

Staff Report to the Planning Commission

Application Number: 08-0419

Applicant/Owner: Wilson Family Trust and Janet L. Mattos

Agenda Date: September 9, 2009

APN: 107-461-25

Agenda Item #: 8 Time: After 9:00 a.m.

Project Description: Proposal to divide an existing 20.35 acre parcel into two parcels of 10 acres and 10.35 acres and to install one six foot tall chain link fence and recognize one six foot tall chain link fence within the front yard setbacks. Requires a Minor Land Division and a Residential Development Permit for fencing over three feet in height within the required 40 foot front yard setbacks.

Location: Property located on the northeast corner of Hames Road and Enos Lane in Corralitos (350 Hames Road).

Supervisoral District: 2nd District (District Supervisor: Ellen Pirie)

Permits Required: Minor Land Division, Residential Development Permit **Technical Reviews:** Geology and Geotechnical Reviews completed in 2006 (06-0175)

Staff Recommendation:

- Certification of the Mitigated Negative Declaration per the requirements of the California Environmental Quality Act.
- Approval of Application 08-0419, based on the attached findings and conditions.

Exhibits

A. Project Plans

E. Additional Comments

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- B. Findings
- C. Conditions
- D. Mitigated Negative Declaration (CEQA Determination) with attachments.

Parcel Information

Parcel Size:20.37 acresExisting Land Use - Parcel:Single Family ResidentialExisting Land Use - Surrounding:Single Family Residential & Mobile Home ParkProject Access:Via Hames Road

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

Application #: 08-0419 APN: 107-461-25 Owner: Wilson Family Trust & Janet L. Mattos

Planning Area:	Eureka Canyon
Land Use Designation:	R-R (Rural Residential)
Zone District:	RA (Residential Agriculture)
Coastal Zone:	Inside <u>X</u> Outside
Appealable to Calif. Coastal Comm.	Yes _ <u>X</u> _No

Environmental Information

Geologic Hazards:	Mapped Zayante fault zone. Geotechnical and geologic report reviews were conducted prior to the 2008 General Plan policy amendment, under application 06-0175.
Soils:	Not an area of concern in the geotechnical report.
Fire Hazard:	Not a mapped constraint.
Slopes:	Slopes over 30% on the property; no building site or improvements
	located on the slopes; geologic & geotechnical reports did not
	identify landsliding as an area of concern.
Env. Sen. Habitat:	Not mapped and no physical evidence on site.
Grading:	Minimal grading required; proposed building envelopes on primarily
	flat areas; detailed grading plans required at building permit stage.
Tree Removal:	No trees proposed to be removed.
Scenic:	Not a mapped resource.
Drainage:	New drainage facilities to be located onsite to promote groundwater
	recharge and retain runoff onsite.
Archeology:	Not mapped.

Services Information

Urban/Rural Services Line:	Inside <u>X</u> Outside
Water Supply:	City of Watsonville
Sewage Disposal:	Septic
Fire District:	CalFire (County Fire Department)
Drainage District:	Zone 7

History

The entire parcel is within a County mapped fault zone (Zayante).

In 2008, the Board of Supervisor's approved a General Plan Amendment to revise the text of policy 6.1.12 (Minimum Parcel Size in Fault Zones) to change the minimum parcel size requirements for land divisions on parcels located within County mapped fault zones. The approved amended text reads as follows:

Require a minimum parcel of 10 gross acres for the creation of new parcels within the portions of the County designated seismic review zones that are not part of a State Alquist-Priolo Earthquake Fault Zone, and which lie outside of the Urban and Rural Services Lines and the Coastal Zone, if 25% or more of the parcel perimeter is bounded by parcels 1-acre or less in size.

Geotechnical and geologic report reviews were conducted prior to the 2008 General Plan Policy amendment, under application 06-0175. Environmental Planning Staff accepted the reports, which found that the parcel is not located within the State Alquist-Priolo Earthquake Fault Zone and that there are no active faults within 25 feet of the proposed building envelopes (County Code Section 16.10.070(b)2). In addition, the parcel is not located within an urban or rural services line and 25% or more of the parcel perimeter was found to be bound by parcels one acre or less in size; therefore, the parcel meets the requirements of the amended General Plan policy (6.1.12) and is subject to the minimum 10 gross acre parcel size requirement.

Project Setting

Adjacent parcels to the east, north, and west are zoned Residential Agriculture (RA) and are developed with single family dwellings. One east adjacent parcel is zoned Residential Agriculture - Mobile Home Park (RA-MH) and is developed with the Rancho Corralitos Mobile Home Park. The south adjacent parcels are zoned R-1-15 (Single Family Residential - 15,000 square foot minimum) and are also developed with single family dwellings. All surrounding parcels are designated as Rural Residential (R-R) in the County General Plan.

There is an existing City of Watsonville water tank located on parcel 107-461-02, which is completely enclosed within the boundaries of the subject parcel on the western portion of the parcel adjacent to Enos Lane.

There is a ridgeline located on the east side of the parcel which measures to about 100' - 130' above the lower portions of the parcel. The lower and flatter portion of the property occurs on the west side of the parcel and is comprised of gradual slopes equal to or less than about 15%.

Detailed Project Description

The land division will create two parcels for the development of two new "primary" single family dwellings, 1 new second unit and will a re-designate the existing residence to a second unit. Parcel A will have two designated building envelopes and Parcel B will have a designated building envelope for a primary residence and will retain the existing single family dwelling for use as a second unit. The existing barn will be demolished.

The subject parcel is approximately 20.37 acres, as shown on the plans and the proposed lots would be approximately 10 gross acres (Parcel A) and 10.35 gross acres (Parcel B)

The proposed private roadway will have a 40 foot right of way, and 18 foot and 12 foot paving widths. Approximately 250 feet of the private roadway is proposed be widened to 18 feet and the remaining 200 feet, including the proposed fire truck turnaround, will be paved and widened to 12 feet. The property owner will utilize porous pavement on portions of the proposed roadway.

The proposed parcels will obtain water service from the City of Watsonville.

Residential Development Permit

A Residential Development Permit is included in this proposal to recognize existing fencing and

permit additional fencing over three feet in height located within the front yard setbacks.

A parcel located north of the subject parcel on Enos Lane, obtained approval for a use permit in 2007 which included a condition to install drainage improvements along Enos Lane. Drainage improvements were installed along the frontage of the subject parcel and private negotiations for the improvements included the installation of a six foot tall black vinyl coated chain link fence on the subject property. The fence is approximately 400 feet long and is located entirely on Parcel A. A second six foot tall black vinyl coated chain link fence is property line of proposed Parcel A for a length of approximately 260 feet. Both the existing and proposed fences are over three feet in height and are located within a front yard setback.

The chain link fences will not and do not impact vehicular site distance in that the location of the chain link fence is on a straight portion of Enos Lane and is not slatted and the other proposed fencing will be located perpendicular to Hames Road and on the outside edge of Mahalo Drive; therefore, it is easy to view oncoming traffic and/or obstacles on the road ahead. The purpose of the fencing is to provide additional security for the residences and for outdoor yard areas. The fence along Enos Lane is setback from the roadway to allow pedestrians to move off of the roadway for vehicles. The existing and proposed fencing is appropriate for the rural character of the neighborhood.

Zoning & General Plan Consistency

The subject property is approximately 20.37 acres, as shown on the plans, and is located in the RA (Residential Agriculture) zone district, a designation which allows residential uses. The proposed building envelopes and the existing residence comply with all of the site standards for the RA zone district as shown in the table below:

	Required as per County Code 13.10.323(b) RA District	Proposed Site Standards
Front Yard	40'	40'
Side Yards	20' & 20'	20' minimum
Rear Yard	20'	20' minimum
Frontage	100'	100'
Width	60'	60' minimum

The project is consistent with the site's (R-R) Rural Residential General Plan designation, in that the proposed lots would be approximately 10 gross acres (Parcel A) and 10.35 gross acres (Parcel B) which meets the 10 gross acre minimum requirement as per General Plan Policy 6.1.12 (as amended). In addition, the proposed parcels meet the minimum requirement of 2.5 net developable acres per parcel as per the R-R General Plan Designation.

Project Access/Roadway Improvements

Both parcels and all four building sites will be accessed by a new driveway, Mahalo Terrace, which intersects with Hames Road. There is an existing gravel driveway in the proposed location of the driveway which will be improved as a part of the project. A 40 foot right of way will extend for the length of the driveway and the roadway itself will be 18 feet wide for the first 220

feet and will reduce to 12 feet for the remaining 220 feet. A fire truck turnaround is located at the terminus and must be approved by CalFire prior to parcel map recordation. The driveway will be located at the proposed property line between Parcels A and B and a portion of the new paved access road will utilize pervious pavement.

Stormwater Management Plan

The project requires the construction of a new stormwater drainage system to accommodate the increase in stormwater runoff as a result of new proposed impervious areas. An existing storm drain is located at the western side of the parcel, parallel to Enos Lane; however, this drainage line is plugged and would not meet current County Design Criteria requirements for best management practices or limiting post development runoff. Therefore, the proposed new stormwater drainage system utilizes retention trenches to retain runoff and promote groundwater recharge and the existing plugged pipe would remain to promote groundwater recharge. Both of the proposed methods for retention and recharge are supported by the geotechnical and geologic investigations due to the existence of highly permeable, sandy soils.

Geotechnical & Geologic Report Reviews

In 2006, the property owner completed a Geologic and Geotechnical Report Review for the subject parcel. The reports established that the proposed building sites are geologically stable and that, based on onsite trenching at and around the proposed building sites, there are no active faults on or within 25 feet of the proposed building envelopes. County Code Section 16.10.070(b)(2) allows homesites to maintain a 25 foot setback from any active or potentially active fault traces with the submittal of paleoseismic studies that include observation trenches and approval from the County and Project Geologists, both of which have been completed with the above technical reports and report reviews.

Environmental Review

Environmental review has been 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 July 1, 2009. A preliminary determination to issue a Negative Declaration with Mitigations (Exhibit D) was made on June 2, 2009. The mandatory public comment period expired on June 30, 2009, with no comments received.

The environmental review process focused primarily on the potential impacts of the project in the areas of Geology and Soils. The environmental review process resulted in mitigation measures to address potential impacts to air quality and the landfill as a result of temporary construction debris.

Conclusion

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" ("Findings") for a complete listing of findings and evidence related to the above discussion.

Staff Recommendation

- Certification of the Mitigated Negative Declaration per the requirements of the California Environmental Quality Act.
- **APPROVAL** of Application Number **08-0419**, 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:

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Report Reviewed By:

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Principal Planner Santa Cruz County Planning Department

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 Residential Agricultural (RA) zoning district and Rural Residential (R-R) General Plan designation permit 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 this project creates two parcels with a minimum of 10 gross acres per parcel, as per General Plan Policy 6.1.12, and 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 City water and septic waste treatment. The two parcels will take access from Hames Road, which is a public street that provides satisfactory access. Conditions of approval require the applicant to pave the new roadway and install a stop sign and markings at the intersection to provide traffic control and awareness and to ensure that vehicles can safely pull out onto Hames Road. The proposed land division is similar to the pattern and density of the surrounding rural residential development in the project vicinity.

The proposed land division is not located in a hazardous or environmentally sensitive area and protects natural resources by expanding in an area designated for residential development at the proposed density.

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 RA (Residential Agriculture) zone district, where the project is located. 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 building envelopes are based upon the results of the geotechnical and geological report reviews to avoid any challenging topography and soils and to meet setbacks from existing fault zones. The proposed building areas are sites that are suitable for residential development and that are properly configured to allow development in compliance with the required site standards. No environmental constraints exist which would be

adversely impacted by the proposed development.

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

This finding can be made in that no mapped or observed sensitive habitats or threatened species impede development of the site and the project has received a mitigated Negative Declaration pursuant to the California Environmental Quality Act and the County Environmental Review Guidelines.

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

This finding can be made in that City water and on site septic systems are available to serve the proposed 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 development will be located at a safe distance from existing vehicular easements and the access roadway will be improved to accommodate the proposed development.

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 building envelopes allow for future development to be oriented in such a way to take advantage of solar access.

9. The proposed development project is consistent with the Design Standards and Guidelines (sections 13.11.070 through 13.11.076), and any other applicable requirements of this chapter.

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

Development Permit Findings

1. That the proposed location of the project and the conditions under which it would be operated or maintained will not be detrimental to the health, safety, or welfare of persons residing or working in the neighborhood or the general public, and will not result in inefficient or wasteful use of energy, and will not be materially injurious to properties or improvements in the vicinity.

This finding can be made in that the project is located in an area that allows single family residential uses and is not encumbered by physical constraints to development. Construction will comply with prevailing building technology, the Uniform Building Code, and the County Building ordinance to insure the optimum in safety and the conservation of energy and resources.

The locations of the two 6 foot maximum height chain link fences allows for adequate sight distance for vehicles traveling along Hames Road and Enos Lane in that neither of the fences are/will be solid or slatted. In addition, because the fences are chain link, neither of the fences are able conceal persons with criminal intent and do not adversely impact the available light or the movement of air to properties or improvements in the vicinity.

The locations of the two fences will/do not conflict with or obstruct pedestrian access along Hames Road or Enos Lane in that there is still room on the Enos Lane shoulder for pedestrians and bicycles and the other fence will be located perpendicular to Hames Road.

Construction and maintenance of the fences will/does not utilize an excessive quantity of materials or energy in that they are relatively insignificant structures that are accessory to residential uses on the property.

2. That the proposed location of the project and the conditions under which it would be operated or maintained will be consistent with all pertinent County ordinances and the purpose of the zone district in which the site is located.

This finding can be made, in that the use of the property will be single family residential with densities that meet the minimum standards for the RA (Residential Agriculture) zone district where the project is located, and the building envelopes comply with the required setbacks of the RA zone district.

The locations of the two 6 foot maximum height fences and the conditions under which they will be operated or maintained will be consistent with the purpose of the RA zone district in that the primary use of the property will be single family residential and fences are a normal ancillary use in the zone district. Specific regulations for fencing and walls are contained in section 13.10.525. This proposal complies with the requirements and intents of that section, in that:

• The fence along Enos Lane is situated on the property in a manner that allows adequate sight distance for vehicles traveling along the roadway as well as entering and exiting the property, in that the fence is set back from the traveled roadway. The fence proposed along Mahalo Drive is perpendicular to Hames

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EXHIBIT B

Road and is setback from the corner, therefore, it also will not impact vehicular site distance.

- The chain link fence along Enos Lane is set back from the street to allow adequate light and air to pass through to the street area. The other fence will be setback from Mahalo Drive and will not be solid or slatter, therefore, light and air will be able to pass through to the streets.
- The locations and style of the black, vinyl fences on the property will/do not contain any corners or pockets that could conceal persons with criminal intent.
- The locations and styles of the chain link fences will be/are compatible with the visual neighborhood character of the surrounding rural residential neighborhood where other fences are located adjacent to roadways.
- 3. That the proposed use is consistent with all elements of the County General Plan and with any specific plan which has been adopted for the area.

This finding can be made, in that the proposed division of land will be consistent with the General Plan. The project creates two parcels for two single family dwellings and two second units and is located within the Residential Agriculture (RA) General Plan designation which allows a minimum density of 2.5 units per net developable acre. The proposed division is also in compliance with General Plan Policy 6.1.12 in that the two parcels created by the division will have a minimum of 10 gross acres.

The proposed division will create a pattern of development consistent with the character of similar developments in the surrounding neighborhood.

The fences will be/are set back from the roadways and allow adequate sight distance for vehicles traveling along Hames Road, Enos Lane, and Mahalo Drive.

4. That the proposed use will not overload utilities and will not generate more than the acceptable level of traffic on the streets in the vicinity.

This finding can be made in that the proposed fences will/do not utilize a significant amount of electricity or utilities and will/do not generate any additional traffic on the streets in the vicinity, in that there are no electrical utilities, such as a gate, motor, or lights, associated with the fences and fences are not a use that generates or intensifies traffic.

5. That the proposed project will complement and harmonize with the existing and proposed land uses in the vicinity and will be compatible with the physical design aspects, land use intensities, and dwelling unit densities of the neighborhood.

This finding can be made, in that the proposed fences will be/are compatible with the visual character of the neighborhood where other fences along the roadway exist. The proposed fences also do not alter or impact the density or intensity of residential use within the surrounding neighborhood.

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EXHIBIT B

6. The proposed development project is consistent with the Design Standards and Guidelines (sections 13.11.070 through 13.11.076), and any other applicable requirements of this chapter.

This finding can be made, in that the proposed minor land division is not subject to the design review ordinance and the associated fencing will be black vinyl chain link which will not be visually incompatible with the surrounding neighborhood where other chain link fences exist. Application #: 08-0419 APN: 107-461-25 Owner: Wilson Family Trust & Janet L. Mattos

Conditions of Approval

Land Division: 08-0419

Applicant: Wilson Family Trust & Janet L. Mattos

Property Owner(s): Wilson Family Trust & Janet L. Mattos

Assessor's Parcel No.: 107-461-25

Property Location and Address: Property is located on the northeast corner of Hames Road and Enos Lane

Planning Area: Eureka Canyon

Exhibits:

A. Project Plans including Tentative Map & Preliminary Improvement Plans by Mid Coast Engineers, revised 12/24/08.

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

- I. Prior to exercising any rights granted by this Approval, the owner shall:
 - A. Sign, date and return one copy of the Approval to indicate acceptance and agreement with the conditions thereof, and
 - 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 and 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 land division must be recorded prior to the expiration date 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 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 improvement 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 2.5 acres of net developable land and 10 gross acres per parcel.
- 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 RA (Residential Agriculture) zone district of 40 feet for the front yard, 20 feet for the side yards, and 20 feet for the rear yard.
 - 2. Show the net developable land area of each lot to nearest square foot and to the nearest hundredth of an acre.
 - 3. Parcel "X" shall be included in the Owner's Certificate as an offer to dedicate to the County of Santa Cruz.
 - 4. A statement shall be added to clearly state that all structures must be located within the designated building envelopes.
 - 5. Bearings shall be provided for all parcel lines.
- E. The following requirements shall be noted on the Parcel Map as items to be completed prior to obtaining a building or grading permit on lots created by this land division:
 - 1. All new water lines and connections shall be reviewed and approved by the City of Watsonville. All new private wells shall be reviewed and approved by the County Environmental Health Services Department, if applicable.
 - 2. Prior to any building permit issuance, the applicant shall obtain all required building and demolition permits to reduce the square footage of the existing residence on Parcel B to 1200 square feet maximum as per County Code section 13.10.681.
 - 3. Prior to any building or demolition permit issuance, submit a plan to recycle and/or reuse excess post-construction and demolition materials for review and approval by Planning Staff.
 - 4. 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.
 - 5. Submit a plan review letter and/or update letters (if final accepted update letter is expired) with each building/grading permit application. The authors of the

EXHIBIT C

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. Prior to any building permit issuance or ground disturbance, a detailed grading and erosion control plan shall be reviewed and approved by the Planning Department. The erosion control plans shall identify the type of erosion control practices to be used and approved dust control best management practices.
- 7. Prior to the issuance of a building permit, the property owner shall submit to the Planning Department proof of recordation of a Declaration of Restrictions regarding a Second Unit.
- 8. 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 parcels.
 - B. Submit three copies of two update letters prepared by the project's geotechnical engineer and geologist who authored the original reports. The update letters shall reference the most current California Building Code. Please note: reports, update letters, and plan review letters expire after three years.
 - C. Submit three copies a two plan review letters. One shall be prepared by the project's geotechnical engineer and one shall be prepared by the project's 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's recommendations. The geology plan review letter shall include a revised Geologic Map that shows the septic system locations and approval of the locations 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. Pay all required fees and meet all requirements of CalFire (County Fire Department).
 - F. 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 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>

EXHIBIT C

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.
 - a. The access road shall be revised to meet the requirements of the County Design Criteria:
 - i. Plans shall show a minimum of 2" AC over 6" AB for the access road.
 - ii. Plans shall show vertical curves for all grade breaks that exceed one percent.
 - iii. Plans shall show the construction of a new access road. The new driveways shall be surfaced with all-weather materials and shall meet the requirements of the Department of Public Works.
- 2. 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 expired (more than 3 years old).
- 3. Plans shall include complete drainage details including existing and proposed contours, plan views and centerline profiles of all driveway improvements, complete drainage calculations and all volumes of excavated and fill soils.
- 4. Plans shall show the accurate locations of the existing chain link fence along Enos Lane and the proposed chain link fence along Mahalo Drive.
- 5. Meet all requirements and pay all required fees of the Santa Cruz County Department of Public Works Stormwater Management section including but not limited to:
 - a. Zone 7 fees will be assessed based on the net increase in permitted impervious area as a result of the project.
 - b. All proposed inlets shall include signage stating, "No Dumping; Drains to Bay" or equivalent. Signage shall be privately maintained.
 - c. Submit recorded maintenance agreements for each facility proposed and identify who is responsible for maintenance of each facility on the final plans.

