

Staff Report to the Planning Commission Application Number: 09-0228

Applicant: Stephen Graves & Associates **Owner:** Frank Iadiano. Trustee **APN:** 067-261-47

Agenda Date: February 10, 2010 Agenda Item #: Time: After 9:00 a.m.

Project Description: Proposal to divide a 21.37-acre parcel into two lots of 10.90 acres and 10.47 acres.

Location: Project located on the west side of Via Vinca about 500 feet north from the intersection with La Madrona Drive (3191 La Madrona Dr.)

Supervisoral District: 1st District (District Supervisor: John Leopold)

Permits Required: Minor Land Division

Technical Reviews: Geological Report Review, Geotechnical Report Review, Preliminary Grading Review, Archeaological Site Review

Staff Recommendation:

- Certification of the Negative Declaration completed in accordance with the California Environmental Quality Act.
- Approval of Application 09-0228, based on the attached findings and conditions.

Exhibits

- **Project Plans** Α.
- В. Findings
- Conditions C.
- Negative Declaration Đ. (CEOA determination)
- E. Initial Study with attachments; including: Attachment 1 – Assessor's Parcel Location, Zoning, General Plan

Attachments 3 through 7 – Technical Reviews Attachments 10 and 11- Comments and Correspondence Attachment 12 – Rural Density Matrix

F. Letter from Scotts Valley Fire Protection District.

County of Santa Cruz Planning Department 701 Ocean Street, 4th Floor, Santa Cruz CA 95060 Application #: 09-0228 APN: 067-261-47 Owner: Frank ladiano

Parcel Information

Parcel Size:	21.37 acres
Existing Land Use - Parcel:	Residential
Existing Land Use - Surrounding:	Residential
Project Access:	La Madrona Drive
Planning Area:	Carbonera
Land Use Designation:	R-R (Rural Residential)
Zone District:	SU (Special Use)
Coastal Zone:	InsideX_ Outside
Appealable to Calif. Coastal Comm.	YesX_No

Environmental Information

Geologic Hazards:	Potential ridge-top shatter identified in Geological/Geotechnical
	Reports prepared for the project
Soils:	N/A
Fire Hazard:	Portion mapped; no development proposed within fire hazard area
	No secondary access required per General Plan Policies
Slopes:	Slopes over 30% occur on the site; no development proposed on steep slopes
Env. Sen. Habitat:	Riparian corridor located within portion of the parcel. Additionally, protected plant and animal species are mapped on the subject parcel. However, proposed building site is not located in proximity to the riparian corridor and the site lacks suitable habitat to support mapped species
Grading:	No grading proposed
Tree Removal:	No trees proposed to be removed
Scenic:	Not a mapped resource
Drainage:	Existing drainage adequate
Archeology:	Portion mapped; site assessment determined no resources present

Services Information

Urban/Rural Services Line:	Inside <u>X</u> Outside
Water Supply:	Private Well
Sewage Disposal:	Private Septic
Fire District:	Scotts Valley Fire Protection District
Drainage District:	N/A

History

The subject parcel was created in 1977 as part of a four-lot Minor Land Division (#76-1867). The parcel remained vacant until 2007 when a single-family dwelling was constructed under Building Permit #142722. The existing dwelling is located at the northern edge of the parcel.

A Rural Matrix was performed in 1989 and updated in conjunction with the subject project (Attachment to Exhibit E). The resulting matrix scores provided a minimum parcel size of 5 net developable acres per parcel. Based on a parcel size of 13.50 net developable acres, the maximum number of parcel that can be created is two.

On October 29, 2008, an application was made for a consultation with the Project Planner in order to determine whether the subject proposal was subject to the General Plan Policy related to secondary access. The consultation resulted in the determination that no secondary access would be required based on the following:

- 1) The proposed building site is located less than ½ mile (approximately 2,080 feet) from the La Madrona Drive (Policy 6.5.4)
- 2) The dead-end access road is an existing road and not proposed as a part of the land division (Policy 6.5.5)

Project Setting

The subject property is approximately 21.27 acres in size, and is located in a rural residential neighborhood within the Carbonera Planning Area and adjacent to the City of Scotts Valley. The parcel is located on an east to west trending ridge top between La Madrona Drive and Graham Hill Road, taking access from La Madrona Drive via an existing private road. The lot is characterized by moderate to steep slopes (30-50+%) flanking each side of a relatively flat ridge top. The access road and portions of the ridge top have been graded to accommodate the existing single-family dwelling and attached garage.

The proposed building site is located on the southwestern end of the ridge, approximately 1,000 feet south of the existing dwelling and will utilize the access road created in 2005. The building site was graded at some point in the past and is relatively flat. No grading is necessary or proposed to accommodate the land division as no structures are proposed as a part of this application. However, according to the project geotechnical engineer (Attachment to Exhibit E) the future construction of any dwelling on Parcel A will necessitate overexcavation and recompaction to protect against ridge top shatter.

The parcel is characterized by dense stands of woody vegetation including redwood, tan oak, madrone, and coast live oak. The understory vegetation contains a mixture of native shrubs and nonnative grasses. The subject proposal does not include the removal of any vegetation as the identified building site has been cleared.

Surrounding parcels are developed with single-family dwellings and range in size from two to twenty acres.

Minor Land Division

The applicant proposes to divide a 21.37-acre property into two residential parcels of approximately 10.47 gross acres (Parcel A) and 10.90 gross acres (Parcel B). The net developable area of the proposed parcels will be 5.27 acres and 8.23 acres, respectively. Parcel B is currently developed with

an existing dwelling as discussed above, while a proposed building envelope has been identified on Parcel A, within which a future single-family dwelling will be constructed. Both parcels will utilize existing rights of way to gain access from La Madrona Drive, while an additional right of way will be created across Parcel A in order to provide access to the existing dwelling on Parcel B.

The subject property has a General Plan land use designation of R-R (Rural Residential), which allows a density range of 2.5 to 20 net developable acres per unit. The Rural Matrix performed for the site (Attachment to Exhibit E) determined 5 acres to be the minimum allowable parcel size for the proposed land division. Therefore, the proposed configuration falls within the proscribed density range and provides the maximum density possible for this parcel.

The parcel is zoned SU (Special Usc), which implements the R-R General Plan designation. The proposed land division complies with the zoning ordinance as the property is intended for residential use, the lot sizes meet the minimum dimensional standard for the SU zone district, and the setbacks on the newly created lots will be consistent with the minimum zone district requirements.

Access Road

As stated above, both parcels will take access from La Madrona Drive, via an existing 40-foot right of way. The entire length of this access road is paved and, according to the Scotts Valley Fire Protection District (Exhibit F), is adequate to accommodate the proposed development. Additionally, the access road would not require any modification in order to serve a potential third building site that exists on the adjacent parcel to the south (APN 067-261-58). The 40-foot right of way for the access road currently ends at Parcel A and will be extended to provide access to Parcel B to the north.

There is also a right of way that extends from La Madrona Drive north through APN 067-261-58, ending at the southeastern corner of the subject parcel (proposed Parcel A) This right of way, which varies from 30 to 40 feet, is associated with Via Vinca and is a paved, private road that will not be used to provide access to either of the proposed parcels created by this land division. Additionally, no improvements are proposed to Via Vinca as a part of this development proposal.

Biotic Resources

The project site is mapped as containing several special-status plant species including species associates with Zayante sandhills. A Habitat Assessment was performed for the site (Attachment to Exhibit E) and the determination made that no suitable habitat, including Zayante sand substrate, exists on the site to support the presence of any of the mapped species. The Habitat Assessment concludes "...the proposed development of the proposed parcels will have no impact on sensitive biotic resources in the vicinity of the parcel."

While an unnamed perennial tributary to Carbonara Creek is located along the east-northeastern boundary of the site, no development is proposed in proximity to the riparian corridor associated with the tributary. The existing access road that runs adjacent to the corridor does not require grading or any other improvement to accommodate the proposed land division. Future grading required for the construction of the new dwelling will occur about 450 feet from the riparian corridor. A condition of approval requires the submittal of an erosion control plan that has been prepared by a

- 4 -

Certified Professional in Erosion and Sediment Control prior to the issuance of any building permit. Additionally, all erosion control measures will be inspected by Environmental Planning staff prior to the start of any earthwork to ensure they are adequate. Therefore, the impact of the proposal on the riparian corridor is expected to be minimal. The plans have been reviewed and approved by the Environmental Planning Section of the Planning Department.

Grading, Drainage and Water Service

As stated, the proposed land division does not include any site improvements or ground disturbance. Although the building site is relatively flat, engineered fill will be required to protect the new dwelling against potential ridge top shatter. The purpose of the fill is to replace existing expansive soils and is not expected to appreciably change the topography at the site. No other earthwork is required at the site other than minor trenching for utilities. Therefore, the existing drainage patterns are not expected to be altered significantly by the future grading activities.

The development of the new parcel is conditioned to make use of a stormwater dissipation area northeast of the building site identified for the new single-family dwelling. According to an update letter to the Geotechnical Investigation prepared by the project geotechnical engineer (Attachment to Exhibit E) it is feasible for future construction within the proposed building envelop to retain additional runoff onsite by utilizing the area on the plan identified as "future stormwater dissipation area."

The Department of Public Works Stormwater Management staff and County Environmental Planning staff have reviewed and approved the preliminary drainage plans and a condition of approval requires the submittal of engineered drainage plans and calculations, which demonstrate that post-development runoff will not exceed pre-development levels. The project is also conditioned to minimize the creation of new impervious surfaces.

Both of the newly created parcels will continue to be served by the existing well located on Parcel B, utilizing an existing easement. The existing septic system will continue to serve the existing dwelling on Parcel B, while a new system is proposed for Parcel A in the same general location. The site has been reviewed and approved by the Environmental Health Services staff.

Archaeological Resources

An archeological survey was performed at the site by Archaeological Resource Management on July 3, 2009 (Attachment to Exhibit E). The project archeologist did not find any resources on site and determined that the proposal would not have any adverse impacts on any cultural resources. The report was reviewed and accepted by Environmental Planning staff.

Geologic Hazards

The project site is not located within or adjacent to a county or state mapped fault zone. A Geotechnical Investigation and Update Letter for the proposed project were performed by Haro, Kasunich and Associates (Attachment to Exhibit E). Additionally, a Geologic Investigation and update letter were performed by Rogers E. Johnson & Associates (Attachment to Exhibit E). The Haro, Kasunich report states that there is some evidence of ridge top shatter and, in consultation

with the project engineering geologist, provides a building envelope within which the development should be contained. The proposed building site shown on the Tentative Map conforms to the recommendation made by the project engineers.

As previously discussed, the project geotechnical engineer and engineering geologist recommend a structural slab-on-grade foundation be built on a minimum of 24-inch engineered fill in order to withstand the potential for ridge top shatter. Conditions of approval require the final project plans to be reviewed by both the project geotechnical engineer and engineering geologist to ensure that all recommendation made in both the geotechnical investigation and geologic evaluation are adequately reflected in the building plans.

No other seismic-related ground failure, landsliding, or liquefaction potential was noted in the technical reports prepared for the site and the proposed locations of the future stormwater dissipater and additional septic system have been reviewed and approved by the geotechnical engineer. The technical reports have been reviewed and accepted by the County Geologist (Attachment to Exhibit E).

Ridgetop Development and Scenic Resources

General Plan Policy 8.6.6 states that development on ridgetops shall be avoided if other developable land exists. The ridgetop that characterizes the subject parcel is already developed with an existing house and the addition of a second dwelling will not appreciable change the scenic character of the site, nor will it alter the landform. Because of the dense stands of mature trees surrounding the proposed building site, it is not anticipated that the development will have be visible from surrounding properties. Additionally, conditions of approval have been included which prohibit the future removal of surrounding trees and restrict the use of colors that can be used to paint the exterior of the future single-family dwelling to be constructed on Parcel A. Color boards will be required to be submitted, reviewed and approved by the County Urban Designer prior to building permit issuance.

Environmental Review

Environmental review is required for the proposed project per the requirements of the California Environmental Quality Act (CEQA). The project was reviewed by the County's Environmental Coordinator on November 16, 2009. A preliminary determination to issue a Negative Declaration without Mitigations (Exhibit D) was made on November 23, 2009. The mandatory public comment period expired on December 23, 2009, with no comments received and the determination was approved on January 11, 2010.

Conclusion

All required findings can be made to approve this application. The project is consistent with the General Plan in that the project constitutes a residential use, a density that is compatible with the existing density and intensity of land use in the surrounding area, and is consistent with the zoning designation of the subject parcel. The project, as conditioned, will not have a significant effect on the environment.

Page 6

As proposed and conditioned, the project is consistent with all applicable codes and policies of the Zoning Ordinance and General Plan/LCP. Please see Exhibit B for a complete listing of findings and evidence related to the above discussion.

Staff Recommendation

- Certification of the Negative Declaration completed in accordance with the California Environmental Quality Act.
- **APPROVAL** of Application Number **09-0228**, based on the attached findings and conditions.

Supplementary reports and information referred to in this report are on file and available for viewing at the Santa Cruz County Planning Department, and are hereby made a part of the administrative record for the proposed project.

The County Code and General Plan, as well as hearing agendas and additional information are available online at: www.co.santa-cruz.ca.us

Report Prepared By:

Robin Bolster-Grant Santa Cruz County Planning Department 701 Ocean Street, 4th Floor Santa Cruz CA 95060 Phone Number: (831) 454-5357 E-mail: robin.bolster@co.santa-cruz.ca.us

Report Reviewed By:

Paia Levine Principal Planner Santa Cruz County Planning Department



EXHIPIT A .



EXHIBIT







Subdivision Findings

1. That the proposed subdivision meets all requirements or conditions of the Subdivision Ordinance and the State Subdivision Map Act.

This finding can be made in that the project meets all of the technical requirements of the Subdivision Ordinance and is consistent with the County General Plan and the Zoning Ordinance as set forth in the findings below. The subject parcel is a legal lot and the Special Sue (SU) zoning district and Rural Residential (R-R) General Plan designation allow single-family residential development.

2. That the proposed subdivision, its design, and its improvements, are consistent with the General Plan, and the Area General Plan or Specific Plan, if any.

This finding can be made in that the project creates two parcels with a minimum of 2.5 net developable acres per parcel as required for parcels within the Rural Residential (R-R) General Plan land use designation.

The project is consistent with the General Plan in that the necessary infrastructure is available to the site including private well, septic and electrical service. The two parcels will take access from La Madrona Drive, a County-maintained road, via an existing private access road. No improvements are required to either La Madrona Drive or the private access road. The proposed land division is similar to the pattern and density of the surrounding rural residential development in the vicinity.

While the location of the proposed building area is on a ridge, which may be subject to shattering during a seismic event, this hazard will be mitigated by the implementation of the recommendations made by the project engineering geologist and geotechnical engineer (Attachment to Exhibit E). Specifically, the foundation will be designed in such a way as to help protect against ridge top shatter and conditions of approval are attached, which ensure that this and all other recommendations made by the project engineers will be implemented prior to the issuance of building permits on the site. The proposed land division will not impact any environmentally sensitive areas in that no ground disturbance is proposed in the vicinity of the riparian corridor located on the site and all future construction will be required to adhere to erosion control best management practices.

3. That the proposed subdivision complies with Zoning Ordinance provisions as to uses of land, lot sizes and dimensions and any other applicable regulations.

This finding can be made in that the use of the property will be residential in nature, which is an allowed use in the SU (Special Use) zone district. The proposed parcel configuration meets the minimum dimensional standards and setbacks for the zone district.

4. That the site of the proposed subdivision is physically suitable for the type and density of development.

This finding can be made in that the location of the proposed additional building envelope is based upon the results of the geotechnical and engineering geology report reviews to avoid any challenging topography and soils conditions. The proposed building area is suitable for residential development and is properly configured to allow development in compliance with the required site standards. A Rural Matrix was performed for the site using specific criteria to establish minimum parcel sizes based on physical development hazards or constraints present, the presence of natural resources to be protected as well as the adequacy of access and available infrastructure. The proposed parcel sizes are consistent with the results of the Rural Matrix (Attachment to Exhibit E). No additional environmental constraints exist which would be adversely impacted by the proposed development.

5. That the design of the proposed subdivision or type of improvement will not cause substantial environmental damage nor substantially and avoidable injure fish or wildlife or their habitat.

