Staff Report to the Zoning Administrator

Application Number: 07-0548

Applicant: Tracy Johnson
Owner: Brian Arthur
APN: 038-151-89

Agenda Date: January 16, 2008
Agenda Item #: 7.
Time: After 10:00 a.m.

Project Description: Proposal to construct a 3,083 square foot two-story single family dwelling with an elevator, a four-foot retaining wall within the front yard setback, grade approximately 168 cubic yards, and approximately an additional 43 cubic yards within the 100-year geologic setback.

Location: Property located on the south side of Oak Hill Road (between 735 and 749 Oak Hill Road), approximately 380 feet west of the intersection with Seacliff Drive.

Supervisoral District: Second District (District Supervisor: Ellen Pirie)

Permits Required: Coastal Development Permit, Residential Development Permit for a retaining wall exceeding three (3) feet within the required front yard setback, Preliminary Grading Approval and an Exception to Chapter 16.10, the Geologic Hazard Ordinance.
Technical Reviews: Geologic and Geotechnical Reports

Staff Recommendation:

- Certification that the proposal is exempt from further Environmental Review under the California Environmental Quality Act.
- DENIAL of Application 07-0548, based on the attached findings.

Exhibits

A.	Project plans		September 10, 2008
B.	Findings	J.	Geotechnical Engineering Report review letter, dated 12/20/05
C.	Conditions		
D.	Categorical Exemption (CEQA determination)	K.	Excerpts of Conclusions and Recommendations from Geologic Investigation prepared by Rogers E. Johnson & Associates, dated 10/24/2005 (report on file)
E.	Assessor's parcel map		
F.	Zoning & General Plan map		
G.	Location Map		
H.	Printout, Discretionary application comments, dated 11/25/08	L.	Excerpts of Discussion, Conclusions and Recommendation from Geotechnical Investigation prepared
I.	Urban Designer comments, dated		

by Haro, Kasunich & Associates, Inc., dated 11/2005 (report on file).

M. Letter of Request for an Exception by Rogers E. Johnson and Associates, dated 10/20/08

N. Project Geotechnical Engineer letter of recommendation for approval of exception to County Code Sections 16.10.070(h)1(ii) and 16.10.040(s), dated 10/22/08

O. Memo from County Geologist, dated 11/27/08

P. Evaluation of brick retaining wall letter, Mike Van Horn, dated 8/22/08

Q. Comments & Correspondence

Parcel Information

Parcel Size:	8,276 square feet
Existing Land Use - Parcel:	Vacant
Existing Land Use - Surrounding:	Single
Project Access:	Oak Hill Road
Planning Area:	Aptos
Land Use Designation:	R-UL (Urban Low Density Residential)
Zone District:	R-1-10 (Single family residential - 10,000 square feet per unit)
Coastal Zone:	x Inside __ Outside
Appealable to Calif. Coastal Comm.	x Yes __ No

Environmental Information

Geologic Hazards:	Coastal bluff, instability has been identified in the technical reports
Soils:	Soil 179 (Watsonville Loam)
Fire Hazard:	Not a mapped constraint
Slopes:	Coastal Bluff, over 70% slope at rear of property
Env. Sen. Habitat:	Not mapped/no physical evidence on site
Grading:	211 cubic yards
Tree Removal:	No trees proposed to be removed
Scenic:	Mapped resource
Drainage:	Proposed drainage adequate
Archeology:	Not mapped/no physical evidence on site

Services Information

Urban/Rural Services Line:	x Inside __ Outside
Water Supply:	Soquel Creek Water District
Sewage Disposal:	Santa Cruz County Sanitation District
Fire District:	Aptos/La Selva Fire Protection District
Drainage District:	Zone 6

History

The subject parcel (formerly APN 038-151-85) was determined to be a legal parcel and granted an Unconditional Certificate of Compliance under Permit 01-0068 on June 10, 2003. In March 2005, Coastal Development Permit 04-0531 permitted the demolition of an existing deck and elevator shaft attached to a single family dwelling on the adjacent parcel that encroached onto the subject parcel, a portion of this dwelling still encroaches. Building permit #140419 for the

demolition work was finaled on May 5, 2005.

Geologic and Geotechnical reports were reviewed and accepted by the County Geologist in December 2005 which established a coastal bluff setback and building envelope for a single family dwelling. On January 14, 2008 building permit #148760 was finaled, which allowed the demolition of an existing carport that had collapsed, as part of this permit no grading or removal of existing retaining walls was allowed.

The County Planning Department accepted an application for a Coastal Development Permit, Residential Development Permit for a retaining wall exceeding three (3) feet within the required front yard setback, Preliminary Grading Approval and an Exception to Chapter 16.10 Geologic Hazard Ordinance on September 17, 2007.

Project Setting

The property is located at the top of a coastal bluff on the south side of Oak Hill Road (between 735 and 749 Oak Hill Road), approximately 380 feet west of the intersection with Seacliff Drive. The south end of the parcel is the coastal bluff, immediately above Las Olas Drive. The coastal bluff is a slope in excess of 70 % grade. Three retaining walls of approximately four feet in height are located on the subject property, one of which goes under the neighboring structure at the point where the structure encroaches on the subject parcel. A letter from the structural engineer clarified that the retaining wall is not attached to the neighboring structure (Exhibit P). A 48" redwood tree is located within the northeastern most point of the property and will be retained. A line of mostly two story homes exist on either side of the vacant parcel along Oak Hill Road and a line of two story homes exists below the bluff across Las Olas Drive.

Zoning Consistency

The subject property is a 8,786 square foot lot, located in the R-1-10 (Single family residential - 10,000 square feet per unit) zone district, a designation which allows residential uses. The proposed Single Family Dwelling is a principal permitted use within the zone district.

	R-1-10 Standards	Proposed Residence
Front yard setback	20 feet	20 feet
Rear yard setback	15 feet	100+/ **
Side yard setback	5 feet and 5 feet*	5 feet and 5 feet
Building Height	28 feet	28 feet
Number of Stories	2	2
Lot Coverage	30%	22%
Floor Area Ratio	50 %	48%
Parking	3 bedrooms-3 spaces	3 spaces-two covered, one in driveway

* County Code 13.10.323 site standards allows for 5 and 5 foot side yard setbacks when the parcel width is less than 60 feet.

** 100-year geologic setback line is approximately 33 feet from the top of slope as established by Geologic and Geotechnical reports.

The proposed Single Family Dwelling is two stories, which are stepped up the slope from Oak Hill Road. The proposed garage qualifies as a story (County Code 13.10.700-S), as it does not meet the definition of a basement (County Code 13.10.700-B). A deck area was originally proposed in between the garage and the top floor, that would have qualified it as a three story home. A three-story home is not allowed within the urban services line without a variance, for which findings could not be made. The applicant revised the plans to include a sloping roof area in the portion between the top floor and the bottom floor.

Local Coastal Program Consistency

Land Use Designation

The General Plan/Local Coastal Program Land Use Designation of the parcel is R-UL (Urban Low Density Residential), implemented by the R-1-10 (10,000 square foot minimum-single family residence) zone district. The proposed single-family dwelling complies with the purposes of this Land Use Designation, as the primary use of the site will be residential.