- d. Plan shall include maintenance plans for each facility shown.
- G. Plans shall note that the driveway to the main house on Parcel B will not cross slopes over 30%.
- H. Park dedication in-lieu fees shall be paid for seven (7) bedrooms based on an average of three bedrooms per dwelling unit and one bedroom per second unit. The existing two bedroom residence on Parcel B is not required to pay in-lieu fees unless the number of bedrooms is increased, at which point fees will be assessed per new bedroom. These fees are currently \$578 per bedroom, but are subject to change.
- I. Child Care in-lieu fees shall be paid for seven (7) bedrooms based on an average of three bedrooms per dwelling unit and one bedroom per second unit. The existing two bedroom residence on Parcel B is not required to pay in-lieu fees unless the number of bedrooms is increased, at which point fees will be assessed per new bedroom. These fees are currently \$109 per bedroom, but are subject to change.
- J. Plans shall describe standard dust control best management practices to be implemented during all grading and demolition work. At minimum, the following measures shall be included:
 - 1. Water site as needed on a daily basis.
 - 2. Cover all inactive spoils piles.
 - 3. Refrain from grading on windy days (15 mph or more average wind speed)
 - 4. Install minimum 30 feet of one inch rock at site entrance and exit to prevent tracking sediment off-site.
- 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, Department of Public Works Inspector and Environmental Planning staff shall participate.
 - B. The following improvements are authorized by this permit (Building Permits may be required for these improvements, in addition to this development approval):
 - 1. Perimeter fencing not to exceed 6 feet in height.
 - C. Standard dust control best management practices shall be implemented during all grading and demolition work. At minimum, the following measures shall be implemented:
 - 1. Water site as needed on a daily basis.
 - 2. Cover all inactive spoils piles.
 - 3. Refrain from grading on windy days (15 mph or more average wind speed)
 - 4. Install minimum 30 feet of one inch rock at site entrance and exit to prevent tracking sediment off-site.
 - D. All work adjacent to or within a County road shall be subject to the provisions of **EXHIBIT C**

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. Obtain an Encroachment Permit from the Department of Public Works for any work performed in the public right of way. All work shall be consistent with the Department of Public Works Design Criteria unless otherwise indicated on the approved improvement plans.

- E. A Road Maintenance Association shall be established and documentation shall be submitted to the County Planning Department.
- F. No land disturbance shall take place prior to issuance of building permits (except to install required shared improvements, provide access for County required tests or to carry out work required by another of these conditions).
- G. No grading or demolition shall take place prior to acceptance of a recycling and/or reuse plan by County Planning Staff.
- H. Pursuant to Sections 16.40.040 and 16.42.100 of the County Code, if at any time during site preparation, excavation, or other ground disturbance associated with this development, any artifact or other evidence of an historic archaeological resource or a Native American cultural site is discovered, the responsible persons shall immediately cease and desist from all further site excavation and notify the Sheriff-Coroner if the discovery contains human remains, or the Planning Director if the discovery contains no human remains. The procedures established in Sections 16.40.040 and 16.42.100, shall be observed.
- I. Construction of improvements shall comply with the requirements of the geologic report and associated update letters. The geologist shall inspect the completed project and certify in writing that the improvements have been constructed in conformance with the geologic report.
- J. Construction of improvements shall comply with the 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 geotechnical report.
- K. All required land division improvements shall be installed and inspected prior to final inspection clearance for any new structure on a new parcel.
- L. The maximum occupancy of a second unit may not exceed that allowed by the State Uniform Housing Code, or other applicable state law, based on the unit size and number of bedrooms in the unit.
- V. Operational Conditions
 - A. The property owner shall permanently reside, as evidenced by a Homeowners Property Tax Exemption on the parcel, in either the main dwelling or the second unit

EXHIBIT C

- B. Not more than one (1) second unit may be located on each parcel.
- C. All outdoor lighting shall be directed downwards and shall utilize low rise light standards and be directed away from adjacent properties.
- D. Parking for each residence shall comply with the County Code of the number of spaces required and shall be located on site and outside of the right of way and emergency vehicle turnaround areas.
- VI. In the event that future County inspections of the subject property disclose non-compliance 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 Approval 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.
 - 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 assign(s) of the applicant.

E. Within 30 days of the issuance of this development approval, the Development Approval Holder shall record in the office of the Santa Cruz County Recorder an agreement, which incorporates the provisions of this condition, or this development approval shall become null and void.

VIII. Mitigation Monitoring Program

The mitigation measures listed under this heading have been incorporated in the conditions of approval for this project in order to mitigate or avoid significant effects on the environment. As required by Section 21081.6 of the California Public Resources Code, a monitoring and reporting program for the above mitigation is hereby adopted as a condition of approval for this project. This program is specifically described following each mitigation measure listed below. The purpose of this monitoring is to ensure compliance with the environmental mitigations during project implementation and operation. Failure to comply with the conditions of approval, including the terms of the adopted monitoring program, may result in permit revocation pursuant to section 18.10.462 of the Santa Cruz County Code.

A. Mitigation Measure: <u>Air Quality Control</u>

Monitoring Program: Prior to acceptance of the improvement plans, Environmental Planning Staff will verify that the plans include notes regarding the implementation of specific dust control best management practices to be implemented during all grading and demolition work. At minimum, the following measures shall be implemented:

- 1. Water site as needed on a daily basis.
- 2. Cover all inactive spoils piles.
- 3. Refrain from grading on windy days (15 mph or more average wind speed)
- 4. Install minimum 30 feet of one inch rock at site entrance and exit to prevent tracking sediment off-site.

B. Mitigation Measure: Impacts on Landfill Capacity

Monitoring Program: Prior to final map recordation, Planning Staff will ensure that the County has approved a plan to recycle and/or reuse excess post-construction and demolition materials, as submitted by the applicant, to mitigate the impacts of temporary construction debris on landfill capacity.

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

Application #: 08-0419 APN: 107-461-25 Owner: Wilson Family Trust & Janet L. Mattos

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 division, 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 Samantha Haschert 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.

EXHIBIT C



Date: June 1, 2009 Staff Planner: Samantha Haschert

I. OVERVIEW AND ENVIRONMENTAL DETERMINATION

APPLICANT: Mattos & Wilson Families, AF c/o Powers Land Planning, Inc.

APN: 107-461-25

OWNERS: Janet L. Mattos Wilson Family Trust SUPERVISORAL DISTRICT: 2nd (Pirie)

LOCATION: Parcel located on the northeast corner of the intersection of Enos Lane and Hames Road in Corralitos at 350 Hames Road.

SUMMARY PROJECT DESCRIPTION: Proposal to divide a 20.35 acre parcel into two parcels of 10 acres and 10.35 acres and to install a 6 foot tall chain link fence within the front yard setback. Requires a Minor Land Division and a Residential Development Permit to construct a fence over 3 feet in height within the required 40' front yard setback.

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
Energy & Natural Resources	Land Use, Population & Housing
Visual Resources & Aesthetics	Cumulative Impacts
Cultural Resources	Growth Inducement
Hazards & Hazardous Materials	Mandatory Findings of Significance
Transportation/Traffic	

County of Santa Cruz Planning Department 701 Ocean Street, 4th Floor, Santa Cruz CA 95060 1/86 21/107



DISCRETIONARY APPROVAL(S) BEING CONSIDERED

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

NON-LOCAL APPROVALS

Other agencies that must issue permits or authorizations: None

ENVIRONMENTAL REVIEW ACTION

On the basis of this Initial Study and supporting documents:

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

 \underline{X} I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because the 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.

Matt Johnston

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EXHIBIT D

For: Claudia Slater Environmental Coordinator

II. BACKGROUND INFORMATION

EXISTING SITE CONDITIONS

Parcel Sizes: 20.35 acres/886,446 square feet Existing Land Uses: Residential Vegetation: Woodland/Grassland

Slope in area affected by project: 80% 0 - 30% 20% 31 – 100% (approximate)

Nearby Watercourse: Corralitos Creek located about 2000 feet east of the project site.

ENVIRONMENTAL RESOURCES AND CONSTRAINTS

Groundwater Supply: Mapped

Water Supply Watershed: Not Mapped Groundwater Recharge: Mapped Timber or Mineral: Not Mapped Agricultural Resource: None Mapped Biologically Sensitive Habitat: None Mapped Fire Hazard: Small portion at north end of site is a mapped fire hazard. Area mapped is not proposed for development, Floodplain: Not Mapped

Erosion: Not Mapped

Landslide: None Mapped

SERVICES

Fire Protection: CDF (CalFire) School District: Pajaro Valley USD Sewage Disposal: Septic System

PLANNING POLICIES

 Liquefaction: Partially mapped for high liquefaction potential on ridge. Fault Zone: Mapped (County) Scenic Corridor: Not Mapped Historic: None Mapped Archaeology: None Mapped Noise Constraint: None Electric Power Lines: Power pole located at southwest corner; none onsite. Solar Access: Excellent; primarily flat, open building pads Solar Orientation: N/A- rural land division; no architectural plans required.

Hazardous Materials: None

Drainage District: Zone 7 Project Access: Via Hames Road Water Supply: City of Watsonville

Special Designation: None

X	Outside
X	Outside

PROJECT SETTING AND BACKGROUND:

The subject property is located on the northeast corner of the Enos Lane - Hames Road intersection in Corralitos. The parcel to be divided is currently developed with an 1100 square foot single family dwelling, a 380 square foot detached garage, and a barn. The parcel takes access from Hames Road.



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There is an existing City of Watsonville water tank located on parcel 107-461-02, which is completely enclosed within the boundaries of the subject parcel on the western portion of the parcel adjacent to Enos Lane.

There is a ridgeline located on the east side of the parcel which measures to a maximum height of about 600', about 100' - 130' above the lower portions of the parcel. The lower and flatter portion of the property occurs on the west side of the parcel and is comprised of gradual slopes equal to or less than about 15%.

The entire parcel is within a County mapped fault zone.

In 2008, the Board of Supervisor's approved a General Plan Amendment to revise the text of policy 6.1.12 (Minimum Parcel Size in Fault Zones) to change the density requirements for land divisions on parcels located within County mapped fault zones. The approved amended text reads as follows:

Require a minimum parcel of 10 gross acres for the creation of new parcels within the portions of the County designated seismic review zones that are not part of a State Alquist-Priolo Earthquake Fault Zone, and which lie outside of the Urban and Rural Services Lines and the Coastal Zone, if 25% or more of the parcel perimeter is bounded by parcels 1-acre or less in size.

Adjacent parcels to the east, north, and west are zoned Residential Agriculture (RA) and are developed with single family dwellings. One east adjacent parcel is zoned Residential Agriculture - Mobile Home Park (RA-MH) and is developed with the Rancho Corralitos Mobile Home Park. The south adjacent parcels are zoned R-1-15 (Single Family Residential - 15,000 square foot minimum) and are also developed with single family dwellings. All surrounding parcels are designated as Rural Residential (R-R) in the County General Plan.

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DETAILED PROJECT DESCRIPTION:

The proposed project would create two parcels for the development of two new "primary" single family dwellings, 1 new second unit and a re-designation of the existing residence as a second unit. Parcel A would have two designated building envelopes and Parcel B would have a designated building envelope for a primary residence and would retain the existing single family dwelling for use as a second unit. The existing barn would be demolished.

A 6' tall black vinyl coated chain link fence is proposed along the south and west property lines of Parcel A for lengths of approximately 260 feet and 400 feet, respectively.

The subject parcel is approximately 20.37 acres, as shown on the plans. The proposed lots would be approximately 10 gross acres (Parcel A) and 10.35 gross acres (Parcel B); therefore, both of the proposed parcels meet the 10 gross acre minimum requirement for the RA zone district as per the policy amendment stated above.

The proposed private roadway would have a 40' right of way, and 18' and 12' paving widths. The first approximately 250' of the private roadway would be widened to 18' and the remaining 200' including the proposed fire truck turnaround, would be paved and widened to 12'. Portions of the additional pavement required to widen the roadway would be pervious.

Geotechnical and Geologic Report Reviews were conducted prior to the 2008 General Plan Policy amendment, under application 06-0175. Environmental Planning Staff accepted the reports and all recommendations of County Staff and the project Engineers would be included as conditions of approval of this project.

The proposed parcels would obtain water service from the City of Watsonville

This proposal requires a Minor Land Division and a Residential Development Permit.

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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?

The subject parcel is located entirely within the County mapped Zayante fault zone; however, the Geologic Report prepared by Neilson and Associates, dated July 5, 2005 (Attachment 6) and letter of additional geologic comments dated October 2, 2006 (Attachment 7) concludes that onsite trenching at and around the proposed building sites, show no active faults on or within 25 feet of the building envelopes. County Code Section 16.10.070(b)(2) allows homesites to maintain a 25 foot setback from any active or potentially active fault traces with the submittal of paleoseismic studies that include observation trenches and approval from the County and Project Geologists, both of which have been completed with the above technical reports and report reviews. Therefore, the proposed project is in compliance with this requirement. Further, the associated geologic update letter states that their study has proven that the home sites are located in a 470 foot wide fault free zone and that, "...the Zayante fault is not considered by most professional geologists to be a highly active fault nor a prominent seismic source for ground rupture and ground shaking."

A Geotechnical Report was prepared for the proposed project by Redwood Geotechnical Engineering, Inc, dated March 2006 (Attachment 9) which provides recommendations for foundation designs for both parcels to ensure stability in the event of a fault rupture. Recommendations include using a drilled pier and grade beam foundation for the structure on Parcel A and conventional spread footing foundations for future structures on Parcel B.

Conditions of approval for this project would include the following to ensure that fault rupture is not a significant impact on the proposed development:

- Final plans shall reference the Geology and Geotechnical Reports and include a statement that the project shall conform to the reports' recommendations.
- Prior to building permit issuance, plan review letters/report updates shall be

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submitted to Environmental Planning from both the geotechnical engineer and engineering geologist. The authors of the reports shall write the plan review letters and each letter shall state that the project plans conform to the report's recommendations.

- Final building plans must show all construction/development located within the development envelope shown on the Geologic Map.
- All construction must comply with the requirements of the most current California Building Code to ensure public health and safety.
 - Seismic ground shaking? Х Β.

The subject property will likely be subjected to strong seismic shaking based on the close proximity of the Zayante fault at .25 miles northwest of the subject parcel: however, the geologic report (Attachment 6) concludes that although the "homes will most likely experience moderate to severe ground shaking during their lifetimes", the effects of seismic ground shaking in this location can be mitigated though "strong foundation and structural design".

The Geotechnical Engineering Report submitted for the proposed project (Attachment 9), recommends that all planned improvements are designed to resist seismic shaking. Specific seismic design parameters for the proposed project are listed in the report and the applicant would be required to submit an update to the 2006 geotechnical investigation and the 2005 geologic report for review and approval by Environmental Planning Staff prior to building permit issuance that reflects the requirements of the most recent California Building Code and that ensures that the proposed development is in compliance with the reports' recommendations.

C. Seismic-related ground failure, including liquefaction? Х

Although the subject parcel is located in a County mapped area for high liquefaction potential; the geotechnical report (Attachment 9) indicates that borings taken at and around the proposed buildings site encountered highly permeable, sandy native soil which are medium dense at the upper levels and very dense at depth. No groundwater was encountered in the exploratory borings. The geologic report submitted for the project (Attachment 6) also indicates that based on the high permeability of the sands underlying the sites and their high suspected densities, liquefaction is not an area of concern for the proposed project.

Landslides? D.

The topography of the site is primarily flat at the lower western and southern portions of the site while the eastern and northern portion of the parcel has a ridge and slopes of 30% and greater. There are two proposed building sites to be located on the flat western and southern portions of the property and another proposed building site on



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the south eastern portion of the property on slopes calculated between 15% - 30%. The potential for landslides was evaluated in the geologic report (Attachment 6) by first examining maps of landslide deposits and then performing a review of exploratory trenches at and around the proposed building sites. The report concludes that the trenches revealed no evidence of soil creep and that the "site examination revealed no evidence of landslides on the western or eastern slopes of the ridge, the most likely locations for landslides." In addition, there is a broad swale located above the proposed building site on Parcel B that was found to have been created by erosion and did not contain geomorphic features typically associated with landslides. Therefore, landslides are not an area of concern for the proposed project.

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?

As described in responses A.1-C and D above, both the geotechnical investigation (Attachment 9) and the geologic report (Attachment 6) submitted for the proposed project did not identify landslides or liquefaction as areas of concern due to the existence of dense, highly permeable, sandy soils and the lack of evidence of geomorphic features typically associated with landslides on and around the proposed building sites. The geotechnical report finds that the potential for lateral spreading, like liquefaction, is low due to the existence of unsaturated, well consolidated native materials at depth and the geologic report did not identify faults within 25 feet of the building sites, in accordance with County Code Section 16.10.070(b)(2).

The primary geotechnical and geologic concerns identified in the reports are strong, seismically induced ground shaking and drainage and erosion control; therefore, the reports provide the following recommendations (paraphrase):

- Geotechnical Engineer and Environmental Planning oversight of placement and compaction of engineered fill;
- Elevation of the finished pad grades slightly above surrounding grades;
- Supporting structural foundations in firm native materials or compacted engineered fill:
- Provide firm, uniform subgrades below new pavements and concrete slab-ongrade; and
- Provide positive site drainage.
- Building design should comply with the most current California Building Code to resist seismic shaking and avoid structural collapse.

Both the geologic and geotechnical reports provide recommendations for grading, foundation design, drainage improvements, and building location; therefore, the applicant would be required to submit an update to both reports for review and

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approval by Environmental Planning Staff prior to building permit issuance that reflects the requirements of the most current California Building Code and that ensures that final building plans comply with the reports' recommendations to resist seismic shaking and avoid structural collapse.

3. Develop land with a slope exceeding ______X

The north eastern portion of the property consists of a large hill with steep slopes over 30% and a ridge about 120 feet above the flat, western portion of the property. The building sites on Parcel A are proposed on the western portion of the site where the topography is primarily flat. The proposed new building site on Parcel B is proposed on the south eastern portion of the site below the hillside on slopes ranging from 15% - 30%. Therefore, no new building site is proposed on land with a slope exceeding 30%.

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

Some potential for erosion exists during the construction phase of the project and the submitted geologic (Attachment 6) and geotechnical (Attachment 9) reports provide recommendations to mitigate impacts of erosion such as minimizing grading, revegetation of disturbed ground surfaces, dispersion of increase storm runoff from roadway and rooftops, and the use of energy dissipater devices at points of runoff concentration. Prior to parcel map recordation, the applicant shall submit final Erosion Control Plans for review and approval by Environmental Planning and Department of Public Works Stormwater Management Staff. The plans must specify detailed erosion and sedimentation control measures and must comply with the recommendations of the approved technical reports; therefore, the impacts of construction and grading on site erosion will be less than significant.

 Be located on expansive soil, as defined in section 1802.3.2 of the California Building Code(2007), creating substantial risks to property?