This finding can be made in that no mapped or observed sensitive habitats or special-status species impede development of the site and the project has a received a Negative Declaration pursuant to the California Environmental Quality Act. While the site contains riparian resources, the project does not proposed any development of ground disturbing activities in the vicinity of the riparian corridor.

6. That the proposed subdivision or type of improvements will not cause serious public health problems.

This finding can be made in that existing private well and proposed septic system are available to serve both parcels.

7. That the design of the proposed subdivision or type of improvements will not conflict with easements, acquired by the public at large, for access through, or use of property within the proposed subdivision.

This finding can be made in that the easement that provides access to an adjacent parcel (APN .067-261-47) will not be impacted by the proposed development. Additionally, the existing access road has been evaluated by the Scotts Valley Fire Protection District and determined to be sufficient to accommodate the future development of the adjacent parcel with a single-family dwelling.

8. The design of the proposed subdivision provides, to the extent feasible, for future passive or natural heating or cooling opportunities.

This finding can be made, in that the proposed new building site is oriented to the fullest extent possible in a manner to take advantage of solar opportunities. While the ridge upon which the site is located is oriented in a north-south direction, the project is conditioned to require the future dwelling to be constructed to maximize the southwest exposure to the greatest extent practicable.

9. The proposed development project is consistent with the design standards and guidelines (Section 13.11.070 through 13.11.076) and any other applicable requirements of this chapter.

This finding can be made in that the proposed rural land division is not subject to the design review ordinance.

Application #: 09-0228 APN: 067-261-47 Owner: Frank Iadiano, Trustee

Conditions of Approval

Land Division Permit 09-0228

Applicant: Stephen Graves and Associates

Property Owner: Frank Iadiano, Trustee

Assessor's Parcel Number: 067-261-47

Property Address and Location: 3191 La Madrona Drive, located on the west side of Via Vinca about 500 feet north from the intersection with La Madrona Drive

Planning Area: Carbonera

Exhibit A: Tentative Map prepared by Licensed Land Surveyors, dated May 2009

All correspondence and maps relating to this land division shall carry the land number noted above

- I. Prior to exercising any rights granted by this permit including, without limitation, any construction or site disturbance, the applicant/owner shall:
 - A. Sign, date, and return to the Planning Department one copy of the approval to indicate acceptance and agreement with the conditions thereof.
 - B. Pay a Negative Declaration De Minimis fee plus a \$50 filing fee (subject to change) to the Clerk of the Board of the County of Santa Cruz as required by the California Department of Fish and Game mitigation fees program. If you have received a "letter of no effect" from the Department of Fish & Game, you may submit this letter in lieu of the De Minimis fee, however the \$50 filing fee is still required. You must submit either a "letter of no effect" or the De Minimis fee with your \$50 filing fee.
- II. A Parcel Map for this Minor Land Division must be recorded prior to the expiration of the Tentative Map and prior to sale, lease or financing of any new lots. The Parcel Map shall be submitted to the County Surveyor (Department of Public Works) for review and approval prior to recordation. No improvements, including, without limitation, grading and vegetation removal, shall be done prior to recording the Parcel Map unless such improvements are allowable on the parcel as a whole (prior to the approval of the land division). The Parcel Map shall meet the following requirements:

- A. The Parcel Map shall be in general conformance with the approved Tentative Map and shall conform to the conditions contained herein. All other State and County laws relating to improvements of the property, or affecting public health and safety shall remain fully applicable.
- B. This land division shall result in no more than two (2) residential parcels total.
- C. The minimum amount of parcel area per dwelling unit shall be 5 acres of net developable land.
- D. The following items shall be shown on the Parcel Map:
 - 1. Building envelopes located according to the approved Tentative Map. The building envelopes for the perimeter of the project shall meet the minimum setbacks for the SU (Special Use) zone district of 40 feet for the front yard, 20 feet for the side yards, and 20 feet for the rear yard. Building envelopes shall not include land with slopes exceeding 30%.
 - 2. Show the net developable land area of each lot to nearest hundredth of an acre.
 - 3. A statement shall be added to clearly state that all structures must be located within the designated building envelopes.
 - 4. Evidence of review and approval by the local fire agency.
 - 5. Bearings shall be provided for all parcel lines.
 - 6. Clearly show the location and description of all easements and rights-of-way.
- E. The following requirements shall be noted on the Parcel Map as items to be completed prior to obtaining a building permit or grading permit on new building envelopes created by this land division.
 - 1. The existing private well, and any new proposed wells, shall be reviewed by the County Department of Environmental Health Services.
 - 2. The proposed septic system, serving Parcel A, shall be reviewed by the County Department of Environmental Health Services.
 - 3. Prior to any building permit issuance, submit a plan to recycle and/or reuse excess post-construction material for review and approval by Planning Department staff.
 - 4. Grading for structures and driveways shall be minimized to the greatest extent practicable.

- 5. Submit plan review letters and/or update letters (if final accepted letter is expired) from the project geologist and geotechnical engineer with each building/grading permit application. The authors of the accepted reports (or update letters) shall write the plan review and/or update letters. Each plan review letter shall state that the project plans conform to the report's recommendations. Please note: reports, update letters, and plan review letters expire after three years.
- 6. Submit a written statement signed by an authorized representative of the school district in which the project is located, confirming payment in full of all applicable developer fees and other requirements lawfully imposed by the school district in which the project is located.
- 7. Prior to any ground disturbance, a detailed erosion control plan, prepared by a Certified Professional in Erosion and Sediment Control (CPESC) shall be reviewed and approved by the Planning Department.
- 8. All mature trees (greater than 20 inches diameter breast height) shall be retained. In the event that trees require removal due to disease, each shall be replaced on a 1 to 1 ratio. Replacement tree species to be approved by Planning Department prior to planting.
- 9. Any changes between the Parcel Map and the approved Tentative Map must be submitted for review and approval by the Planning Department.
- III. Prior to recordation of the Parcel Map, the following requirements shall be met:
 - A. Submit a letter of certification from the Tax Collector's Office that there are no outstanding tax liabilities affecting the subject parcel.
 - B. All requirements of the Scotts Valley Fire Protection District shall be met.
 - C. Submit three copies each of plan review letters. One shall be prepared by the project geotechnical engineer and one shall be prepared by the project engineering geologist. The authors of the accepted reports shall write the plan review letters. Each plan review letter shall state that the project plans conform to the report recommendations. The geology plan review letter shall approve the location of the proposed septic system and stormwater dissipation area with regards to slope stability. Please note: reports, update letters and plan review letters expire after three years.
 - D. Pay all required fees and meet all requirements of the County Environmental Health Services Division.

- E. Submit and secure approval of engineered improvement plans from the Department of Public Works and the Planning Department for all roads, curbs and gutters, storm drains, erosion control, and any other improvements required by the Subdivision Ordinance, noted on the attached tentative map and/or specified in these conditions of approval. A subdivision agreement backed by financial securities (equal to 150% of engineer's estimate of the cost of improvements), per Sections 14.01.510 and 511 of the Subdivision Ordinance, shall be executed to guarantee completion of all <u>shared</u> improvements including roads, stormwater management facilities, water mains or extensions (if not proposing private wells), utility connections, etc. Improvement plans shall meet the following requirements:
 - 1. All improvements shall be prepared by a registered civil engineer and shall meet the requirements of the County of Santa Cruz Design Criteria.
 - 2. An erosion control plan and drainage plan for any improvements shall be submitted for Planning Department review and approval prior to submittal to the Department of Public Works.
 - 3. All new utilities shall be constructed underground. All facility relocations, upgrades or installations required for utilities service to the project shall be noted on the improvement plans. All preliminary engineering for such utility improvements is the responsibility of the developer.
 - 4. Plans shall reference the geologic and geotechnical reports accepted by County Environmental Planning staff and shall include a statement that the project shall conform to the reports' recommendations. Updates to the geologic and geotechnical reports shall be required if the reports are more than three years old.
 - 5. Meet all requirements and pay all required fees of the Santa Cruz County Department of Public Works Stormwater Management section.
- F. Park dedication in-lieu fees shall be paid for three (3) bedrooms for the dwelling proposed for Parcel A. These fees are currently \$578 per bedroom, but are subject to change.
- G. Child Care in-lieu fees shall be paid for three (3) bedrooms for the dwelling proposed for Parcel A. These fees are currently \$109 per bedroom, but are subject to change.
- IV. All future construction within the property shall meet the following conditions:
 - A. Prior to any disturbance, the owner/applicant shall organize a pre-construction meeting on the site. The applicant, grading contractor, project geotechnical engineer and Environmental Planning staff shall participate.

- B. All work adjacent to or within a County road shall be subject to the provisions of Chapter 9.70 of the County Code, including obtaining an encroachment permit where required. Where feasible, all improvements adjacent to or affecting a County road shall be coordinated with any planned County-sponsored construction on that road.
- C. No land clearing, grading or excavation shall take place between October 15 and April 15.
- D. The use of new impervious surfaces shall be minimized to the greatest extent feasible.
- E. Exterior paint colors shall be restricted to muted earth tones. The applicant shall supply a color and material board in 8 ½" x 11" format for Planning Department review and approval.
- F. 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 other work specifically required by another of these conditions).
- G. A Road Maintenance Association shall be established for the access road and documentation shall be submitted to the Planning Department. Alternatively a CSA may be established with the County. The Association shall include all properties served by the access road.
- H. Pursuant to Sections 16.40.040 and 16.42.100 of the County Code, if at any time during site preparation, excavation, or any 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.
- I. Construction of improvements shall comply with all requirements of the geotechnical report and associated update letters. The geotechnical engineer shall inspect the completed project and certify in writing that the improvements have been constructed in conformance with the recommendations made in the geotechnical report.
- J. All future development shall comply with the requirements of the Drainage Section of the Department of Public Works, per comments made pursuant to this land division application.
- K. All required land division improvements shall be installed and inspected prior to final inspection clearance for any new structure on the subject parcel

- I. All structures, including water tanks, shall be contained within the approved building envelopes.
- V. Operational Conditions
 - A. All outdoor lighting shall be directed downwards and shall utilize low rise light standards and be directed away from adjacent properties.
 - B. All mature trees (greater than 20 inches diameter breast height) shall be retained. In the event that such trees require removal due to disease, each shall be replaced on a 1 to 1 ratio. Replacement tree species to be approved by Planning Department prior to planting.
- VI. In the event that future County inspections of the subject property disclose noncompliance with any Conditions of this approval or any violation of the County Code, the owner shall pay to the County the full cost of such County inspections, including any follow-up inspections and/or necessary enforcement actions, up to and including permit revocation.
- VII. As a condition of this development approval, the holder of this development approval ("Development Approval Holder"), is required to defend, indemnify, and hold harmless the COUNTY, its officers, employees, and agents, from and against any claim (including attorneys' fees), against the COUNTY, it officers, employees, and agents to attack, set aside, void, or annul this development approval of the COUNTY or any subsequent amendment of this development approval which is requested by the Development Approval Holder.
 - A. COUNTY shall promptly notify the Development Approval Holder of any claim, action, or proceeding against which the COUNTY seeks to be defended, indemnified, or held harmless. COUNTY shall cooperate fully in such defense. If COUNTY fails to notify the Development Approval Holder within sixty (60) days of any such claim, action, or proceeding, or fails to cooperate fully in the defense thereof, the Development Approval Holder shall not thereafter be responsible to defend, indemnify, or hold harmless the COUNTY if such failure to notify or cooperate was significantly prejudicial to the Development Approval Holder.
 - B. Nothing contained herein shall prohibit the COUNTY from participating in the defense of any claim, action, or proceeding if both of the following occur:
 - 1. COUNTY bears its own attorney's fees and costs; and
 - 2. COUNTY defends the action in good faith.

Application #: 09-0228 APN: 067-261-47 Owner: Frank ladiano, Trustee

- C. <u>Settlement</u>. The Development Approval Holder shall not be required to pay or perform any settlement unless such Development Approval Holder has approved the settlement. When representing the County, the Development Approval Holder shall not enter into any stipulation or settlement modifying or affecting the interpretation or validity of any of the terms or conditions of the development approval without the prior written consent of the County.
- D. <u>Successors Bound</u>. "Development Approval Holder" shall include the applicant and the successor'(s) in interest, transferee(s), and assignee(s) of the applicant.

Amendments to this land division approval shall be processed in accordance with chapter 18.10 of the County Code

This Tentative Map is approved subject to the above conditions and the attached map, and expires 24 months after the 14-day appeal period. The Parcel Map for this subdivision, including improvement plans, if required, should be submitted to the County Surveyor for checking **at least 90 days** prior to the expiration date and in no event later than 3 weeks prior to the expiration date.

cc: County Surveyor

Approval Date:	
Effective Date:	

Expiration Date:

Paia Levine Principal Planner Robin Bolster-Grant Project Planner

Appeals: Any property owner, or other person aggrieved, or any other person whose interests are adversely affected by any act or determination of the Planning Commission, may appeal the act or determination to the Board of Supervisors in accordance with chapter 18.10 of the Santa Cruz County Code.



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

NEGATIVE DECLARATION AND NOTICE OF DETERMINATION

Application Number: 09-0228

APN(S): 067-261-47

Proposal to divide a 21.33 (gross) acre parcel into two lots of 8.23 net acres and 5.27 net acres. Requires a Minor Land Division, Archaeological Review, Geologic Report and Soils Report Review (No Grading Proposed). Project located on the west side of Via Vinca about 500 feet north from the intersection with La Madrona Drive (3191 La Madrona).

ZONE DISTRICT: SPECIAL USE (SU) APPLICANT: STEPHEN GRAVES OWNERS: FRANK IADIANO STAFF PLANNER: ROBIN BOLSTER-GRANT, 454-5357 Email: pln111@co.santa-cruz.ca.us ACTION: NEGATIVE DECLARATION WITHOUT MITIGATIONS REVIEW PERIOD ENDS: DECEMBER 23, 2009 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, the

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.

Findings:

This project, if conditioned to comply with required mitigation measures or conditions shown below, will not have significant effect on the environment. The expected environmental impacts of the project are documented in the Initial Study on this project, attached to the original of this notice on file with the Planning Department, County of Santa Cruz, 701 Ocean Street, Santa Cruz, California.

Required Mitigation Measures or Conditions:

XX None Are Attached

Review Period Ends: December 23, 2009

Date Approved By Environmental Coordinator:

Jan. 11 2010

CLAUDIA SLATER Environmental Coordinator (831) 454-5175

If this project is approved, complete and file this notice with the Clerk of the Board:

NOTICE OF DETERMINATION

The Final Approval of This Project was Granted by

(Date) THE PROJECT WAS DETERMINED TO NOT HAVE SIGNIFICANT EFFECT ON THE ENVIRONMENT.

Date completed notice filed with Clerk of the Board:



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

NOTICE OF ENVIRONMENTAL REVIEW PERIOD

SANTA CRUZ COUNTY

APPLICANT:	Steve Graves	
APPLICATION NO .:_	09-0228	
APN [.]	067-261-47	

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

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

____ Mitigations will be attached to the Negative Declaration.

XX No mitigations will be attached.

Environmental Impact Report

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

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

Review Period Ends:	December 23, 2009	
	Robin Bolster-Grant, staff planner	
Phone:	(831) 454-5357	
Date:	January 8, 2010	



Date: November 16, 2009 Staff Planner: Robin Bolster-Grant

I. OVERVIEW AND ENVIRONMENTAL DETERMINATION

APPLICANT: Stephen Graves and APN: 067-261-47 Associates

OWNER: Frank ladiano Trustee SU

SUPERVISORAL DISTRICT: 1st

LOCATION: Project located on the west side of La Madrona about 500 feet west from the intersection with Via Vinca (3191 La Madrona).

SUMMARY PROJECT DESCRIPTION: This is a proposal to divide a 21.33 (gross) acre parcel into two lots of 8.23 net acres and 5.27 net acres.

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.

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

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

DISCRETIONARY APPROVAL(S) BEING CONSIDERED

General Plan Amendment	Use Permit
X Land Division	Grading Permit
Rezoning	Riparian Exception
Development Permit	Other:
Coastal Development Permit	

NON-LOCAL APPROVALS

No other agencies are required to issue permits or authorizations

ENVIRONMENTAL REVIEW ACTION

On the basis of this Initial Study and supporting documents:

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

I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because the attached mitigation measures have been added to the project. A MITIGATED NEGATIVE DECLARATION will be prepared.