Exception to Geologic Hazard Ordinance Required

The proposed single family dwelling is located at the top of a coastal bluff. Geologic and Geotechnical reports established a 100- year geologic setback line 33 feet landward of the edge of the bluff and set the building envelope as required by General Plan/LCP 6.2.12. The original geologic and geotechnical reports demonstrate that the building envelope would provide a stable site for 100-year lifetime (County Code 6.2.12). However, the project also includes grading within the 33 foot setback. The grading has not been fully evaluated and it may have adverse impacts on the stability of the coastal bluff (Exhibit O). Further, grading is not allowed within the setback from the coastal bluff and an exception to the Geologic Hazard Ordinance 16.10, would be required for the grading to be approved.

As part of the proposal, the applicant is seeking an exception (Exhibits M & N) to the Geologic Hazard Ordinance 16.10.070 Permit conditions (h) to allow grading within the 25-foot and 100 year setbacks to remove approximately 43 cubic yards of material. In order to grant an exception (County Code 16.10.100) each of four findings must be made. For supplemental information to the following discussion, see memo from County Geologist, Joe Hanna (Exhibit N).

The first finding requires that a hardship, as defined in Section 16.10.040(2j) exists. The definition of hardship is as follows:

Hardship. For the purposes of administering Section 16.10.100, means the exceptional hardship that would result from failure to grant the requested Exception. The specific hardship must be exceptional, unusual, and peculiar to the property involved. Economic or financial hardship alone is not exceptional. Inconvenience, aesthetic considerations, personal preferences, or the disapproval of neighbors also cannot qualify as exceptional hardship, as these problems can be resolved through means other than granting an Exception, even if those alternative means are more expensive, require a property owner to build elsewhere, or put the parcel to a different use than originally intended or proposed.

This finding cannot be made, in that the applicant does not demonstrate that a hardship as

defined in Section 16.10.040 (2j) will exist if the exception is not granted. Grading 3 to 5 feet of the bluff is not necessary to develop the parcel as the conclusions of the applicant's consulting geologist report indicate (Exhibit K, Rogers E. Johnson & Associates, 10/24/2005). Furthermore, coastal bluff retreat issues are common to hundreds of homes along the Santa Cruz coast and are not exceptional, unusual, and peculiar to this property.

The second finding is that the project is necessary to mitigate a threat to public health, safety, or welfare. The excavation of a few feet of the crest of the bluff will have little positive impact on the amount or rate of coastal bluff retreat and in fact may have unforeseen adverse affects on the stability of the bluff. An effective alternate solution would be to construct a retaining system with the capacity to stabilize the entire slope. The grading approach is therefore not necessary to mitigate the threat to public health and safety.

The third finding states that the request is for the smallest amount of variance from the provisions of this Chapter as possible. This finding cannot be made in that the applicant's consultants have not analyzed alternatives to their proposal. Most of the benefits of the grading can be accomplished with on site control drainage without the excavation within the 25 foot setback. In addition, if there is mitigation required beyond drainage control, a retaining wall is an option. Both drainage control and a retaining wall can be accomplished without an exception to Chapter 16.10.

The fourth and final finding states that adequate measures will be taken to ensure consistency with the purposes of this Chapter and the County General Plan. This finding cannot be made, in that the grading on the bluff is inconsistent with Section 6.2.11 and 6.2.12 of the General Plan, which specifies the setback from coastal bluffs and the requirement for full geologic investigation. It is also inconsistent with Section 8.6.6 and 5.10.3 of the General Plan, in that the grading will alter the bluff and increase the visibility of the home from the beach below.

In conclusion, the County Geologist states that excavating into the bluff as proposed will not substantially mitigate coastal bluff retreat and if fact may have an adverse effect. Secondly, alternative methods to control drainage have not been assessed. If mitigation of a geologic hazard is the goal then the applicant should consider options that do not require an exception to the code, such as a bluff top retaining wall. Retaining walls at the top of the bluff have a proven ability to control the retreat of the bluffs, such as the wall recently installed on the neighboring property at 745 Oak Hill.

Design Review

The proposal is located within the Coastal Zone and therefore must comply with County Code 13.20 and 13.11 design review standards. The Urban Designer evaluated the proposed single family dwelling and found that it does not comply with the requirements of the County Design Review Ordinance (Exhibit I). The home is not visually compatible with the existing character of the neighborhood in that the majority of the surrounding development is made of horizontal or vertical wood exteriors. This proposal uses primarily stucco with stone used at the lower area of the front facade. The large rounded window at the rear facade is out of character with the overall design of the residence, and it adds to the lack of compatibility with the neighboring residences as seen from the beach. In addition, the combination of the roof forms result in a structure that

does no have a unified scheme. There are large areas of the front facade that have no fenestration.

The proposal is also required to minimize site disturbance and retain the natural state of the bluff as required per County Code 13.20.130. The applicant is seeking an exception to the geologic ordinance to grade within the geologic setback, and therefore will not be maintaining the natural state of the bluff or minimizing grading. The proposed grading also increases the visual impact of the new development from the beach below, which is not consistent with General Plan/Local Coastal Policies 8.6.5 or 8.6.6, which require that development maintain a relationship with the natural environment and be low-profile, and that natural landforms such as bluffs be protected.

Residential Development Permit

The proposal also includes a retaining wall that will exceed the three-foot maximum within the required front yard setback and requires a Residential Development Permit. The proposed retaining wall will not affect sight distance for exiting the property, Oak Hill is a narrow paved road that serves three properties beyond this parcel.

The four foot retaining wall will be made of concrete that will be conditioned to be left unfinished and unpainted, or be stained/painted a muted natural earth tone. Retaining walls are often found in residential neighborhoods throughout Santa Cruz County and therefore it will not be out of character. The design of the retaining wall will not utilize an excessive quantity of materials or energy in its construction or maintenance, in that the retaining wall is a relatively insignificant structure that is accessory to the residential use allowed by R-1-10 (Single family residential - 10,000 square feet per unit) zone district on the property.

The design and location of the retaining wall will not adversely impact the available light or the movement of air to properties or improvements in the vicinity, in that the retaining wall shall not exceed the six foot height limit that would be allowed in other locations (not abutting a right-of-way) without a discretionary approval or a building permit. The location of the retaining wall on the property and the design does not contain any corners or pockets that would conceal persons with criminal intent.

Conclusion

As proposed, the project is not consistent with all applicable codes and policies of the Zoning Ordinance and General Plan/LCP with the exception of the Residential Development Permit for the four foot retaining wall within the front yard setback. Please see Exhibit "B" ("Findings") for a complete listing of findings and evidence related to the above discussion.

Staff Recommendation

- Certification that the proposal is exempt from further Environmental Review under the California Environmental Quality Act.

- **DENIAL** of Application Number **07-0548,** based on the attached findings.

