = 1.7
2 yr. 2 hr. Rainfall Intensity (i) = 0.54 in/hr
Pre-developed Runoff Coefficent Cpre = 0.25
Post-developed Runoff Coefficient Cpost= 0.90
Percolation Rate Pr= 4.0 in/hr (AVE)(SC soil Survey - Soil 111)

Impervious Areas			Trench Dimen			Effective Surface Area=	0.7	
Bldg	0	sf	W=	2.0	ft	Surface Area Aef=	1036.0	sf
Walks	0	sf	D=	6.0	ft			
Pavement	18139	sf	L=	104.0	ft	Internal Voids =	0.35	
Ai Total =	18139	sf	V=	1248.0	cf	Available Volume=	436.8	cf

Qin (Required Retention Rate) = Qpost-Qpre
Qpost = Cpost*i*Ai = 0.3779 *i cfs (i varies w/duration)
Qpre = Cpre*I*Ai = 0.0567 cfs (i constant & Q constant)

Direct Rainfall Rate Qin-sa = i*L*W = 0.0048 *i cfs (i varies w/duration)

Qout (Soil Infiltration Rate) = Pr*Aef = 0.0959 cfs (constant for each Aef)

Storage Volume = (Qin + Qin-sa - Qout)*Storm Duration*60

Storm Duration (min)	i in/hr 2 yr. storm	Qin cfs	Direct Rate cfs	Qout cfs	Storage Volume cf
5	1.94	0.6764	0.0093	0.0959	177
10	1.47	0.4988	0.0071	0.0959	246
20	1.11	0.3628	0.0053	0.0959	327
30	0.94	0.2985	0.0045	0.0959	373
60	0.71	0.2116	0.0034	0.0959	429
100	0.58	0.1625	0.0028	0.0959	416
120	0.54	0.1474	0.0026	0.0959	389
200	0.44	0.1096	0.0021	0.0959	189
400	0.33	0.0680	0.0016	0.0959	-632
600	0.28	0.0491	0.0013	0.0959	-1636
800	0.25	0.0378	0.0012	0.0959	-2733
1000	0.23	0.0302	0.0011	0.0959	-3875
2000	0.17	0.0076	0.0008	0.0959	-10506

Vp Storage Volume Provided = 436.8

Vmax= 429 cf
*1.0 = 429 cf < Vp **OK**

Drain Time = V/(Qout*3600) = 1.26 hr < 48 hrs

ATTACHMENT 9

ECOSYSTEMS WEST
CONSULTING GROUP

December 4, 2008

Matt Johnston
Planning Department
County of Santa Cruz
701 Ocean Street
Santa Cruz, CA 95060

Re: David Weiss et al. Biotic Assessment (Application No. 08-0023)

Dear Matt:

This letter reports the findings of a biotic assessment of the David Weiss et. al parcel (Assessor's Parcel No. 107-071-02), located at the terminus of Telford Drive 550 feet northwest of its intersection with Enos Lane in Corralitos, in the Aptos Hills Planning Area in southern Santa Cruz County. The applicant is proposing a minor land division with intent of developing additional homes on the 135+ acre parcel. This assessment focused primarily on the presence of special-status plants and wildlife within the areas proposed development. Two separate sites have been tentatively identified as building sites, both of which are near the top of north south trending Corralitos mountain ridgeline.

The U.S. Soil Conservation Service Soil Survey of Santa Cruz County (1980) classifies the soils on the Weiss parcel as Ben Lomond sandy loam series, 15 to 75 percent slopes and Zayante rock outcrop complex, 15 to 75 percent slope. The Ben Lomond sandy loam series is the predominant soil type on the Weiss parcel. The Ben Lomond sandy loam soil series is a deep, well drained soil formed on long side slopes in residuum derived from sandstone and granitic rock. Permeability of Ben Lomond sandy loam series is moderately rapid with rapid runoff potential and moderate to high erosion hazard. This series occurs in the northwest proposed building site area. The Zayante rock outcrop complex is on hills and mountains with an equal percentage of rock outcrop and Zayante coarse sand formed in residuum derived from consolidated marine sediment or sandstone. The Zayante rock outcrop complex has rapid permeability with rapid runoff potential and a high to very high erosion hazard. The Zayante substrate is confined to a small portion of the Weiss parcel in the area proposed for Homesite #1.

Field visits were made in September and November, 2008 to characterize the habitats and potential for special-status plant and animal species. The 135 acre parcel is characterized by a level to moderate east facing slope. The majority of the parcel is dominated by mixed evergreen coniferous forest habitat with scattered stands of introduced non-native conifer tree stands and cleared open fields. The two proposed development sites are situated on the southern edge of the