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

Johnston

For: Claudia Slater **Environmental Coordinator**



Significant	
Or	
Potentially	
Significant	
Impact	

Less than Significant Less than Significant Mitigation Or Incorporation No Impact

witb

Not Applicable

II. BACKGROUND INFORMATION

EXISTING SITE CONDITIONS

Parcel Size: 21.33 acres

Existing Land Use: Single family dwelling

Vegetation: The area in the vicinity of the proposed project is vegetated with Coast live oaks, madrone, tan oaks, and other native and non-native understory Slope in area affected by project: 6.58 acres 0%-30% 14.75 acres 31 – 100% Nearby Watercourse: Unnamed perennial tributary to Carbonera Creek to the east **Distance To:** Located within eastern portion of parcel

ENVIRONMENTAL RESOURCES AND CONSTRAINTS

Groundwater Supply: Portion Mapped Resource Liquefaction: Low potential Water Supply Watershed: Portion Mapped Fault Zone: No mapped fault zone Resource Scenic Corridor: None Groundwater Recharge: Portion Mapped Resource Timber or Mineral: No Mapped Resource **Historic:** No mapped resource Archaeology: No Mapped Agricultural Resource: No Mapped resource Resource Noise Constraint: No constraint **Biologically Sensitive Habitat:** Portion Mapped Resource Electric Power Lines: No hazard Fire Hazard: Portion Mapped Floodplain: Not Mapped Solar Access: Dense canopy Solar Orientation: Dense canopy **Erosion:** No evidence of past erosion Hazardous Materials: Low Landslide: Engineering geology report completed; no evidence found potential

SERVICES

Fire Protection: Scotts Valley-Branciforte **Fire Protection** School District: N/A Sewage Disposal: Septic

Drainage District: N/A

Project Access: La Madrona Water Supply: Well

PLANNING POLICIES

Zone District: SU (Special Use) General Plan: R-R (Rural Residential) Inside Urban Services Line: Coastal Zone: Inside Special Designation: None

X Outside X Outside

Significant Or Potentially Significant Impact

Less than Significant Less than Significant Mitigation Or Incorporation No Impact

with

Not Applicable

PROJECT SETTING AND BACKGROUND:

The subject property lies off La Madrona Road, a county-maintained road. The portion of the road providing access to the proposed parcel was graded for and serves an existing single-family dwelling. The general area is wooded with mature vegetation. Approximately 5 acres of the parcel contains slopes greater than 50%. The proposed building site is located on slopes of 0-10%. The parcel is zoned Special Use (SU) and is currently developed with a single-family dwelling. The proposed building site is approximately 1,000 feet south of the existing dwelling and will utilize the existing access road. The General Plan designation is Rural Residential (R-R)

A General Plan and Rural Density Matrix was completed for the subject parcel, which indicated a minimum parcel size of 5 net developable acres. The proposed division of the parcel into two parcels of 8.23 and 5.27 net developable acres is consistent with the General Plan Policy for Rural Residential parcels.

The submitted plans designate a future development envelope, however no structures are proposed at this time.

DETAILED PROJECT DESCRIPTION:

The project description is based on a Tentative Map prepared by Licensed Land Surveyors, dated May 2009.

This project consists of dividing a 21.33-acre parcel into a 5.27(Parcel A) and 8.23 (Parcel B) net developable acres. Parcel A contains a building site has been identified and reviewed by Rogers Johnson and Associates, the project engineering geologist. The Preliminary Geologic Hazards Investigation, dated October 12, 2001 and update letter dated June 9, 2009 were reviewed and accepted by the County Geologist. Parcel B contains an existing single-family dwelling that was constructed in 2005.

The new building site will be served by the access road that was constructed in 2005 to serve the existing single-family dwelling. The access road will provide access to just the two proposed parcels as a part of this proposal; however a building site exists on the adjacent parcel to the south. The Scotts Valley Fire Protection District has reviewed the project and states that they will not require the access road to be widened in the event that the third building site is developed. Therefore no additional grading is proposed for the road. Erosion control will be implemented during construction of the future dwelling, to include various Best Management Practices (BMPs).

The proposed parcels contains areas that are mapped within the water supply watershed as well as a groundwater recharge area, however the proposed building site is not located within these mapped resource areas.



Significant Or Potentially Significant Impact

Less than Significant Less than with Significant Mitigation No Impact Incorporation

Or

Х

Х

Х

Х

Not Applicable

Parcel B is currently developed with its own septic system and drainage facilities. An area for proposed septic system construction has been identified on Parcel A and approved by the project engineering geologist with respect to slope stability. A future storm water dissipation area has also been identified on Parcel A in order to accommodate any runoff associated with the future construction of a single-family dwelling.

No trees are proposed for removal as a part of this project.

Both parcels will obtain water from a private well.

III. ENVIRONMENTAL REVIEW CHECKLIST

A. Geology and Soils

Does the project have the potential to:

- 1. Expose people or structures to potential adverse effects, including the risk of material loss, injury, or death involving:
 - Α. Rupture of a known earthquake fault, as delineated on the most recent Alguist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or as identified by other substantial evidence?
 - Β. Seismic ground shaking?
 - C. Seismic-related ground failure, including liquefaction?
 - D. Landslides?

All of Santa Cruz County is subject to some hazard from earthquakes. However, the project site is not located within or adjacent to a county or State mapped fault zone. A



Significant Or Potentially Significant Impact

Less than Significant Less than Significant Mitigation Or Incorporation No Impact

Х

with

Not Applicable

Geotechnical Investigation was performed and an update letter provided for the proposed project by Haro, Kasunich and Associates (Attachment 3 & 4). Additionally, Rogers E. Johnson & Associates performed a Geologic Investigation and provided an update letter. The Haro, Kasunich report states that there is some evidence of ridge top shatter and provides a building envelope within which the development should be contained.

The project geotechnical engineer and engineering geologist recommend a structural slab-on-grade foundation be built on a minimum of 24-inch engineered fill in order to help withstand the potential for ridge top shatter. Conditions of approval will require the project plans to be reviewed by both the project geotechnical engineer and engineering geologist to ensure that all recommendations made in both the geotechnical investigation and geologic evaluation are adequately reflected in the building plans and that plan review letters be received from both consultants attesting to plan conformance with all recommendations. Additionally, construction of habitable structures will be confined to the building envelopes identified by project engineering geologist Rogers E. Johnson & Associates.

No other seismic-related ground failure, landsliding liquefaction potential was noted in the technical reports prepared for the site; therefore the potential for these geologic hazards to pose a significant impact to the proposed development is low.

The reports have been reviewed and accepted by the County Geologist, Joe Hanna (Attachment 7).

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

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

3. Develop land with a slope exceeding 30%? Х

There are slopes that exceed 30% on the property. However, no improvements are proposed on slopes in excess of 30% and no drainage will be directed to slopes in excess of 30%. The proposed septic system and drainage dissipation areas will both be located in such a way as to avoid impacting steep slopes on the site.



Significant	Less than
Or	Significant
Potentially	with
Significant	Mitigation
Impact	Incorporation

Less than Significant Or No Impact

Х

Х

Х

Х

EXHBIT E.

Not Applicable

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

Some potential for erosion exists during the construction phase of the project; however, this potential is minimal because standard erosion controls are a required condition of the project. Per Section 16.22.060, 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, creating substantial risks to property?

The geotechnical report for the project did not identify any elevated risk associated with expansive soils. A project condition of approval requires a design-level soils report to be prepared by the project soils engineer and submitted with the building application. The follow-up report must address specific grading, drainage, and foundation requirements for the proposed dwelling and site improvements.

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

The proposed project will use an onsite sewage disposal system, and County Environmental Health Services has determined that site conditions are appropriate to support such a system. The proposed location has also been reviewed and approved by the project geotechnical engineer and engineering geologist to ensure that the placement of the septic tank and leachfield will not create an impact on slope stability in the vicinity of the project.

7. Result in coastal cliff erosion?

The project is not located on or in the vicinity of a coastal bluff.

Significant Or Potentially Significant Impact

Less than Significant with Mitigation Incorporation

Less than Significant No Impact

Or

Х

Х

Not Applicable

Х

Х

B. Hydrology, Water Supply and Water Quality

Does the project have the potential to:

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

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

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

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

3. Be inundated by a seiche or tsunami?

The project is located several miles inland.

4. Deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit, or a significant contribution to an existing net deficit in available supply, or a significant lowering of the local groundwater table?

The project will rely on private well water. The parcel contains areas that are mapped groundwater recharge and water supply watershed, however all proposed improvements are located outside of the groundwater recharge and water supply watershed zones. A stormwater dissipation area is proposed for Parcel A, which will provide a mechanism for capturing runoff associated with future development and will help maintain pre-development runoff rates.

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

Х

Runoff from the future improvements may contain small amounts of chemicals and

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

Less than Significant Or No Impact

Х

Х

Not Applicable

other household contaminants. No commercial or industrial activities are proposed that would contribute a significant amount of contaminants to a public or private water supply. Potential siltation from the proposed project will be mitigated through implementation of erosion control measures.

6. Degrade septic system functioning?

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

7. Alter the existing drainage pattern of the site or area, including the alteration of the course of a stream or river, in a manner which could result in flooding, erosion, or siltation on or off-site?

The existing drainage pattern would not be significantly altered by the proposed land division. No site improvements are required or proposed to accommodate the land division and the future development of the new parcel will be conditioned to make use of a future stormwater dissipation area northeast of the building site identified for the new single-family dwelling. In addition, Erosion Control BMPs will be required prior to any future construction on the site to prevent impacts to the unnamed tributary to Carbonera Creek located approximately 800 feet to the east. Based on the distance between the tributary and the location of the future construction, the drainage patterns are not expected to alter the course of the stream or contribute to flooding.

The Department of Public Works Stormwater Management staff and County Environmental Planning staff have reviewed and approved the preliminary drainage plans and a condition of approval of the project would require the applicant to obtain Environmental Planning and Public Works approval of final drainage and erosion control plans prior to building permit issuance, which would reduce the possible impacts of flooding, erosion, or siltation to off-site to less than significant.

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

No improvements are being considered as a part of the proposed land division. The project is conditioned to provide a drainage plan that demonstrates the project will not result in a significant increase in the stormwater runoff rate in accordance with General Plan Policy 7.23.1. The project will also be conditioned to minimize the creation of impervious surfaces. Per the update letter to the Geotechnical Investigation prepared

Significant Or Potentially Significant Impact

Less than Significant Le with Sig Mitigation Incorporation No

Less than Significant Or Not No Impact Applicable

Х

Х

by Haro Kasunich & Associates (Attachment 4), it is feasible for future construction within the proposed building envelope to retain additional runoff onsite by utilizing the area on the plan identified as "future storm water dissipation area."

 Contribute to flood levels or erosion in natural watercourses by discharges of newly collected runoff?

Prior to the issuance of any building permits on the newly created parcels, final drainage and erosion control plans will be required to be submitted for review and approval by Department of Public Works Stormwater Management and Environmental Planning Staff to ensure that runoff would be held on site. Therefore, the unnamed tributary to Carbonera Creek would not be impacted by discharges of newly collected runoff as a result of the project.

10. Otherwise substantially degrade water supply or quality?

Few pollutants would be added to the existing water supply as a result of this project. Department of Public Works Stormwater management Staff have reviewed and approved preliminary drainage plans and would review and approve final drainage plans prior to any building permit issuance to ensure that appropriate treatment methods are proposed to deal with runoff prior to discharge off site and also to ensure the appropriate placement and design of treatment facilities, such as vegetated swales. This condition would ensure that the impacts of runoff on water quality are less than significant. See responses under B-4 regarding impacts to water supply.

C. Biological Resources

Does the project have the potential to:

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

According to the California Natural Diversity Data Base (CNDDB), maintained by the California Department of Fish and Game, there are several special status plant and animal species mapped in the site vicinity, including one, the Zayante band-winged grasshopper, that are associated with Zayante Sandhills habitat. Environmental Planning staff conducted a site visit, both during the processing of the permit for the existing single-family dwelling and for the proposed land division and it was apparent that the lack of suitable habitat and the disturbed nature of the site make it unlikely that



Significant Or Potentially Significant Impact Less than Significant with Mitigation Incorporation

Less than Significant Or No Impact A

Х

Х

Х

Not Applicable

any special status plant or animal species occur in the area. The proposed building site is characterized by redwood and mixed forest, which is incompatible with the habitat associated with the two mapped plant species.

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

The proposed development occurs approximately 800 feet from the unnamed tributary to Carbonera Creek. As discussed in the Hydrology section above, runoff will be controlled in order to minimize any potential impact to the waterway.

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

As stated in C-2 above, the development is located approximately 800 feet from the closest waterway and runoff will be controlled to prevent significant impact to the riparian corridor. There are no additional migratory corridors or migratory wildlife nursery sites in the vicinity of the project.

4. Produce nighttime lighting that will illuminate animal habitats? _____ X____

The development area is not anticipated to create any impacts in the riparian area as a result of nighttime lighting due to the elevation gradient between the project site and the riparian corridor. Given the location of the development on a densely vegetated ridge, a condition of approval of this Development Permit will prohibit any exterior lighting that could potentially adversely impact other types of animal habitat.

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

Refer to C-1 and C-2 above.

Significant Less than **Environmental Review Initial Study** Significant Less than Or Page 12 Significant Potentially with Mitigation Significant Or Not Incorporation No Impact Applicable Impact 6. Conflict with any local policies or ordinances protecting biological resources (such as the Significant Tree Protection Ordinance, SensitiveHabitat Ordinance, provisions of the Design Review ordinance protecting trees with trunk sizes of 6 inch diameters or greater)? Х The project will not conflict with any local policies or ordinances regarding biotic resources. 7. Conflict with the provisions of an adopted Habitat Conservation Plan. Biotic Conservation Easement, or other approved local, regional, or state habitat conservation plan? Х No Habitat Conservation Plan or Biotic Conservation Easements have been prepared for the project area. **D. Energy and Natural Resources** Does the project have the potential to: 1. Affect or be affected by land designated as "Timber Resources" by Х the General Plan? There are no mapped Timber Resources on or in the vicinity of the proposed development and the parcel is not zoned for Timber Production. 2. Affect or be affected by lands currently utilized for agriculture, or designated in the General Plan for agricultural use? Х There are no agricultural uses on the parcel or in the vicinity of the project site. 3. Encourage activities that result in the use of large amounts of fuel, water, or energy, or use of these in a wasteful Х manner? No proposed activities would result in the use of large amounts of fuel, water, or energy because the amount of water and energy required to construct and service the proposed development would be consistent with other developments of similar size

-34-

S
2
Ine

Less than lignificant Less than with Significant **Hitigation** orporation No Impact

Or

Not Applicable

Х

Х

Х

Х

and design.

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

The subject parcel is not mapped for mineral resources and no natural resources will be used, extracted, or depleted as a result of this project.

E. Visual Resources and Aesthetics

Does the project have the potential to:

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

The proposed project area is not visible from a County-designated scenic resource.

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

The project is not located along a Country-designated scenic road or within a designated scenic resource area.

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

The surrounding properties consist of large rural parcels developed with single-family dwellings. Although the project site is located on a small ridge, the property is currently developed with an existing single-family dwelling and is located within a relatively dense redwood and tan oak forest and would therefore not be visible to surrounding properties. No changes in topography or other relief features are proposed as a part of this land division and very little grading will be necessary to accommodate a future single-family dwelling. In order to ensure that the surrounding properties will be protected from any negative visual impacts, a condition of approval of this Development Permit will require the retention of vegetative screening in perpetuity.