According to the submitted technical reports for the project (Attachments 6 and 9), site borings encountered sandy soils, which are not expansive and would therefore not pose a substantial risk to property.

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 land division would require new septic systems; however, the County



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Geologist has reviewed and approved the preliminary plans and the submitted soils and geologic reports and determined that the septic systems are not required to be constrained to location within the proposed building envelopes. In addition, the County Department of Environmental Health Services completed preliminary Site Evaluations for the two proposed parcels and both were determined to be feasible to support new septic systems. Therefore, although the applicant would be required to show septic system locations on the parcel map for review and approval by Environmental Planning Staff prior to recordation and obtain Septic Permits from Environmental Health Services prior to building permit issuance, it is not an area of concern for the project.

7. Result in coastal cliff erosion? Х

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

B. Hydrology, Water Supply and Water Quality

Does the project have the potential to:

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

This is not applicable because according to the Federal Emergency Management Agency (FEMA) National Flood Insurance Rate Map, dated March 2, 2006, no portion of the project site lies within a 100-year flood hazard area.

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

This is not applicable because according to the Federal Emergency Management Agency (FEMA) National Flood Insurance Rate Map, dated March 2, 2006, no portion of the project site lies within a floodway.

Х 3. Be inundated by a seiche or tsunami?

This is not applicable because the subject parcels are not located in the vicinity of the ocean.

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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 is not located in a mapped groundwater recharge area and there are no existing or proposed commercial agricultural uses on site. Future single family dwellings would obtain water from the City of Watsonville and would not rely on private well water. The City of Watsonville has indicated that adequate supplies are available to serve the project. The City issued a conditional will-serve letter for the proposed parcel by way of Resolution 189-05 (Attachment 10) and water service is contingent upon the payment of groundwater impact fees; therefore, the proposed project will not significantly deplete groundwater supplies or interfere with groundwater recharge. As per General Plan Policies 7.18.1 & 2, prior to parcel map recordation, the applicant and/or property owner is required to obtain and submit to the Planning Department, final written approval of water service for the proposed new parcels from the City of Watsonville water department. The parcel map shall not be recorded without prior Planning Department approval of a final notice of water service for the project as approved in the tentative map. Implementation of this requirement will ensure that impacts to the available water supply are less than significant.

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

The proposed project would not degrade or contaminate a known public or private water supply in that none exist in the surrounding vicinity. The City of Watsonville serves the surrounding area and the closest waterway, Corralitos Creek, is located over 1800 feet to the east.

6. Degrade septic system functioning?

A septic tank and leach lines currently exist on site to serve the one existing residence. The County Geologist has determined that based on the submitted soils and geology reports, there are several suitable locations on site for future septic systems; therefore, the applicant would be required to show proposed septic tank and leachfield locations on the plans prior to parcel map recordation for Environmental Planning Staff and Environmental Health Staff review and approval to ensure suitability of the future locations. County Environmental Health Services has performed an initial site



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evaluation to determine feasibility on site (Attachment 11) and Septic Permits shall be required prior to building permit issuance.

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 be slightly altered by the addition of proposed improvements and the construction of future single family dwellings; however, portions of the new paved driveway surface would be permeable and the plans propose the use of percolation trenches to retain runoff on site. In addition, the closest stream is Corralitos Creek which is located about 2000 feet east of the subject parcel; therefore, the proposed altered drainage pattern would not alter the course of a stream or river or contribute to flooding, erosion, or siltation off-site. The Department of Public Works Stormwater Management Staff and County Environmental Planning Staff have reviewed and approved preliminary drainage plans and a condition of approval of the project would require the applicant to obtain Environmental Planning and DPW approval of final drainage and erosion control plans prior to parcel map recordation, which would reduce the possible impacts of flooding, erosion, or siltation off-site to less than significant.

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

Runoff from this project may contain small amounts of chemicals and other household contaminants; however, since no commercial or industrial activities are proposed, the contribution will be minimal. Preliminary drainage plans, drainage calculations, and an downstream impact assessment have been conceptually approved by Department of Public Works Stormwater Management Staff. Proposed new drainage facilities would likely include retention trenches that would be located near future homes and pervious pavement on the proposed widened driveway. There is an existing stormdrain that runs through the western portion of the property that is currently plugged but would remain to provide additional recharge. The geotechnical report (Attachment 9) supports the use of retention for groundwater recharge and to retain runoff onsite due to the permeable nature of the sandy soils on site. Prior to parcel map recordation, the applicant would be required to submit final drainage and erosion control plans for review and approval by Department of Public Works Stormwater Management and Environmental Planning Staff to ensure that runoff would be held on site and would not exceed the capacity of existing offsite facilities.

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

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Corralitos Creek is the closest natural water course, which is located about 2000 feet to the east. The geotechnical report (Attachment 9) supports the use of retention for groundwater recharge and to retain runoff onsite due to the permeable nature of the sandy soils on site. Prior to parcel map recordation, the applicant would be required to submit final drainage and erosion control plans for review and approval by Department of Public Works Stormwater Management and Environmental Planning Staff to ensure that runoff would be held on site and would not exceed the capacity of existing offsite facilities. Therefore, the 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 parcel map recordation to ensure that appropriate treatment methods are proposed to treat runoff prior to discharge off site and also to ensure the appropriate placement and design of treatment facilities, such as the retention trenches. This condition would ensure that the impacts of runoff on water quality are less than significant. See response 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?

There are no listed species on the subject parcel and none were identified on site by County Environmental Planning Staff. No trees are proposed to be removed; therefore, no impacts to raptors, bats, or migratory birds are anticipated.

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

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Not Applicable

The subject parcels are not mapped for sensitive biotic communities and none were observed on site; therefore there would be no impact as a result of development.

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

The proposed development would not interfere with the movement of any native resident, migratory fish or wildlife species in that there are no waterways on the subject parcel and no trees would be removed as a result of the project. The ridge located on the east side of the parcel is wooded and heavily vegetated; however, this area would not be disturbed or altered as a result of the project as development would be restricted to approved building envelopes and other site improvements outside of the building envelopes would require prior review and approval by Planning Staff.

4. Produce nighttime lighting that will illuminate animal habitats?

The subject property is located in an area developed with single family dwellings that currently generate nighttime lighting. County Environmental Planning staff concluded that there are no sensitive animal habitats within or adjacent to the project site that would be impacted by the additional nighttime lighting resulting from the proposed project; therefore, nighttime illumination impacts as a result of the project would be less than significant for surrounding animal habitats.

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

Refer to C-1, C-2, and C-3 above.

6. Conflict with any local policies or ordinances protecting biological resources (such as the Significant Tree Protection Ordinance, Sensitive Habitat Ordinance, provisions of the Design Review ordinance protecting trees with trunk sizes of 6 inch diameters or greater)?

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No sensitive habitats were identified on the subject parcel or within the proposed development areas and the project does not include the removal of any existing trees on site. The applicant would be required to obtain approval from County Environmental Planning Staff prior to parcel map recordation and prior to building permit issuance.

7. Conflict with the provisions of an adopted Habitat Conservation Plan, Biotic Conservation Easement, or other approved local, regional, or state habitat conservation plan?

This is not applicable because there are no Habitat Conservation Plans, Biotic Conservation Easements, or other approval local, regional, or state habitat conservation plans that exist on the subject parcel.

D. Energy and Natural Resources

Does the project have the potential to:

1. Affect or be affected by land designated as "Timber Resources" by the General Plan?

This is not applicable as the subject parcel is not a designated Timber Resource in the General Plan, nor are the adjacent and surrounding parcels.

2. Affect or be affected by lands currently utilized for agriculture, or designated in the General Plan for agricultural use?

This is not applicable because the project site is not a designated Agricultural Resource in the General Plan, nor are the adjacent and surrounding parcels. The project site is not currently being used for agriculture and no agricultural activities are proposed on the site or in the project vicinity.

3. Encourage activities that result in the use of large amounts of fuel, water, or energy, or use of these in a wasteful 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 and design. There are only two demolition projects included as a part of the proposed project: 1) the majority of the existing house would remain, with only a portion to be demolished to comply with second unit size restrictions and, 2) the existing barn would



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be completely demolished; therefore consumption of large amounts of fuel, water and energy would be less than significant.

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

This is not applicable because the subject parcels are 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?

This is not applicable because the proposed project 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?

This is not applicable because the project site is not located along a County designated scenic road or within a designated scenic resource area.

 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?

About 25% of the perimeter of the subject parcel consists of parcels less than 1 acre in size that are developed with single family dwellings and that receive urban services. The subject parcel is flat on the west side with a steep, vegetated, ridge on the east side. The building envelopes on proposed Parcel A are flat and the proposed building envelopes on Parcel B are located on slopes less than 30%; therefore, minimal grading would be required for construction of the homes and for driveway improvements. The applicant would be required to obtain approval of final grading plans by Environmental Planning Staff prior to parcel map recordation to ensure that site grading is minimal

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and does not impact the existing character of the site. In addition, a separate grading permit would be required for each proposed building on site. No proposed improvements or disturbance would occur on the ridgeline.

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

Lighting associated with the project shall be shown on building permit plans and would be required to be reviewed and approved by County Planning Staff prior to building permit issuance. A condition of the project would restrict outdoor lighting features to be directed downwards and utilize low rise light standards and be directed away from adjacent properties; therefore, new sources of light would not be a significant impact on day or nighttime views in the area.

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

This is not applicable because there are no unique geological or physical features on or adjacent to the site that would be destroyed, covered, or modified by the project.

F. Cultural Resources

Does the project have the potential to:

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

The existing residence and barn on the subject parcel are not classified as historic resources as defined in CEQA Guidelines 15064.5.

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

The subject parcel is not within or in the vicinity of a mapped archaeological resource area; therefore, no further archaeological studies were required as part of the application for development. Pursuant to County Code Section 16.40.040, if at any time in the preparation for or process of excavating or otherwise disturbing the ground, any human remains of any age, or any artifact or other evidence of a Native American cultural site which reasonably appears to exceed 100 years of age are discovered, the responsible persons shall immediately cease and desist from all further site excavation and comply with the notification procedures given in County Code Chapter 16.40.040.

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Environ Page 18	mental Review Initial Study	Significant Or Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Or Not No Impact Applicable	
3.	Disturb any human remains, including those interred outside of formal cemeteries?			X	

See response F-2. 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 sheriffcoroner and the Planning Director. If the coroner determines that the remains are not of recent origin, a full archeological report shall be prepared and representatives of the local Native California Indian group shall be contacted. Disturbance shall not resume until the significance of the archeological resource is determined and appropriate mitigations to preserve the resource on the site are established.

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

Х

The subject parcel is not within or in the vicinity of a mapped paleontological resource 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?

Not applicable because no hazardous materials will be stored, used, 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 12/1/2008 list of hazardous sites in Santa Cruz County compiled pursuant to the specified code and no listed sites are located in the vicinity.





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onmental Review Initial Study 19	Significant Or Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Or No Impact	Not Applicable
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?				X
• •	lic or priva	ate airports	located w	ithin 2
Expose people to electro-magnetic fields associated with electrical transmission lines?			X	
erground and no high voltage transmission	lines exist	on the sub	ject parce	
Create a potential fire hazard?			X	
• • • • • • • •	-	-	ements ar	id will
Release bio-engineered organisms or chemicals into the air outside of project buildings?				X
••	pio-engine	ered organ	isms or cł	nemicals
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				
	 ¹⁹ 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? is not applicable because there are no publics of the project site. Expose people to electro-magnetic fields associated with electrical transmission lines? ew electrical transmission lines proposed a berground and no high voltage transmission effore, exposure to electroomagnetic fields we Create a potential fire hazard? project design incorporates all applicable finde fire protection devices as required by the Release bio-engineered organisms or chemicals into the air outside of project buildings? is not applicable because there will be no fited or used at the proposed site. Transportation/Traffic is the project have the potential to: Cause an increase in traffic that is substantial in relation to the existing 	19 To a set of the project area as a result of dangers from aircraft using a public or private airport located within two miles of the project site? is not applicable because there are no public or privates of the project site. Expose people to electro-magnetic fields associated with electrical transmission lines? ew electrical transmission lines proposed as a part or erground and no high voltage transmission lines exist effore, exposure to electromagnetic fields would be less or erground and no high voltage transmission lines exist effore, exposure to electromagnetic fields would be less or erground and no high voltage transmission lines exist effore, exposure to electromagnetic fields would be less or erground and no high voltage transmission lines exist effore, exposure to electromagnetic fields would be less or erground and no high voltage transmission lines exist effore, exposure to electromagnetic fields would be less or erground and no high voltage transmission lines exist effore, exposure to electromagnetic fields would be less or erground and no high voltage transmission lines exist effore, exposure to electromagnetic fields would be less or engineered organisms or chemicals into the air outside of project buildings? is not applicable because there will be no bio-engine ted or used at the proposed site. Transportation/Traffic is the project have the potential to: Cause an increase in traffic that is substantial in relation to the existing	19 19 19 19 19 19 19 19 19 19 19 19 19 19 19 19 10	19 Or Significant Less than 19 Potentially With Significant Significant Significant 19 Potentially With Significant Sign

intersections and roadways with the development of 2 new single family dwellings and 1 additional detached second unit; however, the increase is less than significant from a trip perspective, as determined by the Department of Public Works Road Engineering Staff and would not create congestion at any of the surrounding intersections, none of



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Page 20 Page 20 Page 20 Potentially with Significant Significant Mitigation Or Not Impact Incorporation No Impact Applicable	Environmental Review Initial Study Page 20	Significant	Mitigation	Ör	
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which are currently congested intersections.

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

A condition of the project would require the property owner to meet the County Code requirements for the required number of resident parking spaces; therefore, new parking demand would be accommodated by new on-site parking spaces.

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

The proposed project would not increase hazards to motorists, bicyclists, or pedestrians because the project would include improvements to widen and pave the intersection of the paved driveway (project access) and Hames Road and to install a stop sign and road markings for traffic control and to create awareness. Prior to parcel map recordation, the applicant would be required to submit final improvement plans for review and approval by Department of Public Works Road Engineering Staff to ensure compliance with County Design Criteria.

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?

Х

None of the surrounding intersections and roads are currently congested; therefore, the addition of minimal traffic as a result of the proposed project would not reduce the level of service standard on surrounding roads and intersections because one single family dwelling that currently exists on-site would remain and only two new main dwellings and one additional second unit would be added to the site as a result of the project.

I. Noise

Does the project have the potential to:

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

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The project would minimally increase the ambient noise levels in the project vicinity above levels existing without the project given that only one single family dwelling





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currently exists on the subject property and approval of the project would create two new single family dwellings and one second unit; however, vehicular noise and conversational noise that would be generated by the proposed project would be similar in character to noise generated by surrounding single family dwelling uses in that the new residences would be located on a large 20 acre parcel and the parcel is located in a developed area. Therefore, impacts of noise as a result of the project would be less than significant given the location and size of the parcel and existing surrounding 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 Policies 6.9.1 and 6.9.2, new residential projects must maintain an indoor noise exposure standard of 45 dB L_{dn}. The subject parcel is surrounded by parcels developed with single family dwellings and is not located adjacent to a heavily traveled roadway or stationary noise source; therefore, the proposed project does not have the potential to expose people to level 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?

Refer to I-1 and I-2.

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?

The North Central Coast Air Basin does not meet State standards for ozone and particulate matter (PM10); therefore, the regional pollutants of concern are ozone precursors (Volatile Organic Compounds [VOCs] and nitrogen oxides [NOx]), and dust. The Department of Public Works Road Engineering Division reviewed the conceptual improvement plans and determined that the amount of new traffic that would be generated by the project would not be substantial; therefore there is no indication that new emissions of VOCs or NOx would exceed Monterey Bay Unified Air Pollution Control District (MBUAPCD) thresholds for these pollutants and therefore there would

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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 and particulate matter (PM10). Standard dust control best management practices, such as periodic watering, shall be implemented during construction to reduce impacts to a less than significant level; therefore, air quality standards would not be violated as a result of new traffic or project construction.

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

The Department of Public Works Road Engineering Division has reviewed and approved conceptual improvement plans for the proposed project and has determined that the amount of traffic that would be generated by the proposed project is less than significant. In addition, the proposed project would create 2 single family dwellings and 1 new second unit on a parcel where a single family dwelling already exists (to be converted to a second unit) and the Monterey Bay Unified Air Pollution Control District (MBUAPCD) does not review projects for consistency with the Air Quality Management Plan (AQMP) unless the project proposes more than 16 new units; therefore, the amount of traffic generated by the 3 proposed new units would not exceed the goals of the AQMP for Santa Cruz County.

3. Expose sensitive receptors to substantial pollutant concentrations?

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See response J-1 regarding the impacts of temporary construction dust. The project has the potential to expose sensitive receptors in the surrounding residential neighborhood to pollutant concentrations during construction; however, dust is the only potential pollutant that would result from the project and the applicant shall be required implement standard dust control best management practices during construction which will reduce the impacts of pollutants on surrounding sensitive receptors is less than significant.

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

No objectionable odors will be created by the proposed use.

K. Public Services and Utilities

Does the project have the potential to:

Enviror Page 23	nmental Review Initial Study		Significant Or Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Or No Impact	Not Applicable
1.	phy con sigr ord ration per	sult in the need for new or rsically altered public facilities, the estruction of which could cause inificant environmental impacts, in er to maintain acceptable service os, response times, or other formance objectives for any of the olic services:				
	a.	Fire protection?			<u> </u>	
	b.	Police protection?			X	
	C.	Schools?			<u> </u>	
	d.	Parks or other recreational activities?			<u>X</u>	
	e.	Other public facilities; including the maintenance of roads?			X	

While the project would contribute to the need for additional future services by increasing the general population served in the Watsonville area, the final development would meet all of the standards and requirements identified by CalFire. School, park, and transportation fees to be paid by the applicant would be used to offset the incremental increase in demand for school and recreational facilities and public roads.

 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?

		X	
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The project requires the construction of a new stormwater drainage system to accommodate the increase in stormwater runoff as a result of new proposed impervious areas. An existing storm drain is located at the western side of the parcel, parallel to Enos Lane; however, this drainage line is plugged and would not meet current County Design Criteria requirements for best management practices or limiting post development runoff. Therefore, the project would implement a new stormwater drainage system that utilizes retention trenches to retain runoff and promote groundwater recharge and the existing plugged pipe would remain and would also promote groundwater recharge. Both methods for retention and recharge are



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Not Applicable

supported by the geotechnical and geologic investigations performed onsite for the proposed project due to the existence of highly permeable, sandy soils. Final design, sizing and location of the retention trenches shall be reviewed and approved by Department of Public Works Stormwater Management Staff prior to building permit issuance; however, the proposed conceptual stormwater management has been approved for feasibility and was determined to not cause significant environmental effects.

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 would connect to an existing municipal water supply and the City of Watsonville has determined that adequate supplies are available to serve the project; therefore, although new connections would be required, no new or expanded water facilities would be required (Attachment 10). In addition, the proposed new dwellings would be served by new septic systems, the locations of which shall be reviewed and approved by both Environmental Health Services and County Environmental Planning Staff prior to parcel map recordation. The County Geologist has reviewed and accepted the submitted technical reports and has determined that there are several suitable locations on site for new septic systems that would not cause significant environmental Health Services prior to building permit issuance for each proposed structure.

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

The County Department of Environmental Health Services has performed preliminary site evaluations for the proposed parcel which have determined the site to be suitable for individual sewage disposal systems (Attachment 11). The project's wastewater flows would not violate any wastewater treatment standards of the Regional Water Quality Control Board because the applicant shall be required to obtain Septic Permits from County Environmental Health Services prior to building permit issuance to ensure compliance with County and State requirements for wastewater treatment.

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

X

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CalFire has reviewed and approved the conceptual improvements plans and shall



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review and approve final improvement plans prior to parcel map recordation to assure conformity with fire protection standards that includes minimum requirements for water supply for fire protection. In addition, the City of Watsonville has determined that there is adequate water available to serve the proposed development (Attachment 10) and provide fire protection.