parcel near the apex of the Corralitos ridgeline. The southeastern most proposed homesite (identified on the parcel map as "proposed Homesite #1") occurs on a small inclusion of Zayante sand soil substrate. The majority of the Zayante sands occur west of the parcel on the west-facing slope below the Weiss parcel. The proposed homesite #1 building area is characterized by disturbed terrace with the vegetation showing the appearance of recent clearing and grubbing. The predominant cover is resprouting maritime chaparral with scattered tree cover. The disturbed maritime chaparral is dominated by coyote brush (*Baccharis pilularis*), yerba santa (*Erodictyon californicum*), brittle-leaved manzanita (*Arctostaphylos tomentosa* ssp. *crustacea*), buck brush (*Ceanothus cuneatus*), deer weed (*Lotus scoparius*), purple lilac (*Ceanothus thyrsiflorus*), and yellow bush lupine (*Lupinus arboreus*). Surrounding the disturbed chaparral vegetation are scattered trees including trees that have stumped sprouted after being cut in an earlier clearing of the building site (date unknown). Tree species include madrone (*Arbutus menziesii*), Douglas fir (*Pseudotsuga menziesii*), California bay (*Umbellularia californica*), and two large diameter ponderosa pines (*Pinus ponderosa*). In addition, a hedge row of non-native Monterey cypress (*Cupressus macrocarpa*) and true cedar (*Cedrus* spp.) occur on the eastern side of the building site. Open ground areas supported a moderate cover of non-native grasses and native and non-native herbs including Canary Island grass (*Phalaris canariensis*), pampas grass (*Cortaderia selloana*), mule fat (*Baccharis viminea*), hairy cat's ear (*Hypochaeris radicata*), and California blackberry (*Rubus ursinus*).

The proposed western homesites occur in a large disturbed, cleared field, west of the existing homes along the top of the ridge. The field consists of scattered resprouting individuals of coyote bush, madrone, and a shrubby form of coast live oak (*Quercus agrifolia*). The ground cover is dominated by non-native annual grasses and non-native herbs including broad-leaved filaree (*Erodium botrys*), hairy cat's ear, English plantain (*Plantago lanceolata*), wild lettuce (*Lactuca serriola*), and California blackberry vines. Other low growing shrubs include deer weed, yerba santa, and buck brush. Scattered stands of bracken fern (*Pteridium aquilinum* var. *pubescens*) occurs in the disturbed cleared areas between the shrub stands. The soils in this area are all slope variants of Elkhorn sandy loam.

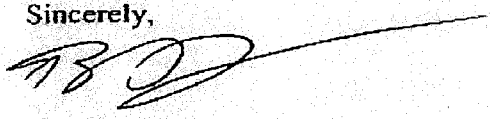
No sensitive plant or animal species indigenous in the vicinity of the site were observed on the parcel. The Ben Lomond sandy loam soils are not known indicators for special-status plants occurring in the southern coastal Santa Cruz County region. The California Natural Diversity Data Base (NDDB) has no current records of any special-status plants within five miles of the Weiss parcel. The habitat at the northwest building sites is primarily composed of non-native disturbance indicators and second growth mixed evergreen woodland species. Potential habitat for special-status plants in this area of the property is low. Homesite #1 is located at the top of the ridgeline on Zayante soils. Zayante soil in the Ben Lomond-Felton-Scotts Valley region supports a unique array of special-status plant and animal species in a biological island. The vegetation associated with this island supports distinctive plant associations and endemic flora and fauna. The small lenses of Zayante substrate in the southern Santa Cruz County area are not of sufficient size to support a flora and fauna distinctive from other surrounding limiting substrates. The shrub and herbaceous species are not endemic to the Zayante substrate and are found in other chaparral habitats on other limiting substrates in the vicinity of the parcel area. The Zayante substrate contiguous with the western edge of the parcel supports a dense maritime chaparral cover composed of the native shrub species described above. The presence of the ponderosa pine

trees suggests a possible relationship with the Ben Lomond sandhills but since there has been planting of other non-native confers adjacent to the building area it is possible that they were planted there at an earlier time. None of the perennial shrubs observed at this location are special-status sandhills habitat indicators. The NDDB has a general location (>5 mile radius) for Santa Cruz kangaroo rat which includes the Weiss parcel. Santa Cruz kangaroo rat is a California species of special concern and is presently known from only a couple of extant locations in the Ben Lomond sandhills of Graham Hill Road on State Park property. In the extant location the habitat is a dense maritime chaparral stand on indurate (hard) sandstone outcrop. The Zayante substrate within the proposed building site for Homesite #1 is flat with out irregularity necessary to support kangaroo rat burrows and runs. No potential habitat exists for the kangaroo rat in the building area. Potential habitat could exist within the dense chaparral habitat down slope and southwest of the Weiss parcel.

Based on this assessment, I do not believe that development of this parcel will result in any direct impact to special-status species or their habitats.

Should you require further information or clarification, please don't hesitate to contact me.

Sincerely,



Bill Davilla
Principal

ATTACHMENT 10

COUNTY OF SANTA CRUZ

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

DATE 12/05/08

NAME David Weiss, etal
STREET 1840 41st Ave
CITY STATE ZIP Capitola, CA 95010

Dear Mr. Weiss:

We have received the completed biotic assessment for this property, prepared by Ecosystems West, and dated December 4th, 2005. The assessment was required because of the presence of Zayante sands and Ben Lomond sandy loam, and ponderosa pines with associated potential for protected plant and animal species. A copy of the Biotic Assessment is attached.

Regarding plants, the biologist observed no suitable habitat for any listed species.
Regarding animals, the assessment did not identify suitable habitat for special status species.

Based on the findings of the attached report, the county finds that the proposed development will not have any potential impact on any local, state or federally listed species.

Please call me at 831-454-3178 if you have any questions. A copy of this letter will be sent to your project planner so that she or he is aware of the biotic conditions on the parcel.