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

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Santa Cruz CA 95060
Phone Number: (831) 454-5321
E-mail: maria.perez@co.santa-cruz.ca.us

Coastal Development Permit Findings

3. That the project is consistent with the design criteria and special use standards and conditions of this chapter pursuant to section 13.20.130 et seq.

This finding cannot be made, in that the development is not consistent with the design criteria. Regarding the design of the structure, General Plan policy 8.4.1 requires that new infill development on vacant land be consistent with the existing residential character of the neighborhood. The proposed materials, stucco and stone, do not meet criteria for neighborhood compatibility in that they are not consistent with the wood siding found in the majority of neighboring homes. Regarding site design, the proposal is not minimizing grading in accordance with General Plan policy/LCP 6.3.9, and will alter the coastal bluff, which is a natural landform that should be retained in it's natural state in accordance with General Plan policies/LCP 8.6.5 and 8.6.6.

5. That the proposed development is in conformity with the certified local coastal program.

This finding cannot be made in that General Plan policy/LCP 6.2.10 requires all development to be sited and designed to avoid or minimize hazards. The proposed grading, which is "development" according to County Code 16.10.040(m), does not mitigate the hazard to the downslope neighbors on Las Olas Drive. The excavation of a few feet of the crest of the bluff will have little positive impact on the amount or rate of coastal bluff retreat, and in fact may have unforeseen adverse affects on the stability of the bluff. Mitigation of the hazard can be accomplished through alternate methods, such as a bluff top retaining wall, which would not require an exception to the Geologic Hazard Ordinance 16.10.

General Plan policy/LCP 6.2.11 requires a full geologic report for all development activities within coastal hazard areas, including within a 100-feet of a coastal bluff. This finding cannot be made in that the original geologic report did not include a full assessment of the proposed grading within 100 feet of the coastal bluff and the potential impacts on the surrounding parcels, including those downslope on Las Olas Drive.

General Plan policy/LCP 6.2.12 requires that all development activities occur a minimum of 25 feet from the top of edge of the bluff. This finding cannot be made in that the proposed grading is within the 33 foot bluff top setback. Grading on a coastal bluff is considered development per definitions of "development" (County Code 16.10.040(s)10) and "coastal hazard area" (County Code 16.10.040(m)).

General Plan policy/LCP 8.6.6 requires that ridgetops and natural prominent landforms such as cliffs, bluffs, dunes, rock outcroppings be protected from development. The finding cannot be made in that the grading will alter the coastal bluff, which is a natural landform that should be retained in it's natural state. While a hazard has been identified by the project geologist, there are alternative methods of mitigating the hazard that do not require an exception to the geologic hazard ordinance and which may not require alteration of the natural landform. In addition, a building envelope was established by the Geologic and Geotechnical Investigations that is set back 33 feet from the edge of the coastal bluff to provide 100-year lifetime and does not require

any grading within the geologic setback.

General Plan policy/LCP 5.10.3 requires minimizing disruption of landforms by grading or inappropriate landscaping, and requires that structures be designed to protect public vistas. This finding cannot be made in that, the grading will alter the natural state of the bluff which helps screen the proposed structure from the public state beach below. The grading will exacerbate the visual impact of the proposed structure.

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 cannot be made, in that the project is located at the top of a coastal bluff and the applicant proposes to grade within the geologic setback. The project Engineering Geologist states that the bluff will fail, however, the grading of the bluff will not mitigate for the hazard.

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 cannot be made, in that the proposed location of the Single Family Dwelling and the conditions under which it would be operated or maintained will not be consistent with all pertinent County ordinances, specifically Chapter 16.10.070(h), 13.20 and 13.11. The applicant seeks to grade within the geologic setback and specific findings for the activity cannot be made (Exhibit O). The grading will increase the visual impact of the proposed development, and is also inconsistent with General Plan policies/LCP 8.6.5 and 8.6.6. The design of the structure is not compatible with the neighborhood, see Finding #5.

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 cannot be made, in that the proposed structure is not in conformance with Coastal Design Review Standards as outlined in Chapter 13.20 and 13.11. The home is not visually compatible with the existing character of the neighborhood in that the majority of the surrounding development is made of horizontal or vertical wood exteriors. This proposal uses primarily stucco with stone used at the lower area of the front facade. The large rounded window at the rear facade is out of character with the overall design of the residence, and it adds to the lack of compatibility with the neighboring residences as seen from the beach. In addition, the combination of the roof forms result in a structure that does no have a unified scheme. There are large areas of the front facade that have no fenestration.

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 cannot be made, in that the proposed structure is not in conformance with Coastal Design Review Standards as outlined in Chapter 13.11.073. The design is not compatible with the existing character of the neighborhood in that the majority of the surrounding development is made of horizontal or vertical wood exteriors. The subject property is proposing stucco and stone exterior. In addition, the combination of the roof forms result in a structure that does no have a unified scheme. There are large areas of the front facade that have no fenestration. The large rounded window at the rear facade is out of character with the overall design of the residence. The window adds to the lack of compatibility with the neighboring residences as seen from the beach.

Geologic Hazard Exception Findings

1. A hardship, as defined in Section 16.10.040(2j) exists.

This finding cannot be made, in that the applicant does not demonstrate that a hardship will exist as defined in Section 16.10.040 (2j) if the exception is not granted. Grading 3 to 5 feet of the bluff is not necessary to develop the parcel (Rogers E. Johnson & Associates, 10/25/05). Futhermore, coastal retreat isssues are common to hundreds of homes along the Santa Cruz Coast and are not exceptional, unusual, and peculiar to this property.

2. The project is necessary to mitigate a threat to public health, safety, or welfare.

The excavation of a few feet of the crest of the bluff will have little positive impact on the amount or rate of coastal bluff retreat, and may have unforeseen adverse affects on the stability of the bluff. A true solution would be to construct a retaining system with the capacity to stabilize the entire slope. Various options that provide stability and which do not require an exception to Chapter 16.10 are available.

Finding 2 cannot be made, in that the proposed grading within the 25 foot and 100 year setbacks does not mitigate for the threat to public health and safety as it is not clear that the grading will significantly reduce the rate of coastal bluff retreat. Furthermore, the grading work may have unforeseen negative affects on the stability of the bluff.

3. The request is for the smallest amount of variance from the provisions of this Chapter as possible.

This finding cannot be made in that the applicant's consultants have not analyzed alternatives to their proposal. Most of the benefits of the grading can be accomplished with on site control drainage without the excavation within the 25 foot setback, and alternatively must evaluate if a

bluff wall is the only alternative to control the geologic hazard.

4. Adequate measures will be taken to ensure consistency with the purposes of this Chapter and the County General Plan.

This finding cannot be made, in that the grading on the bluff is inconsistent with Section 6.2.12 of the General Plan and is inconsistent with Section 5.10.3 of the General Plan in that it will remove a part of the slope that would screen the home and reduce the visual impact of a home public beach below.

Approval Date: _____

Effective Date: _____

Expiration Date: _____

Don Bussey	Maria Perez
Deputy Zoning Administrator	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 Zoning Administrator, may appeal the act or determination to the Planning Commission in accordance with chapter 18.10 of the Santa Cruz County Code.