Enviror Page 14	nmental Review Initial Study	Significant Or Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Or No Impact	Not Applicable
4.	Create a new source of light or glare which would adversely affect day or nighttime views in the area?			X	<u></u>
The project will contribute an incremental amount of night lighting to the visual environment. However, the Development Permit will be conditioned to prohibit the use of exterior lighting that may adversely affect day or nighttime views in the area.					
5.	Destroy, cover, or modify any unique geologic or physical feature?			X	
There are no unique geological or physical features on or adjacent to the site that would be destroyed, covered, or modified by the project.					
<u>F. Cu</u> Does t	Itural Resources the project have the potential to:				
1.	Cause an adverse change in the significance of a historical resource as defined in CEQA Guidelines 15064.5?				X
The existing structure(s) on the property is not designated as a historic resource on any federal, State or local inventory.					
2.	Cause an adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines 15064.5?			X	
While propos therefo	a small portion of the parcel is mapped as sed project area is not located within or in ⁻ ore no further studies were required as par	containin the vicinity t of the a	g cultural r y of the ma	esources, pped area or develop	the a; oment.

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

Pursuant to Section 16.40.040 of the Santa Cruz County Code, if at any time during site preparation, excavation, or other ground disturbance associated with this project, human remains are discovered, the responsible persons shall immediately cease and desist from all further site excavation and notify the sheriff-coroner and the Planning Director. If the coroner determines that the remains are not of recent origin, a full archeological report shall be prepared and representatives of the local Native

Х
Significant Or Potentially Significant Impact Less than Significant with Mitigation Incorporation

Less than Significant Or No Impact

Not Applicable

Х

X

Х

EXHIRIT R -

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?	 	 X

The subject parcel is not within or in the vicinity of a mapped paleontological resources area; therefore no further studies were required as part of the application for development.

G. Hazards and Hazardous Materials

Does the project have the potential to:

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

No hazardous materials will be stored, use, disposed of, or transported to and from the site.

2. 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?

The project site is not included on the 9/17/09 list of hazardous sites in Santa Cruz County compiled pursuant to the specified code.

 Create a safety hazard for people residing or working in the project area as a result of dangers from aircraft using a public or private airport located within two miles of the project site?

There are no public or private airports located within 2 miles of the project site.

Enviro Page 1	nmental Review Initial Study 6	Significant Or Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Or No Impact	Not Applicable
4.	Expose people to electro-magnetic fields associated with electrical transmission lines?			X	
No hig electr	gh voltage transmission lines exist on the s omagnetic fields would be less than signifi	subject pa cant.	arcels; there	efore, expo	osure to
5.	Create a potential fire hazard?	<u></u>		X	
The p includ 6.	Project design incorporates all applicable of fire protection devices as required by the Release bio-engineered organisms or chemicals into the air outside of project buildings?	fire safet e local fire	y code req agency.	uirements	s and will X
There propo	will be no bio-engineered organisms or ch sed site.	nemicals	created or ι	used at the	e
<u>H. Tr</u> Does	ansportation/Traffic the project have the potential to:				
1.	Cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system (i.e., substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?			X	
The n	roject will create a small incremental incre	ase in tra	ffic on near	by roads :	and

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

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

The project will be conditioned to meet the code requirements for the required number of parking spaces and therefore new parking demands will be accommodated on site

Environmental Review Initial Study Page 17		Significant Or Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Or No Impact	Not Applicable
3.	Increase hazards to motorists,				
	bicyclists, or pedestrians?			X	

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

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

See response H-1 above.

I. Noise

Does the project have the potential to:

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

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

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

Per County General Plan Policy 6.9.3, 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. The subject parcel is surrounded by large parcels developed with single-family dwellings and is not located adjacent to a heavily traveled roadway or stationary noise source; therefore the proposed creation of two parcels does not have the potential to expose people to noise levels in excess of General Plan standards.

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

X

Х

Х

Х



Significant Or Potentially Significant Impact Less than Significant with Mitigation Incorporation

Less than Significant Or No Impact

Not Applicable

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

J. Air Quality

Does the project have the potential to: (Where available, the significance criteria established by the MBUAPCD may be relied upon to make the following determinations).

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

Х

Х

The North Central Coast Air Basin does not meet State standards for ozone and particulate matter (PM10). Therefore, the regional pollutants of concern that would be emitted by the project are ozone precursors (Volatile Organic Compounds [VOCs] and nitrogen oxides [NOx]), and dust.

Given the modest amount of new traffic that will be generated by the additional single family dwelling, there is no indication that new emissions of VOCs or NOx will exceed Monterey Bay Unified Air Pollution Control District (MBUAPCD) thresholds for these pollutants and therefore there will not be a significant contribution to an existing air quality violation. Project construction may result in a short-term, localized decrease in air quality due to generation of dust. However, standard dust control best management practices, such as periodic watering, will be implemented during construction to reduce impacts to a less than significant level.

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

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

 Expose sensitive receptors to substantial pollutant concentrations?
 X

See response J-1 regarding the impacts of temporary construction dust.

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

No objectionable odors will be created by the proposed use.

Significant Or Potentially Significant Impact Less than Significant with Mitigation Incorporation

Less than Significant Or No Impact

Not Applicable

K. Public Services and Utilities

Does the project have the potential to:

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

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

While the project represents an incremental contribution to the need for services, the increase will be minimal. Moreover, the project meets all of the standards and requirements identified by Scotts Valley Fire Protection District, and school, park, and transportation fees to be paid by the applicant will be used to offset the incremental increase in demand for school and recreational facilities and public roads.

2. Result in the need for construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

Х

Significant Or Potentially Significant Impact

Less than Significant Less than Significant Mitigation Or No Impact Incorporation

Х

Х

Х

with

Not Applicable

The project will be conditioned to maintain pre-development stormwater runoff rates and would not have a significant impact on existing drainage facilities or trigger the need for expansion. 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 (Attachment 11).

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

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

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

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

5. Create a situation in which water supplies are inadequate to serve the project or provide fire protection?

The Scotts Valley Fire Protection District, has reviewed and approved the preliminary project plans and shall review and approve all final plans prior to building permit issuance to assure conformity with fire protection standards that include minimum requirements for water supply for fire protection.

6. Result in inadequate access for fire protection? Х

The project's road access meets County standards and was approved by the Scotts Valley Fire Protection District in conjunction with the construction of the existing singlefamily dwelling on the parcel. No changes are proposed and none required to accommodate the additional proposed parcel. A condition of approval will require the fire protection district to review and approve the final project plans to ensure that adequate access is provided for emergency vehicles during and after construction.

Environmental Review Initial Study Page 21		Significant Or Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Or No Impact	Not Applicable
7.	Make a significant contribution to a cumulative reduction of landfill capacity or ability to properly dispose of refuse?			X	

The project will make an incremental contribution to the reduced capacity of regional landfills. In addition, the project would make a one-time contribution to the landfill as a result of construction. However, the overall contribution to the landfill capacity will be less than significant.

8. Result in a breach of federal, state, and local statutes and regulations related to solid waste management?

Solid waste accumulation is anticipated to increase slightly as a result of creating two new residential parcels; however residential daily trash accumulation is minimal and is not expected to result in a breach of federal, state or local statutes and regulations.

L. Land Use, Population, and Housing

Does the project have the potential to:

1. Conflict with any policy of the County adopted for the purpose of avoiding or mitigating an environmental effect?

The proposed minor land division does not conflict with any policies adopted for the purpose of avoiding or mitigating an environmental effect. Per General Plan Policy 7.23.1 new development is required to provide on and off-site improvements to alleviate drainage problems and to require runoff levels to be maintained at predevelopment rates to reduce downstream flood hazards. The project will be conditioned to control runoff in accordance with Public Works Design Criteria and the recommendations of the project soils engineer.

General Plan Policy 7.23.2 requires new development to limit impervious surfaces. This land division will include a condition of approval, which requires the use of pervious or semi-pervious surfaces wherever practicable.

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

X _____

Х

Х

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



Environmental Review Initial Study Page 22	Significant Or Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Or No Impact	Not Applicable

3. Physically divide an established community?

	Х	
 ·····		

Х

Х

EXHRT R

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

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

The proposed project is designed at the density and intensity of development allowed by the General Plan and zoning designations for the parcel. Additionally, the project does not involve extensions of utilities (e.g., water, sewer, or new road systems) into areas previously not served. Consequently, it is not expected to have a significant growth-inducing effect.

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

The proposed project will entail a net gain in housing unit.

Less than

Yes No X

Not Applicable

M. Non-Local Approvals

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

N. Mandatory Findings of Significance

- 1. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant, animal, or natural community, or eliminate important examples of the major periods of California history or prehistory?
- 2. Does the project have the potential to achieve short term, to the disadvantage of long term environmental goals? (A short term impact on the environment is one which occurs in a relatively brief, definitive period of time while long term impacts endure well into the future)
- 3. Does the project have impacts that are individually limited, but cumulatively considerable ("cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, and the effects of reasonably foreseeable future projects which have entered the Environmental Review stage)?
- 4. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?



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

ot icable

TECHNICAL REVIEW CHECKLIST

	REQUIRED	COMPLETED*	<u>N/A</u>
Agricultural Policy Advisory Commission (APAC) Review			_X_
Archaeological Review	XXXX	July 2009	
Biotic Presite			_ <u>X</u> _
Geologic Hazards Assessment (GHA)			_X_
Geologic Report	XXXX	Aug 2009	
Geotechnical (Soils) Report	XXXX	Sept 2009	
Riparian Pre-Site			<u>X</u>
Septic Lot Check	XXXX	June 2009	
Other: Habitat Assessment	XXXX	March 2004	
			<u> </u>

Attachments:

1. Location Map, Map of Zoning Districts, Map of General Plan Designations, Assessor's Parcel Map

2. Parcel Plans

- 3. Updated Geotechnical Investigation by Haro, Kasunich & Associates, Inc. dated September 2, 2009.
- 4. Geotechnical Site Feasibility Assessment prepared by Haro, Kasunich & Associates, Inc., dated May 28, 2009
- 5. Feasibility of On-Site Surface Drainage Retention, by Haro, Kasunich & Associates, Inc., dated June 30, 2009.
- 6. Updated Geologic Investigation by Craig S. Harwood, dated August 31, 2009.
- 7. Acceptance letter from Joseph Hanna, County Geologist, dated October 27, 2009
- 8. Cultural Resource Evaluation prepared by Archaeological Resource Management, dated July 3, 2009.
- 9. Habitat Assessment prepared by EcoSystems West, dated March 31, 2004.
- 10. Environmental Health Services Site Evaluation, dated 6/17/09
- 11. Discretionary Application Comments, dated October 26, 2009
- 12. Rural Density Matrix
- 13. Letter from the Scotts Valley Fire Protection District, dated 11/17/09

Significant Less than Significant Or Potentially with Significant Mitigation Impact Incorporation

Less than Significant Or No Impact

Not Applicable

Other Documents On File With The County of Santa Cruz

- Geotechnical Investigation prepared by Haro, Kasunich & Associates, Inc. dated December 2001.
 Geologic Investigation prepared by Rogers E. Johnson & Associates, dated October 12, 2001.











ATTACHMENT 2





ATTACEMENT 2



ATTACHMENT 2

HARO, KASUNICH AND ASSOCIATES, INC.

CONSULTING GEOTECHNICAL & COASTAL ENGINEERS

Project No. SC8698 2 September 2009

MR. FRANK IADIANO c/o Stephen Graves and Associates 2735 Porter Street Soquel, California 95073

Subject: Geotechnical Investigation Update Letter

Reference: Proposed Iadiano Residence Parcel "47" APN 067-261-47 Off La Madrona Drive Santa Cruz County, California

Dear Mr. ladiano:

In accordance with your authorization, we have prepared this letter as an update to the geotechnical investigation for this site dated 21 December 2001. The original report was prepared for use in design and construction of a new single family residence on parcels 067-261-47 (Parcel 47) and -58 (Parcel 58). This update letter focuses on the proposed new residence on Parcel 47. Since the foundation and grading plans have not yet been finalized some of the recommendations are general in nature.

Purpose and Scope

The purpose of this update letter is to provide recommendations for the proposed improvements and include 2007 CBC seismic design criteria.

Specifically we did the following:

1. Review of files and documents pertinent to the project.

WATSONVILLE, CALIFORNIA 95076

- 2. Log and collect soil samples from a geologic test pit (T-1) excavated in the approximate location of the building site.
- 3. Walk the eastern flank of the ridge with the Project Geologist Craig Harwood to observe the area of the proposed leach and drain fields.



Mr. Frank ladiano Project No. SC8698 Off La Madrona Drive 2 September 2009 Page 2

- 4. Laboratory testing was performed on select samples obtained from the test pit (T-1).
- 5. Review of Preliminary Updated Geologic Evaluation prepared by Project Geologist Craig Harwood.
- 6. Preparation of this Update Letter.

Site Location and Conditions

The building site is on Parcel 47 located at the top of a south trending ridge off La Madrona Drive north of Santa Cruz in an un-incorporated area of Santa Cruz County, California. A cut/fill access road leads from La Madrona Drive westward to the ridge top over a moderate cross slope. The tentative building envelope slopes gently toward the south, is near level to the north, is bound by cut slopes for the access roads to the east and west. Moderately steep slopes flank each side of the ridge top starting at the outboard sides of the access roads on the east and west sides of the building site.

The drain and leach fields are proposed approximately 290 feet and 360 feet northeast of the building site respectively. The location of both improvements are proposed on a moderate slope gradient of 30 percent or flatter. However the slope gradient becomes steeper than 30 percent less than 100 feet down slope from the proposed leach field. The proposed location of the drain and leachfields should not impact the building site or improved areas down slope from a geotechnical (stability) viewpoint.

Field/Lab Investigations

On 4 August 2009 we visited the site to make observations and collect samples from a geologic test pit (T-1) excavated through the proposed building site. During that same trip we walked the eastern flank of the ridge with the Project Geologist Craig Harwood to observe the areas of the proposed drain and leachfields. We have reviewed the field and laboratory investigation sections of the Geotechnical Investigation dated 21 December 2001 and they are similar to the results obtained during this update. Grain size analysis was performed to aid in soil classification. Atterberg Limits Test was performed on silt collected from the cracks exposed within the test pit (T-1).

Subsurface Conditions

Building Site

In general the building site is underlain by 1 to 2 feet of overburden soil over sandstone formation with various levels of fracturing. The overburden soil is comprised of Sandy Clay

IBIT E 4

ATTACTATIONT S

Mr. Frank Iadiano Project No. SC8698 Off La Madrona Drive 2 September 2009 Page 3

that is very dry, full of roots, and easy to dig through. The sandstone formation was highly fractured near the contact between the overburden soil and became moderately fractured at a depth of 3 to 4 feet below the surface. Below a depth of 4 feet from the surface the sandstone formation became weakly fractured to the depths explored. The fractures are filled in with overburden soils and fractured sandstone where the formation is highly and moderately fractured. In the weakly fractured portion of the sandstone the cracks are healed with silt and clay. The fractured sandstone within the building site is a result of ridge top shattering (C. Harwood Report 2009 and RJA Report 2001). The geology report by Mr. Harwood states that the maximum horizontal displacement is on the order of 10 feet and maximum vertical displacement is about 5 inches.

Drain Field

Based on a review of Mr. Harwood's boring logs it appears that the area of the proposed drain field is underlain by almost 4 feet of silty sand over sandy clay to a depth of 6 feet. The Santa Cruz Mudstone was encountered below the clay strata in both test holes to the depths explored. Drainage improvements located in the area of the proposed drain field as described in this report and the geology report for this site by Mr. Harwood should be designed to for dispersion in the upper 4 feet.

2007 CBC Seismic Design

The 2001 RJA geology report for this site categorized the soil profile type as S_C (soft rock) based on 1997 UBC Seismic Design Parameters. Based on a review of the boring logs published in our December 2001 Geotechnical Investigation for this site and our observations of TP-1 we would classify the site as "**Site Class C**" (soft rock) based on definitions presented in Table 1613.5.2 in the 2007 CBC. The Santa Cruz County Geographic Information Service (GIS) website locates the project site at Longitude - 122.03° W and Latitude 36.03° N (±100 feet, North to South and ±80 feet, East to West). The following maximum considered earthquake and five percent damped design spectral response accelerations adjusted for site class effects should be used for seismic design based on Sections 1613.5.3 and 1613.5.4 of the 2007 CBC:

A. $S_{MS} = 1.5$ (0.2-second period)

B. $S_{M1} = 0.78$ (1.0-second period)

 $C = S_{DS} = 1.0 (0.2$ -second period)

D. $S_{D1} = 0.52$ (1.0-second period)

47/102

EXHIBIT BA

ATTACHMENT 3

Mr. Frank ladiano Project No. SC8698 Off La Madrona Drive 2 September 2009 Page 4

Discussion

General

We have reviewed our December 2001Geotechnical Investigation and 2001 RJA Geology Report both for Parcel 58, as well as review of Mr. Harwood's Geology Report for Parcel 47. Based on our review we determined that the site conditions and recommendations from Mr. Harwood's Geology Report are similar to that of the 2001 RJA Geology Report for Parcel 58. Based on this information the recommendations from our December 2001 Geotechnical Investigation for Parcel 58 are appropriate for use in design and construction of the improvements on Parcel 47.