6. Result in inadequate access for fire protection? Х

The project's driveway access and interior circulation pattern has been preliminarily reviewed by CalFire for feasibility and final improvement plans shall be reviewed and approved by CalFire prior to parcel map recordation to ensure that adequate access is provided for emergency vehicles during and after construction.

7. Make a significant contribution to a cumulative reduction of landfill capacity or ability to properly dispose of refuse?

The project would make an incremental contribution to the reduced capacity of regional landfills as the single family dwellings and second units become occupied. In addition, the project would make a one time contribution to the landfill as a result of construction. However, there is one single family dwelling on the property which shall remain as a second unit with minor modifications and one existing barn of about 825 square feet to be demolished, therefore, in order to mitigate the impacts of temporary construction debris and demolition to less than significant, a mitigation will require the applicant to submit a plan to recycle and/or reuse excess post-construction materials, for review and approval by Planning Staff prior to building permit or demolition permit issuance. Implementation of this mitigation will maximize recycling and reuse of construction materials and will minimize contributions to the landfill.

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 three new living units; however, residential daily trash accumulation is minimal and is not anticipated 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?

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The proposed project would not conflict with any policies adopted for the purpose of avoiding or mitigating an environmental effect in that mitigations will be required as stated throughout the above document to ensure: public health and safety regarding geotechnical site conditions, structural safety, effective storm water management and minimization of impervious surfaces, reduced noise and air quality impacts, and minimization of nighttime lighting.

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

The proposed project would require minimal grading as the proposed building sites are primarily flat; however, final engineered grading plans would be required for review and approval by County Environmentally Planning Staff prior to building permit issuance to ensure consistency with Chapter 16.20 (Grading Regulations) of the County Code.

3. Physically divide an established community?

_____X

The project would not include any element that would 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 has been designed to meet the density and intensity of development allowed by the General Plan and zoning designations for the parcel. Surrounding parcels are currently developed with single family homes. Consequently, the proposed project 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?

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The proposed project would result in a net gain in housing units.

M. Non-Local Approvals

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Significant Not No Impact Applicable

Or

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?
- Does the project have the potential to 2. 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)
- Does the project have impacts that are 3. 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)?
- Does the project have environmental effects 4. which will cause substantial adverse effects on human beings, either directly or indirectly?

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Yes	No	X
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Yes		<u>X</u>
Yes	No	х
	-	
Yes	No	Х

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Impact	Incorporation	No Impact	Applicable

TECHNICAL REVIEW CHECKLIST

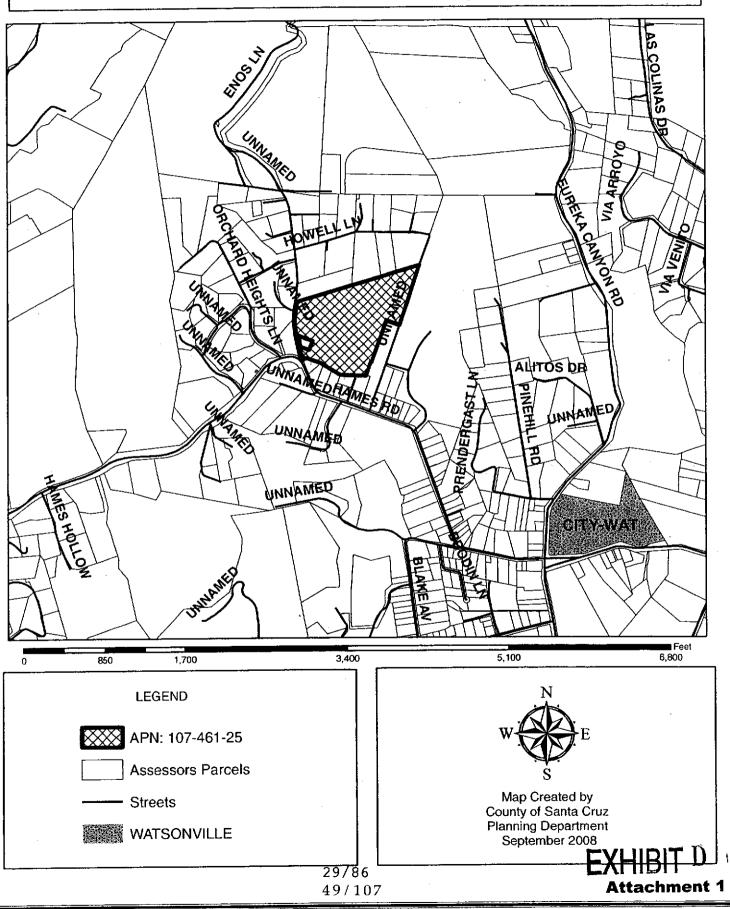
	REQUIRED	<u>COMPLETED</u> *	<u>N/A</u>
Agricultural Policy Advisory Commission (APAC) Review			<u> </u>
Archaeological Review			<u> </u>
Biotic Report/Assessment			<u> </u>
Geologic Hazards Assessment (GHA)			X
Geologic Report	XXX	July 2005	
Geotechnical (Soils) Report	XXX	March 2006	
Riparian Pre-Site	-		<u> X </u>
Sewage Disposal System Permit		<u> </u>	
Other:			
		<u></u>	·

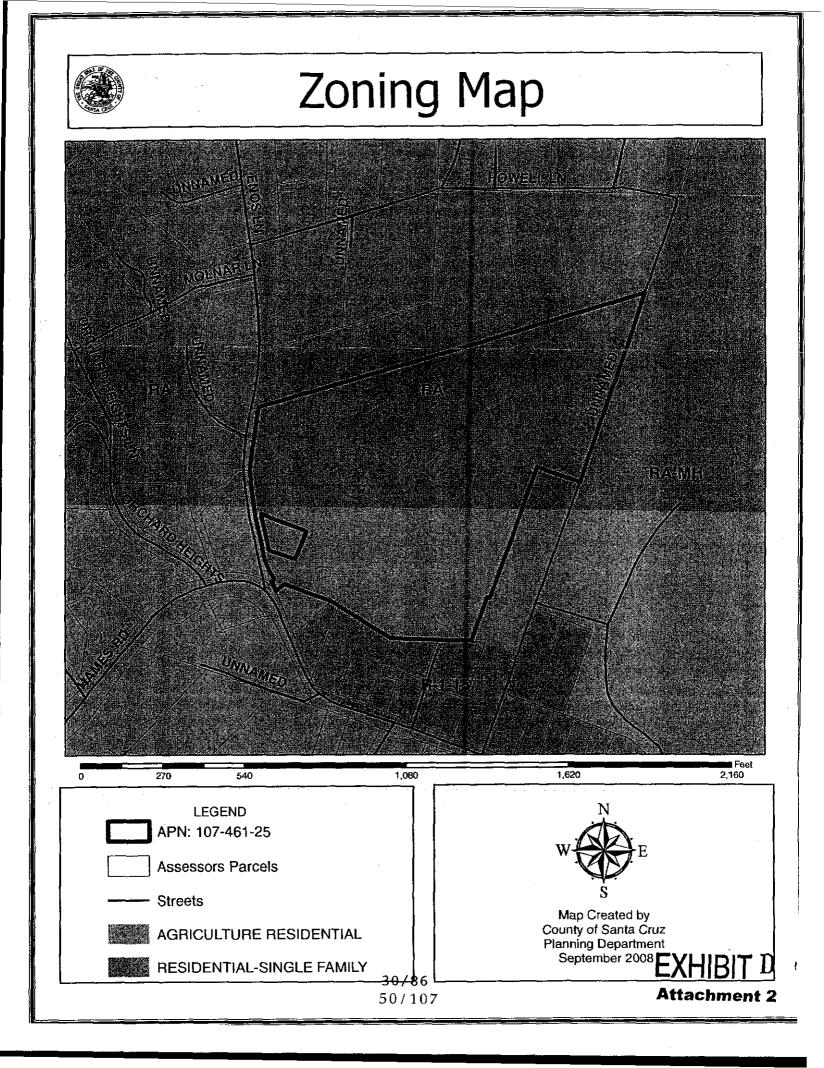
Attachments:

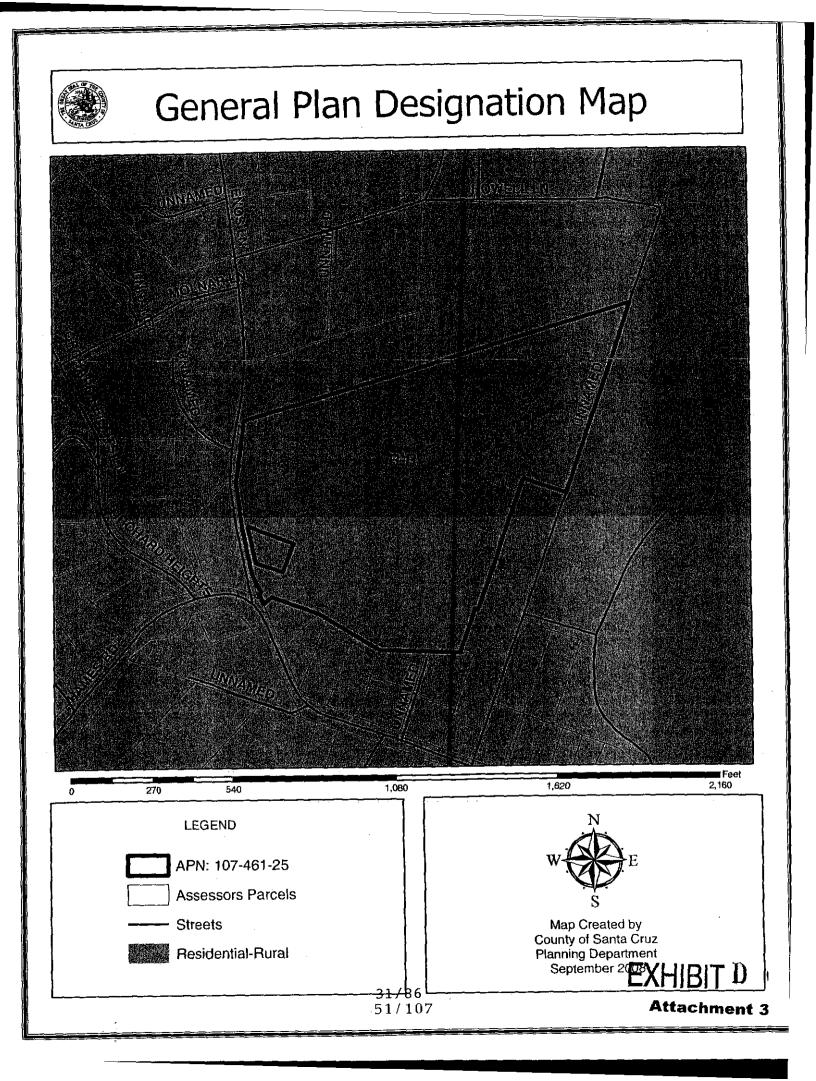
- 1. Vicinity Map
- 2. Map of Zoning Districts
- 3. Map of General Plan Designations
- 4. Project Plans
- 5. Assessors Parcel Map
- 6. Geologic Investigation prepared by Nielsen and Associates, dated July 2005.
- 7. Letter of additional geologic comments prepared by Nielsen and Associates, dated October 2, 2006.
- 8. Technical Report Acceptance Letter, prepared by Joe Hanna, County Geologist, dated April 2006
- 9. Geotechnical Investigation prepared by Redwood Geotechnical Engineering, Inc., dated March 2006.
- 10. Water Will-Serve Letter and Policy Resolution submitted by the City of Watsonville, dated September 13, 2005.
- 11. Environmental Health Services Site Evaluation, dated October 2005.
- 12. Discretionary Application Comments

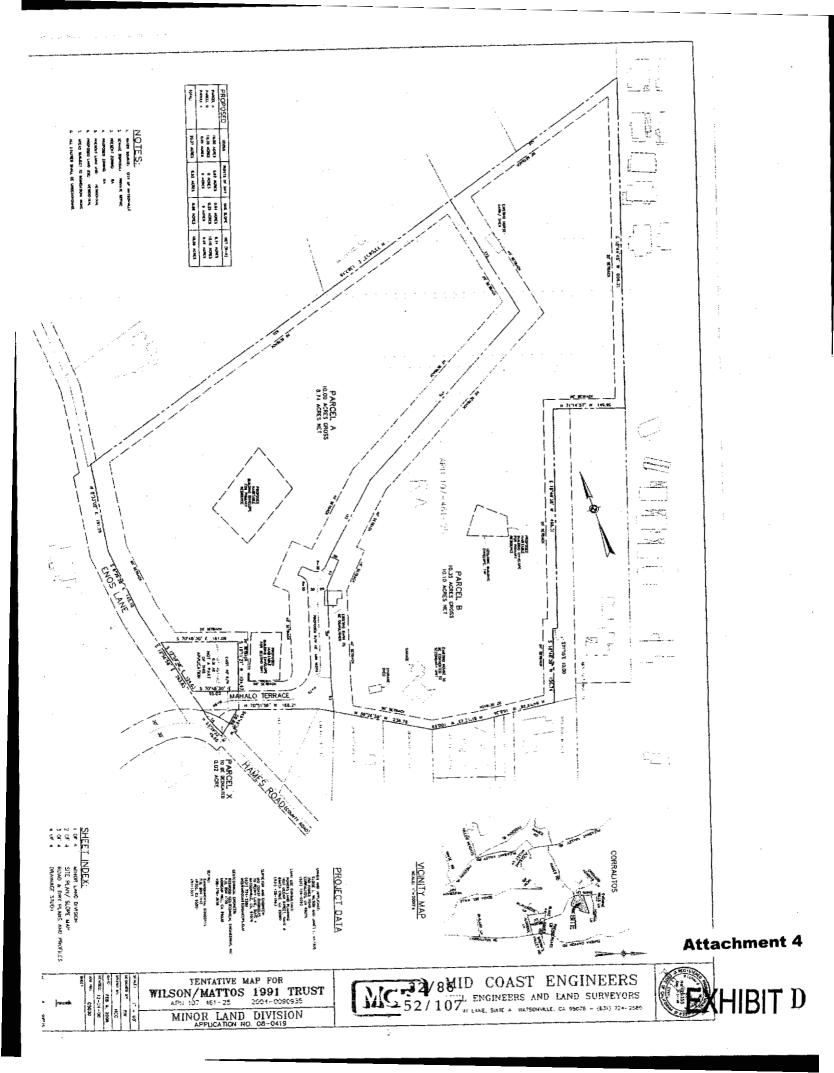
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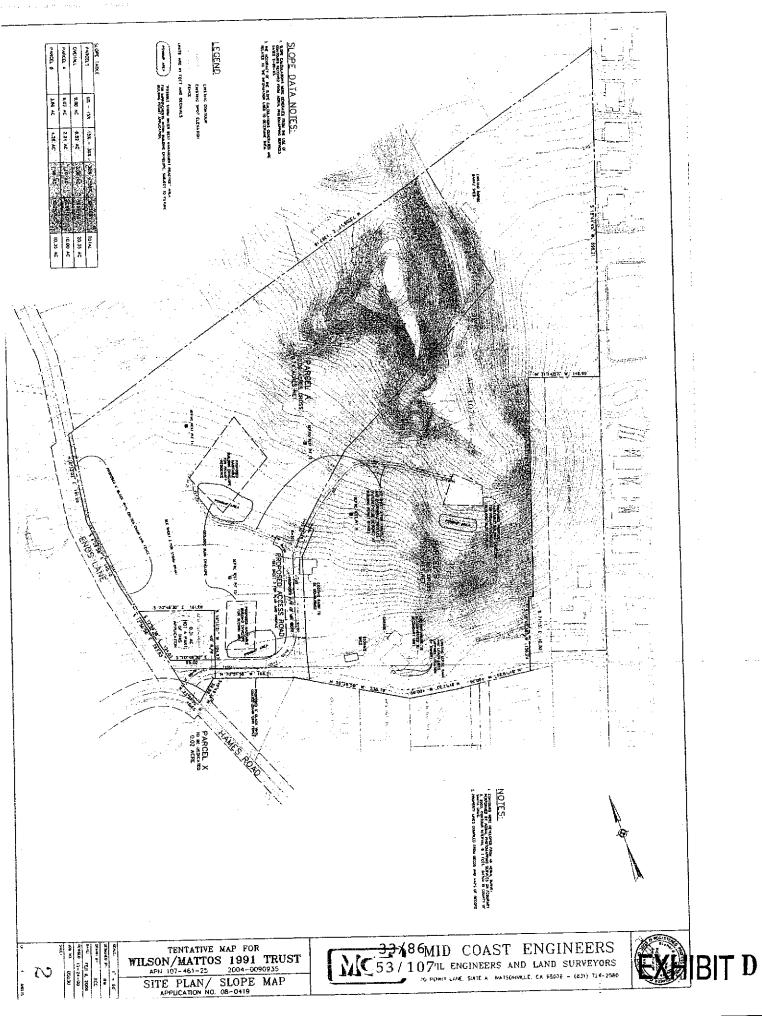
Location Map