EXHIBIT C

CALIFORNIA ENVIRONMENTAL QUALITY ACT
NOTICE OF EXEMPTION

The Santa Cruz County Planning Department has reviewed the project described below and has determined that it is exempt from the provisions of CEQA as specified in Sections 15061 - 15332 of CEQA for the reason(s) which have been specified in this document.

Application Number: 07-0548
Assessor Parcel Number: 038-151-89
Project Location: No Situs

Project Description: Proposal to construct a single family dwelling

Person or Agency Proposing Project: Tracy Johnson

Contact Phone Number: 831-722-5462

A. ____ The proposed activity is not a project under CEQA Guidelines Section 15378.

B. ____ The proposed activity is not subject to CEQA as specified under CEQA Guidelines Section 15060 (c).

C. ____ **Ministerial Project** involving only the use of fixed standards or objective measurements without personal judgment.

D. __x__ **Statutory Exemption** other than a Ministerial Project (CEQA Guidelines Section 15260 to 15285).

Specify type: 15270 Projects which are disapproved

E. ____ **Categorical Exemption**

Specify type:

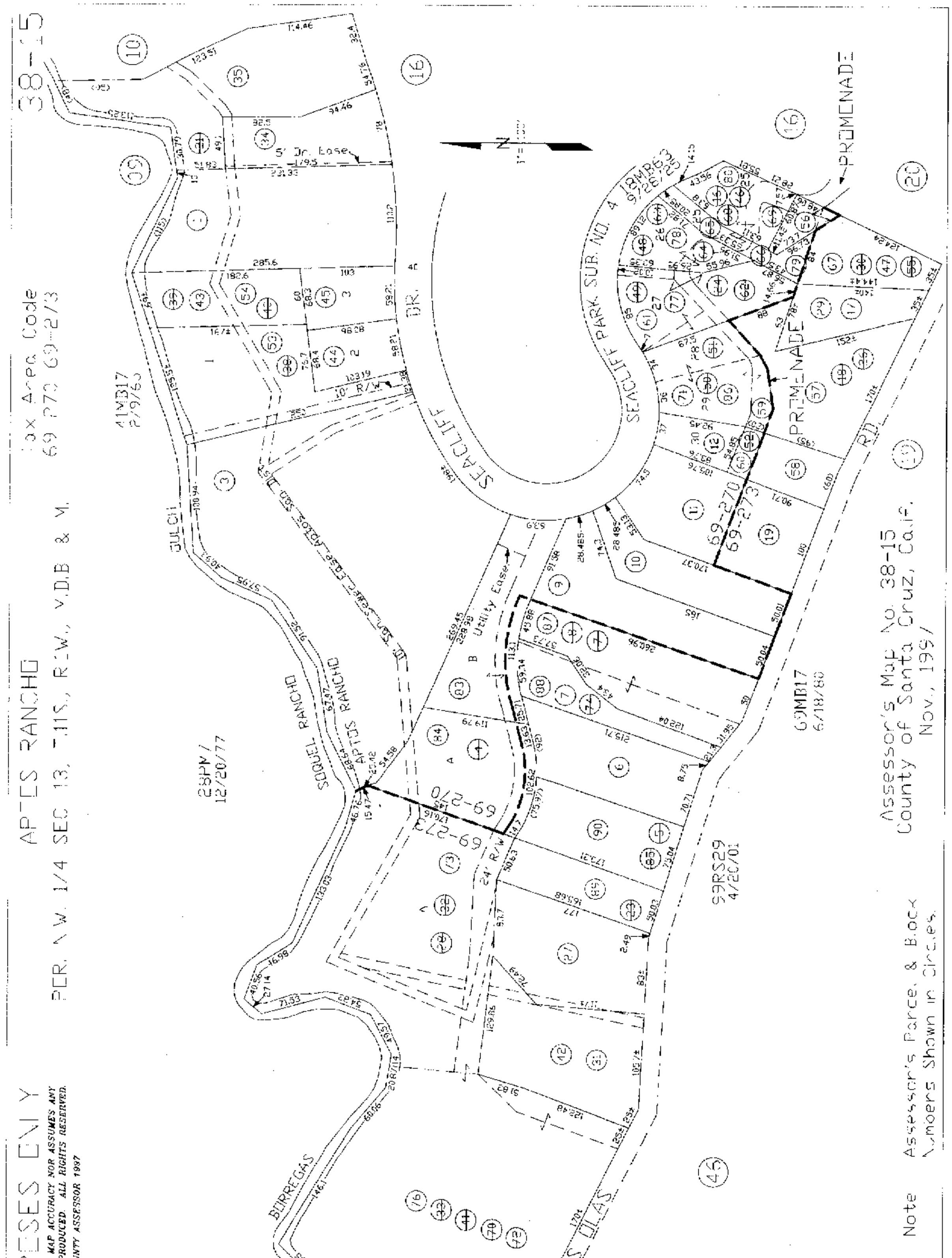
F. Reasons why the project is exempt:

In addition, none of the conditions described in Section 15300.2 apply to this project.