Building Foundation

As stated in our December 2001 Geotechnical Investigation for Parcel 58 geotechnical concerns for the building site are strong seismic shaking and potential for ridgetop shattering. The geologist recommends that building foundations be designed for 5 inches of vertical displacement and be able to span zones of shattered soft rock up to 10 feet in length. It is recommended that a structural slab-on-grade foundation be designed to withstand these parameters outlined above. The structural slab-on-grade should be supported by a mat of engineered fill that is a minimum 24 inches deep and extends a minimum 3 feet beyond the building footprint.

Potential for Geologic Hazards Within Building Site

The potential for liquefaction impacting the building site is low since no groundwater has been encountered in either investigation for Parcel 47 or 58 and the zone of loose/soft soil has a high fines content. The potential for slope instability impacting the building site is also low since the site is gently sloping to level from south to north and underlain by dense sandstone. The flanks are moderately steep with no apparent signs of recent sliding or debris flows. Shallow debris flows could initiate at the contact between overburden soils and the sandstone, but would not impact the building site since it sits on top of the ridge.

Drainage Discussion and Leach/Drain Field Evaluation

The building site is located on top of a north to south trending ridge with runoff directed in at least two directions. During the grading operation areas within the building site that are not paved or cover by a roof will be graded to promote even dispersion of rainfall towards the east and west. Post development concentrated surface runoff from roofs and paved surfaces will be collected and carried through solid line down to the proposed drain field on the eastern flank of the ridge. Haro Kasunich and Associates also observed the location of the proposed leach and drain field during a walk through with the Project Geologist. Based on discussions in the field with the Mr. Harwood and review of his report for this site it is

EXHIBIT. II

ATTACHMENT

Mr. Frank ladiano Project No. SC8698 Off La Madrona Drive 2 September 2009 Page 5

our opinion that the location of the leach and drain fields are located in areas that will not be impacted by or create hillside instability. The upper 4 feet within the drain field is sandy in nature over a layer of clay several feet thick. We recommend a drain system that spreads out the collected surface runoff within the upper 4 feet of the drain field.

If you have any questions concerning the report, please call our office.

Very truly yours, HARO, KASUNICH AND ASSOCIATES, INC. FESSIONA Moses Cuprill Staff Engineer EX John E. Kasunich 455 G:⊞

MC/JEK/dk Attachments Copies: 3 to Addressee 1 to Craig Harwood, CEG

Project No. SC8698 28 May 2009

MR. FRANK IADIANO P.O. Box 1655 Soquel, California 95073

Subject: Site Feasibility Assessment

Reference: Proposed Building Site La Madrona Drive APN 067-261-47 (Proposed Parcel A) Santa Cruz County, California

> Tentative Parcel Map of the Lands of Frank ladiano Dunbar and Craig, Land Surveyors, dated May 2009

Dear Mr. ladiano:

At your request, we have reviewed the geotechnical aspects of the proposed building site shown on the parcel map prepared by Dunbar and Craig, referenced above. The topographic plan indicates slopes within the proposed building site are gentle. Our staff has been to the site numerous times during investigation and construction of your existing house 1,000 feet uproad. We are familiar with the topography and geological features at the proposed building site. We have discussed the proposed project with Rogers Johnson and Associates, Engineering Geologists, and will coordinate with them during our site specific geotechnical investigation. We have reviewed our geotechnical investigation for the existing house 1,000 feet uproad and based on that investigation and recent discussions with you and your project geologist it is our opinion development of the proposed building site is feasible from a geotechnical standpoint.

If you have any questions, please call our office.

Very truly yours,

HARQ, KASUNICH AND ASSOCIATES, INC. John E. Kasunich G.E. 455

Jeff Davis Engineering Assistant

JD/sq Copies: 2 to Addressee

ATTACHMENT 4

EXHIBIT E .

51/102

(831) 722-4175 • Fax (831) 722-3202

HARO, KASUNICH AND ASSOCIATES, INC.

CONSULTING GEOTECHNICAL & COASTAL ENGINEERS

Project No. SC8698 30 June 2009

MR. FRANK IADIANO c/o Stephen Graves & Associates 2735 Porter Street Soquel, California 95073

Subject: Disposal of Collected Surface Runoff Feasibility of On-site Surface Drainage Retention

Reference: Proposed Residential Construction ladiano Property La Madrona Drive APN 067-261-47 (Proposed Parcel A) Santa Cruz County, California

Dear Mr. ladiano:

As project geotechnical engineers for your existing residence, we are familiar with the referenced property. We recently prepared a positive feasibility letter indicating that geotechnically a second residential structure can be developed on the property. We have completed two site reconnaissance of the complete property. A large near level area approximately 100 feet ± below the proposed new residence exists. This area is about 200 feet long and conducive to absorb accumulated surface water that is directed into it. During the course of design we will assist your civil engineer in preparing the appropriate improvements that will allow accumulated storm water to be retained on property. These improvements may include gravel filled detention trenches, buried retention tanks, an/or filtration blankets and shallow holding basins. Runoff mitigation measures for the proposed development levels of runoff will be maintained.

If you have any questions, please call our office.

Very truly yours,

HARO, KASUNICH AND ASSOCIATES, INC. John É. Kasunich G.**₿**. 455

JEK/dk Copies:

1 to Addressee

2 to Stephen Graves & Associates 1 to Rogers E. Johnson & Associates

116 EAST LAKE AVENUE

WATSONVILLE, CALIFORT 527102 •

(831) 722-4175 • Fax (831) 722-3202

ATTACHMENT 5

EXHIBIT

UPDATED GEOLOGIC EVALUATION PROPOSED IADIANO RESIDENCE "Parcel A" APN 067-261-47 LA MADRONA DRIVE SANTA CRUZ COUNTY, CALIFORNIA

್ಷ ಪ್ರಾದೇಶವನ್ನು ಸಂಗ್ರೆಸ್ಟ್ರಿ

August 31, 2009

Prepared for

Frank ladiano

Prepared by

CRAIG S. HARWOOD Consulting Engineering Geologist

239 Park Drive Ben Lomond, CA 95055

Copyright © 2009

ATTACHMENT

CRAIG S. HARWOOD Consulting Engineering Geologist

239 Park Drive Ben Lomond, CA 95055 tel 831 336 8145 email kirnig@cruzio.com

Frank ladiano 3191 La Madrona Drive Santa Cruz, CA 95060 August 31, 2009 File No. G-300.1

Project: Proposed Residence and Leachfield on "Parcel A" APN 067-261-47 La Madrona Drive Santa Cruz County, California

Subject: Updated Engineering Geologic Evaluation

Dear Mr. Iadiano:

As you authorized, presented herein is the updated engineering geologic evaluation for the proposed residence and associated improvements located on APN 067-261-47 off La Madrona Drive in Santa Cruz County, California. This report has been prepared for your use in developing the property for the proposed improvements. The report describes the general site geologic characteristics, identifies and updated an evaluation of potential geologic hazards affecting the project and provides engineering geologic input for site development. We should be allowed the opportunity to review the final development plans when they become available. Five copies of this report are submitted to you for your use and distribution to others. We have provided an additional copy to the project soils engineer, Haro Kasunich & Associates, Inc. This concludes our work for the current phase of the project.

We appreciate the opportunity to have provided geologic services for this project and look forward to working with you again in the future. If there are questions concerning this report, please contact me at your earliest convenience.

Sincere/

Craig S/Harwood RG #6831, CEG #2275

ERED GEOLO SG S. HAFWO C.P. C.E.G. NO. CERTIC ENGINE GEOLO FIFE OF (



EXHIBIT

Distribution:

Client (5) Haro Kasunich & Associates, Inc. (1)

1.0 INTRODUCTION

My understanding of the project is based upon our discussions with Mr. Frank ladiano (the client) and upon my review of a preliminary site map by Dunbar & Craig Land Surveys, Inc. dated May, 2009. We understand that the proposed project will consist of construction of a wood frame, single-family residence, an short access driveway, and associated improvements on the 10.47 acre "Parcel A." Water supply and septic disposal will be by on-site systems. The residence will be accessed directly from the existing access road which extends north from La Madrona Drive. It is anticipated that a relatively minor amount of grading will be needed to establish the building pad. The design and physical layout of the septic systems were prepared by Ken Mabie of Environmental Concepts, Inc.

2.0 PURPOSE AND SCOPE OF SERVICES

This updated engineering geologic evaluation has been conducted in order to characterize and evaluate the geologic conditions and potential geologic hazards associated with the proposed development at the site. The regional geology and regional seismicity pertinent to "Parcel A" has already been covered in the report by Rogers E. Johnson & Associates ("REGA"; 2001) which covered both Parcel A and the adjacent parcel 58. As we generally concur with their presentation of these topics, no attempt is made here to reiterate these aspects of the project. Where necessary, we have updated certain subjects pertinent to the proposed project.

The scope of work for this updated engineering geologic evaluation included; review of available geologic and geotechnical reports and maps, a review of stereo aerial photo pairs covering the site area, geologic mapping of the site, excavation and logging of exploration trench and hand auger holes, and evaluation of the collected data. The scope of this work is intended to comply generally with "Guidelines for Engineering Geologic Reports (April, 1992), issued by the Santa Cruz County Planning Department. It is the intent that this report be used exclusively by the client and the client's architect/engineer to form the geologic basis of the design of the project as described herein, and in the preparation of plans and specifications. No quantitative slope stability analyses were performed for this current evaluation. Analysis of the soil and rock for radioisotopes, asbestos, hydrocarbons, or chemical properties are beyond the scope of this geologic hazards evaluation.

3.0 SITE SETTING

The site is located in a rural portion of Santa Cruz County about 1-1/4 miles southwest of the community of Scotts Valley in Santa Cruz County, California. Figure 1 (Vicinity Map: Appendix A) gives the general location of the site and the topographic characteristics of the vicinity. Figure 2 (Site Geologic Map, Appendix A) presents a more detailed depiction of the physical features of the site and the proposed improvements. The site is located in an area characterized as undulating, locally steep hillside terrain. The area is incised by drainages. The building site is located on top of a narrow, steep-sided south and southeast trending ridge.

Our review of the topographic base map by Dunbar & Craig Surveying indicates there is approximately 186 feet topographic relief across the overall parcel (APN 067-261-47) between the building envelope and east property corner. There is approximately 7 feet of topographic relief across the building pad. The building envelope area encompasses an area of 140' x 60' wide and the ground surface slopes very gently (8% to 12%) to the south. Slopes on the east and west are generally steep (65% – 75%), whereas the ground to the north is essentially level and the ground to the south is very gently inclined. Paved access drives exist on the east and the west sides of the building envelope. The area of the proposed runoff dispersal pit (energy)

Craig S. Harwood Cons 7 1 / 1 0 2ng Geologist - 6 5 - exhibit, e 4 Attachment 6

EXHIBITE

ATTACHMENT

dissipator) is located on a moderate slope (30%) approximately 290 feet northeast the proposed building envelope. There are no abrupt breaks in slope below this location.

Drainage patterns at the site are a function of the site physiography. During peak storm events natural drainage generally sheets downslope toward the lower elevations to the east and west and to some degree down the paved access road in a southerly direction. We observed no evidence of concentrated runoff such as erosion scars is generally absent. Evidence of springing activity was evident along the unimproved access road that parallels the south property line and provides access to the leachfield area. The vegetation at the site is typical of the mixed coastal redwood forest community. The majority of the parcel has a moderate to thick thick canopy of coniferous and other trees, including redwoods, pines, oaks, and firs as well as an understory ground cover of shrubs. The largest trees are distributed fairly evenly across the site slopes. Many of the trees are very large with some of the oldest ranging from 3 feet to 4.5 feet in diameter, indicating that a forest has established on the steeper slopes in the western portion of the site for as long as perhaps up to a few hundred years. The actual building envelope has only sparse tree growth consisting of redwoods, firs, madrones and oaks.

4.0 GEOLOGY

Geologic Reconnaissance

A geologic reconnaissance of the site was performed on August 3, 2009 to observe in the field, features depicted on published maps, to observe exposures of earth materials and to identify existing or potential geological hazards. The results of the reconnaissance are shown on the Site Geologic Map and Geologic Cross Section A-A,' (Appendix A). The geologic materials encountered during the site reconnaissance include colluvium, minor accumulations of fill, and sandy siltstone and interbedded fine-grained sandstone of the Pliocene Purisima Formation, and Santa Cruz Mudstone

An exception to this occurs at the base of steep slopes where slope wash deposits soil and deeper accumulations of colluvium occur. Very thin sliver fills exist along the outboard edge of the access road at the site. The bedrock exposed at the building site consists of Purisima sandy siltstone and fine-grained sandstone. Natural and man-made exposures on site indicate that the dip of the bedrock varies from nearly horizontal to gently (3°) dipping to the east. This is generally consistent with published regional mapping. Other observations pertinent to the field reconnaissance are discussed in subsequent sections of this report.

Previous Studies

As already noted, a Geologic Investigation of the property was previously conducted by REJA in 2001. In addition to a site reconnaissance review of aerial photos and review of published reports pertinent to the site, their evaluation included logging of exploratory borings and four exploratory trenches. The investigated three potential building sites on parcel 47 and one potential building site on 58. They also investigated two potential leachfield locations (one on each parcel). They did not conduct a subsurface investigation in the immediate area of the currently proposed building site but mapped the area and included it in their site characterization. Amongst their conclusions were the following:

^o They generally agree with the regional mapping showing a layer cake geologic stratigraphy with formations dipping about 3° to the east.

^o Their exploratory trenches encountered evidence of "relatively pervasive" ridgetop shattering in the form of clay filled fractures (from hairline to up to 6 inches wide) as well as zones (from 2 feet to over 10 feet wide) of crushed brecciated and shattered rock. They observed no evidence of shear within the bedrock and concluded these clay-filled fractures these are dilation features, which are oriented parallel with the ridgeline as would be expected in extension from ridgetop shatter as well as during a significant seismic event. They concluded the clay in-filled fractures were evidence that these features had been healed. One exception was an open fracture located at the southern end of their Trench 1 which they concluded probably occurred during the 1989 Loma Prieta earthquake. They recommended designing the house foundation to accommodate up to 6 inches horizontal and 6 inches vertical offset.

° They encountered no evidence of landsliding at the subject parcels 47 and 58.

 $^{\circ}$ They characterized the building sites as UBC soil type S_c, based on an average standard penetration value equal to 67 obtained within the sedimentary bedrock at the exploratory borings at all the building sites.

A Geotechnical Investigation of the subject parcels conducted by Haro, Kasunich & Associates, Inc. ("HKAI") concurrent with the study by REJA in 2001 and included 8 borings drilled to depths that ranged from 16.5 feet to 60 feet below the nearest adjacent ground surface. Their borings encountered Purisima Formation throughout the depths explored, which extended to a depth of 60 below the ridge top. They recommended the building pad be provided with a 24 inch thick engineered fill and that house foundations be of a structural slab-on-grade type designed to account for potential horizontal and vertical displacements (6 inches) due to ridge top shatter. Additionally they recommend the foundation be designed to withstand a void of 10 feet in diameter occurring beneath the foundation.

Current Investigation

The current field investigation for the subject site (APN 093-261-47) was conducted on August 4 and 5, 2009 and consisted of logging a continuous exploratory trench at the residence building pad which is depicted on Figure 2 (Site Geologic Map). The trench was excavated with a rubber track-mounted excavator using a 24 inch wide bucket. The excavation were backfilled with loose spoils and track-walked at the ground surface. The exploratory trench was 67 feet in length and 6 feet deep below the lowest adjacent ground surface. The trench revealed fractured sandy siltstone of the Purisima Formation at very shallow depths throughout. The siltstone varied in consistency and was characterized as two primary units; Unit 2a (soft, brecciated) and Unit 2b (moderately hard, massive and pervasively fractured). As in the case of the study by REJA (2001) semicontinuous and discontinuous fractures were present all of which were completely in-filled with stiff clay. No open fractures were observed in the trench excavation. Bedding within the Purisima was not apparent in the trench excavation. At the time of the exploration, the Joe Hanna (County Geologist) visited the site and observed the trench from the ground surface.