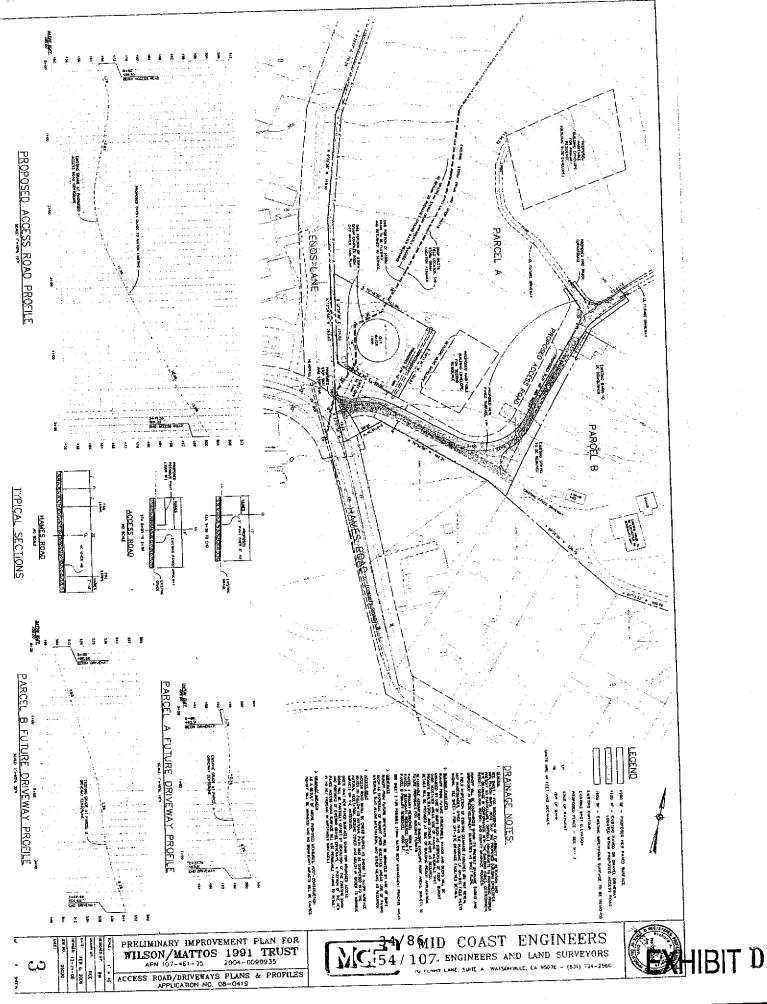


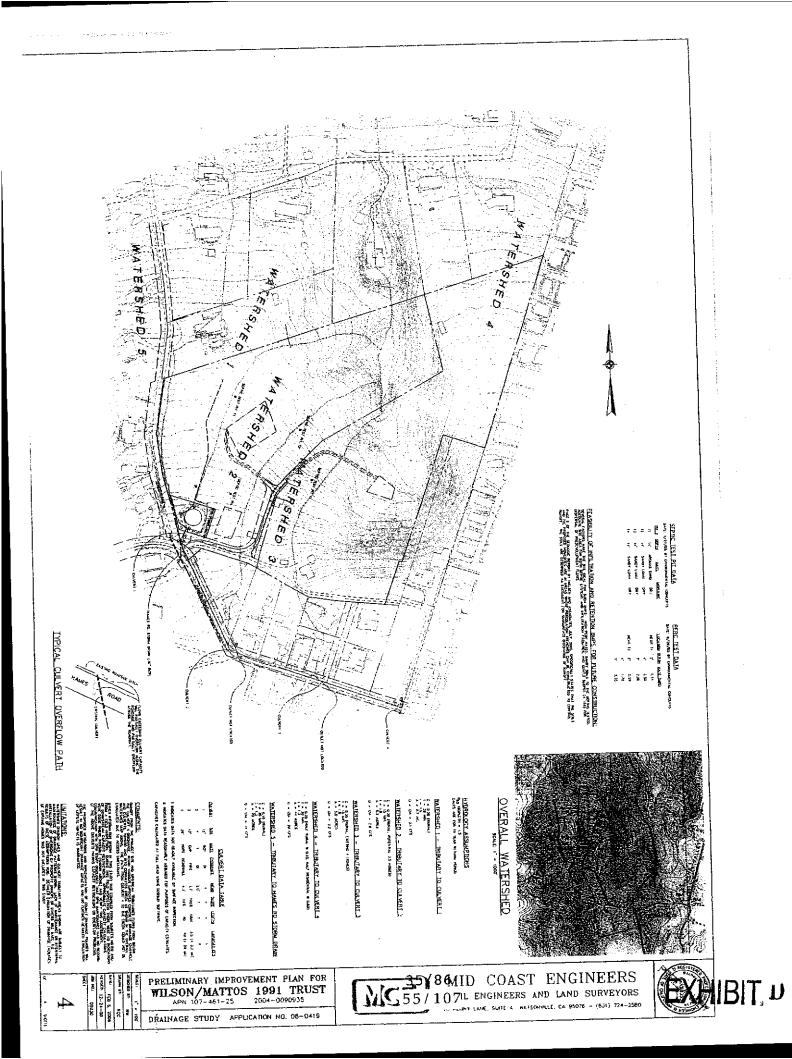




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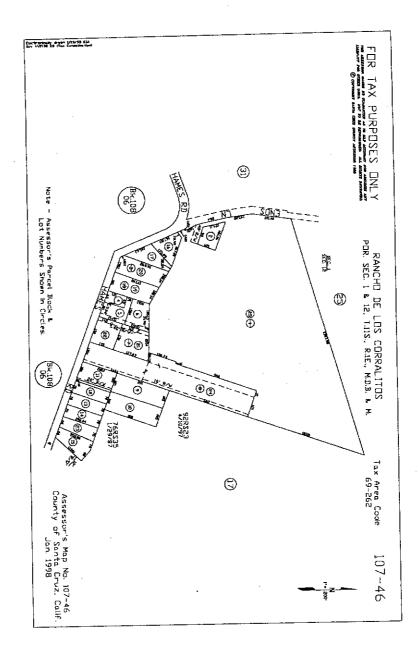


EXHIBIT D

NIELSEN and ASSOCIATES ENGINEERING GEOLOGY AND COASTAL CONSULTING

GEOLOGIC INVESTIGATION INCLUDING A SUBSURFACE FAULT STUDY FOR THREE PROPOSED SINGLE FAMILY HOMESITES

350 Hames Road at Enos Lane, Corralitos Santa Cruz County, California APN 107-461-25

Job No. SCr-1176-G

July 2005

EXHIBIT D

Attachment 6

C NIELSEN and ASSOCIATES engineering geology and coastal consulting

5 July 2005

Job No. SCr-1176-G

Robert Mattos and Doug and Kim Mattos 140 Shamrock Place Watsonville, CA 95076

SUBJECT: Geologic Investigation including a Subsurface Fault Investigation of three proposed existing single family homesites.

REFERENCE: 350 Hames Road at Enos Lane, Santa Cruz County, California, APN 107-461-25

Dear Mssrs and Mrs. Mattos:

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This report presents the results of our geologic study which addressed three proposed single family homesites which consisted of two main homesites and guest residence homesite for one of the main homesites. The homesites are situated in the Zayante fault zone; therefore, a detailed fault study was required to determine that no existing active or potentially active faults lie within 25 feet of the building envelope at the homesite. We conducted a subsurface fault investigation utilizing a backhoe trench. Our investigation did not reveal evidence for any fault traces in the three trenches that were excavated for this study.

The homes will most likely experience moderate to severe ground shaking during their lifetimes because the property is located in a high seismically active area. The effects of strong ground shaking are mitigated through strong foundation and structural design.

Because the homesite is located within the Zayante fault zone, we cannot guarantee that fault rupture will not adversely affect the proposed dwellings during their lifetime. However, our investigation shows that the designated building envelopes meets the current County requirements that no existing fault traces lie within 25 feet of the building envelopes.

Our study revealed no other significant potential geologic hazards that affect the homesites.

If the recommendations in this report are followed and if the homes are built according to modern seismic resistant standards, complying with the recommendations in this report will reduce the hazards to the proposed dwellings and the occupants within them to the "Ordinary Risks Level" in the "Scale of Acceptable Risks" contained in Appendix A of this report.

Sincerely, HANS NIELSE GEOLOGIS' Hans Nielsen 38/86 Certified Engineering Geologist/1390 58/107



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5 July 2005 Santa Cruz County California

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INTRODUCTION

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This report presents the results of our geologic investigation focusing on a subsurface fault study of three proposed existing single-family homesites on a 20.29 acre parcel of land. The property is located at the northeast corner of Hames Road and Enos Lane (Figure 1). The property is also known by the Assessors Parcel Number 107-461-25.

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We conducted this investigation to evaluate the general geologic conditions at the homesites and to identify potential geologic hazards that may affect them. Because the homesites are situated in the Zayante fault zone, it was necessary to evaluate the earth materials near the homesite for the absence of evidence of faults within a distance of 25 feet of the building envelopes as required by the Santa Cruz County Planning Department. Included in this report are recommendations to reduce the risks associated with the geologic hazard of earthquakes and severe ground shaking at the homesite.

This investigation comprised: 1) a review of selected published and unpublished geologic information, 2) evaluation of the range of fault trace trends near the property, 3) examination and logging of three trenches excavated by backhoe for this study: a 220-foot long trench, a 160-foot long trench, and a 315-foot long trench, 4) discussions with Robert, Doug and Kim Mattos, and 5) preparation of this report and its accompanying graphics.

SITE CONDITIONS

The subject property is 20.29 acres in size according to a topographic map prepared by Mid Coast Engineers. The property occupies a broad valley bottom and a narrow ridge on the east side of the valley. An existing home on the south side of the property was not a part of this study. The remainder of the property was undeveloped at the time of our study excepting a small old wood barn. The property is shown on Plate 1, Appendix B.

A large part of the property is very gently sloping to nearly level. Two of the homesites are located on this gently sloping land, the main homesite and its associated guest residence. In the eastern part of the property a prominent ridge trends roughly north-south and rises from south to north. The third homesite is located on the crest of this ridge at its southern end. This homesite is setback over 25 feet from steep slopes with the steepest nearby slopes located off the eastern side of the ridge.

The property is accessed off Hames Road through an existing paved driveway. This driveway climbs very slightly off Hames Road and is essentially level as it enters the property.

There was no evidence of concentrated runoff on the property at the time of our study. However, the property owners told us of an old concrete drainage ditch in the western portion of the property that was built in the 1930's. There were many such drainage ditches built to mitigate erosion in the Corralitos area following the Great Depression. The ditch is presumably west of the main house homesite and runs down to the northern side of the large water tank at the southwest corner of the property whereupon it extends to the west and Enos Lane. We saw no evidence of this ditch, nor did we encounter it in any of our exploratory trenches.

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In general, the homesites appeared very well situated with regard to drainage and surrounding hillsides.

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<u>SITE GEOLOGY</u>

The geology in the vicinity of the homesite is shown in Figure 2. The area is predominantly underlain by relatively young earth materials compared to many of the much older rock types that make up the Santa Cruz Mountains. Dupré and Tinsley show the entire property be underlain colluvium, but our exploratory trenches revealed that there are two much older geologic units underlying the property. The valley bottom in the western half of the property is underlain by sand of the Aromas Formation, and the ridge in the eastern part of the property is underlain by Continental Deposits, a slightly older geologic unit than the Aromas.

The Aromas is comprised of two distinctly different suites of earth materials called facies. One is a well sorted red brown sand (Qae) derived from ancient coastal sand dunes, and the other is a heterogenous fluvial unit (Qaf) containing interbedded and layered sands, silts, clays, and gravelly sands (Dupré, 1975; Dupré and Tinsley, 1980). The Aromas is geologically young at ¹/₂ to 1¹/₂ million years old. In a regional sense, contacts between various earth materials in the Aromas Formation are roughly flat lying but may be very gently inclined. Our exploratory trenches at the main homesite and the guest residence revealed that the valley bottom in the area of these two buildings sites is underlain by well sorted, red brown sand of the eolian facies. The sand was uncemented and exhibited no signs of bedding. The sand was overlain by a weakly developed soil.

Our exploratory trench on the ridge in the eastern part of the property revealed that it is underlain by a very light gray earth material composed of interbedded sand and silt. We refrain from calling them sandstone and siltstone since they are entirely uncemented. This earth material contained an abundance of bright orange color from oxidation of iron minerals giving it a 'rusted' appearance, a characteristic of the Continental Deposits according to Dupré and Tinsley (1980). In contrast to the Aromas, the Continental Deposits were bedded with bedding planes striking roughly east-west and inclined about 40 degrees to the south. Although the bedding planes are inclined downslope on the ridge, it is our opinion that they are not adverse because the formation is not cemented, and there was no evidence of parting along bedding contacts.

In general, the earth materials underlying each homesite appeared acceptable for the intended development of single family homes provided that a foundation engineer conducts an evaluation and develops foundation design criteria. We discuss some of the trench geology in greater detail in the Faults and Earthquakes Hazards section of this report.

LANDSLIDES

Landslides are common throughout the Santa Cruz Mountains, and are one of the dominant geologic forces shaping the modern landscape. Many landslides have occurred in recent years because of high intensity and long duration rainstorms (e.g., January 1982 storms). These rainfall-activated landslides are typically shallow debris flows and soil slides triggered by elevated hydraulic pore pressures, seepage pressures, and hydrostatic loads. The triggering conditions generally restrict these shallow landslides to the axis of shallow ravidescand swales where surface and they concentrate ground waters. 61/107

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Large, deep-seated bedrock slides are also common in the Santa Cruz Mountains, and typically appear to be initiated or reactivated by strong ground motions during earthquakes (e.g., 1989 Loma Prieta earthquake). Noting that not all deep-seated landslides are seismically induced is important (i.e. Love Creek - 1982).

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To help us evaluate landslides on and near the subject property, we first reviewed the map of landslide deposits in Santa Cruz County (Figure 3). The U.S. Geological Survey published the Map of Landslide Deposits in Santa Cruz County (Cooper-Clark and Associates, 1974) as a planning document. They constructed it from analysis of stereo aerial photographs. It is considered a good "first" tool when evaluating landslides. This map shows a possible soil creep symbol in the valley bottom at the property. However, our exploratory trenches revealed no reason to suspect soil creep, so we removed the symbol from our map.

Our site examination revealed no evidence of landslides on the western or eastern slopes of the ridge, the most likely locations for landslides. There is a broad swale on the hillside northeast of the main house, but this swale did not have the geomorphic features typically associated with landslides such as an over steepened head, steeper sides, and a topographic bulge at or near its toe which would have represented the slide deposit. This swale appeared to have been created by simple erosion. Certainly there were no steep areas within this swale that would have raised concerns on our part for a potential landslide hazard at the homesite.

DRAINAGE

Drainage around the homesites is generally by sheet flow. We saw no evidence of active erosion on the property. This is probably due in large part to the highly permeable nature of the earth materials underlying the site. However, the uncemented nature of the overlying surficial materials at the site coupled with the region's dry climate punctuated by occasional intense storms mandates the need for good drainage control. In general, the Aromas sand has proven to be extremely susceptible to erosion from concentrated runoff. Once erosion gullies form, they can be problematic to arrest and mitigate, so it is best to prevent them from forming. This is done through excellent drainage control and proper disposal of runoff.

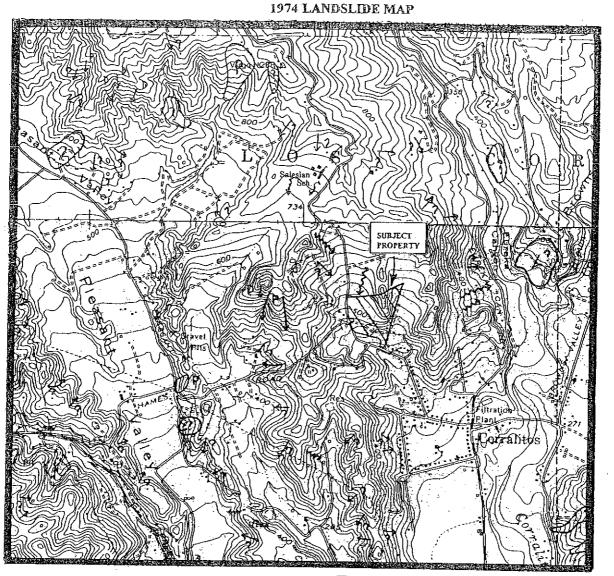
Stripping and removal of vegetation, grading, and increasing or concentrating storm runoff commonly intensifies rates of erosion. Erosion control methods, including minimizing grading, revegetation of disturbed ground surfaces, dispersion of increased storm runoff from roadways and rooftops, and the use of energy dissipation devices at points of runoff concentration are effective methods of mitigating erosion hazards.

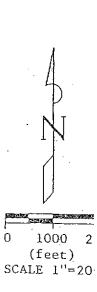
It is our understanding that Santa Cruz County requires that efforts be made to retain surface runoff from impermeable surfaces on-site. The Aromas sand underlying the property is excellent for subsurface discharge of runoff since it typically has a very high permeability. Each of the homesites is situated in an area where percolation trenches can be constructed to control runoff. We recommend that percolation trenches and leachfield trenches associated with the on-site sewage disposal septic system be separated by at least 50 feet to reduce the potential for either to affect the other. Our firm should review the chosen 420486ns for both the leach trenches and percolation trenches prior to their finalization and appr(62/107

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Figure 3.





LARGE LANDSLIDE DEPOSIT

More than 500 feet in maximum dimension. Arrows indicate general downslope direction of movement. D: definite landslide deposit; P: probable landslide deposit; ?: questionable landslide deposit; R: possible rapid rate of landslide movement (several feet to over 100 feet per second). Hachured line shows approximate position of inferred main scarp.

SMALL LANDSLIDE DEPOSIT AND GULLY

50 to 500 feet in maximum dimension. Arrow indicates general direction of downslope movement and is centered over location of deposit. Included are gullies which exhibit observable side bank slumping.

SOIL CREEP

Areas of suspected soil creep, a gradual downslope movement of soil and loose rock material on a slope. Wiggly arrow indicates general direction of soil creep and is centered over location of creeping area.

Modified From: Cooper Clark and Associates (1974) 43/86 63/107 NIELSEN AND ASSOCIATES

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FAULTS and EARTHOUAKE HAZARDS

Discussion of Regional Faults

The subject property lies in a highly seismically active region of California. A broad system of interrelated northwest-southeast trending strike-slip faults represent a segment of the boundary between the Pacific and North American crustal plates. For approximately the past 15 million years (mid-Miocene) the Pacific plate has been slipping northwestward with respect to the North American plate (Atwater, 1970; Graham, 1978). The San Andreas fault has taken up most of the movement; however, many faults within this broad system have also experienced movement at one time or another. The faults of significance to the subject property include the San Andreas, Zayante, Hayward, and the offshore San Gregorio (Figures 4).

The distance to pertinent faults is as follows. The active San Andreas fault zone is located about three miles northeast the property. The potentially active Zayante fault pass very close to the property, most likely near its northeast corner based on the results of this study. The active San Gregorio fault lies about 23 miles to the southwest offshore, and the active Hayward fault lies about 14 miles to the north in the East San Francisco Bay Area.

The San Andreas, Hayward, and San Gregorio faults can generate 7+ magnitude earthquakes. The San Andreas and Hayward faults are currently considered to be the faults with the highest potential of generating the next large earthquake in the area. To a lesser extent, the San Gregorio is considered a significant seismic threat. The Zayante fault is a potential threat, but its history is much less understood than the other faults. Whereas the recurrence intervals of large magnitude earthquakes on the three active faults are measured in hundreds of years, the recurrence interval for the Zayante is currently estimated to be on the order of 8,800 years; however, there is no data confirming when the last major earthquake occurred on the Zayante (Frankel, 1996).

The San Andreas and Hayward faults are considered to have high probabilities of generating large magnitude earthquakes in the next 30 years. The most recent assessment of seismic hazards in California was published jointly by the U.S. Geological Survey and the California Division of Mines and Geology in December 1996 (Frankel and others). This document is the result of a combined effort by many geologists and seismologists and is considered the most up to date compilation of fault parameters in California. The report indicates that the San Andreas fault in the vicinity of the property is capable of generating a Moment Magnitude 7.9 earthquake. The Hayward fault may also generate an earthquake with a Magnitude in excess of 7, but the greater distance from the property indicates that the greatest ground shaking at the property will be generated by the San Andreas fault.

SEISMIC HAZARDS

Historic earthquakes along the San Andreas fault and its eastern branches have caused significant seismic shaking in the Santa Cruz County area. Significant earthquakes occurred on the San Andreas fault in 1838, 1865, 1906 and 1989 (Sykes and Nishenko, 1984); the 1865 event is thought to have occurred along the same segment of the fault that ruptured in 1989. The April 18, 1906 San Francisco earthquake caused severe ground shaking and structural damage to many buildings in the south Santa Cruz County area jack using the town of Watsonville (Lawson, 1984).

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The recent October 17, 1989 Loma Prieta earthquake (M=7.1) also caused severe ground shaking and structural damage in Santa Cruz County. The majority of damage was to unreinforced masonry structures, older buildings, buildings with inadequate foundations and construction defects, or a result of liquefaction and landsliding.

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Seismic hazards near the subject properties can be placed in three general categories: (1) surface ground rupture, (2) seismic shaking, and (3) seismically induced ground failure. The following is an assessment of these hazards on the subject properties.

Surface Ground Rupture

Surface ground rupture occurs when fault movement breaks the ground surface. It is generally accepted that fault related surface rupture occurs most commonly on or close to preexisting active fault traces. This principle is based on the reasoning that pre-existing fault traces are zones of weakness in the earth's crust, and future tectonic stress is more likely to be relieved by fault rupture along a pre-existing zone of weakness rather than by a "fresh" rupture of historically strong material.

County regulations require all new homesites to be set back from any active or potentially active fault traces. In the Zayante fault zone, the setback distance is 25 feet. Therefore, the focus of our investigation was to evaluate a zone extending at least 25 feet on either side of the homesite. Figures 5 and 6 show that the homesite is located very close to what we would consider the heart of the Zayante fault zone. Near the homesite, the dominant trend of the fault traces within this zone range between N25W and N63W, a rather large envelope. One fault trace north of the property is oriented east-west, but such traces are rare. It is our opinion that investigating the envelope between N25W and N63W meets the standard of care for a fault investigation. These trends and their relationships to the building envelopes are shown on Plate 1.

To investigate the homesites, we excavated backhoe trenches that were oriented as close as possible to perpendicular to the trend of the traces of the Zayante fault near the property. The position of the trenches relative to the building envelopes are shown on Plate 1 along with the two dominant trends of the fault traces. The exploratory trenches were excavated 30-inches wide to a maximum depth of about eight feet; the trenches were excavated a sufficient depth to expose several feet of native earth materials. One wall of the trench was cleaned with hand mattocks to remove smeared earth materials created by the excavation process so as to provide a clean exposure for observation and analysis. A level reference line was then strung the length of the trench and a graphic log was produced of the cleaned trench wall. The graphic logs are presented on Plates 2, 3 and 4.