Sincerely,

Matt Johnston
Environmental Planning

For: Claudia Slater
Principal Planner

CC: Bob Loveland, Resource Planner

ATTACHMENT 11

Attachment 2

Dana Bland & Associates
P.O. Box 636, Aptos, CA 95001 ph: 831-688-2104

Alta Vista Ocean View Estates
Santa Cruz County, CA
Woodrat Survey

Introduction

The owner of a property at the end of Telford Road near Corralitos in Santa Cruz County, California, proposes to subdivide the property into seven lots for development as single family residences. The seven proposed lots are located on the ridge top at the end of the currently paved portion of Telford Road, and the plan includes a secondary access road from the ridge top to connect to Ryder Road. The secondary access road will follow an existing dirt road which will be paved and widened to the required 18-foot width where necessary. The Santa Cruz County Planning Department has requested a survey of the development area for San Francisco dusky-footed woodrat (*Neotoma fuscipes annectens*), a California Species of Special Concern.

Methods

Dana Bland, Wildlife Biologist, surveyed the approximately 50-acre area proposed for the seven residences (Lots 1 through 7) to search for presence of woodrat houses. The secondary access road was not surveyed because the areas where it will need to be widened have not yet been marked. Dana traversed the area on foot to search for the distinctive stick woodrat houses.

Results

Most of the area of Lots 1-7 is scrub habitat with moderate cover of coyote brush and small oaks. One woodrat house was observed along the eastern edge of Lot 7 (Photo 1 below). No other woodrat houses were observed within Lots 1 through 7; however, some areas were not accessible because of impenetrable thickets of blackberry and stinging nettle (Photo 2 below). It would not be possible to search those areas without removing vegetation.

Photo 1. Woodrat house (center of photo) located at eastern end of Lot 7, Alta Vista Ocean View Estates, Corralitos, California, July 19, 2010.

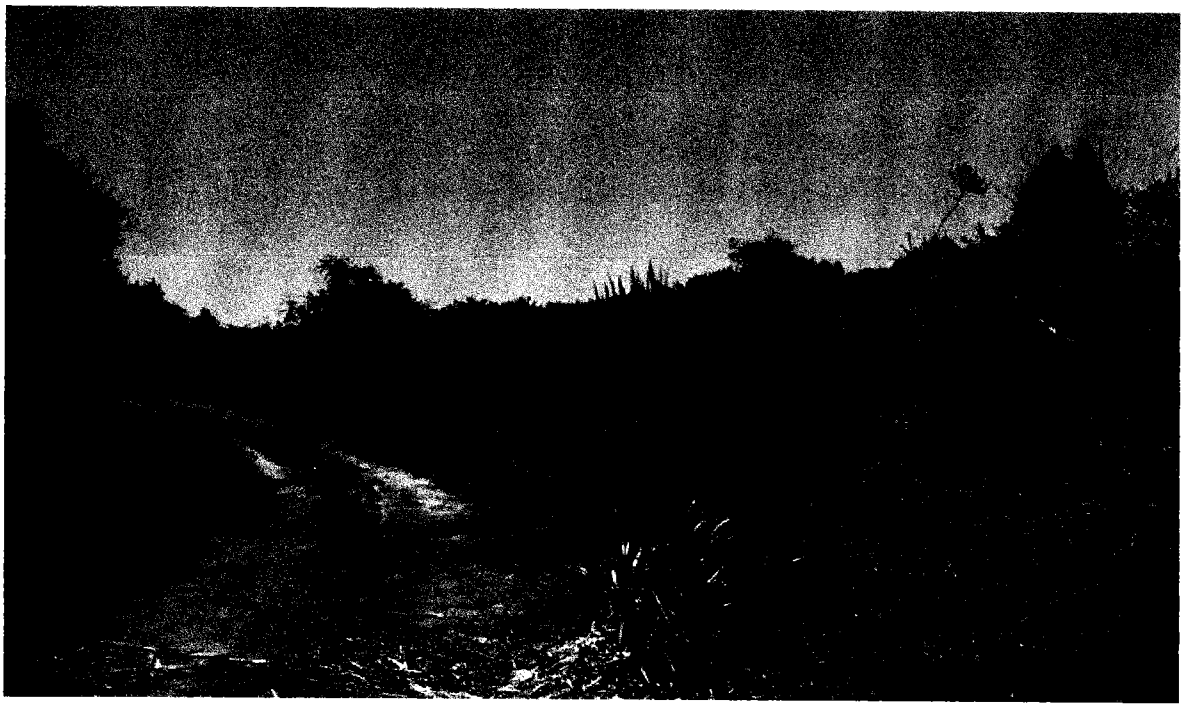


Photo 2. Some areas of dense thickets of blackberry and stinging nettle, Lots 5-6, Alta Vista Ocean View Estates, Corralitos, California, July 19, 2010. Proposed secondary access road in center.

Recommendations

The following measures for the proposed Alta Vista Ocean View Estates subdivision are recommended to avoid and minimize potential impacts to San Francisco dusky-footed woodrats:

- Avoid removal of woodrat houses and a 25-foot buffer around them during vegetation removal and grading of the seven lots and secondary access road.