_____ Date:_____

Maria Perez, Project Planner

EXHIBIT D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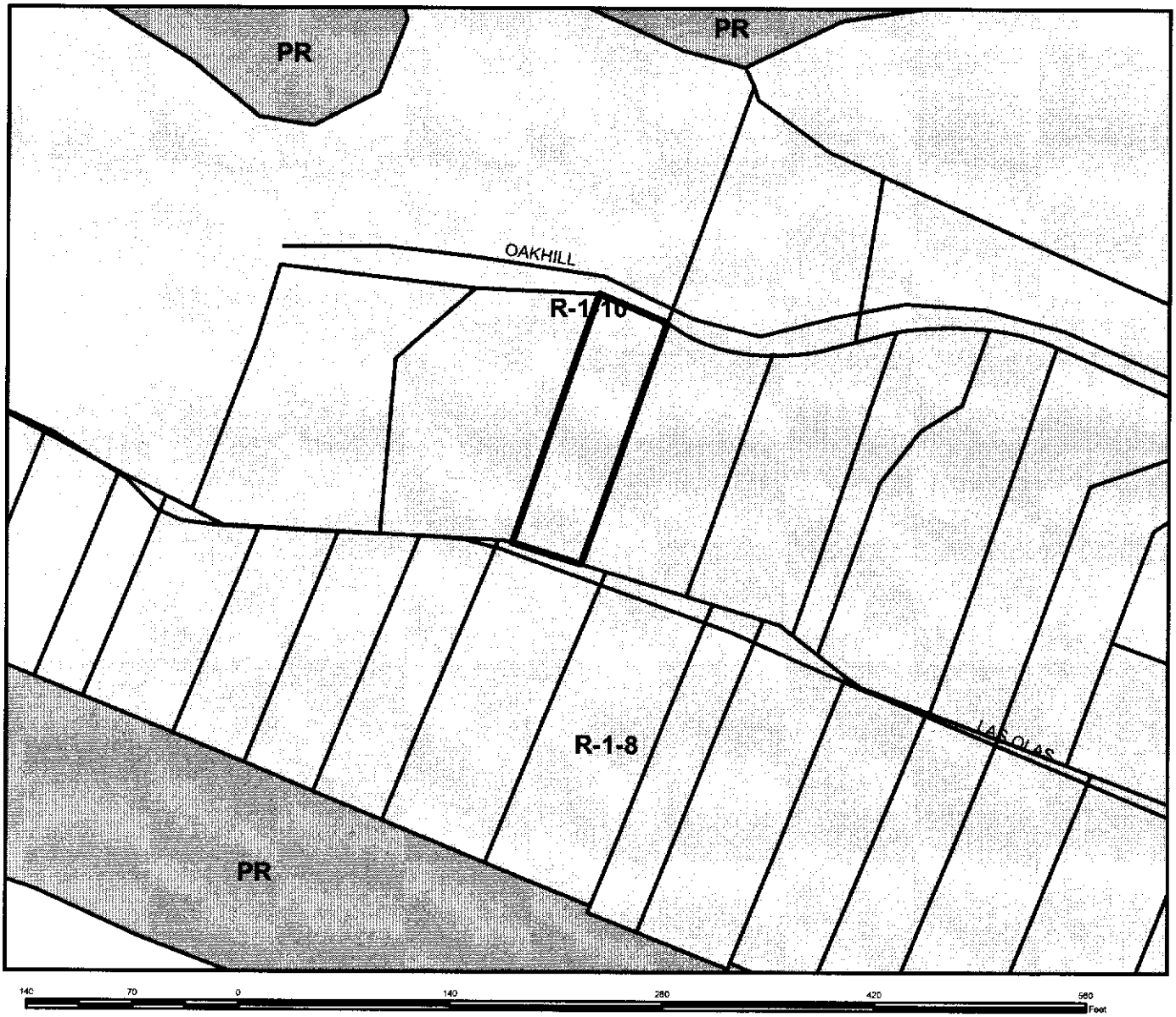
APTOS RANCHO
POR. N.W. 1/4 SEC 13, T.11S., R.1W., M.D.B. & M.
Tax Area Code
69-270 69-273
38-15
SEACLIFF DR.
SEACLIFF PARK SUB. NO. 4
PROMENADE
LAS OLAS
SOQUEL RANCHO
APTOS RANCHO
BORREGAS
GULCH
Utility Ease.
24' R/W
Assessor's Map No. 38-15
County of Santa Cruz, Calif.
Nov., 1997
Note Assessor's Parcel & Block Numbers Shown in Circles.

EXHIBIT E

Zoning Map



LEGEND

- APN: 038-151-89
- Assessors Parcels
- Streets
- County Boundary
- RESIDENTIAL-SINGLE FAMILY
- PARK

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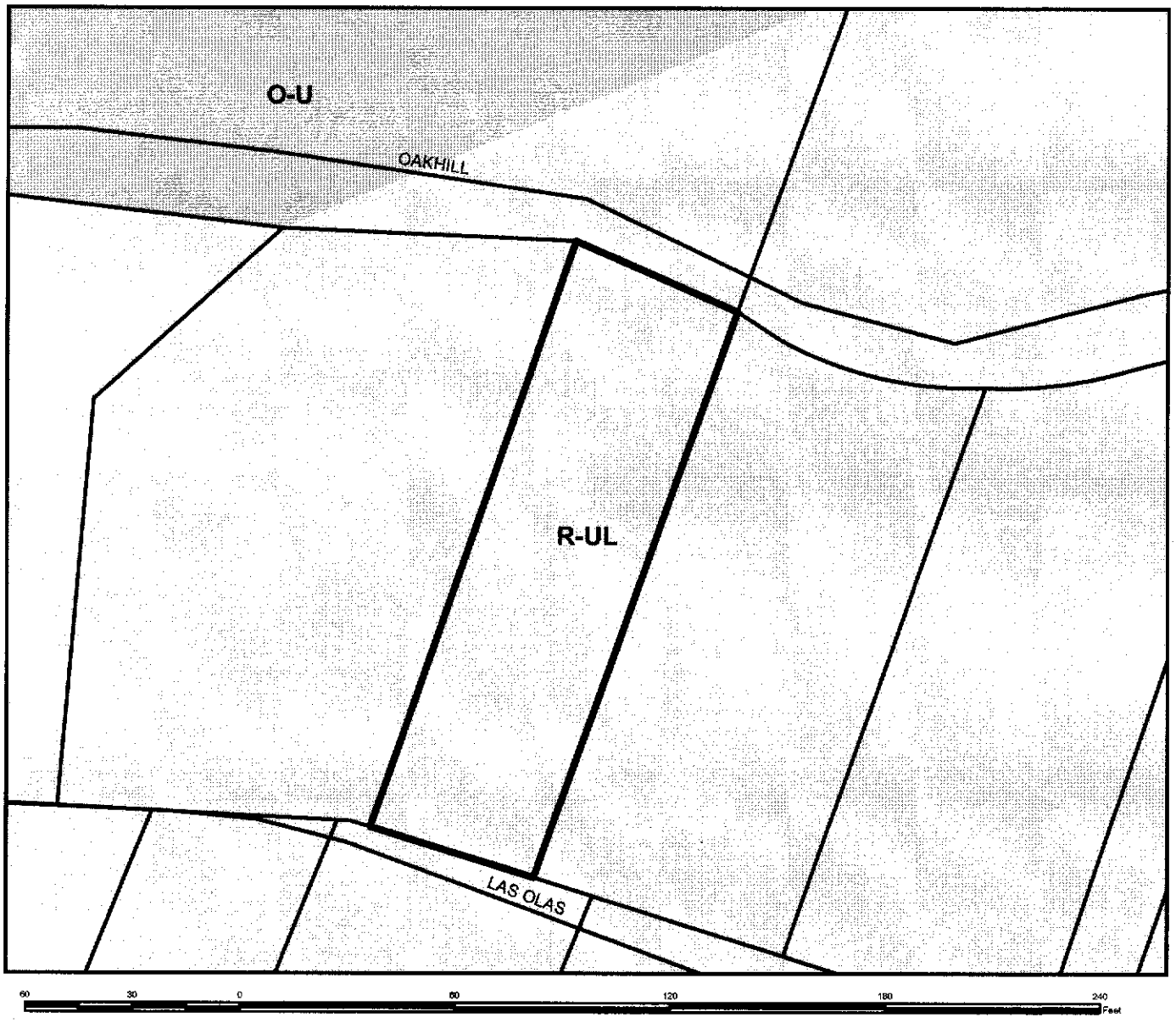
S

Map Created by
County of Santa Cruz
Planning Department
December 2008

EXHIBIT F

General Plan Designation Map



LEGEND

- APN: 038-151-89
- Assessors Parcels
- Streets
- Residential - Urban Low Density
- Urban Open Space