The trench at the guest residence homesite was excavated first. After excavating about 90 feet of this trench, the sidewalls began to collapse not only between the shores but behind the shores. We decided to close this trench and move about 10 feet to the east to excavate a new trench. We also decided that the trench was collapsing for two reasons - the trench was too deep for the earth materials to stand, and the shores were literally shearing the cohesionless sand when we pumped them up to the typical pressure of 1200 pounds. In the second trench, we shallowed the excavation to about 6.5 feet, which still allowed us to see several feet of Aromas sand, and we reduced the pressure to the lower end of the acceptable zone, abqs 890 pounds. The second trench was excavated EXHIBIT

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feet long with only small area of sidewall collapse that did not affect our ability to examine the entire trench length. The log of this trench is presented on Plate 2, Appendix B.

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This trench exposed a monotonous sequence of red brown, cohesionless eolian sand of the Aromas Formation. There was a weakly developed A-Horizon soil less than one foot thick across the entire length of the trench. There was also a slightly stiffer section between the soil and underlying sand that was most likely due to the vertical transport of silt from above. However, this zone was very subtle and recognized chiefly by its slightly more resistant nature to cleaning and scraping with the hand mattocks. The soil horizons provided a means to evaluate whether faults transected the trench. There was no evidence that the soil horizons were offset. Furthermore, if there had been significant ground displacement, particularly ground cracking from movement along a fault, the soil most likely would have fallen into the cracks thereby creating soil tongues. These are common features associated with ground cracking and faulting. We saw no soil tongues along the entire trench. The resulting building envelope is shown on Plate 1.

The second trench was dug on the ridge top in the eastern part of the property. It exposed a light gray, bedded sequence of sand and silt belonging to the geologic unit called Continental Deposits after Dibblee and Brabb (1980). The log of this trench is presented on Plate 3, Appendix B. The bedding provided excellent time lines from which to judge whether faults transected the trench. The bedding planes were consistent enough to cover the entire trench. None of the planes were offset in any degree indicating no existing fault trace transects this building envelope.

The third trench was excavated across the main homesite building envelope on the valley floor. The log of this trench is presented on Plate 4, Appendix B. This trench exposed a similarly monotonous red brown sand as that seen in Trench 1. The trench was dug to a similar depth, about 6½ feet, to reduce the potential for collapse. However, this trench appeared much more stable, probably due to a lesser moisture content of the earth materials. An A-Horizon soil with a weakly developed ped structure was present along the majority of the trench. There were also several slightly darker, slightly 'stiffer', discontinuous zones about one foot thick along the length of the trench. We interpreted these to represent ancient soil horizons which we termed 'buried soils' because they were overlain or buried by Aromas sand. If one looks a modern sand dune field, particularly along the coast near Marina and Seaside in the Monterey Bay, it is readily apparent that sections of the dunes are covered in vegetation. These vegetative covers, where soil undoubtedly forms, can become buried by shifting sand. The result is a thin horizon of soil buried or encased in dune sand. These horizons provided another means by which to evaluate faulting, and none of these were offset in the trench.

There was no evidence suggestive of a fault in Trench 3. There were no soil tongues or displaced buried soils.

Based on the results of the fault study and an examination of Figure 6, which is a detailed map of suspected traces of the Zayante fault near the property, the Zayante may pass just north and just south of the property. No geologists have been able to map fault traces near the property due to the absence of geomorphic features typically associated with faults such as linear valleys, notches in ridges, sag ponds. In our opinion, the best geomorphic features along the Zayante fault just northwest and just southeast of the property. T461/86orthwest on Corralitos Ridge (in textual) the word "Zayante" on Figure 6), there is a sag 166 / 107 r valleys and notches in ridges that allowed

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Coppersmith (1979) to confidently map traces of the Zayante fault there. To the southeast on Poppy Hill (in the area of the word "fault" on Figure 6), there are two linear valleys that most geologists ascribe to the Zayante fault. If one projects the southeastern faults towards the property, it would appear that the fault would pass south or through the property. In contrast, projection of the traces to the northwest of the property suggests that fault passes to the north or through the property. It is possible that there is a step in the Zayante fault near the property such that the southeastern traces 'step' past the property. One can speculate on all sorts of possibilities, but it is clear from the three exploratory trenches that no fault traces transect the three building envelopes.

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We are compelled to caution that we cannot guarantee that new fault traces will not occur within the homesite area given the fact that the homesite is situated in the heart of the Zayante fault zone. We have shown that no existing fault traces pass within 25 feet of the home, so based on current County guidelines for geologic fault studies, the homesites are acceptable. But we cannot rule out the possibility that new fault traces may occur in the future in the homesite areas. This is a fact of life when dealing with potentially active faults in the world.

Seismic Shaking

Strong ground shaking is associated with large magnitude earthquakes, and ground shaking affects structures and the stability of landslide masses and hillsides. A number of different parameters may be used to characterize ground motion for the purpose of seismic design. Typically, these include (but are not limited to) peak horizontal acceleration, peak horizontal velocity, and duration of motion. Most emphasis in engineering practice has been placed on peak horizontal ground acceleration. Empirically derived attenuation relationships for average peak horizontal ground acceleration (PHGA) have been developed over the past decade by numerous researchers. Typically, these relationships relate PHGA in terms of a percentage of the force of gravity (g) to the distance from the causative fault for a specified magnitude earthquake. It has also been recognized that the attenuation relationships differ depending upon the soil conditions underlying the site.

We used the recent attenuation equations developed by Abrahamson and Silva (1997) to estimate the ground motion parameter of horizontal ground acceleration at the properties. These attenuation equations are relative to the type of bedrock or thickness of recent sediments covering bedrock. We consider the earth materials present in the hillside at the properties to be soft rocks or deep soil because of their uncemented character.

The two faults of interest are the San Andreas and Zayante faults. The San Andreas is much more active than the Zayante, however, the Zayante is much closer to the property than the San Andreas. The Zayante is only 0.25 mile (0.4 kilometers) to the northwest whereas the San Andreas is 3 miles (4.9 kilometers) to the northwest. The currently accepted maximum Moment Magnitude Earthquake on the San Andreas is 7.9 and on the Zayante is 6.8.

Using Abrahamson and Silva's (1997) attenuation equations, the estimated mean peak horizontal ground acceleration for sites underlain by deep soil-type earth materials are:

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0.49g Mean 0.76g Mean + 1 standard deviation

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ZAYANTE FAULT

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0.53g Mean 0.81g Mean + 1 standard deviation

The Zayante values are slightly greater than the San Andreas values due to the proximity of the former fault. On the other hand, we think the probability of an earthquake occurring on the San Andreas is far greater than one occurring on the Zayante during the lifetime of the proposed home.

Seismically Induced Ground Failure

Seismically induced ground failures is a result of strong ground motions experienced at the site during earthquakes. These failures include liquefaction, ridge top cracking, seismically induced landsliding, and differential settlement.

Liquefaction is a phenomenon associated with earthquakes whereby a rapid buildup in pore pressure created by ground shaking results in a loss of strength in the earth materials. The earth materials typically liquefy, shifting into a slightly denser configuration, and structures settle differentially, which often results in severe structural damage to the structures. Lateral spreading is the gravitational displacement of liquefied soils towards an unconfined slope or incised free face as a result of liquefaction. We are of the opinion that liquefaction and lateral spreading are not a concern in the area of the homesite based on the high permeability of the sands underlying the sites in combination with their relatively high suspected densities.

During the 1989 Loma Prieta earthquake, a number of sites situated on ridge line or hilltops in the Santa Cruz Mountains experienced a phenomenon termed "ridge top cracking" which is a function of intense ground acceleration amplified due to the topographic constraint of the ridge and a lower lateral confining pressure on either side of the ridge line. Ridge top cracking commonly resulted in shallow (typically <5' deep) tensional ground failures along the crest of the ridge. The mechanics of movement are not well understood. During our site traverse of the subject property, we did not observe any surficial evidence of open fissures or ground cracks, nor were we told of any associated with the 1989 Loma Prieta Earthquake. Furthermore, we did not find any evidence in our trench on the ridge line that would suggest that ground cracking had occurred in the past in the vicinity of the building envelope.

Our study also revealed no concern with seismically induced landsliding at any of the three homesites. It is certainly not an issue at the valley homesites, and the ridge top homesite is located well away from steep slopes where such landsliding may occur.

CONCLUSIONS

- 1. The subject property is located in the Zayante fault zone. It occupies a broad valley bottom and a narrow ridge to the east. This study investigated three proposed single family homesites.
- 2. The subject property is underlain b48t/86 geologic units. The majority of the property is underlain by ancient dune sand (68/107 omas Formation, a red brown, well sorted,

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uncemented, highly permeable sand. The ridge in the eastern part of the property is underlain by the slightly older Continental Deposits which are composed of interbedded fine to coarsegrained sand and silt, some of which has been highly oxidized to a distinctive rust orange color. This formation is also uncemented and appeared quite permeable.

- 3. There are no indications of slope instability or landsliding on the property that affects the proposed building sites.
- 4. The property is located in the Zayante fault zone. However, the results of this study indicate that no existing fault traces pass within 25 feet of the designated building envelopes.

We are compelled to caution that we cannot guarantee that new fault traces will not occur within the homesite area given the fact that the homesite is situated in what appears to be the heart of the Zayante fault zone. We have shown that no existing fault traces pass within 25 feet of the home, so based on current County guidelines for geologic fault studies, the homesites are acceptable from a geologic standpoint. But we cannot rule out the possibility that new fault traces may occur in the future in the homesite area. This is a fact of life when dealing with one of the most active faults in the world.

- 5. Severe ground shaking is likely at the site within the next 50 years if a large magnitude earthquake occurs on a nearby fault trace. Due to the proximity of the fault, the homesite may experience extreme ground motions in the event of a large magnitude earthquake on the portion of the fault near the homesite.
- 6. We observed no surficial evidence of past liquefaction, lateral spreading, differential settling, or "ridge top shattering" in the vicinity of the homesite nor in our exploratory trench in the area of the building envelope.
- 7. Surface runoff at this property is principally by sheetwash. However, the earth materials underlying the property are very permeable, so much of the rainfall landing on the property probably soaks into the ground.
- 8. Erosion is high potential hazard at the property. Stripping and removal of vegetation, grading, and increasing or concentrating storm runoff might intensify rates of erosion unless precautions, including revegetation, energy dissipation and runoff dispersion are taken.
- 9. Groundwater was not observed in the vicinity of the home site nor in any of our exploratory trenches. The groundwater table is probably near sea level, several hundred feet beneath the property.

RECOMMENDATIONS

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1. The proposed homes shall be located wholly within the confines of the building envelopes designated on Plate 1 of this report unless additional work is done by an engineering geologist.

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A registered civil and/or geotechnical engineer should conduct an analysis of the earth 2. materials underlying the home and provide foundation criteria. Special consideration should be given to strengthening the foundation and building against severe ground shaking which the site will probably experience during the life time of the structures.

It is possible that extreme ground motions may occur at the homesites due to their proximity of the fault zone. Such forces could generate damage to the homes that is unrelated to ground rupture, and it is important that the design professionals associated with the home realize and understand the extreme magnitude of strong ground shaking that could occur at the property. The homes and their foundations should be constructed to the most stringent modern seismic resistant design parameters. The homes should be securely attached to their foundations, and the structures themselves built to withstand extreme ground motions. These aspects of the home should be addressed by the appropriate engineer, either foundation or structural. It is advisable, though not necessary, to limit the homes to single story, woodframe structures since these have been recognized as the most seismic resistant structures.

- 3. Runoff from impermeable surfaces should be well controlled. Concentrated runoff should not be allowed to occur due to the highly erodible nature of the earth materials. The earth materials are excellent for percolating storm runoff into the ground.
- If any unexpected variations in soil conditions, or if any unanticipated geologic conditions are 4. encountered during further evaluation of the property, or if the project will differ from that discussed or illustrated in this report, we require to be notified so supplemental recommendations can be given.
- 5. If all recommendations in the geologic report and geotechnical reports are closely followed and properly implemented during the design and construction, and maintained for the lifetime of the residence, then in our opinion, the occupants within the residence should not be subject to risks from geologic hazards beyond the "Ordinary Risks Level," in the "Scale of Acceptable Risks" contained in Appendix A.

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COUNTY OF SANTA CRUZ

PLANNING DEPARTMENT 701 Ocean Street, 4[™] floor, Santa Cruz, Ca 95060 (831) 454-2580 Fax: (831) 454-2131 Tdd: (831) 454-2123 TOM BURNS, PLANNING DIRECTOR

April 19, 2006

Eloise L. Wilson 296 Hames Road Watsonville, CA 95076

And,

Mrs. Janet Mattos 140 Shamrock Place Watsonville, CA 95076

Subject: Review of Engineering Geology Report, by July 2005, Project # 1176-G; and Geotechnical Report by Redwood Geotechnical Dated March 2006 Project #: 1856SCR, APN 107-461-25, Application #: 06-0175

Dear Eloise L. Wilson,

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

- 1. All construction shall comply with the recommendations of the reports.
- 2. Final plans shall reference the reports and include a statement that the project shall conform to the reports' recommendations.
- 3. Before building permit issuance, *plan-review letters* shall be submitted to Environmental Planning from both the geotechnical engineer and engineering geologist. The authors of the reports shall write the *plan review letters*. Each letter shall state that the project plans conform to the report's recommendations.
- 4. All habitable construction shall be located within the development envelope shown on the Geologic Map. Before the recordation of the a parcel map, or the approval of a building permit, the septic system locations must be identified on the geologic map, and the engineering geologist must approve these locations with regards to slope stability concerns.
- 5. The project proposes a building site off the ridge-top, but still on a hillslope. To access this site, a new drive way must be grading along slopes that are approximately 30%. Before completeness of the tentative map, the applicant must demonstrate that the driveway to the hillslope building site will not cross slopes over 30 %.

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NIELSEN and ASSOCIATES Engineering geology and coastal consulting

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Attachment 7

October 2, 2006

Job No. SCr-1176-G

Tom Burns, Planning Director County Government Center 701 Ocean Street, 4th floor Santa Cruz, CA 95060

SUBJECT: Comments on the issue of the property being considered to be in the Zayante Fault Zone.

REFERENCE: 350 Hames Road at Enos Lane, Santa Cruz County, California, APN 107-461-25

Dear Mssrs and Mrs. Mattos:

We have reviewed the response by Tom Burns to a request by Ron Powers for a reconsideration of the interpretation by the County in regards to reducing the hazards from faults and earthquakes to new single family homes on the subject property by limiting the parcel size of new parcels associated with a proposed minor land division. We understand that the County General Plan and the Geologic Hazards Ordinance stipulate a minimum parcel size of 20-acres for new parcels lying within State Alquist-Priolo Earthquake Fault Zones and County Seismic Review Zones.

First and foremost, the property is NOT located within a State Alquist-Priolo Fault Zone. By way of explanation, these are regulatory zones along active faults according to the California Geological Survey.

In regards to whether the property is located in a zone of known or suspected fault traces, we offer the following. Our subsurface fault investigation of three proposed building sites on the property involved the excavation of three separate trenches. The position of these trenches is such that they covered an area 470 feet wide in which we found no evidence of faulting. The age of the earth materials exposed in our trenches ranged from one-half million to several million years Old. This is clear and indisputable evidence that no existing fault traces transect the zone of investigation. Therefore, there are no faults in this zone. This is supported by the fact that the property lies in an area where no traces of the Zayante fault have been identified and mapped, a zone labeled "insufficient data" on a map of fault traces in Santa Cruz County published by the U.S. Geological Survey (Hall and others, 1974).

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1676 W. Antelope Creek Ways Oro Valley, Arizona 83737 2(831) 295-2081

Mattos - letter on fault zone issue Job No. SCr-1176-G

The Zayante fault, along whose general trend the property lies, is a relatively poorly understood fault. In a recent assessment of faults in the State of California by a group of geologists and geophysicists from both the California Geological Survey and the U.S. Geological Survey, the activity level of the fault was defined as very low based on the recurrence interval of earthquakes on it, that being on the order of \$,800 years. Admittedly, there is no evidence that we are aware of as to when the last earthquake occurred on this fault. Even after studying it for several years as part of his Doctoral Thesis work at the University of California Santa Cruz, Kevin Coppersmith (1979) found no unequivocal evidence that the fault exhibited evidence of activity. The best guess by professional geologists is that the fault should be considered potentially active which under current fault classification guidelines means that it could have moved in the last two million years or more specifically in Pleistocene or younger time. In other words, the Zayante fault is not considered by most professional geologists to be a highly active fault nor a prominent seismic source for ground rupture and ground shaking.

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We believe that this is an important point relative to the reasoning provided by Mr. Burns to defend the 20-acre minimum parcel size under the heading "Intent of the Decision Makers" in his letter of 14 June 2006. He states therein "(a)lthough a setback from fault traces is intended to limit exposure to ground rupture, lower density within the fault zone is intended to limit exposure to both rupture and severe seismic shaking." We believe that had this been the true intent of the General Plan Study Group and the resultant general plan and geologic hazard ordinance, then they would have made the 20-acre minimum parcel size requirement applicable to ALL new parcels within fault zones, not just those 'outside the urban or rural services lines.' Ground rupture, which in our opinion is the most significant potential seismic hazard relative to fault zones, is not specific to areas not served by 'service lines'. And in regards to ground rupture hazards, our more sufficient data developed through detailed geologic investigative work proved that there is a zone 470 feet wide in which there are no existing fault traces. If the true intent of the County General Plan and the County Geologic Hazards Ordinance is to reduce exposure to the potential geologic hazard of ground rupture, then our study has accomplished that goal. Furthermore, our work has raised a valid question as to whether the property is located in the Zayante fault zone.

I have worked in Santa Cruz County for the past 26 years and have had numerous opportunities to evaluate the Zayante fault zone. I have examined historical stereo aerial photographs for evidence of traces of the Zayante fault in the vicinity of the property. Stereo aerial photographs are one of the most valuable and useful tools geologists use to locate possible fault traces. I have also reviewed published maps and read Kevin Coppersmith's PhD thesis entitled Activity Assessment of the Zayante-Vergeles fault, the result of several year's worth of detailed investigative work. I have also conducted numerous subsurface fault studies along the Zayante fault during that time. Coppersmith's map of the fault zone shows the most likely fault traces located on Corralitos Ridge a short distance northwest of the property and in two linear valleys on Poppy Hill southeast of the property. In fact, these are the only two areas along the entire length of the Zayante Fault where there is reasonably good geomorphic (surface features) evidence of fault traces. The best-fit line or 'zone' connecting these two areas passes near the northeast corner of the property about 900 feet from the closest proposed homesite. My

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Mattos - letter on fault zone issue Job No. SCr-1176-G

EXHIBIT D

subsurface studies have never revealed excellent and unequivocal evidence for the Zayante fault. Let me be clear on this point. I have found features in exploratory trenches that were best interpreted as evidence of faults given that we were in the Zayante fault zone, but none of these were as definitive and spectacular as faults that I've exposed in the nearby San Andreas fault zone, one of the most active faults in the world. Most importantly, I found no evidence of faults at the subject property.

-3-

In conclusion, the combined evidence of fault traces of the Zayante fault zone near the property strongly suggests that the 'main' zone of the Zayante fault zone passes to the northeast of the proposed homesites. We can state with a high degree of confidence that the proposed homesites are not located in a zone of fault traces even though we cannot re-map the boundaries of the Zayante fault zone, even based on our extensive experience. Again if the true intent of the County General Plan and the County Geologic Hazards Ordinance is to reduce exposure to the potential geologic hazard of ground rupture, then our study has accomplished that goal.