- If it is not possible to avoid woodrat houses, have a qualified biologist prepare a plan to construct one replacement house for each one removed in an area outside the proposed development lots. The plan should be implemented prior to removal of the existing woodrat house, and should be reviewed and approved by California Department of Fish and Game (CDFG).

- Have a qualified biologist monitor removal of the dense thickets of vegetation to search for woodrat houses within those areas. If a woodrat house is encountered, vegetation removal should cease until a replacement house can be constructed in an area outside the proposed development lots as per the plan approved by CDFG.

Staub Forestry &
Environmental Consulting

STAUB

David Weiss
Postal Mail Box 131
1840 41st Avenue, #101
Capitola, CA 95010

April 2, 2010

Re: Registered Professional Forester's Assessment of TPZ Compatibility with Alta Vista Ocean View Estates Subdivision, Santa Cruz County Assessors' Parcel # 107-011-06.

Mr. Weis,

Jim Weaver contacted us on your behalf in early March 2010 and asked that I review the proposed subdivision named above. Because the subject parcel is zoned Timber Production (TP), the County's General Plan and Zoning Ordinances have a number of policies and regulations that dictate the circumstances and conditions under which development and/or subdivision may occur. In this particular instance, my assessment effectively requires four findings: 1) subdivision boundaries do not result in a significant reduction in the overall timbered acreage on the large, residual TP parcel (Lot 1); 2) subdivision boundaries do not intersect harvest roads, skid trails, etc. thereby disrupting the normal conduct of timber operations; 3) building envelopes do not permanently remove "timberland" from production; and 4) building envelopes, developed access roads, and/or other permanent improvements do not block or otherwise occupy timber harvest infrastructure such as roads, landings, or skid trails.

I reviewed all relevant subdivision maps, specifically Sheets C3 and C4 of C19, which were prepared by Civil Engineer, Joe Acres. I compared these maps with the property's Timber Harvest Plan (THP) maps, the USDA Soil Survey for Santa Cruz County (1980), aerial photographs, and other data from Santa Cruz County's interactive GIS website. I visited the site on March 18, 2010 to review proposed building envelopes and subdivision boundaries in order to make the findings discussed in the paragraph above, and to determine whether the proposed subdivision is compatible with long-term, commercial forest management. Particular emphasis was placed on reconnaissance in the northern portions of the newly created parcels (Lots 2-7), as the aerial photos suggested the presence of at least some commercial timber, but perhaps more importantly, the Lot lines appear to cross one of the primary seasonal roads used for log hauling.

Summary of Findings:

1) The proposed subdivision does not remove significant commercial timber from production. The majority of the commercial conifer trees within the newly created lots (Lots 2-7) are low quality Douglas-fir trees that have little, if any, commercial value. The dozen or so redwoods that are located within the newly created lots are widely scattered and amount to less than 1% of the overall timber acreage on APN # 107-011-06. The subdivision is not expected to have any measureable impact on the property's timber production capabilities.

ATTACHMENT 13

2) The northern boundaries of the newly created Lot Lines intersect portions of the existing seasonal road network which is to be used for hauling forest products. In my professional opinion, this creates a compatibility issue, but one which can be remedied by implementing the following recommendation. which can be easily Recommendation: The "Recommended" Lot Line configuration shown on the attached "Alta Vista TPZ Compatibility Analysis Map" will address the compatibility concern created by the "Submitted" Lot Line configuration.

3) The building envelopes identified on Lots 2-7 do not contain any commercial timber.

4) The building envelopes, developed access roads, and/or other permanent improvements identified on Lots 2-7 do not block or otherwise occupy timber harvest infrastructure such as roads, landings, or skid trails.

In conclusion, the proposed subdivision is expected to have a negligible impact on the timber resources and timber management activities on the residual TPZ parcel (Lot 1) so as long as access is maintained as recommended in Item 2 above. With productivity and access for timber management effectively unimpaired, the proposed project is physically compatible with the growing and harvesting of timber, consistent with the intent of the Forest Taxation Reform Act of 1976, as well as the purposes of County Code Chapter 13.10.370 (Timber Production Zoning).