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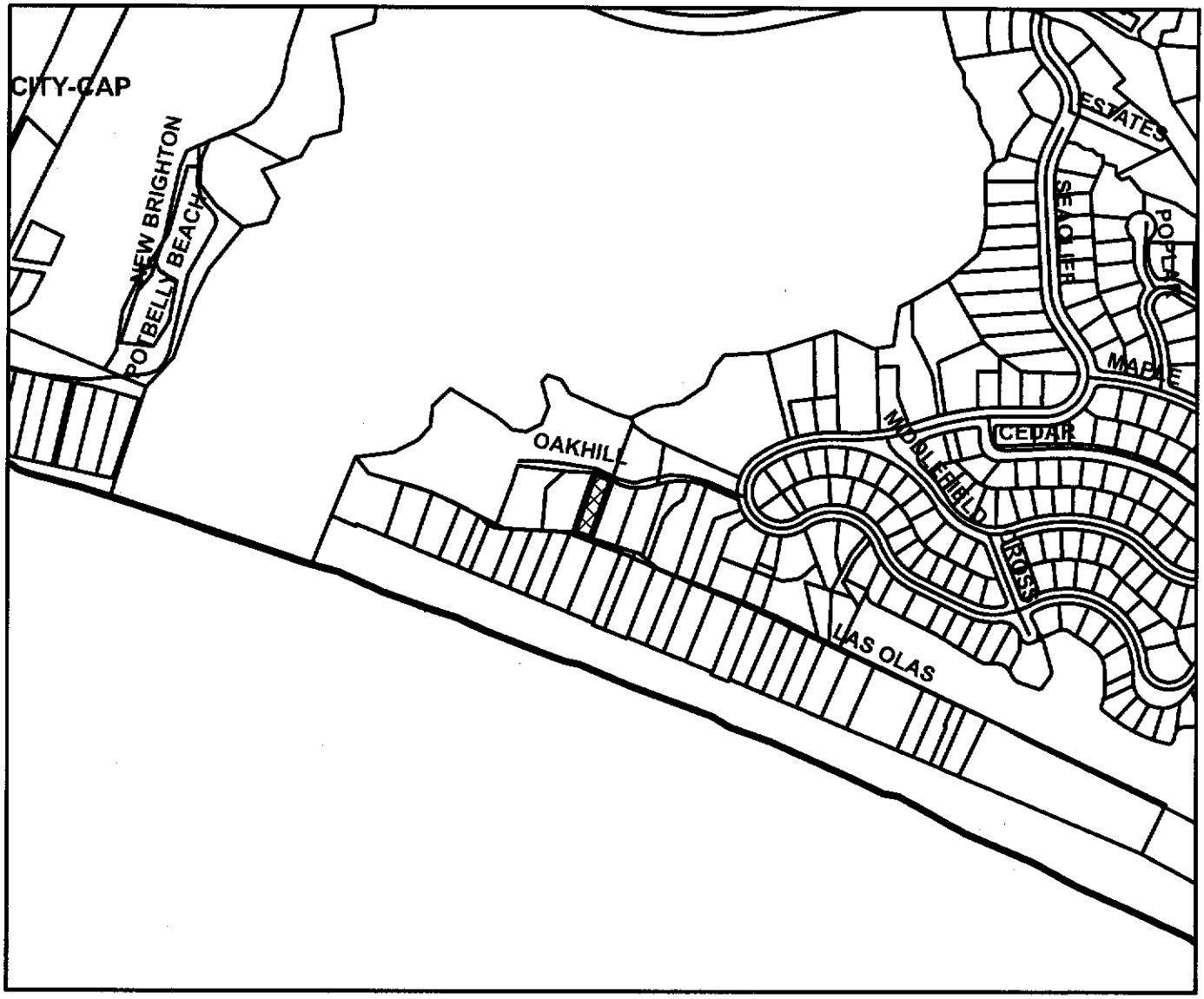
Map Created by
County of Santa Cruz
Planning Department
December 2008

EXHIBIT F

Location Map



600 300 0 600 1,200 1,800 2,400 Feet

LEGEND

- APN: 038-151-89
- Assessors Parcels
- Streets
- CAPITOLA
- County Boundary

N
W E
S

Map Created by
County of Santa Cruz
Planning Department
December 2008

EXHIBIT G

COUNTY OF SANTA CRUZ
DISCRETIONARY APPLICATION COMMENTS

Project Planner: Maria Perez
Application No.: 07-0548
APN: 038-151-89

Date: November 25, 2008
Time: 10:06:00
Page: 1

Environmental Planning Completeness Comments

========= REVIEW ON OCTOBER 5, 2007 BY CAROLYN I BANTI =========
1. Prior to the discretionary application being deemed complete, plan review letters from the geotechnical engineer and engineering geologist shall be submitted to Environmental Planning. The authors of the reports shall writ the letters; the letters shall refer to the final set of reviewed plans by drawing and revision dates and shall state that the project plans conform to the reports' recommendations.

2. The proposed project includes grading within the 100-year setback for the structure. Grading is defined as development in Section 16.10.040(s) and must be set back beyond the 100-year lifetime setback per 16.10.070(ii). Please revise the project plan and scope as necessary.

3. Please include top-of-wall and bottom-of-wall elevations for all retaining walls. These elevations should be shown on the grading plans at the beginning, end, and transition points for the walls. ========= UPDATED ON OCTOBER 15, 2007 BY ANTONELLA GENTILE =========
4. Submit a letter from a certified arborist that evaluates the health of the 48 inch redwood tree and makes recommendations for its protection during construction. The letter should also address any potential effect that the proposed garden walls may have on the tree. ========= UPDATED ON JUNE 16, 2008 BY CAROLYN I BANTI =========

--- Completeness Comments --- Soils and Grading ---

Correspondence dated December 6, 2008 from the County to the applicant requested additional information regarding the removal of the existing retaining wall that may extend beneath the adjacent structure to the east. The revisions remove only a portion of the wall, and propose grading adjacent to the wall. Please submit a letter from a civil engineer that addresses:(a) whether the wall extends under the adjacent structure; if so, submit a foundation study for the adjacent residence that clearly states the extent of structural improvements necessitated by the proposed demolition and grading work (b) if the wall does not extend under the adjacent residence, the letter must confirm this and provide a statement that the alterations to the wall and adjacent grade do not threaten the structural integrity of the wall. ========= UPDATED ON JUNE 19, 2008 BY ANTONELLA GENTILE =========
A plan review letter is required from the arborist prior to this application being deemed complete. The letter must reference the site plan and grading plan by final revision date and state that preservation of the tree is feasible and that the plans conform to the recommendations given in the arborist's report.

Environmental Planning Miscellaneous Comments

========= REVIEW ON OCTOBER 5, 2007 BY CAROLYN I BANTI =========
The following are Compliance Comments in regards to soils and grading issues:

1. All grading must be set back 2' from property lines per code section 16.20.160 (Table C). Please revise plans accordingly.

EXHIBIT H

The following are Misc. Comments/Conditions of Approval in regards to soils and grading issues:

1. Prior to building permit issuance, the applicant shall submit an agreement between the property owner and the road association or other legal entity authorizing the proposed improvements associated with the widening of Oakhill Road.