We truly believe that granting the minor land division will not expose the proposed homes and the occupants thereof to a level of risk beyond an 'ordinary level of risk' as defined in Appendix A of our geologic report for this property. Nor will it create a level of density inconsistent with the surrounding neighborhood. And lastly and most importantly, our study has proven that the home sites are located in a 470-foot wide fault-free zone.

We would welcome an opportunity to discuss our data and interpretations with both Mr. Burns and Joe Hanna, the County Geologist, in an effort to clarify anything in this letter. Thank you for your further consideration.

Sincerely,

Hans Nielsen Certified Engineering Geologist 1390

copies to:

Joe Hanna, County Geologist Ron Powers Ellen Pirie, Supervisor Tony Campos, Supervisor Robert, Doug and Kim Mattos

NIELS 54/86 ASSOCIATES



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

April 19, 2006

Eloise L. Wilson 296 Hames Road Watsonville, CA 95076

And,

Mrs. Janet Mattos 140 Shamrock Place Watsonville, CA 95076

Subject: Review of Engineering Geology Report, by July 2005, Project # 1176-G; and Geotechnical Report by Redwood Geotechnical Dated March 2006 Project #: 1856SCR, APN 107-461-25, Application #: 06-0175

Dear Eloise L. Wilson,

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

- 1. All construction shall comply with the recommendations of the reports.
- 2. Final plans shall reference the reports and include a statement that the project shall conform to the reports' recommendations.
- 3. Before building permit issuance, *plan-review letters* shall be submitted to Environmental Planning from both the geotechnical engineer and engineering geologist. The authors of the reports shall write the *plan review letters*. Each letter shall state that the project plans conform to the report's recommendations.
- 4. All habitable construction shall be located within the development envelope shown on the Geologic Map. Before the recordation of the a parcel map, or the approval of a building permit, the septic system locations must be identified on the geologic map, and the engineering geologist must approve these locations with regards to slope stability concerns.
- 5. The project proposes a building site off the ridge-top, but still on a hillslope. To access this site, a new drive way must be grading along slopes that are approximately 30%. Before completeness of the tentative map, the applicant must demonstrate that the driveway to the hillslope building site will not cross slopes over 30 %.

55/86 75/107 Attachment 8

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6. The application for a building permit shall include an engineered grading and drainage plan. The grading plans must include an erosion control plan.

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

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

Please call the undersigned at (831) 454-3175, email pln829@co.santa-cruz.ca.us if we can be of any further assistance.

Sincerely,

Joseph L. Hanna CEG 1313 County Geologist

Cc:

Robert Loveland, Resource Planner Randall Adams, Planner Ron Powers, Consulting Planner Redwood Geotechnical Nielsen and Associates

EXHIBIT D

Geotechnical Investigation

for

350 Hames Road

APN 107-461-25

Santa Cruz County, California

for Mr. & Mrs. Doug & Kim Mattos Watsonville, Californía

By REDWOOD GEOTECHNICAL ENGINEERING, INC. Soil, Foundation & Forensic Engineers Project No. 1856SCR March 2006

EXHIBIT D .

Attachment 9

REDWOOD GEOTECHNICAL ENGINEERING, INC.

CONSULTING SOIL, FOUNDATION & FORENSIC ENGINEERS

Mr. & Mrs. Doug & Kim Mattos 140 Shamrock Place Watsonville, California 95076

Project No. 1856SCR March 23, 2006

Subject: Geotechnical Investigation

Reference: Proposed New 3-Lot Subdivision 350 Hames Road at Enos Lane Santa Cruz County, California APN 107-461-25

Dear Mr. & Mrs. Mattos:

As requested, we completed a geotechnical investigation for the referenced site. Proposed improvements would include two new primary residences, a new guest residence, and new access driveways. A geologic report for this project was completed by Nielsen & Associates, (5 July 2005). The geologic report mapped geologically older terrace deposits with a south trending ridge spur on the property and more recent aeolian sand deposits on the flatter portions of the site. Exploratory borings and test pits within the south-trending ridge crest encountered dense to very dense silty sand below the surficial soil profile. Exploratory borings and test pits within the lower, flatter portions of the site encountered sandy native soil to the depths explored. A drilled pier and grade beam foundation is recommended for the proposed residence along the south-trending ridge crest. Foundations should be extended into firm native soil. On the flatter portions of the site, conventional spread footing foundations are recommended for proposed structures. To accommodate conventional foundation construction, we recommend that the sandy native soil be subexcavated at least four, (4), feet below the finish pad grade and replaced in lifts of compacted engineered fill. Subexcavation should extend at least ten (10) lateral feet beyond the proposed building envelopes. The finish pad elevation should be slightly higher than the surrounding finish grade to promote positive drainage. **HRI**

7450 Reilroed St.; Gilroy, CA 95020 (408) 848.78 / 107 . S.J. (408)227-5168 . Fex (408) 848-6049

Project No. 1856SCR Transmittal Letter Page No. 2

Primary geotechnical considerations will include subexcavating and recompacting the sandy native soil within the proposed building pads; elevating the finish building pad grade slightly for positive drainage; embedding foundations into firm native soil or compacted engineered fill; providing uniform subgrade support for proposed concrete slabs-on-grade and pavements; and providing positive site drainage. These geotechnical aspects of the project should be observed and, where necessary, tested by the geotechnical engineer. We request the opportunity to review project plans prior to construction and to observe geotechnical aspects of the project during construction.

If you have additional questions regarding this report, please call our office.

Very truly yours, REDWOOD GEOTECHNICAL ENGINEERING, INC., No. 2115 N. Joseph Rafferty Exp. 6/06 G.E. 2115

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Copies: 2 to Addressee 2 to Mr. Ron Powers 2 to Mr. Hans Nielsen

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GEOTECHNICAL INVESTIGATION

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Introduction

This report presents the results of our geotechnical investigation for proposed improvements at 350 Hames Road in Santa Cruz County, California, as shown on our Site Vicinity Map (Figure 1) and our Site Plan Schematic, (Figure 2). Two new primary residences and a guest residence are proposed on the property. A geologic report for this site was completed by Foxx, Neilsen & Associates. We were provided with a copy of this geologic report prior to completing our subsurface investigation.

Purpose and Scope

The purpose of our investigation was to evaluate the surface and subsurface conditions in the vicinity of the proposed improvements, and to develop geotechnical recommendations for design and construction of the project. The specific scope of our work included the following:

- 1. A review of available data in our files pertinent to the site and vicinity. This included published geologic maps and other work by our firm in the site vicinity.
- 2. Four exploratory borings about 14 to 18½ feet deep drilled with a truck mounted power-driven auger.
- Laboratory testing of selected samples to determine pertinent engineering index properties.
- 4. Evaluation of the field and laboratory data to develop geotechnical recommendations for site grading, building foundations, concrete slabs-on-grade, and site drainage.
- 5. Presentation of the results of our investigation in a written report.

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Site Location and Description

The property is situated near the intersection of Hames Road and Enos Lane as shown on the attached Site Plan Schematic, (Figure 2). To the southwest is a large water tank at the intersection. An existing graded road traverses the southern margin of the site. As shown on the Site Plan Schematic, the property would be split into three parcels. An existing residence on Parcel 1 would remain. The scope of our investigation did not include an evaluation of Parcel 1. A south-trending ridge crosses Parcels 2 and 3 along the eastern portion of the property. The gently sloped ridge crest descends to moderately steep slopes. The remainder of the property is situated in a broad valley bottom with gentle to nearly level topography. A small barn has been built on parcel 3 near an existing graded ranch road. The remainder of the parcel 3 is vacant. We anticipate that the new construction would incorporate lightweight frame construction. Building plans for proposed improvements were not available at the time of our investigation.

The surface drainage appears to be primarily sheet runoff following the natural topography. No significant erosion was observed or reported on the property. The sandy native soil appears to be highly permeable. Along the western portion of the property is an abandoned drainage ditch. We understand that the ditch was constructed in the 1930's. No abandoned improvements were found in the geologic exploratory trenched in the vicinity of the proposed new building envelopes.

A new primary residence is proposed along the crest of the ridge on Parcel 2. The building envelope for the proposed new residence would have a minimum setback of at least 25 feet from the steeper slopes below the ridge crest. A new primary residence and new guest residence are proposed on the gently sloped portion of Parcel 3. New access driveways would generally follow the alignment of existing ranch roads or extend from the existing ranch roads.

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Field Investigation and Laboratory Testing

We completed a field reconnaissance and subsurface exploration at this site on February 10, 2006. Four exploratory test borings were drilled to depths of about 14 to 18½ feet. Three exploratory backhoe test pits were previously logged on 24 June 2005 for the geologic investigation. The approximate locations of the exploratory borings and backhoe pits are shown on the Site Plan Schematic (Figure 2). Subsurface conditions were logged in accordance with the Unified Soil Classification System (ASTM D2487). The boring logs are presented as Figures 3 through 6. The logs denote subsurface conditions encountered at the locations and dates indicated. This does not warrant that they are representative of subsurface conditions at other locations or times.

The focus of our laboratory testing program was to evaluate pertinent engineering index properties. Samples were collected at selected depths for testing. The results of the laboratory testing are shown on the test pit logs. The natural moisture content was measured on selected samples. The natural moisture content provides a rough indicator of compressibility, strength, and potential expansion characteristics.

Subsurface Conditions

Our investigation encountered firm, predominantly sandy native soils across the site. Within the higher topographic elevations along the ridge crest, the native soil graded into very dense sandy materials consistent with geologically older terrace deposits. Within the lower, gently sloped portions of the site, the native soil graded into medium dense aeolian sand deposits.

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Along the ridge crest, the sandy native materials encountered in the exploratory boring were medium dense within the upper five feet and then dense to very dense at depth. The surficial topsoil was about one to two feet thick. The sandy native materials exposed in the geologic test pit exposed interbedded layers of coarse to fine sand and occasional thin layers of well consolidated silt.

Within the lower, flatter portions of the site, the exploratory borings encountered about 3 to 6 feet of loose, uniform sandy materials underlain by medium dense sandy native materials at depth. These native materials appear consistent with aeolian sand deposits. Within the two geologic test pits, the upper topsoil profile and the native material at depth did not exhibited very little binder or cohesion. At an intermediate depth of about one to three feet, the sandy native material displayed a minor amount of stiffness or cohesion. These soil properties appear to be consistent with geologically older aeolian sand deposits of sufficient age to begin developing a surficial and intermediate soil profile and an undifferentiated soil profile at depth.

We did not encounter static ground water at the time of our investigation. It should be noted that ground water levels may fluctuate due to variations in rainfall, stratification, construction activity, or other factors not evident during our investigation.

Seismicity

A general discussion of seismicity is presented below. A detailed discussion of faulting, seismicity, and geologic hazards is beyond the scope of this report. The site is located within the seismically active Monterey Bay Region. Based on the 1997 Uniform Building Code, the site is within Seismic Zone 4. As outlined in Table 16-J of the UBC, the native soil corresponds to a stiff soil profile, S_p .

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Large fault systems in the region have generated moderate to major earthquakes on several occasions during the recorded history of the area. Recent studies have concluded that there is a high probability (on the order of 62%) that at least one magnitude 6.7 or greater earthquake will occur in the greater San Francisco Bay Region within the next 30 years (2002-2031) (Working Group, 2003). Smaller fault systems may also be capable of generating strong to severe ground shaking at this site. Faults mapped in the region are listed in the following table. The seismic source type is based on Table 16-U of the 1997 Uniform Building Code. No mapped fault traces are known to cross this site.

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Fault	Distance to proposed building sites	Direction to fault	Seismic Source Type
San Andreas (Santa Cruz)	5 km (3 mi)	northeast	Α
Zayante	<2 km (<1 mi)	northeast	В

Our investigation indicates that the San Andreas fault and Zayante fault systems are both associated with equivalent seismic design criteria as outlined below for a stiff soil profile S_{D} , within seismic zone 4. Recommended seismic design parameters for the proposed project are listed below.

	Seismic Coefficient Ca	Seismic Coefficient Cv	Near-Source Factor, Na	Near-Source Factor, Nv
San Andreas Fault@ 5 km	.44	.64	1.2	1.6
Zayante Fault @ <2 km	.44	.64	1.3	1.6

The California Geological Survey, formerly the California Division of Mines and Geology, has established Alquist-Priolo Earthquake Fault Zones, formerly Special Studies Zones,



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along all faults considered to have been active during Holocene time (past 11,000 years) and to have a relatively high potential for surface rupture. These faults are generally categorized as A or B depending on their relative activity. Faults with a C designation are generally not designated as special studies zones. Our review indicates that the project site does not fall within an Earthquake Fault Zone (California Division of Mines and Geology, 1982). The potential for surface faulting within the proposed building envelopes appears very low.

Liquefaction and lateral spreading are associated with improvements supported on saturated, loose sands and silts. Unsaturated or well-consolidated soils and bedrock typically have very low liquefaction potential. Our exploratory excavations encountered well-consolidated native materials at depth. We did not encounter ground water in our exploratory borings, drilled to depths of up to 18½ feet.

The primary seismic hazard at this site appears to be from strong ground shaking. The proposed new structures would be situated on new building pads graded onto the gently slope ridge crest or onto gently sloped topography. Within the proposed building envelopes, the native materials encountered in our investigation appear very unlikely to experience ground failure from surface fault rupture, liquefaction, lateral spreading, landsliding, or other seismically induced ground failure.

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DISCUSSIONS, CONCLUSIONS, AND RECOMMENDATIONS

Based on the results of our investigation, the site appears compatible with the proposed improvements, provided the following recommendations are incorporated into the design and construction of the site improvements. Our firm must be provided the opportunity for a general review of the final project plans and specifications prior to construction so that our geotechnical recommendations may be properly interpreted and implemented.

The exploratory borings and test pits at this site encountered firm predominantly sandy native soils at depth across the site. The surficial sandy topsoil and the near-surface sandy materials on parcel 3 are not considered sufficiently consolidated to support the proposed site improvements. Along the ridge crest, where foundation support can be extended into the firm native materials at depth, a drilled pier and grade beam foundations is recommended. Within the lower, gently sloped portions of parcel 3, we recommend that the proposed building pads be subexcavated and replaced with at least 4 feet of engineered fill placed in compacted lifts. Conventional spread footing foundations are recommended for these two building pads.

Recommended site work would include clearing the proposed building sites, constructing new driveways, and establishing positive drainage gradients. On parcel 3, we recommend subexcavating the proposed building pads at least four feet below the finish pad grades, (extending at least 10 lateral feet beyond the proposed building envelopes).

Thorough control of runoff and positive site drainage will be critical both during construction and after the project is completed. Finish grades and subsurface drainage systems should promote positive drainage away from the proposed improvements. We recommend elevating the building pad slightly above surrounding yard areas to promote positive



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drainage away from the new residence. The pavements and driveways should also be positively sloped for drainage. The final grading and landscaping should not obstruct the site drainage or allow moisture to accumulate adjacent to foundations, slabs, pavements, or other improvements.

Critical geotechnical considerations for this project will include; placement and compaction of engineered fill; elevating the finish pad grades slightly above surrounding grades; supporting structural foundations in firm native materials or compacted engineered fill; providing firm, uniform subgrades below new pavements and concrete slabs-on-grade; and providing positive site drainage. These critical aspects of the project must be observed by the soils engineer during construction.

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

Site Grading

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

Areas to be graded should be cleared of all obstructions including disturbed soil, loose fill, and other debris or unsuitable material. Depressions or voids created during site clearing should be backfilled with engineered fill. Cleared areas should be stripped of organic-laden





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topsoil. Stripping depth is typically about 2 to 4 inches. Actual depth of stripping should be determined in the field by the soil engineer. Strippings should be wasted off-site or stockpiled for use in landscaped areas if desired.

After clearing and stripping, the building envelopes on Parcel 3 should be subexcavated at least 4 feet below the finish pad grade to expose firm native soil. Subexcavation should extend at least ten (10) feet horizontally beyond proposed new building envelopes. The final depth of subexcavation should be determined in the field by the soil engineer. Areas to receive engineered fill should then be scarified to a depth of 6 inches, moisture conditioned, and compacted to at least 90 percent relative compaction. Portions of the site may need to be moisture conditioned to achieve a moisture content suitable for effective compaction.

Engineered fill should be placed in thin lifts not exceeding 8 inches in loose thickness, moisture conditioned, and compacted. Moisture content should be about 2 to 6 percent above the optimum moisture content. The upper 6 inches of pavement subgrades should be compacted to at least 95 percent relative compaction. The aggregate base below pavements should likewise be compacted to at least 95 percent relative compaction. Where referenced in this report, Percent Relative Compaction and Optimum Moisture Content shall be based on ASTM Test Designation D1557-91.

If grading is performed during or shortly after the rainy season, the grading contractor may encounter compaction difficulty, due to excessive moisture in the subgrade soil. If compaction cannot be achieved by adjusting the soil moisture content, it may be necessary to over excavate the subgrade soil and replace it with select import angular crushed rock to stabilize the subgrade. The depth of over excavation is typically about 12 to 24 inches under these adverse conditions. Specialized grading procedures will require observation by the soil engineer or his representative.

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Materials used for engineered fill should be non-expansive, free of organic material or debris, and contain no rocks or clods greater than 4 inches in diameter. The predominantly sandy soil encountered at this site generally appears suitable for use as engineered fill. We estimate shrinkage factors of about 20 to 30 percent for the on-site sandy materials when used in engineered fills.

Following grading, all disturbed areas should be planted as soon as possible with erosion-resistant vegetation. After the earthwork operations have been completed and the soil engineer has finished his observation of the work, no further earthwork operations shall be performed except with the approval of and under the observation of the soil engineer.

Foundations

Recommended foundation alternatives include drilled piers embedded into firm native soil and conventional footings embedded into compacted engineered fill as outlined below. All foundation excavations should be kept moist and be thoroughly cleaned of all slough or loose materials prior to pouring concrete. The foundation excavations must be observed by the soil engineer or his representative during drilling and prior to placing steel or concrete. If unusual or unforeseen soil conditions are found during construction, additional recommendations may be required.

Spread Footings

Conventional spread footings are recommended where foundation support can be embedded into compacted engineered fill. Continuous interior footings or tie beams are recommended below all interior shear walls, concentrated point loads, and bearing walls. Isolated footings should generally be limited to exterior decks, and other lightly loaded 70/86 EXHIBIT

Spread footings should extend at least 12 inches below the lowest adjacent grades. Actual footing depths should be determined in accordance with anticipated use and applicable design standards. Continuous footings and tie beams should be 12 inches wide. Isolated footings for exterior deck foundations should be at least 18 inches in diameter. The footings should be reinforced as required by the structural designer based on the actual loads transmitted to the foundation. As a minimum, we recommend No. 4 bars in both the top and the bottom of all continuous footings and tie-beams. Footings located adjacent to other footings or utility trenches should have their bearing surfaces founded below an imaginary 1.5:1 plane projected upward from the bottom edge of the adjacent footings or utility trenches.

Foundations designed in accordance with the above may be designed for an allowable soil bearing pressure of 2,000 psf for dead plus live loads. This value may be increased by one-third to include short-term seismic and wind loads. For lateral loads, a friction coefficient of 0.35 may be assumed at the base of the footing. Additional passive resistance may be assumed where footings are poured neat against compacted engineered fill. An equivalent passive fluid pressure of 500 pcf may be applied to the sidewalls of the footings when poured against compacted engineered fill. Total and differential settlements under the proposed light building loads are anticipated to be less than ½ inch and 1 inch respectively.

Drilled Pier and Grade Beams

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Drilled pier and grade beam foundations are recommended where foundations can be embedded into firm native soil. Drilled piers should be tied to continuous grade beams below all shear walls and bearing walls. Isolated piers should be limited to floor loads, exterior decks, or other lightly loaded structures. 71/86

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Drilled piers should be at least 8 feet deep, 18 inches in diameter, and be embedded at least 6 feet into well-consolidated native materials, below all fill and unconsolidated soil. Anticipated pier depths would be on the order of 8 to 12 feet. Final pier depths should be determined in the field by the soils engineer. Piers should be spaced at least 3 diameters from center to center. Grade beams should be at least 8 inches wide.