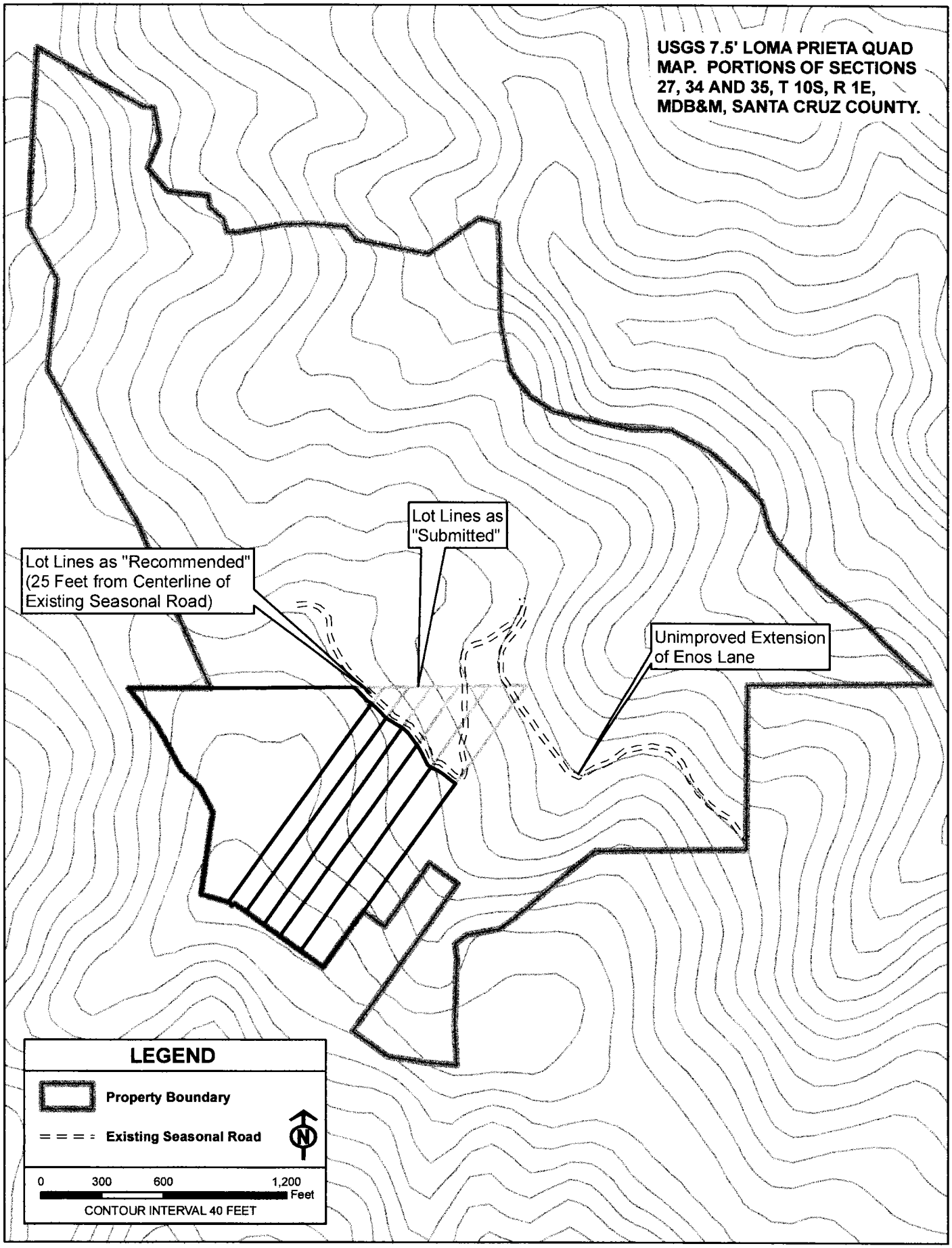
Sincerely,

Cassady Bill Vaughan, RPF #2685

ATTACHMENT 13

6010 Highway 9, Suite 6 Felton CA 95018 Phone 831. 335.1452 Fax 831. 335.1462 billyv@pacbell.net
Stephen R. Staub, RPF #1911 Cassady Bill Vaughan, RPF#2685 Dylan Windt, Forestry and GIS Technician

ALTA VISTA TPZ COMPATIBILITY ANALYSIS MAP



Staub Forestry & Environmental Consulting

Date Last Modified: 2 April 2010

ATTACHMENT 13

BASIS FOR ANALYSIS;
TO BE COMPLETED BY STAFF

ALTERED MATRIX AS PER APPLICANT LETTER 5/11

Rural Residential Density Matrix

	Current Point Score	Conditional Point Score
1. **Location:** Mountain Residential General Plan designation 12-foot minimum width road with turnouts * Conditional: establish 18-foot wide access road - all the way to Public Maintained road	~~0~~ 2	2* NOT VERIFIED
2. **Groundwater Quality:** IV - Adequate quantity/Good quality *Conditional: establish if private or mutual system - new	~~5~~ 8	8*
3. **Water Resource Protection:** Septic Systems in areas w/out known problems Building sites within Water Supply Watershed areas and Primary Recharge	3	3
4. **Timber Resources:** Parcel zoned TP & located >2 miles from USL	0	0
5. **Biotic Resource:** Parcel w/in Sensitive Habitats *Conditional: Establish that all development activities are outside Designated Important Wildlife Habitats	10	10* (verified)
6. **Erosion:** Purisma Formation 1.35+2.72+2.63+0= Weighted average: 13.51%+33.99%+52.50% (14.63% excluded)	4.07	4.07 (8)
7. **Seismic Activity:** Fault Zone shown on plans, no potential for liquefaction *Conditional: Establish that no fault zones exist on parcels	5	10* (5)
8. **Landslide:** Purisma Formation 1.22+2.72+2.63+0= Weighted average: 13.51%+33.99%+52.5% (14.63% excluded)	6.57	6.57 (8)
9. **Fire Hazard:** Parts of property in Critical Fire Hazard Area Less than 10 minute fire response time assumed. 12-foot wide private dead end road with secondary access assumed** Building sites located outside critical fire hazard area *Conditional: Establish that an 18-foot wide road exists	~~6**~~ 8	8* (NOT VERIFIED)
SUBTOTAL	~~29.64~~ 46.64	51.64
SUBTRACT CUMULATIVE CONSTRAINT POINTS	~~10.00~~	00.00
GRAND TOTAL	~~19.64~~ 46.64	51.64
Minimum Average Developable Parcel Size*: (from **Mountain Residential** Table minus Cumulative Constraint Points as determined by the point score)	~~40 acres~~ 25 ~~AC~~	25 acres
Number of Potential Building Sites* (developable acreage divided by minimum average parcel size)	7 ~~4 (5)~~	7

** Without secondary access meeting county standards, division is only possible at the lowest density (40 acres).*

*Over-riding minimum parcel size restriction, if applicable, takes precedence over the preliminary allowed average density in the event of conflict. SEE POLICIES ATTACHED

Additional information will be required as part of any future land division application to verify site conditions.