2. Please include a construction detail of the proposed curbwall on the plans submitted with the building permit application. Note that the wall footings must be deep enough to maintain a distance of 5' between the face of the wall footing and the adjacent slope face per code section 16.20.160.

3. Building permit plans shall note the destination of off-hauled material. Please note that this material may only be delivered to County approved locations.
======== UPDATED ON OCTOBER 15, 2007 BY ANTONELLA GENTILE =========
Although this parcel is mapped as Riparian Woodland, upon site visit no riparian resources were found.Please refund the Riparian Presite fee.

Please note that Significant trees on this parcel remain protected by the Significant Tree Ordinance. ========= UPDATED ON JUNE 16, 2008 BY CAROLYN I BANTI ========

--- Compliance Comments --- Soils and Grading ---

First review comments noted the apparent conflict between the proposed grading within the 100 year geologic setback and our Geologic Hazards Ordinance which prohibits such activity. In response, the applicant has provided plan review letters from the project geotechnical engineer and engineering geologist. The additional technical information has been reviewed, and findings cannot be made for an exception to the provisions of Chapter 16.10 as oulined in County Code Section 16.10.100. Please revise plans to remove the proposed grading within the geologic setback. See correspondence dated December 6, 2007 for additional details regarding allowable activities within this setback. ========= UPDATED ON JUNE 19, 2008 BY ANTONELLA GENTILE =========
Conditions regarding the redwood tree:

1. Arborist's recommendations shall be clearly stated on the plans.

2. Plans shall include contact information for the project arborist.

3. Submit 2 copies of the arborist's report with the building permit application.

4. A new plan review letter will be required from the project arborist once the building plans have been approved by all agencies. Wall foundations, as well as grading, shall be reviewed.

5. A pre-construction meeting shall be held onsite with the applicant, grading contractor, Environmental Planning staff, soils engineer, and arborist. Procedures, the staging area, tree protection measures and haul routes shall be discussed.

6. The arborist shall verify in writing that tree protection measures have been in-

stalled per the report's recommendations prior to permit final.

Dpw Drainage Completeness Comments

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

========= REVIEW ON OCTOBER 5, 2007 BY TRAVIS RIEBER =========
1. Does this site currently receive runoff from adjacent/upslope property? (Specifically from the existing home along the east side of the property) If so, how will the project continue to accept this runoff without causing adverse impacts to the proposed structure or adjacent/downstream neighbors?

2. Please describe the offsite drainage path to a safe point of release. Include details such as specific drainage features, their condition and their capacity. Analysis should be performed by a licensed civil engineer.

3. Collecting runoff from impervious surfaces and directing it to the street is generally inconsistent with county efforts to hold runoff to pre-development rates.

Note: - Projects are required to maintain predevelopment runoff 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 pervious or semi-pervious pavements, runoff surface spreading, discharging roof and driveway runoff into landscaping, etc.

4. How will surface and subsurface runoff intercepted by the proposed retaining walls be controlled and directed to a safe point of release without causing adverse impacts to the proposed structure or adjacent/downstream neighbors. Please provide a cross section construction detail of the proposed retaining walls.

5. Does Oakhill Road currently have a roadside curb? If not, please clarify the need for changing the existing conditions.

Please call the Dept. of Public Works, Storm Water Management Section, from 8:00 am to 12:00 noon if you have questions. ========= UPDATED ON JUNE 3, 2008 BY TRAVIS RIEBER =========
1. More details are needed for the existing culvert. Provide a schematic showing the configuration of the culvert. What is the condition of the inlet and outlet? Is the outlet on private property? Demonstrate how overflow from a 25-year storm event will be conveyed to a reasonable safe point of release.

2. Please revise the tributary drainage area map to clearly show all areas draining toward the existing culvert. Add notes to the map to help clarify how the limits were defined. Show on the map the location of the inlet and outlet of the existing culvert.

3. Provide calculations demonstrating that the proposed roadside drainage swale has adequate capacity to convey a 25-year storm event to a reasonable safe point of release. ========= UPDATED ON SEPTEMBER 9, 2008 BY TRAVIS RIEBER =========
Previous miscellaneous comments have not been addressed completely.

1. More details are needed for the existing culvert. Provide a schematic showing the configuration of the culvert. What is the condition of the inlet and outlet? Is the outlet on private property? Demonstrate how overflow from a 25-year storm event will be conveyed to a reasonable safe point of release. Demonstrate that the overflow from a 25-year storm event will not cause adverse impacts to adjacent or downstream properties.

2. Please revise the tributary drainage area map to clearly show all areas draining toward the existing culvert. Add notes to the map to help clarify how the limits were defined. Show on the map the location of the inlet and outlet of the existing culvert.

3. Submit revised calculations based on the revised tributary drainage area map and the actual dimensions and configuration of the existing culvert from the site visit on 08 August 2008.

4. Provide calculations demonstrating that the proposed roadside drainage swale has adequate capacity to convey a 25-year storm event to a reasonable safe point of release.

5. Please deposit $550.00 to public works to supplement the previously deposited amount to establish an at cost review account.

Note: All re-submittals shall be made through the Planning Department. Materials left with Public Works may be returned by mail, with resulting delays. ========= UPDATED ON OCTOBER 28, 2008 BY TRAVIS RIEBER =========
The drainage calculations dated 10/2/2008, sheet 8a dated 9/29/2008 and sheet 8 dated 3/17/2008 have been received and are approved for the discretionary application stage. See miscellaneous comments for issues to be addressed at the building application stage.

Dpw Drainage Miscellaneous Comments

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

========= REVIEW ON OCTOBER 5, 2007 BY TRAVIS RIEBER =========
1. Are the existing impervious areas on the site permitted? Please provide proof such as assessors records, old building permits, photos or aerial photos.

2. For fee calculations please provide tabulation of existing impervious areas and new impervious areas resulting from the proposed project.

Note: A drainage fee will be assessed on the net increase in impervious area.
========= UPDATED ON JUNE 3, 2008 BY TRAVIS RIEBER =========
For fee calculations please provide tabulation of existing impervious areas and new impervious areas resulting from the proposed project. Make clear on the plans by shading or hatching the limits of both the existing and new impervious areas. To receive credit for the existing impervious surfaces please provide documentation such as assessor-s records, survey records, aerial photos or other official records that will help establish and determine the dates they were built. ========= UPDATED ON SEPTEMBER 9, 2008 BY TRAVIS RIEBER =========

========= UPDATED ON OCTOBER 28, 2008 BY TRAVIS RIEBER =========
See previous miscellaneous comments.

Dpw Driveway/Encroachment Completeness Comments

========= REVIEW ON OCTOBER 29, 2007 BY DEBBIE F LOCATELLI =========
No Comment, project adjacent to a non-County maintained road.

Dpw Driveway/Encroachment Miscellaneous Comments

========= REVIEW ON OCTOBER 29, 2007 BY DEBBIE F LOCATELLI =========
No comment.