Two hand auger holes were located at a proposed runoff dispersal pit location approximately 290 feet northeast of the center of the building pad. Soils encountered in the hand auger holes were categorized and logged in general accordance with the Unified Soil Classification System. The hand auger holes revealed surficial colluvium soil overlying moderately hard mudstone bedrock of the Santa Cruz Mudstone formation at a depth of approximately 6 to 6.75 feet. Refer to the trench and hand auger hole logs in Appendix B for detailed descriptions of the earth materials exposed in the various exploratory excavations.



EXHIBIT E

ATTACHMENT

Groundwater

No groundwater was encountered at the trench and test pits excavated at the site during the field investigation. No groundwater was encountered at the trenches and borings previously conducted at the subject property by REJA and by HKA. In general, groundwater conditions and fluctuations in the level of subsurface water are possible due to variations in rainfall, temperature, irrigation and other factors.

Landsliding (non-seismic conditions)

Published geologic maps covering the area do not show a landslide at or near the site (Cooper, Clark & Associates, 1974; Dibblee, et. al., 1980; Brabb, 1987, 1989 and 1997; Baum et al., 1999). Our review of stereo aerial photographs taken at various points in time does not indicate any evidence of landsliding at or immediately adjacent to the site. These findings were consistent with the results of the earlier investigation by REJA (2001). During the site reconnaissance we observed a subtle "topographic bench" at equal elevations (on both sides of the ridge. This bench is thought to be the result of a relatively erosion resistant bed or portion within the Santa Cruz Mudstone.

The subsurface investigation, review of subsurface data collected by others, and observations of natural and man-made exposures at and near the site indicate that the building envelope and immediately adjacent areas are underlain at very shallow depths by soft to moderately hard sedimentary bedrock.

Debris flows, or mudslides, can originate during periods of heavy rainfall on steep slopes such as occurred in 1982 where hundreds of damaging debris flows and other slope failures occurred throughout the San Francisco and Monterey bay areas (Ellen and Weiczorek, 1988). The fact that the proposed building pad is located at aridge top precludes it being impacted by debris flows.

5.0 UPDATED SEISMICITY

While the U.S. Geological Survey has abandoned attempts to predict the occurrence and magnitude of future earthquakes, the Working Group on California Earthquake Probabilities (2008) has revised estimates that there is a 63% probability that one or more major earthquakes (Mw 6.7+) will occur in the region by the year 2030 (UCERF, 2008). There is a high probability that, during the design life of the proposed residence, the site will experience a large earthquake from at least one of the active faults in the region.

Updated Ground Shaking

Ground shaking from a seismic event is considered the primary hazard that will impact the proposed residence within its design life span. The severity of ground shaking during an earthquake depends upon a number of factors such as earthquake magnitude, epicentral distance to site, local geologic conditions, colluvium thickness and wave-propagation properties of earth materials, groundwater conditions, and topographic setting. According to the 1997 Uniform Building Code (ICBO, 1997, Figure 16.2), all of Santa Cruz County lies within Seismic Zone 4, the most active seismic zone rated. There are a number of potential sources of large magnitude earthquakes in the region. The UBC indicates that, in terms of seismic design, the site is <u>not</u> located within a "near source" zone (inside 2 kilometers). Near-source factors do not apply.

Ground shaking can trigger other secondary seismic hazards that are discussed in following sections.

Proposed Residence for ladiano APN 067-261-47 August, 2009 Proj. No.: G-300.1

Surface-Fault Rupture

The results of our review of geologic maps and literature, the previous report by REJA (2001), aerial photos and our site reconnaissance indicate no evidence suggestive of faulting at or immediately adjacent to the site. This conclusion is consistent with published mapping of the general area of the site. The potential for surface-fault rupture at the site is considered to be low.

Seismically-Induced Landsliding

No evidence of moderate or large scale landsliding was identified that could potentially impact the building pad area. The proposed grading if implemented in accordance with the recommendations presented in the Project Geotechnical Engineering Report being prepared by Haro Kasunich & Associates (in press), would not be expected to raise the potential for landsliding above the normally low background level.

Ridge Top Shattering

Ridge top shattering occurs most commonly along the crests of sharp ridges, oriented roughly parallel with active faults where seismic energy is concentrated (Sutch and Dirth, 2003) as was observed in the 1971 San Fernando earthquake and later, during the 1989 Loma Prieta earthquake (Galloway and Plafker, 1989; Ponti & Wells, 1990; Mason et al., 1991; Nolan, 1992). The site is topographically located on a sharp ridgeline of a northwest trending ridge and would not be expected to be particularly susceptible to ridge top shattering. REJA (2001) did find evidence of older and recent ridge top shattering at a sites located in the immediate area, we only encountered evidence of older ridge top shattering that appears to have healed. The maximum horizontal displacement is on the order of 10 feet wide and the maximum vertical is about 5 inches. Despite the healed nature of these fractures, there is nonetheless a potential for ridge top shattering at this location in the future (see conclusions and recommendations).

Ashford and Sitar (2002) evaluated case studies of steep slopes impacted by the 1989 Loma Prieta and 1994 Northridge earthquakes. Specifically, they evaluated the site-response of steeply sloping sites which were underlain at the crest by weakly cemented granular soils. They concluded that the effect of the soil column behind the crest of a steep slope, though quite variable, can have a much greater affect on the seismic response than the effect of topography. Given the generally weakly cemented nature of the bedrock and the sharp nature of the ridge line in the area around the building site, we conclude that there is a moderate potential topographic amplification of seismic waves. According to the methods outlined in Ashford & Sitar (2002), and using the seismic shaking record for the Capitola Fire Station during the 1989 Loma Prieta Earthquake reported in Campbell (1992). We modeled the free field motion behind the slope crest at the site. Based on this, we determined an adjusted or average seismic coefficient equal to 0.38 which can be used in slope stability analyses, if needed.

LEACHFIELD EVALUATION

The leachfield will be located at the lower portion of the hillside approximately 360 feet northeast of the proposed residence on a gently to moderately inclined (24%), northeast facing slope. Within 100 feet east of the leachfield the slopes become moderate (34%) but there are no abrupt breaks-in-slope of bluffs between these areas. Ken Mabie confirmed Santa Cruz Mudstone underlies the surficial soils at this location but its contact with Santa Margarita Sandstone is located just below this location. We noted no evidence of springing activity or sloughing of surficial soils in that portion of the site, at and downslope of the proposed



EXHIBIT E

leachfield location. The leachfield, if established as shown on the current site plan, does not pose a threat to slope stability, is not expected to daylight on the slopes below the field, and would not be expected to create a public nuisance.

6.0 DISCUSSION

Living in or developing property in the rugged, seismically active coastal region of central California carries with it a somewhat elevated level of risk from geologic hazards when compared to areas of the state where the geologic hazards are generally lessened by the lack of topographic relief, seismicity and proximity to active faults. Persons living in or developing land in this region must be cognizant of this fact, and willing to accept this somewhat elevated level of risk. This level of risk can be reduced to an acceptably low level by implementing mitigative measures (for example, building setbacks from potential hazards, or adherence to building codes). It should be noted that this risk cannot be totally eliminated. Modern building codes are intended to prevent collapse of structures but not to preclude the need for significant repairs or even rebuilding after a major earthquake.

Changes to the natural conditions at or adjacent to the site can directly affect the risk levels from geologic hazards to the proposed development. For example, grading activities (cutting or filling), altering natural drainage characteristics, removing vegetative ground cover or excessive landscape irrigation activity can upset the natural equilibrium of forces and conditions present in a slope therefore, increasing the risk from geologic hazards at a site. Conclusions are drawn considering the current site conditions and recommendations offered considering the current proposed development concept.

Craig S. Harwood Consu $7 \frac{6}{7} \frac{102^{g}}{0} \frac{2^{g}}{2}$ Geologist



EXHIBIT TEA

ATTACHNAENT

7.0 CONCLUSIONS

<u>General</u>

Based on the information obtained during this study, we judge that there are no geologic conditions or hazards that would preclude development of the property for residential purposes as currently planned, provided the recommendations presented herein (and those of the project geotechnical engineering report) are adhered to. The prime geologic considerations for the project is the potential for ridge top shattering and for seismic shaking. The following statements pertain to the current development concept. The recommendations are presented as guidelines to be used by project planners and designers, and have been prepared assuming we will be commissioned to review any subsequent version of the project plans prior to construction to verify conformance with the recommendations presented in this report, and to inspect during site grading. we should be notified in writing of any changes to the development concept so that we might review and, if necessary, to modify the recommendations.

Landsliding (Non Seismic Conditions)

The building pad area is underlain at very shallow depths by competent bedrock of a stable configuration. We encountered no evidence of landsliding in any area that could potentially directly impact the building pad area. Control of surface runoff is essential in preventing contributing to the occurrence of slope failures on both natural and modified slopes. The planned runoff dispersal pit planned northeast of the building pad is in an area that would not be expected to become de-stabilized due to the introduction of runoff in the near subsurface. The pit should be designed by the project civil engineer based on the project-specific net runoff that is expected at the site. The drainage and runoff control recommendations of the geotechnical engineering report should be adhered to in this regard.

Leachfield

Establishment of the leachfield will not increase the potential for landsliding above the normally low background level if implemented according to the current design and layout as generally indicated on septic system plan. The leachfield as currently conceived, does not pose a threat to slope stability, is not expected to daylight on the slopes below the field, and would not be expected to create a public nuisance.

Seismic Hazards

The physiographic and geologic conditions of the site indicate there is a moderate potential for ridge top shattering. The presence of shallow, locally brecciated bedrock at the building pad area indicates it is possible the building pad would experience seismically-induced settlement. However, this particular phenomenon would not be expected to exceed the parameters already given to ridge top shattering. The planned compacted fill pad and structural slab-on-grade foundation would sufficiently mitigate this hazard.

Due to a number of factors, the San Andreas Fault zone or the Zayante fault zone are likely to produce the highest level of seismic shaking at the site, however there are a number of active faults in the region that are capable of producing very strong to severe levels of seismic shaking during the design life of the proposed residences and improvements. Selection of seismic design parameters should be made after careful consideration of the site profile, analytical procedures, and past performance of similar structures during magnitudes of shaking similar to those expected for the site.

EXHBIT BE 1

ATTACHMENT

No evidence of surface faults crossing the site was encountered during the research, field reconnaissance, or subsurface exploration for this study. Therefore, the potential for fault surface rupture occurring at the site is considered to be low. The building pad is underlain at shallow depths by soft to moderately hard siltstone bedrock and there is no evidence of a laterally continuous groundwater-bearing stratum. Therefore, the potentials for liquefaction lateral spreading and lurching occurring at the site are low. Due to the inland location and the elevation of the site, the potential for the site to be affected by tsunamis and seiches is nil.

Recommendations

The residence and other site improvements should be designed to resist damage associated with very strong to severe ground shaking in accordance with current building codes and design standards. Site-specific seismic design criteria are presented in the geotechnical engineering report by Haro Kasunich & Associates, Inc. (in press). The Seismic source type and distance for the site are as follows:

Fault Name	Seismic Source Type	Distance from site (km)
San Andreas	А	13.5
Zayante-Vergeles	В	8.0
San Gregorio	А	18.25

^o There is a potential for ground cracking resulting from ridgetop shattering at the site. Based on evidence encountered in our exploratory trench, the building foundation should be designed to accommodate individual ground cracks with up to 5 inches of vertical offset and designed to span soft zones of highly fractured rock of up to 10 feet wide. The building should be supported by a reinforced mat foundation.

[°] The proposed residence footprint should be confined to that area designated on the map as "geologically suitable building envelope." At this time, the proposed building envelope is entirely within the designated geologically suitable building envelope.

• The uppermost 2 feet of the building pad should be excavated and recompacted to standards of geotechnical practice.

[°] Erosion control, slope protection and construction of conventional drainage facilities will help to minimize loss of soil and surficial sloughing. These aspects of site development as well as finished slope configurations and drainage provisions should be implemented in accordance with the recommendations offered in the Geotechnical Investigation report by Haro Kasunich & Associates, Inc. (in press).

^o The site runoff should be delivered via tightline which ends in a "T" at the runoff dispersal pit located as generally shown on Figure 2. The pit should be lined with rock and designed to accommodate the anticipated runoff volumes.

• The leachfield should be located at the location currently proposed and should conform to the specifications of the project environmental health specialist.

Craig S. Harwood Cons 7 8 / 1 0 2ng Geologist - 7 2 -


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

October 27, 2009

Frank ladiano 3191 La Madrona Drive Santa cruz, CA 95060

Subject: Review of Soils Engineering Report by Haro, Kasunich and Assoicates Dated September 2, 2009; Project #: SC8698, and the Engieering Geology Report by Craig Harwood dated August 31, 2009 APN 067-261-47, Application #:09-0228

Dear Applicant:

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 report.
- 2. Final map shall reference the report and shall designate an approved building and development envelope for the single-family dwelling and septic system. The engineering geologist must provide a short lettering indicating the review and approval of the building and development envelopes on the building envelopes before the map is recorded.
- 3. Please provide an electronic copy of the reports in .pdf format. This document may be submitted on compact disk or emailed to <u>kent.edler@co.santa-cruz.ca.us</u>.

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.

This determination is appealable. Please contact me if you would like to file an appeal and I will provide guidance on how to proceed.

Please call the undersigned at (831) 454-3168 if we can be of any further assistance.

Sin¢erelv. Hanna CEG1313

County Geologist

EXHBIT

(over) TTACHMENT

CULTURAL RESOURCE EVALUATION OF THE PROJECT AT 3191 LA MADRONA DRIVE IN THE COUNTY OF SANTA CRUZ

FOR

MR. FRANK IADIANO PO BOX 1655 SOQUEL, CA 95037 NWIC#08-1676

BY

Archaeological Resource Management Dr. Robert Cartier, Principal Investigator 496 North Fifth Street San Jose, CA 95112 Phone: (408) 295-1373 FAX: (408) 286-2040 Email: armcartier@netscape.net

JULY 3, 2009

EXHIBITE

E

ATTACHMENT

ADMONITION

Certain information contained in this report is not intended for general public distribution. Portions of this report locate significant archaeological sites in the region of the project area, and indiscriminate distribution of these data could result in the desecration and destruction of invaluable cultural resources. In order to ensure the security of the critical data in this report, certain maps and passages may be deleted in copies not delivered directly into the hands of environmental personnel and qualified archaeologists.

THE PRINCIPAL INVESTIGATOR

EXHIBIT EA

ATTACHMENT

S

ABSTRACT

This cultural resource evaluation was carried out for approximately twenty-two acres of land at 3191 La Madrona Drive in the County of Santa Cruz. The research included an archival search in the State records and a surface survey of the proposed project area. The archival research revealed that no recorded sites are located within the project area, and no recorded sites within one-half mile of the subject property. No previous studies have been carried out within the proposed project area. No significant cultural materials, prehistoric or historic, were noted during surface reconnaissance. In addition, the proposed project is located in a hillside environment. Hillside locations typically have a low potential for encountering buried prehistoric sites. Therefore, it is concluded that the proposed project will have no impact on cultural resources. In the event, however, that prehistoric traces (human remains, artifacts, concentrations of shell/bone/rock/ash) are encountered, all construction within a fifty meter radius of the find should be stopped, the Planning Department notified, and an archaeologist retained to examine the find and make appropriate recommendations.

REQUEST FOR CULTURAL RESOURCE EVALUATION

The cultural resource evaluation was carried out to determine the presence or absence of any significant cultural resources. Archaeological services were requested in June 2009 in order to provide an evaluation that would investigate the possible presence of cultural resources. This study meets the requirements of CEQA (California Environmental Quality Act).