ATTACHMENT 14

Pacific Rim Planning Group
Land Use & Development Consultants
206 Morrissey Blvd
Santa Cruz, CA. 95062
Ph: 831.457.2033
Fax: 831.471.2137
Email: pacrimplangrp@aol.com

MEMO

Date: May 11, 2009

To: Ms. Samantha Hashert; Project planner

From: Jim Weaver

RE: Matrix Application 07-0499 APN: # 107-011-05 & 107-071-02

Note: Samantha -

Hope this finds you doing well. I am sending this to your attention as you were the project planner in September 2007 assigned to complete the matrix. Also I am not sure whom else to send it to. Since your letter of September 28, 2007 (attached) we applied for a biotic assessment (attached) to determine if any biotic issues existed on the property. A biotic assessment was completed by Ecosystems West (attached) determining that there was not a biotic issue. Matt Johnson's letter of December 5, 2008 (attached) stipulates that the Ecosystem West's report did not identify suitable habitat for special status species.

The result of the biotic assessment increases our matrix score in the current point category. The subtotal should be 39.64 (see attached matrix score sheet) and allows one additional parcel for a total of 5 parcels. The biotic assessment does not change the conditional point score but confirms that 10 points should be awarded in the biotic resource category.

ATTACHMENT 14

When reviewing your matrix, we believe that the conditional points allocated are as follows:

Location:	~~8~~ 2 points is valid in that there is an 18 foot wide road
Groundwater:	8 points is valid since a private system will be provided
Water Resource:	No change
Timber:	No change
Biotic;	10 points per biotic assessment
Erosion:	No change
Seismic:	5 points is correct as we are assuming a fault trace
Landslide:	No change
Fire hazard:	8 points is valid in that there is an 18 foot wide road with secondary access

If my math is correct the conditional score (which we believe can now be the current score) should be 46.64. Your matrix has the conditional score at 51.64. The 46.64 score allows a 25 acre parcel size, thus allowing 7 parcels.

I would like and appreciate your help in revising the existing matrix in your files. I only ask that the revision be associated with the biotic issue. The rest of the revisions noted above will need to be supported with additional information supplied by us. We are again working on a tentative map for 7 parcels. If there is a simple way for you to note the correct biotic score in the matrix file, there will be one less item to discuss when the tentative map application is submitted.

Thank you for your assistance and please let me know if there is anything I may do to assist.

Best wishes.

Jim Weaver
Project Manager

ATTACHMENT 14

RURAL DENSITY MATRIX WORKSHEET

Application No. **07-0499**

This section is to be completed by the Applicant

****THIS PAGE WAS NOT SUBMITTED BY THE APPLICANT. ALL INFORMATION IS BASED ON PLAN SUBMITTED BY APPLICANT AND ESTIMATED FROM COUNTY GIS INFORMATION.**

Assessor's Parcel No.: 107-011-05 & 107-071-02

Name Larry and Hedy Stephens
Mailing Address 1840 41st Avenue
City, State, Zip Capitola, CA 95010
Telephone None given

Access to site: Yes Name of Road: Telford Drive & Enos Lane

Check which apply:

____ Public, County maintained

____ Public, not County maintained

__X__ Private

____ Dead-end road and greater than ½ mile from a through road (see General Plan Policies 6.5.4 and 6.5.5)

____ Not paved

____ Pavement width: 12' to 18' with turnouts at intervals of greater than 500 feet

__X__ Pavement width: 12' to 18' with turnouts at intervals of less than 500 feet

____ Pavement width: 18' or greater

____ Other

Water Source:

___ County or municipal water district

__X__ Private or mutual well

____ Spring

Sewage Disposal:

____ Public or private sanitation district

____ Package treatment plant or septic maintenance district

__X__ Septic system

Total acreage Parcel(s): 335.6 Number of houses or habitable structures on parcel(s): 0

Purpose of this application:

__X__ Determine the minimum acreage per building site

__X__ Determine the maximum number of parcels for a land division

____ Determine the allowable density of an organized camp or conference center

ATTACHMENT 14

BASIS FOR ANALYSIS; TO BE COMPLETED BY STAFF

Planning Areas:	Aptos Hills (107-071-02) & Eureka Canyon (107-011-05)
General Plan land use designation:	R-M (Mountain Residential)
Zone District:	RA-Residential Agriculture (107-071-02) & TP-Timber Production (107-011-05)
Mapped Environmental Constraints:	Some slopes over 50%, Landslide areas, Possible Fault Zone
Resources (timber, agriculture, etc.)	Water Supply Watershed, Biotic, Streams
Access:	Telford Drive & Enos Lane
Fire Response Time (in minutes):	less than 10 minutes assumed