Piers constructed in accordance with the above may be designed for an allowable skin friction of 500 psf. The upper 2 feet of embedment, topsoil, and all fill materials should be neglected when computing skin friction. For passive lateral resistance, an equivalent fluid pressure of 500 pcf may be assumed to act against 2 pier diameters within the undisturbed native materials. The upper 2 feet of embedment and topsoil should be neglected when computing passive lateral resistance.

Piers should be vertically reinforced the full length. The vertical reinforcement should be lapped and tied each way to the upper grade beam reinforcement. Actual reinforcement requirements should be determined by the structural designer in accordance with anticipated use and applicable design standards.

Retaining Walls and Lateral Pressures

New retaining walls, where required, should be designed to resist both lateral backfill pressures and any additional surcharge loads. Backfill materials should be placed as compacted engineered fill. Structurally restrained walls should be designed to resist a uniformly applied wall pressure of 25 H psf. Active soil pressures may be assumed for free standing retaining walls backfilled with granular native soil. Walls up to 8 feet high should be designed to resist an active equivalent fluid pressure of at least 40 pcf for level backfills, and 65 pcf for sloping backfills no steeper than 2:1 (horizontal:vertical). Retaining walls should also be designed to resist one half of any surcharge loads imposed on the backfill **D**

behind the walls. These lateral pressures are based on granular backfills. The materials encountered at this site appear suitable for use as backfill material.

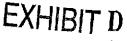
The above lateral pressures assume that all retaining walls are **fully drained** to prevent hydrostatic pressure behind the walls. Drainage materials behind the wall should consist of filtered drain rock (Class 2 permeable material, Caltrans Specification 68-1.025; or an approved equivalent). Retaining wall backdrain sections should be at least 12 inches wide. The drain section should extend from the base of the walls to within 12 inches of the top of the backfill. A rigid perforated pipe should be placed (holes down) about 4 inches above the bottom of the wall and tied to a suitable drain outlet. Wall backdrains should be sealed at the surface with concrete slabs, clay, or other impermeable material to minimize infiltration of surface runoff into the backdrains. Surface runoff should be diverted away from backdrains and collected in separate drain lines or channels. New foundations should not bear on new retaining wall backdrains or drain pipes.

Concrete Slabs-on-Grade

Concrete slabs-on-grade should be supported on at least 4 inches of non-expansive granular material. Prior to construction of each slab, the subgrade surface should be thoroughly moisture conditioned and then proof rolled to provide a smooth, firm, uniform surface for slab support.

In areas where floor wetness would be undesirable, a blanket of 4 inches of clean free-draining gravel should be placed beneath the floor slab to act as a capillary break. In order to minimize vapor transmission, a durable impermeable membrane should be placed over the gravel. The membrane should be covered with 2 inches of sand or rounded gravel to protect it during construction. The sand or gravel should be lightly moistened just prior to placing the concrete to aid in curing the concrete.

93/107



To minimize random slab cracking, new garage slabs and exterior slabs should be divided with joints into smaller, approximately square, sections. Control joints or expansion joints should be provided at maximum spacings of 10 feet on center. Control joints should also be provided at corners or other discontinuities. Slab reinforcing should be provided in accordance with the anticipated use and loading of the slab.

Exterior concrete slab-on-grade sections should be founded on firm, uniformly moisture conditioned and compacted subgrades. Reinforcing should be provided in accordance with the anticipated use and loading of the slab. The reinforcement should not be tied to the building foundations. These exterior slabs can be expected to suffer some cracking and movement. However, thickened exterior edges, a well-prepared subgrade including premoistening prior to pouring concrete, adequately spaced expansion joints, and good workmanship should minimize cracking and movement.

Site Drainage

Positive site drainage will be essential. Finish pad grades should be elevated slightly above surrounding yard areas for positive drainage. Diligent maintenance of completed drainage improvements is required for the life of the improvements. The drainage improvements should be both durable and easily accessible to promote frequent routine maintenance. Collected runoff should be discharged in a controlled fashion. Runoff must not be allowed to sheet flow over graded slopes.

Finish grading and landscaping must include provisions for positive slope gradients so that surface runoff flows away from the foundations, driveways, and other improvements. Minimum positive slope gradients of two percent are recommended for all concrete and landscape surfaces in the vicinity of the site improvements. Surface drainage must be directed away from the building foundations and concrete slabs. 74/86

EXHIBIT D

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EXHIBIT D

Full roof gutters should be placed around all eaves. Discharge from the roof gutters should be conveyed away from the downspouts by splash blocks, lined gutters, pipes or other positive drainage. Collected roof runoff should be discharged away from the building foundations and other improvements.

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

Plan Review, Construction Observation, and Testing

Our firm must be provided the opportunity for a general review of the final project plans and specifications prior to construction so that our geotechnical recommendations may be properly interpreted and implemented. If our firm is not accorded the opportunity of making the recommended review, we can assume no responsibility for misinterpretation of our recommendations. We recommend that our office review the project plans prior to submittal to public agencies, to expedite project review. The recommendations presented in this report also require our observation and, where necessary, testing of the earthwork and foundation excavations. Observation of grading and foundation excavations allows anticipated soil conditions to be correlated to those actually encountered in the field during construction.

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September 13, 2005

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g & Kim Mattos Green Valley Road onville, CA 95076

ect: Water Service for 350 Hames Road, APN: 107-461-25

Mr. & Ms. Mattos:

letter is to inform you that City of Watsonville (City) water may be provided to serve roposed development, which includes a lot split, a lot line adjustment, and truction of three new dwelling units, provided the following conditions are met:

- Total unit count shall be at least 5 units: Two new primary dwelling units, one new ccessory dwelling unit, conversion of one existing dwelling unit to an accessory welling unit, and one existing unit to remain as is;
- Accessory dwellings shall be constructed and available for occupancy concurrent with he primary dwellings;
- Accessory units shall be deed restricted as affordable per Santa Cruz County equirements;
- Monthly rental rates shall be based on City of Watsonville Median Income; and
- Complete and submit a water service application to the City of Watsonville. Pay construction, connection, and groundwater impact fees.

se contact me at (831) 768-3077 if you have any questions or concerns.

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EXHIBIT ____ B"

Joy Bader, Assistant Engineer Community Development Department

Cc: Robert & Jan Mattos, 140 Shamrock Place, Watsonville, CA 95076



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RESOLUTION NO. 189-05 (CM)

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF WATSONVILLE APPROVING THE REQUEST FROM DOUG, KIM, ROBERT, AND JANET MATTOS FOR A WATER AVAILABILITY LETTER ("WILL SERVE") FOR A PROPOSED RESIDENTIAL PROJECT ON 350 HAMES ROAD (APN: 107-461-25), WATSONVILLE, CALIFORNIA; AND AUTHORIZING AND DIRECTING THE PUBLIC WORKS AND UTILITIES DIRECTOR TO ISSUE SAID LETTER

WHEREAS, on December 10, 2002, the City Council adopted Resolution No. 303-02 (CM) Establishing and Adopting the "Outside City of Watsonville Water Connections–Goals, Objectives, and Policies" to further implement the Watsonville 2005: General Plan; and

WHEREAS, Chapter 3 "Growth and Conservation Strategy" of the Watsonville 2005: General Plan adopted in 1994, includes goals and policies to encourage "City centered" growth for those areas outside the City and to implement livable community concepts; and

WHEREAS, on July 27, 2005, Doug, Kim, Robert, and Janet Mattos submitted an application requesting City Council authorization to issue a Water Availability Letter for a proposed residential project on 350 Hames Road (APN: 107-461-25) outside the City limits, but within the City's water service area; and

WHEREAS, Policy 1.4 of the Outside City of Watsonville Water Connections Goals, Objectives, and Policies authorizes the Council to issue a Water Availability Letter to projects not meeting the density requirements subject to four findings; and

WHEREAS, staff recommends the Council find that the proposed project does satisfy the findings established in Policy 1.4.

EXHIBIT D

Reso No. <u>169-05</u> (CM) L:\COUNCIL\2005\091305\Water Mattos.doc bvf 9/16/2005 11:26:37 AM

77/86 97/107 NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF WATSONVILLE, CALIFORNIA, AS FOLLOWS:

1. That Good cause appearing upon the Findings, a copy of which is attached hereto and incorporated herein as Exhibit "A," therefor the Council hereby approves the request from Doug, Kim, Robert, and Janet Mattos for issuance of a Water Availability Letter ("Will Serve").

2. That the Public Works and Utilities Director be and is hereby authorized and directed to issue said letter, a copy of which is attached hereto and incorporated herein as Exhibit "B."

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The foregoing resolution was introduced at a regular meeting of the Council of the City of Watsonville, held on the <u>13th</u> day of <u>September</u>, 2005, by Member <u>Rios</u>, who moved its adoption, which motion being duly seconded by Member <u>Skillicorn</u>, was upon roll call carried and the resolution adopted by the following vote:

AYES:	COUNCIL MEMBERS:	Gomez, Rios, Skillicorn, Rivas, Phares
NOES:	COUNCIL MEMBERS:	None
ABSENT:	COUNCIL MEMBERS:	Bersamin
ABSTAIN:	COUNCIL MEMBERS:	Doering-Nielsen

Mayor

ATTEST:

City Clerk

APPROVED AS TO FORM:

City Attorney

EXHIBIT D

Reso No. <u>189-05</u> (CM) L:ICOUNCIL/2005/091305/Water Mattos.doc by 9/16/2005 11:26.57 AM 79/86 99/107

CITY COUNCIL CITY OF WATSONVILLE

APN: 107-461-25 Applicant: Doug, Kim, Robert & Janet Mattos Meeting Date: September 13, 2005

WATER "WILL SERVE" FINDINGS

1. The proposed project, notwithstanding Policy 1.2a., is consistent with the goals, policies and objectives of the City of Watsonville General Plan;

Supportive Evidence

Urban utilities and infrastructure do not exist to accommodate urban development.

2. The proposed project is designed at the highest allowable density under the County General Plan including the State density bonus; and

Supportive Evidence

The project has been designed at the highest approvable density under the current General Plan and zoning designation utilizing accessory dwelling unit provisions to increase the overall density.

3. There are unique site characteristics including but not limited to size, shape, and topography that limit the development of the site;

Supportive Evidence

The subject parcel is designated as a Primary Groundwater Recharge Area by the County of Santa Cruz. Designation as a Primary Groundwater Recharge Area reduces the allowable density of a parcel to one dwelling unit per 10 acres and sets the minimum parcel size at 10 acres.

4. The project complies with Policy 1.2 b, relative to inclusionary unit provisions.

Supportive Evidence

The applicant proposes and has been conditioned to provide inclusionary units within the project that exceed the City's 20-percent provision.

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Resolution No. 18-1-5 (CMI

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SANT. CRUZ COUNTY HEALTH SERVICE GENCY ENVIRONMENTAL HEALTH SERVICE 701 Ocean Street - Room 312, Santa Cruz, CA 95060 (831) 454-2	# 05-009
SITE EVALUATION	peyold
MID # PROPOSED LOT A LOT SIZE 19.787 SITE LOCATION 350 HAMES	FORD (DEPALITUS
APN 107410125 WATER SUPPLY CITYOF WATSWUILL OWNER'S WRITTEN PER	MISSION ATTACHED YES NO
SITE EVALUATION OFULL OSOIL OGROUNDWATER OPERCOLATION OREPAIR OALTERNATIVE SYSTEM ORSE	ALIDATION 3500
O OTHER CONSULTATION	
REQUESTED BY: KIM MATTOS ISSU Green Valley	761-4725
OWNER: JAN MATTOS (ADDRESS) 140 Shanerck Place.	(PHONE) 722-9.82
(NAME) (ADDRESS)	(PHONE)
 Lot slope excessive, area has been graded; and/or unable to provide setback from of Winter water table testing required. Tests indicate failure to provide required separation of leaching and seasonal high Unable to provide a 100 foot separation between a septic system and a well, spring Inadequate space for both the sewage disposal system and the required future expa Septic area in floodplain. Other 	groundwater. g, stream, or waterway.
 Preliminary inspection of this lot indicates suitability for individual sewage disposal under standards currently in effect, subject to any limitations identified below Water supply must be developed. Site conditions may be mitigated by alternative technology. Further testing and evaluation 	
Design Parameters Percolation Rate (1-5) 6-30 30-60 60-120 Groundwater Depth for Desi	3014
Dry Dry	105,106,107
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NOTE: Preliminary inspections and evaluations do not take into account all factors which are considered in disposal permit. An application for sewage disposal will be subject to further evaluation based on design; the possible presence of geologic hazards, biotic resources, or other site constraints; and, Disposal Ordinance in effect at the time of permit application.	Yiesbi in Fivie disposal
101/107 2/05 CAUM	IC/3).05 DATE

SANTA CRUZ COUNTY HEALTH SERVICES AGENCY ENVIRONMENTAL HEALTH SERV E 701 Ocean Street - Room 312, Santa Cruz, CA 95060 (831) 454-2022	
SITE EVALUATION SR 406	•
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MLD # PROPOSED LOT B LOT SIZESITE LOCATION 350 Home RA	_
MLD # PROPOSED LOT B_ LOT SIZESITE LOCATION 350 Home RA APN 107-461-25 WATER SUPPLY WATS City OWNER'S WRITTEN PERMISSION ATTACHED YES	Z N(
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$\Box \text{ other consultation} \longrightarrow 4201/1330$.
REQUESTED BY: Kim MATTOS 1550 Green Vally RI, WATS. 761-4725	
OWNER: JAN MATTOS 140 SNAMROCK PL WATS, 722-1829	
(NAME) (ADDRESS) (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.	
O Other	
Preliminary inspection of this lot indicates suitability for individual sewage disposal using conventional seption technology under standards currently in effect, subject to any limitations identified below.	3
Water supply must be developed.	
Site conditions may be mitigated by alternative technology. Further testing and evaluation is needed.	
Design Parameters	
Percolation Rate (1-5) 6-30 30-60 60-120 Groundwater Depth for Design Purposes 30 (E)	
REMARKS:	
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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.	u _{re}
102/107 SUPERVISOR DATE	1
ENVIRONMENTAL HEALTH SPECIALIST DATE SUPERVISOR DATE	ĺ

COUNTY OF SANTA CRUZ Discretionary Application Comments

Project Planner: Samantha Haschert Application No.: 08-0419 APN: 107-461-25 Date: May 26, 2009 Time: 11:55:05 Page: 1

Environmental Planning Completeness Comments

NO COMMENT

Environmental Planning Miscellaneous Comments

====== REVIEW ON OCTOBER 2, 2008 BY ROBERT S LOVELAND ========

Conditions of Approval:

1. The project geologist and geotechnical engineer shall submit "Plan Review Letters" to Environmental Planning Department for review and approval. The letters shall state that the project plans conform to the report's recommendations.

2. All habitable construction shall be located within the development envelopes shown on the approved geologic report map. Prior to the recordation of the parcel map or the building permit, the septic system locations shall be identified on the plans and the project geologist must approve the locations in regards to slope stability concerns.

3. Submit a detailed grading and drainage plan completed by a licensed civil engineer for review and approval.

4. Submit an erosion/sediment control plan for review and approval.

Dpw Drainage Completeness Comments

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

========= REVIEW ON SEPTEMBER 21, 2008 BY LOUISE B DION ========= Application with plans dated February 6, 2006 has been received. Not enough drainage information has been given to consider acceptance of this application. To be approved by this division at the discretionary application stage, all potential offsite impacts and mitigations must be determined and compliance with the County Design Criteria (CDC) and County General Plan policies (GPP) demonstrated.

Please address the following items:

1) Please specify on the civil plans the amount of impervious surface that will result from the proposed development.

2) (GPP #7.23.1 - New Development) Projects are required to maintain predevelopment rates where feasible. Mitigating measures should be used on-site to limit increases in post- development runoff leaving the site. Best Management Practices should be employed within the development to meet this goal as much as possible. Such measures include limiting impervious areas, using pervious or semi- pervious pavements, run-off surface spreading, discharging runoff from impervious areas into landscaping, retention facilities, etc. Please show proposed mitigations on the plans and account for the affects in stormwater calculations.



Project Planner: Samantha Haschert Application No.: 08-0419 APN: 107-461-25

Date: May 26, 2009 Time: 11:55:05 Page: 2

EXHIBIT D

3) Show how site runoff is proposed to be handled until it reaches a safe point of release such as an adequate drainage system or a water course. Provide downstream impact assessment identifying capacity restrictions in existing drainage facilities receiving site runoff and identify the water body receiving the flow.

4) Quantify the flow from offsite upstream drainage areas draining toward the site and show how the flow will be handled. Include the drainage area map used to quantify the flow. provide clear topo information per County Design Criteria Part 1, Section A.1.g as applicable.

5) As indicated in the CDC (County Design Criteria). Runoff from parking and driveways are required to go through water treatment prior to discharge. Consider outsloping areas to drain to landscaped areas for filtering prior to discharge from the site. If use of landscaped areas is not feasible and structural treatment is proposed, recorded maintenance agreements are required. Please clarify on the plans the method used for treatment.

The comments above are general and more detailed comments will be made once we receive the engineered plans and the downstream assessment.

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

If you have questions, please contact me at 831-233-8083.

======= UPDATED ON JANUARY 24, 2009 BY LOUISE B DION =======

Plans dated December 24, 2008 have been received. The application is deemed complete with respect to the discretionary permit application stage. Please address outstanding miscellaneous comments prior to recording of final map.

Dpw Drainage Miscellaneous Comments

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

1) Zone 7 drainage fees will be assessed on the net increase in permitted impervious area due to this project.

2) All proposed inlets should include signage stating "No Dumping Drains to Bay" or equivalent. This signage is to be privately maintained.

3) Provide recorded maintenance agreement(s) for each facility proposed and identify who is responsible for maintenance of each facility on the final plans.

Project Planner: Samantha Haschert Application No.: 08-0419 APN: 107-461-25 Date: May 26, 2009 Time: 11:55:05 Page: 3

EXHIBIT D

4) Include maintenance recommendations for each facility on the final plans

Dpw Road Engineering Completeness Comments

Dpw Road Engineering Miscellaneous Comments

----- REVIEW ON SEPTEMBER 29, 2008 BY RODOLFO N RIVAS ------ NO COMMENT

Environmental Health Completeness Comments

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

Tions have been reviewed and approved by EHS staff; project is approved.

Environmental Health Miscellaneous Comments

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

----- REVIEW ON SEPTEMBER 29. 2008 BY JIM G SAFRANEK -----

Cal Dept of Forestry/County Fire Completeness Comm

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

======= REVIEW ON SEPTEMBER 18, 2008 BY COLLEEN L BAXTER ======== DEPARTMENT NAME:CAL FIRE/SANTA CRUZ COUNTY FIRE

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

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

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

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

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

All road requirements and building requirements pertaining to the fire code will be reviewed during the building permit phase.

Cal Dept of Forestry/County Fire Miscellaneous Com

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Discretionary Comments - Continued

Project Planner: Samantha Haschert Application No.: 08-0419 APN: 107-461-25 Date: May 26, 2009 Time: 11:55:05 Page: 4

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

====== REVIEW ON SEPTEMBER 18, 2008 BY COLLEEN L BAXTER =======

EXHIBIT D

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Nattas V Welson Family 08-0419 En Coo

June 29, 2009 25 Enos Lane Watsonville, CA 95076

Santa Cruz County Environmental Coordinator 701 Ocean St 4th Floor Santa Cruz, CA 95060

> RE: APPL #08-0419 APN 107-461-25

Gentlemen:

We would like to go on record as being in favor of the permit being processed for the above Application.

We have been at this address since 1963 and were neighbors of Alice and Alan Tindall. We think it would be very nice for the family of these people to be able to make use of this property which has been in their family for many years. The Tindall family have always been a very well-known name for many years in Corralitos and it would certainly be an asset to our community for their families to build their homes here.

We trust that your office will agree and issue this family their permit.

Respectfully submitted,

Jake + Marilyn Head

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