QUALIFICATIONS OF ARCHAEOLOGICAL RESOURCE MANAGEMENT

Archaeological Resource Management has been specifically engaged in cultural resource management projects in central California since 1977. The firm is owned and supervised by Dr. Robert Cartier, the Principal Investigator. Dr. Cartier has a Ph.D. in anthropology, and is certified by the Register of Professional Archaeologists (ROPA) for conducting cultural resource investigations as well as other specialized work in archaeology and history. He also fulfills the standards set forth by the Secretary of the Interior for inclusion as a historian and architectural historian and is certified as such on the State of California referral lists.

LOCATION AND DESCRIPTION OF THE SUBJECT AREA

The subject area consists of approximately twenty-two acres of land and is located at 3191 La Madrona Drive in the County of Santa Cruz. On the USGS 7.5 minute quadrangle of Felton, the Universal Transverse Mercator Grid (UTMG) approximate centerpoint of the project area is 10S 5 86 181mE/40 97 789mN. The elevation is approximately 550 to 850 feet MSL. The nearest source of fresh water is an unnamed drainage which runs along the northeastern boundary of the subject property.

The proposed project consists of splitting the existing lot into two, and the construction of a single family residence. This will include the necessary trenching, grading, and other earthmoving activities.

-76

METHODOLOGY

The methodology used in this investigation consisted of an archival search, a surface reconnaissance, and a written report of the findings with appropriate recommendations. The archival research is conducted by transferring the study location to a State archaeological office which maintains records of archaeological investigations. This is done in order to learn if any archaeological sites or surveys have been recorded within a half mile radius of the subject area. Each archival search with the State is given a file number for verification. The surface reconnaissance portion of the evaluation is done to determine if traces of historic or prehistoric materials exist within the study area. This survey is conducted by a field archaeologist who examines exposed soils for cultural material. The archaeologist is looking for early ceramics, Native American cooking debris, and artifacts of stone, bone, and shell. For historic cultural resources, the field evaluation also considers older structures, distinctive architecture, and subsurface historic trash deposits of potentially significant antiquity. A report is written containing the archival information, record search number, the survey findings, and appropriate recommendations. A copy of this evaluation is sent to the State archaeological office by requirements of State procedure.

A cultural resource is considered "significant" if it qualifies as eligible for listing in the California Register of Historic Resources (CRHR). Properties that are eligible for listing in the CRHR must meet one or more of the following criteria:

- 1. Association with events that have made a significant contribution to the broad patterns of local or regional history or the cultural heritage of California or the United States;
- 2. Association with the lives of persons important to local, California, or national history;
- 3. Embodying the distinctive characteristics of a type, period, region, or method of construction, or representing the work of a master, or possessing high artistic values; or
- 4. Has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California, or the nation.

Most Native American prehistoric sites are eligible due to their age, scientific potential, and/or burial remains.

The CRHR interprets the integrity of a cultural resource based upon its physical authenticity. An historic cultural resource must retain its historic character or appearance and thus be recognizable as an historic resource. Integrity is evaluated by examining the subject's location, design, setting, materials, workmanship, feeling, and association. If the subject has retained these qualities, it may be said to have integrity. It is possible that a cultural resource may not retain sufficient integrity to be listed in the National Register of Historic Places yet still be eligible for listing in the CRHR. If a cultural resource retains the potential to convey significant historical/scientific data, it may be said to retain sufficient integrity for potential listing in the CRHR.

ARCHIVAL BACKGROUND

Prior to surface reconnaissance of the subject area, a study of the maps and records at the Northwest Information Center of the California Historical Resources Information System was conducted and given the file number of NWIC# 08-1676. This research into the records at the Information Center was done to determine if any known archaeological

EXHIBIT E

ATTACHMENT

resources were located in or around the subject area. The archival search revealed that there are no recorded sites within the proposed project area. In addition, there are no recorded sites within one-half mile of the subject property.

No previous studies have been carried out within the subject property. Ten previous studies have been carried out within one-half mile of the subject property: S-4005, S4100, S-11302, S-11492, S-28468, S-3889, S-28491, S-28809, S-4029, and S-8134.

SURFACE RECONNAISSANCE

A "general surface reconnaissance" was conducted by a field archaeologist on all open land surfaces. A "controlled intuitive reconnaissance" was performed in places where burrowing animals, exposed banks and inclines, and other activities had revealed subsurface stratigraphy and soil contents. The boundaries of the proposed project were well established in the field by detailed topographic maps as well as boundary markers and fences identified in the field by the project representative. Accessibility to the proposed building site was good; however; accessibility to other portions of the project area was limited by steep contours and dense vegetation. Soil visibility was good within the proposed building site area; the surface area of much of the remainder of the property was obscured by the dense vegetation. This vegetation consisted of oak, madrone, fir and redwood trees as well as nettles and poison oak. Where native soils were visible, a brown sandy loam was noted in the upper elevations, with gray sand-rich loam in the lower elevations of the property. Rock types noted consisted sandstone and siltstone in the Santa Margarita formation. No significant cultural materials, prehistoric or historic, were noted during surface reconnaissance.

CONCLUSION AND RECOMMENDATIONS

The archival research revealed that no recorded sites are located within the project area, and no recorded sites within one-half mile of the subject property. No previous studies have been carried out within the proposed project area. No significant cultural materials, prehistoric or historic, were noted during surface reconnaissance. In addition, the proposed project is located in a hillside environment. Hillside locations typically have a low potential for encountering buried prehistoric sites. Therefore, it is concluded that the proposed project will have no impact on cultural resources. In the event, however, that prehistoric traces (human remains, artifacts, concentrations of shell/bone/rock/ash) are encountered, all construction within a fifty meter radius of the find should be stopped, the Planning Department notified, and an archaeologist retained to examine the find and make appropriate recommendations.

LITERATURE CITED AND CONSULTED

California Historical Resources Information System

2009 Record Search number NWIC#08-1676 on file at the Northwest Information Center, Department of Anthropology, Sonoma State University, Rohnert Park.

> 3 84/102 -78-

EXHBIT R



8



ATTACHMENT



March 31, 2004

ATTACHINENT

Frank ladiano Frank ladiano Construction P.O. Box 1655 Soquel, CA 95073

Re: Habitat Assessment for Mount Herman June Beetle (*Polyphylla barbata*) on two Parcels west of La Madrona Drive in Central Santa Cruz County.

Dear Mr. Iadiano:

This letter reports the findings of a "habitat assessment" for Mt. Herman June Beetle (MHJB), a Federal listed endangered species, on two undeveloped parcels of land (Assessor's Parcel No. 067-261-47 and 58) located west of La Madrona Drive and east of Graham Hill Road in Central Santa Cruz County, California. Mr. Iadiano is seeking approval to develop a single-family dwelling on each parcel. Both parcels are characterized by a long east to west trending ridge top with moderate to steep slopes on both sides. Parcel 47 and parcel 58 are approximately 21 acres and 20 acres respectively.

The Mt. Hermon June beetle (*Polyphylla barbata*) is a less then one inch long, oval-shaped scarabtype beetle that spends most of its life cycle as soil dwelling larvae and adults that feed primarily on the roots of ponderosa pine. The adult male emerges from the sandy Santa Margarita sandstone derived substrate in the late spring and early summer in search of fossorial females with which to breed. The adult MHJB is distinguished by its tawny brown color with tawny fuzzy brown hairs on its abdomen and head. Several parallel broken white bands cover the hard-shelled outer wings. MHJB is restricted to the Santa Cruz Mountains on Zayante sand soils primarily in the San Lorenzo River and Zayante Creek Watersheds.

The U.S. Soil Conservation Service Soil Survey of Santa Cruz County (1980) classifies the soil on the Iadiano properties as Ben Lomond-Felton complex, 50 to 75 percent slopes. The Ben Lomond-Felton complex soil type is characterized as deep and well-drained soil complex derived from sandstone, shale, schist, siltstone or granitic rock on hills and ridgelines near drainage ways. The complex is about 35 percent Ben Lomond sandy loam and 35 percent Felton sandy loam. The Ben Lomond sandy loam exhibits moderately rapid permeability, very rapid runoff, and very high erosion hazard. The Felton sandy loam exhibits moderately slow permeability, very rapid runoff, and very high erosion hazard. On the parcels this soil complex contains moderate humus content appearing light to dark brown in color with siltstone outcrops. The ridgeline is underlain by Tertiary sedimentary bedrock of Purisima Formation siltstone. It typically supports mixed evergreen-coniferous forest habitat.

> 819½ Pacific Avenue, Suite 4 • Santa Cruz, CA 95060 Phone 831-429-6730 • Fax 831-429-8742

2909 HARVARD DRIVE + BEN 87 / 10 2A. 95005 PHONE 408 336-4956 - 81-3-9539

VIRONMENTAL HEALTH SERVI(キャッケー いう 701 Ocean Street - Room 312, Santa Cruz, CA, 95060 (31) 454-2022
SITE EVALUATION SR# 7103 pe 4201
PRELIMINARY LOT INSPECTION REPORT (0.97), MLD # PROPOSED LOT A LOT SIZE 5.27 SITE LOCATION R/W @ 3191 LA MA MMM APN_067-261-47 WATER SUPPLY_WELL OWNER'S WRITTEN PERMISSION ATTACHED YES_NO.
SITE EVALUATION A FULL D SOIL D GROUNDWATER D PERCOLATION D REPAIR D ALTERNATIVE SYSTEM FL7079 \$877.00 316 CHECK \$877.00
O OTHER CONSULTATION
REQUESTED BY: TRANK INDIANO POBOX 1655, Sound, CA 464-1766
OWNER: ENV. CALVERS POBOX 1445, A PTOS 95001 684-1555 (NAME) (ADDRESS) 1445, A PTOS 95001 684-1555 (PHONE) (PHONE)
Item/s checked below do not meet present sewage disposal requirements or require further testing:
□ Soil tests indicate soils not suitable.
Lot slope excessive, area has been graded; and/or unable to provide setback from cut bank
□ Winter water table testing required.
Tests indicate failure to provide required separation of leaching and seasonal high groundwater.
Unable to provide a 100 foot separation between a septic system and a well, spring, stream, or waterway.
Inadequate space for both the sewage disposal system and the required future expansion area.
□ Septic area in floodplain.
·
Preliminary inspection of this lot indicates suitability for individual sewage disposal using conventional septic
Water supply must be developed
Site conditions may be mitigated by alternative technology. Further testing and evaluation is needed
Design Parameters
Percolation Pate 1.5 (6.30) 30.60 (6.120) Groundwater Depth for Design Purposes $ 4 ^+$
PENADUS 2: c'c : 3 SPR. Ciks SI20109 TEST TK20CH Elastos GEACC
(W) WSW (115/175/182) U-2'TOTSOL
KENWELL FINALES 2-13 UNANCE SITSIUNE RETUITS
Scitic 04-510 Finaled 12-14 munitisandy
Iws older than 2 yrs.
51000 28-29 90
NOTE: Preliminary inspections and evaluations do not take into account all factors which are considered in the issuance of a sewage disposal permit. An application for sewage disposal will be subject to further evaluation based on the specific sewage disposal design; the possible presence of geologic hazards, biotic resources, or other site constraints; and, the provisions of the Sewage Disposal Ordinance in effect at the time of permit application.
6/12/05 Aven melining
ENVIRONMENTAL HEALTH SPECIALIST DATE SUPERVISOR
PHD-72 (REV. 12/01) 82-82-2 ATTACHMENT 10

٠c

COUNTY OF SANTA CRUZ DISCRETIONARY APPLICATION COMMENTS

Project Planner: Robin Bolster Application No.: 09-0228 APN: 067-261-47 Date: November 13, 2009 Time: 13:39:43 Page: 1

Environmental Planning Completeness Comments

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

====== REVIEW ON JULY 7, 2009 BY JOSEPH L HANNA ========

The proposed lot is located in an area of known ridge top shatter. Ridge top cracking is a description of several different processes all of which require different types of mitigation dependent upon the local site conditions, and the extent of the cracking. Previous work on adjacent portions of this property has identified significant variation in the amount of ridgetop shattering.

The proposed building site must be trenched to identify the extent of ridge top cracking (if any) and to determine if any of the cracking has become involved in slope instability. If ridge top cracking is observed, then the project geotechnical engineer shall demonstrate that the cracking can be mitigated for the life of the proposed structure. Depending upon the result of the trenching a quantitative analysis of the slope stability will be required. All areas subject to instability must be eliminated from the building envelope.

The drain field will also be located on a slope out side of the boundaries of the geologic maps. The engineering geologist must extend their mapping into the area of the proposed septic drain field and must indicate that the drain field will not be affected by slope instability, or increase slope instability. ======== UPDATED ON JULY 13, 2009 BY JESSICA L DUKTIG =======

Environmental Planning Miscellaneous Comments

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

An engineered grading, drainage and erosion control plan is required with the building permit application. ======== UPDATED ON JULY 13, 2009 BY JESSICA L DUKTIG

Housing Completeness Comments

NO COMMENT NO COMMENT NO COMMENT NO COMMENT NO COMMENT

Housing Miscellaneous Comments

EXHIBIT

Date: November 13, 2009 Time: 13:39:43 Page: 2

Long Range Planning Completeness Comments

----- REVIEW ON JULY 1, 2009 BY GLENDA L HILL ------ NO COMMENT

Long Range Planning Miscellaneous Comments

======= REVIEW ON JULY 1, 2009 BY GLENDA L HILL ======== Confirm that access road does not cross >greater than 30% slopes.

Confirm that secondary access is not required.

Dpw Drainage Completeness Comments

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

======= REVIEW ON JULY 7, 2009 BY ALYSON B TOM ======= Pending confirmation from the project planner that the impervious areas and drainage mitigations built under building permit application 54251H (which was not routed to DPW Drainage for review nor comments) is consistent with building permit application 57519H (which DPW Drainage did review and approve, but which was surrendered) then there will be no additional comments regarding the improvements on parcel B.

The following are comments for proposed Parcel Abased on review of tentative parcel map dated May 2009 and letter from Haro, Kasunich and Associates dated June 30, 2009.

1) The letter from Haro, Kasunich and Associated refers to a proposed mitigation area. Please show this area on the plans.

2) The proposed building permit is located on a ridge with runoff directed in at least two directions. The proposed drainage plan should maintain this pattern and provide multiple mitigation areas as necessary to maintain this pattern.

3) The land division plans should include at least notes that describe how runoff from additional impervious areas shall be mitigated.

4) Please confirm that all driveways are existing and no additional improvement to these areas is proposed. On Sheet 3 why is the driveway labeled as a proposed 40 foot ROW to the North of the proposed building site and existing to the East of the site? Why is the existing water line easement paved? Is this pavement necessary? If not, can this pavement be removed in order to mitigate for added impervious area proposed for Parcel A?

For questions regarding this review Public Works Stormwater Management staff can be



Date: November 13, 2009 Time: 13:39:43 Page: 3

contacted at 454-2160.

======= UPDATED ON OCTOBER 5, 2009 BY ALYSON B TOM ====== Application with plans dated May 2009 has been recieved.

Previous comments No. 2 and 4 have not been addressed.

The additional drainage note on sheet 2 is noted. This note appears to suggest that a diversion of runoff from one watershed to another is proposed with this development. This diversion will not beallowed without submittal of technical reasoning why this diversion is required along with a description and assessment of the diversion path. It is suggested that the land division instead consider ways of not diverting runoff. If the proposed driveway and paved areas are built with pervious pavement does the geotechnical engineer still suggest that runoff needs to be diverted or hard piped downslope? Can the site desinged to gain vehicular access from the east or northeast so that additional impervious area is added in the same watershed as the proposed mitigation area shown on sheet 2?

Dpw Drainage Miscellaneous Comments

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

======= REVIEW ON JULY 7, 2009 BY ALYSON B TOM ======== See completeness comments ======= UPDATED ON OCTOBER 28, 2009 BY ALYSON B TOM ======== This permit application for the land division will not result in any additional impervious areas or changes in drainage patterns. The following items should be addressed with any future permit application that will result in an increase in impervious area and/or change in drainage patterns.

1) Existing drainage patterns should be maintained.

2)^CProvide mitigations for any proposed impervious area to limit post development runoff to predevelopment levels for a range of storms up to and including the 10 year storm. Include an analysis supporting the mitigations proposed and demonstrating compliance with the County Design Criteria.

Depending on the timing of the building permit application, future development will be subject to criteria in place at the time of application.

Dpw Driveway/Encroachment Completeness Comments

No Comment, project adjacent to a non-County maintained road.