Property Characteristics

Source of the following data: __X__ In house __X__ Plans submitted by Applicant

Parcel size (in acres): 335.6 acres Source: EMIS

Acreage per Average Slope Category:

Slope %	Sq Ft	Acres	% of Parcel
0-15	1686637.7687	38.72	11.54
16-30	4240701.6641	97.35	29.01
31-50	6552191.6752	150.42	44.82
51+	2139183.6615	49.12	14.63
Totals		335.6	100

Portions of Property Excluded as Undevelopable land (in acres):

1.	Slopes in excess of 50%	49.12 acres
2.	Road rights-of-way (estimated/additional rights-of-way may exist)	1.7 acres minimum (as per plans)
3.	Riparian corridors, wooded arroyos, canyons, stream banks, areas of riparian vegetation.	12.6 acres (as per plans and GIS)
4.	Lakes, streams, marshes, sloughs, wetlands, beaches, and areas within the 100 year flood plain. *(area deducted in #3 above)*	Unknown
5.	Areas of recent or active landslides.	80.1 acres (as per plans)
6.	Land within 50 feet of an active or potentially active fault trace.	10 acres (as per plans)
7.	Type 1 & 2 prime agricultural land and mineral resource areas.	None mapped
8.	Total acreage excluded (total of #'s 1 through 7, except overlaps)	153.52 ± acres minimum*
9.	Total Developable Acreage (subtract # 8 from total acreage)	182.07 ± acres maximum*

**Approximations made with available information.*

BASIS FOR ANALYSIS; TO BE COMPLETED BY STAFF

Rural Residential Density Matrix

	Current Point Score	Conditional Point Score
1. **Location:** Mountain Residential General Plan designation 12-foot minimum width road with turnouts * Conditional: establish 18-foot wide access road	0	2*
2. **Groundwater Quality:** IV - Adequate quantity/Good quality *Conditional: establish if private or mutual system	5	8*
3. **Water Resource Protection:** Septic Systems in areas w/out known problems Building sites within Water Supply Watershed areas and Primary Recharge	3	3
4. **Timber Resources:** Parcel zoned TP & located >2 miles from USL	0	0
5. **Biotic Resource:** Parcel w/in Sensitive Habitats *Conditional: Establish that all development activities are outside Designated Important Wildlife Habitats	0	10*
6. **Erosion:** Purisma Formation 1.35+2.72+2.63+0= Weighted average: 13.51%+33.99%+52.50% (14.63% excluded)	4.07	4.07
7. **Seismic Activity:** Fault Zone shown on plans, no potential for liquefaction *Conditional: Establish that no fault zones exist on parcels	5	10*
8. **Landslide:** Purisma Formation 1.22+2.72+2.63+0= Weighted average: 13.51%+33.99%+52.5% (14.63% excluded)	6.57	6.57
9. **Fire Hazard:** Parts of property in Critical Fire Hazard Area Less than 10 minute fire response time assumed. 12-foot wide private dead end road with secondary access assumed** Building sites located outside critical fire hazard area *Conditional: Establish that an 18-foot wide road exists ** *Without secondary access meeting county standards, division is only possible at the lowest density (40 acres).*	6**	8*
SUBTOTAL	29.64	51.64
SUBTRACT CUMULATIVE CONSTRAINT POINTS	10.00	00.00
GRAND TOTAL	19.64	51.64
Minimum Average Developable Parcel Size*: (from **Mountain Residential** Table minus Cumulative Constraint Points as determined by the point score)	40 acres	25 acres
Number of Potential Building Sites* (developable acreage divided by minimum average parcel size)	4	7

*Over-riding minimum parcel size restriction, if applicable, takes precedence over the preliminary allowed average density in the event of conflict. SEE POLICIES ATTACHED

Additional information will be required as part of any future land division application to verify site conditions.

Additional Comments:

1. Fire Hazard: Based on the submitted plans, the proposed building sites appear to be located off of Telford Drive, a private road. The plans are unclear on several issues; therefore, it is assumed that Telford Drive is a 12-foot wide, dead end road with turnouts. In addition, it appears on the plans that secondary access is provided by the "Emergency Access Road". If no secondary access actually exists and Telford Drive is found to be a 12-foot wide dead end road, the land division will be restricted to the lowest density allowed (40 acres minimum parcel size for the Mountain Residential General Plan Designation). This means that the land division will be restricted to a 40 acre minimum parcel size regardless of conditional points that may be obtained.

   Portions of these properties are located within Critical Fire Hazard areas; although it appears that there are no proposed building sites in these areas. If a building site is proposed within the Critical Fire Hazard area on a dead end road and secondary access is not provided, development may consist of only one single family residence on the *existing lot of record* and all land divisions will be denied. If a building site is proposed within the Critical Fire Hazard area and is served by a through access road or by secondary access, development will only be allowed at the lowest density allowed by the General Plan (40 acre minimum parcel size for the Mountain Residential General Plan Designation).

2. Fault Zone: The submitted plans depict a fault zone that runs through the proposed parcels although no building sites are proposed within the fault zone. If proposed building sites lie within the fault zone, the land division will be required to meet a minimum parcel area of 20 gross acres. This fault zone is not shown in the County mapping system; therefore, as a part of a future discretionary review, the plans will need to be reviewed for accuracy by the County Geologist. In addition, land within 50-feet of the edge of the area of a fault is deducted from the density calculations for land divisions; therefore if the County Geologist determines that no fault zones exist on the subject properties, this area will not be deducted from the total developable land.