Dpw Driveway/Encroachment Miscellaneous Comments

EXHIBIT C

Date: November 13, 2009 Time: 13:39:43 Page: 4

EX-BT.

Dpw Road Engineering Completeness Comments

NO COMMENT

Dpw Road Engineering Miscellaneous Comments

Environmental Health Completeness Comments

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

approved Septic Site Evaluation for parcel B. Project is approved by EHS.

Environmental Health Miscellaneous Comments

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

Scotts Valley Fire District Completeness Comments

====== REVIEW ON JULY 21, 2009 BY MARIANNE E MARSANO ======== DEPARTMENT NAME:Scotts Valley Fire District

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

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.

Provide an official copy of the duly recorded road maintenance agreement. All Fire Department building requirements and fees will be addressed in the Building Permit phase.

Your project is subject to the requirements of the Urban Wildland Intermix Code

Date: November 13, 2009 Time: 13:39:43 Page: 5

(UWIC) as deemed by the Planning Department as a new residential development and is in the State Responsibility Area (SRA). Contact your Local Fire Agency at 7 Erba Lane_____for a copy of the UWIC Requirements. Road width and water supply requirements will be addressed at the time of building permit review.

Scotts Valley Fire District Miscellaneous Comments

General Plan and Rural Density Matrix

The County allows for development based on a rural density score that is calculated from points obtained on nine different constraint matrixes. Below is a description of where the parcel falls under each constrain matrix and the score it obtained. Scores may vary for the rural residential and agricultural sections of the parcel.

		K-K Points
1.	LOCATION AND ACCESS: <u>Rural Residential Rural Home sites</u> 2 1/2 – 20 acre sites; All lots served by 12-foot road with turnouts.	_7
2.	GROUNDWATER QUALITY: <u>Adequate Quantity, Good Quality;</u> Supplied by a private or mutual well system.	8
3.	WATER RESOURCES PROTECTION: <u>Septic Systems in areas without</u> any known problems; both envelopes and septic systems are outside primary recharge and water supply watershed areas.	6
4.	TIMBER RESOURCES: <u>No timber resource or TP designations in the</u> General Plan or zoning.	10
5.	BIOTIC RESOURCES: <u>Development activities outside designated</u> important wildlife habitats. See report by Ecosystems West	_10_
6.	EROSION: Bedrock Geology: Santa Margarita $0-15\%$ slopes = 4.15 ac. (31%), $16-30\%$ slopes = 2.43 ac. (18%), $31-50\% = 0$ 6(.31%) = 3.25 + 3 (.18) = $.43$ = total 3.68	3.68
7.	SEISMIC ACTIVITY: <u>Not located in a fault zone; no potential for</u> liquefaction. <i>See soils report</i>	_10_
8.	LANDSLIDE: Bedrock Geology: Alluvium	_9
9 <u>.</u>	FIRE HAZARD: <u>Rural Residential: Less than 10 minutes response time</u> on dead end road w/o need for secondary access; building sites outside Critical Fire Hazard Area on 12-foot road with turnouts.	_6
	Subtotal: Deduct Cumulative Constraint Points: Final total:	<u>69.68</u> 0 69.68

Based on the scores obtained, the Rural Residential (R-R) parcel can subdivide with a minimum parcel size of 5 net developable acres per parcel.

Rural Residential Density Table					
Total Points	Min. Avg. Parcel Size Allowed				
0 – 20	20 acres				
21 - 40	15 acres				
41 - 60	10 acres				
61 - 80	5 acres				
81 - 100	2-1/2 acres				

Fr, I

10

ATTACHMENT

CHAPTER 13.14

RURAL RESIDENTIAL DENSITY DETERMINATIONS

Sections:

13.14.010 Purpose 13.14.020 Scope 13.14.025 Amendment 13.14.030 Definitions 13.14.040 Application 13.14.050 Rural Residential Density Determinations 13.14.060 Matrix Calculation 13.14.070 Overriding Minimum Acreage Policies 13.14.080 Resource and Constraint Data 13.14.090 Fees

<u>13.14.010</u> PURPOSE. The purpose of this chapter is to allow for a consistent determination of the development potential of rural land parcels based upon the availability of services, environmental and site specific constraints, and resource protection factors mandated by Measure J, the growth management system, its implementing ordinances and policies, the County's General Plan and Local Coastal Program Land Use Plan.

(Ord. 4406, 2/27/96; 4416, 6/11/96)

13.14.020 SCOPE. This chapter outlines ten criteria or factors,

called matrices, which assess the development potential of rural properties based on resources unique to a particular site, and establishes the basis upon which detailed site information supplied by an applicant can be accepted in lieu of general data otherwise available to county planning staff for matrix determinations. (Ord. 3026, 12/23/80; 3072, 5/12/81; 3330, 11/23/82; 3434, 8/23/83)

13.14.025 AMENDMENT. Any revision to this chapter which applies to

the Coastal Zone shall be reviewed by the Executive Director of the California Coastal Commission to determine whether it constitutes an amendment to the Local Coastal Program. When an ordinance revision constitutes an amendment to the Local Coastal Program such revision shall be processed pursuant to the hearing and notification provisions of Chapter 13.03 of the County Code and shall be subject to approval by the California Coastal Commission.

13.14.030 DEFINITIONS

Page 13D-,59

EXHIBIT E -

ATTACHMENT

12

by the policies of the General Plan and Local Coastal Program Land Use Plan or by other overriding concerns which are reflected in findings required by State law or County ordinances.

(d) If a Use Permit was issued and exercised prior to December 23, 1980, which allows the construction of 2 to 4 dwelling units on one parcel, and the appropriate findings for a land division can be made, the matrix system shall not be used to limit the division of that parcel into fewer lots than the number of dwelling units which were originally approved. The density of the proposed division may be deemed to comply with the General Plan by virtue of the fact that the approved Use Permit constitutes existing development. (Ord. 3594, 11/6/84)

13.14.050 RURAL RESIDENTIAL DENSITY DETERMINATIONS. In order to calculate the allowable average density, a parcel shall be evaluated based upon the following criteria (in order of occurrence):

- (a) <u>Developable Land</u>. Acreage of non-developable land (as defined in the General Plan and Local Coastal Program Land Use Plan Glossary) must be subtracted from gross acreage to arrive at developable land. (Ord. 4346, 12/13/94)
- (b) Matrix Calculations. Developable land is evaluated through the criteria in the matrix system (Section 13.14.060) to arrive at a preliminary allowable average parcel size.
- (c) Overriding Minimum Acreage Policies. The parcel is examined to determine if it is subject to any overriding General Plan policies, or Local Coastal Program Land Use Plan policies, requiring a minimum gross acreage parcel size (e.g., watershed land, fire hazard areas, fault zones, etc.). Such minimum parcel size restrictions if applicable, take precedence over the preliminary allowed average density in the event of a conflict. (See Subsection 13.14.070).
- (d) Final Allowable Average Density. The matrix calculations in paragraph (b) above shall become the final maximum allowable average density for the parcel unless modified pursuant to paragraph (c) above. (Ord. 3026, 12/23/80; 3072, 5/12/81; 3330, 11/23/82; 3434, 8/23/83)

13.14.060 MATRIX CALCULATION.

(a) Individual matrix calculations are based upon a site specific analysis of resources and constraints, using the best available data (see Section 13.14.080), for each of the following <u>ten</u> matrices. Any property which is split by a general plan or matrix designation shall have points awarded proportionate to the amount of developable acreage within each designation.

Page 13D-: 61

EXHIBIT, E

ATTACHMENT 12

(1) LOCATION MATRIX*

TYPE	0F	ACCESS	

PLAN DESIGNATION CATEGORY	All Lots Fronting On or Within 500' (Road as Traveled) of a County Maintained Road and Accessed From That Road	All Lots Served by a Private Road 18 Foot Width	Lots Served by a 12 foot Road With Turnouts
(Suburban) (1-5 acre ar	15 eas)	13	12
(Rural Resid Rural Homes (2-1/2-20 ac	ential ites) 10 re areas)	8	7
(Mountain Re (10-40 Acre	sidential) 5 Areas)	2	0

*In the Coastal Zone portion of the North Coast and Bonny Doon Planning Areas, prohibit new land divisions located more than one-half mile by road from a publicly maintained road. (GP/LUP Policy 6.5.10)

(2) GROUNDWATER QUALITY MATRIX

TYPE OF SUPPLY

AREA		County or Municipal Water District	Private Mutual Well System	or	Private or Mutual Surface Diversion	
0	Groundwater Supply at or Exceeding Safe Yield	0	<u> </u>	0	0	
I	Inadequate Quantity Poor Quality	2		1	0	
II	Inadequate Quantity Good Quality	5.		4	2	
111	Adequate Quantity Poor Quality	7		5	3	•
IV	Adequate Quantity Good Quality	10		8	5	

Page 13D- 62

EXHIBIT E : ATTACHMENT 12 (3) WATER RESOURCES PROTECTION MATRIX

CHARACTERISTICS OF SANITATION SYSTEM	Outside Primary Recharge and Water Supply Watershed Areas	Outside Primary Recharge Area but Within Water Supply Watershed	Within W Primary J Recharge J Area but Outside Water Supply Watershed	Within both Primary Recharge and Water Supply Water- shed Areas
Public Sanitation System	10	9	8	7
Package Treatment Plant or Septic System Maintenance District	9	8	7	6
Septic Systems in Areas without Known Problems	6	5	4	3
Septic Systems within Septic Tank System Problem Areas	3	2	1	0
· · · · · · · · · · · · · · · · · · ·	(4) <u>TIMBER R</u>	ESOURCES MATRIX		<u> </u>
DISTANCE FROM URBAN SERVICES LINE		PARCEL SIZ	E*	
	Less than 20	Acres 20 Acres	or Larger	
Less than 1/2 mile	8		0	
l/2-2 miles	6		0	
More than 2 miles	4		0	
(* Properties without 'TP' zoning receive a	a "timber resou score of 10)	rces" designatio	on on the Gen	eral Plan or
rage 15	9	-92-		ATTACHMEN

GROUNDWATER BASIN TYPE

(5) **BIOTIC RESOURCE MATRIX**

TYPE	OF BIOTIC RESOURCE	POINTS	
I	Development Activities Outside Designated Important Wildlife Habitats	10	per Bistic
11	Development Activities Proposed Within An Important Wildlife Habitat	5	Report.
111	Development Activities Proposed Within An Area of Critical Wildlife, Vegetation or Rare Plant Habitats	0	
*IV	Sensitive Habitats	0	

* In the Coastal Zone, development must comply with the standards of the Sensitive Habitat Protection Ordinance.

(6) <u>EROSION MATRIX</u>

AVERAGE SLOPES

BEDROCK GEOLOGY	0 - 15%	16 - 30%	31 - 50%
Granitics, Metamorphics, Terrace Deposits	10	9	7
Santa Cruz Mudstone, Mindego, Purisma, Locatelli, Monterey, Alluvium	10	8	5
Lompico, Vaqueros, Lambert, Butano, Zayante, San Lorenzo	8	5	2
Santa Margarita, Aromas	6	3	0

Page 13D- 64

ATTACHMENT 12

EXHIBIT E 1

(7) <u>SEISMIC ACTIVITY MATRIX</u>

AREAS OF LIQUEFACTION

FAULT ZONE	Very High Potential	Moderately High Potential	Moderate Potential	Low Potential	No Potential	
San Andreas San Gregorio	0	0	0	0	0	
Zayante	0	1	2	3	3	
Corralitos	1	2	3	4	5	
Sargent, Butano	3	4	5	6	7	
None	4	6	8	9	$\left(10\right)$	
	(8)	LANDSLIDE	MATRIX	· · · · · ·		
•		AVERAGE SLO	PES			
BEDROCK GEOLOGICAL CONDITIONS		0 - 15%	16 - 30%	31 - 50	%	
Alluvium	<	10	9	(N/A)		
Granitics, Metamorph Terrace Deposits	nics,	10	10	7		
Santa Margarita, Lom Santa Cruz Mudstone, Locatelli, Monterey	npico Mindego,	10	9	7		•
Vaqueros, Butano, Pu	urisima,	9	8	5	· · ·	
San Lorenzo		8	5	2		
Aromas		6	3	0		
Evidence of recently landslides on the pr in the area of prope development activit	y active roperty osed ies*	2	0	0		

* Properties having a landslide that could adversely affect the stability of the proposed development, or that indicates general geologic conditions of instability on the property, must be evaluated in the bedrock category.

EXHIBIT E.

ATTACHMENT 12

100/102 - 94-

(9) FIRE HAZARD MATRIX

Location and Road Standards

	Entire Property Outside Critical Fire Hazard Area on 18 Foot Road	Entire Property Outside Critical Fire Haza Area on 12 Foot Road With Turnouts	ard	Parts of Property in Critical Fire Hazard Area With Building Site Located Outside With 18 Foot Road	Parts of Property In Critical Fire Hazar Area With Building Site Located Outside With 12 Foot Road With Turn- outs	Building Sites Wit Mitigatat Critica d Hazard	hin de d Area
Less Than Minutes R Time on N Dead end	n 10 Response Ion- Road.	15	12	10		8 6	
Less Than Minu Time on E Road with Access	n 10 utes Response Dead end n Secondary	13	10	8		6 4	
10-20 Mir Response or Non-De Road	nutes Time ead end	10	8	6	4		2
10-20 Mir Response Dead end Secondary	nutes Time on Road with Access	8	6	4	2		0

Page 13D-66

E

EXF

ATTACHIEST

(10) CUMULATIVE CONSTRAINT POINTS

- Cumulative Constraint Points shall be deducted from the total matrix score based upon the following criteria:
 - (i) If the proposed division receives a zero (0) on two matrices, 5 points shall be subtracted from the matrix.
 - (ii) For each additional zero (0) the proposed division receives, 5 additional points shall be subtracted from the matrix.
 -) <u>Preliminary Average Allowable Density</u> is determined by referring the total numerical score (based upon the 10 matrices above) to the following tables:
 - (i) <u>Suburban Residential Table</u> (To be used for any portion of the property outside the Urban Services Line and Rural Services Line designated as Suburban Residential, 1-5 acres/unit)

Total Number of Points Obtained	Minimum Average Parcel Size Allowed for Development
60 and under	5 acres
61 - 65	4-1/2 acres
66 - 70	4 acres
71 - 75	3-1/2 acres
76 - 80	3 acres
81 - 85	2-1/2 acres
86 - 90	2 acres
91 - 100	1 acres

The minimum parcel size in Suburban designations without public water service shall be 2-1/2 acres.

EXHIBIT E



SCOTTS VALLEY FIRE PROTECTION DISTRICT

7 Erba Lane, Scotts Valley, California 95066

(831) 438-0211 Fax (831) 438-0383

November 17, 2009

Frank ladiano P.O. Box 1655 Soquel, CA 95073

Subject: 3191 La Madrona Drive - Existing access road for Minor land division

Dear Mr. ladiano:

The access road width requirement for serving three parcels is 18 feet. The existing paved road is 12 feet wide; however, four complying turnouts exist along the length of the paved road which allows traffic to pass for egress and ingress.

As a result of my site inspection today I've determined that all four turnouts are located at adequate intervals and the road is being maintained in good condition.

Therefore, the existing road is adequate for fire department access to three parcels as proposed.

Note: A road association agreement for the three parcels is required to assure continued maintenance.

Sincerely,

netharband

Marianne Marsano Fire Marshal



SCOTTS VALLEY FIRE PROTECTION DISTRICT

7 Erba Lane, Scotts Valley, California 95066

(831) 438-0211

0211 Fax (831) 438-0383

November 17, 2009

Frank Iadiano P.O. Box 1655 Soquel, CA 95073

Subject: 3191 La Madrona Drive - Existing access road for Minor land division

Dear Mr. Iadiano:

The access road width requirement for serving three parcels is 18 feet. The existing paved road is 12 feet wide; however, four complying turnouts exist along the length of the paved road which allows traffic to pass for egress and ingress.

As a result of my site inspection today I've determined that all four turnouts are located at adequate intervals and the road is being maintained in good condition.

Therefore, the existing road is adequate for fire department access to three parcels as proposed.

Note: A road association agreement for the three parcels is required to assure continued maintenance.

Sincerely,

e Marson

Marianne Marsano Fire Marshal