3. Slope Stability: Land containing slopes exceeding 50 percent in rural areas, and land with recent or active landslides must be excluded from density calculations for land divisions (See 1994 General Plan, 6.2.5, Page 6-7). Additional geologic, slope, and soils information will be required as part of any future land division application to verify site conditions as the submitted information is not consistent with County records.

4. Parcel Size: The assumed parcel size is based upon County records. Accurate parcel areas will have to be calculated by a licensed land surveyor as part of any land division application. All rights-of-way must be identified and shown on plans and deeds.

5. Access: It is assumed that the parcels have legal access from a developed right-of-way and/or public street. Proof of legal access, including deeds describing rights-of-way will be required with any land division application.

RURAL DENSITY MATRIX WORKSHEET

OVERRIDING MINIMUM ACREAGE POLICIES

COUNTY OF SANTA CRUZ
PLANNING DEPARTMENT
701 OCEAN STREET
SANTA CRUZ, CA 95060
(408) 454-2130

Assessor's Parcel No. _____

Application No. _____

The parcel has been examined to determine if it is subject to any overriding General Plan, or Local Coastal Program Land Use Plan policies, requiring a minimum gross acreage parcel size. SUCH MINIMUM SIZE RESTRICTIONS, IF APPLICABLE, TAKE PRECEDENCE OVER THE PRELIMINARY ALLOWED AVERAGE DENSITY IN THE EVENT OF A CONFLICT.

APPLICABLE	NOT APPLICABLE	MAY BE APPLICABLE	
☐	☒	☐	Parcel is within the Coastal Zone and Water Supply Watershed. The minimum parcel size is 20 acres.
☒	☐	☐	Parcel is outside the Coastal Zone and within a Water Supply Watershed. The minimum parcel size is 10 acres, except
☐	☒	☐	In San Lorenzo River Watershed where the General Plan designation is Suburban Residential.
☐	☒	☐	In San Lorenzo River Watershed for land designated Rural Residential where the average parcel size within 1/4 mile of the subject parcel is less than one acre.
☐	☒	☐	In North Coast and Bonny Doon Water Supply Watersheds extending outside the Coastal Zone, the minimum parcel size of 20 acres.
☐	☒	☐	Parcel is within a Least Disturbed Watershed. The minimum parcel size is 40 acres and then only if the division is consistent with open space protection and serves a special purpose beneficial to the public.
☐	☒	☐	Parcel is within a proposed reservoir site or adjacent to the high water mark of a proposed or existing water supply reservoir or surface division. No land division is allowed except for water oriented uses.

RURAL DENSITY MATRIX WORKSHEET
OVERRIDING MINIMUM ACREAGE POLICIES

PAGE 3

APPLICABLE	NOT APPLICABLE	MAY APPLICABLE	
☐	☒	☐	Parcel is within a State or County designated seismic review zone. The minimum parcel size is 20 acres if building sites are located within the fault zone.
☐	☒	☐	Proposed parcels must locate on a non-deadend road or provide secondary fire access. If the building site is located within a 5 Minute Response time from the fire department and within 500 feet of a County maintained Road, the secondary access will not be required. If not possible, development allowed only at lowest density of General Plan designation Proposed parcels must locate within 20 minute response time from the responsible fire station. If not possible, development allowed only at lowest density of General Plan designation.
☐	☒	☐	Parcel is in a Critical Fire Hazard area. Proposed building sites must locate outside of Critical Fire Hazard area. If the proposed building site is within a Critical Fire Hazard area and if the parcel is served by a through road or by secondary access development allowed only at lowest density of General Plan designation. If the building site is within the Critical Fire Hazard area and if the parcel is on a dead-end road and cannot develop secondary access, no land division may be approved.
☐	☒	☐	Parcel is within a Mitigatable Critical Fire Hazard area. If all criteria of Section 6.5.4 of the General Plan can be met, development may be considered at a density the same as for projects outside the Critical Fire Hazard area.
☐	☒	☐	Parcel is within the Coastal Zone. Prohibit land divisions that are more than ½ mile from a through road unless secondary access can be provided.

RURAL DENSITY MATRIX WORKSHEET
OVERRIDING MINIMUM ACREAGE POLICIES

PAGE FIVE

APPLICABLE	NOT APPLICABLE	MAY BE APPLICABLE	
☒	☐	☐	Parcel is within a Primary Groundwater Recharge Area. The minimum parcel size is 10 acres, except when located within the Rural Services Line and is served by a sewage disposal system minimum parcel size is 10 acres, except when located within operated by a County Services area or public services district which provides at least secondary treatment with nitrogen removal or which disposes of effluent outside the primary groundwater recharge area.
☐	☒	☐	Parcel is within a Special Forest. If development is proposed within the habitat, no division of land is allowed. If development is proposed outside the habitat, land divisions may be considered only at the lowest end of the General Plan designation. Clustering is required.
☐	☒	☐	Parcel is within a native or Mixed Grassland Habitat. If development is proposed within the habitat, no division of land is allowed. If development is proposed outside the habitat, land divisions may be considered only at the lowest end of the General Plan designation. Clustering is required.

Rdmw/056

ATTACHMENT 14