Dpw Road Engineering Completeness Comments

========= REVIEW ON OCTOBER 2, 2007 BY ANWARBEG MIRZA =========
NO COMMENT

Dpw Road Engineering Miscellaneous Comments

========= REVIEW ON OCTOBER 2, 2007 BY ANWARBEG MIRZA =========
Please see miscellaneous comments for issues to be addressed prior to building permit issuance.

1. In order to evaluate access to the single-family dwelling, show how property obtains access road to the county road system and provide details of intersection of the Oak hill Rd. to County Road in plan view.

2. The driveway/access must meet County of Santa Cruz standards in the Design Criteria. Please refer the correct figure and show in plan view.

Dpw Sanitation Completeness Comments

========= REVIEW ON OCTOBER 4, 2007 BY CARMEN M LOCATELLI =========
Sewer service is currently available.

Dpw Sanitation Miscellaneous Comments

========= REVIEW ON OCTOBER 4, 2007 BY CARMEN M LOCATELLI =========
Proposed location of on-site sewer lateral(s), clean-out(s), and connection(s) to existing public sewer must be shown on the plot plan of the building permit application
Show all existing and proposed plumbing fixtures on floor plans of building application.

Aptos-La Selva Beach Fire Prot Dist Completeness C

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

========== REVIEW ON OCTOBER 9, 2007 BY ERIN K STOW ==========
DEPARTMENT NAME:Aptos/La Selva Fire Dept. APPROVED

Aptos-La Selva Beach Fire Prot Dist Miscellaneous

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

========== REVIEW ON OCTOBER 9, 2007 BY ERIN K STOW ==========
NO COMMENT

EXHIBIT H

COUNTY OF SANTA CRUZ | Planning Department

INTEROFFICE MEMO

APPLICATION NO: 07-0548 (third routing)

Date: September 10, 2008

To: Porcila Perez, Project Planner

From: Larry Kasparowitz, Urban Designer

Re: Review of new residence at Oak Hill Road, Aptos

Completeness Comments

- ***The roof height exhibit must be signed by and licensed Architect, Civil Engineer, or Surveyor.***

Design Review Authority

13.20.130 The Coastal Zone Design Criteria are applicable to any development requiring a Coastal Zone Approval.

Design Review Standards

13.20.130 Design criteria for coastal zone developments

Evaluation Criteria	Meets criteria In code (✔)	Does not meet criteria (✔)	Urban Designer's Evaluation
Visual Compatibility			
All new development shall be sited, designed and landscaped to be visually compatible and integrated with the character of surrounding neighborhoods or areas		✔	***The majority of the surrounding houses are wood – either horizontal or vertical.***
Minimum Site Disturbance			
Grading, earth moving, and removal of major vegetation shall be minimized.		✔	
Developers shall be encouraged to maintain all mature trees over 6 inches in diameter except where circumstances require their removal, such as obstruction of the building site, dead or diseased trees, or nuisance species.	✔		
Special landscape features (rock outcroppings, prominent natural landforms, tree groupings) shall be retained.		✔	***The bluff should remain in it's natural state.***

EXHIBIT I

Ridgeline Development			
Structures located near ridges shall be sited and designed not to project above the ridgeline or tree canopy at the ridgeline			**N/A**
Land divisions which would create parcels whose only building site would be exposed on a ridgetop shall not be permitted			**N/A**
Landscaping			
New or replacement vegetation shall be compatible with surrounding vegetation and shall be suitable to the climate, soil, and ecological characteristics of the area			**N/A**

Rural Scenic Resources			
Location of development			
Development shall be located, if possible, on parts of the site not visible or least visible from the public view.			**N/A**
Development shall not block views of the shoreline from scenic road turnouts, rest stops or vista points			**N/A**
Site Planning			
Development shall be sited and designed to fit the physical setting carefully so that its presence is subordinate to the natural character of the site, maintaining the natural features (streams, major drainage, mature trees, dominant vegetative communities)			**N/A**
Screening and landscaping suitable to the site shall be used to soften the visual impact of development in the viewshed			**N/A**
Building design			
Structures shall be designed to fit the topography of the site with minimal cutting, grading, or filling for construction			**N/A**
Pitched, rather than flat roofs, which are surfaced with non-reflective materials except for solar energy devices shall be encouraged			**N/A**
Natural materials and colors which blend with the vegetative cover of the site shall be used, or if the structure is located in an existing cluster of buildings, colors and materials shall repeat or harmonize with those in the cluster			**N/A**
Large agricultural structures			

The visual impact of large agricultural structures shall be minimized by locating the structure within or near an existing group of buildings			**N/A**
The visual impact of large agricultural structures shall be minimized by using materials and colors which blend with the building cluster or the natural vegetative cover of the site (except for greenhouses).			**N/A**
The visual impact of large agricultural structures shall be minimized by using landscaping to screen or soften the appearance of the structure			**N/A**
Restoration			
Feasible elimination or mitigation of unsightly, visually disruptive or degrading elements such as junk heaps, unnatural obstructions, grading scars, or structures incompatible with the area shall be included in site development			**N/A**
The requirement for restoration of visually blighted areas shall be in scale with the size of the proposed project			**N/A**
Signs			
Materials, scale, location and orientation of signs shall harmonize with surrounding elements			**N/A**
Directly lighted, brightly colored, rotating, reflective, blinking, flashing or moving signs are prohibited			**N/A**
Illumination of signs shall be permitted only for state and county directional and informational signs, except in designated commercial and visitor serving zone districts			**N/A**
In the Highway 1 viewshed, except within the Davenport commercial area, only CALTRANS standard signs and public parks, or parking lot identification signs, shall be permitted to be visible from the highway. These signs shall be of natural unobtrusive materials and colors			**N/A**

Beach Viewsheds			
Blufftop development and landscaping (e.g., decks, patios, structures, trees, shrubs, etc.) in rural areas shall be set back from the bluff edge a sufficient distance to be out of sight from the shoreline, or if infeasible, not visually intrusive			**N/A**
No new permanent structures on open beaches shall be allowed, except			**N/A**

EXHIBIT I

where permitted pursuant to Chapter 16.10 (Geologic Hazards) or Chapter 16.20 (Grading Regulations)			
The design of permitted structures shall minimize visual intrusion, and shall incorporate materials and finishes which harmonize with the character of the area. Natural materials are preferred			**N/A**

Design Review Authority

13.11.040 Projects requiring design review.

(a) Single home construction, and associated additions involving 500 square feet or more, within coastal special communities and sensitive sites as defined in this Chapter.

13.11.030 Definitions

(u) 'Sensitive Site" shall mean any property located adjacent to a scenic road or within the viewshed of a scenic road as recognized in the General Plan; or ***located on a coastal bluff***, or on a ridgeline.

Design Review Standards

13.11.072 Site design.

Evaluation Criteria	Meets criteria In code (✔)	Does not meet criteria (✔)	Urban Designer's Evaluation
Compatible Site Design			
Location and type of access to the site	✔		
Building siting in terms of its location and orientation	✔		
Building bulk, massing and scale		✔	***The applicant should draw the outline of the neighboring structures to scale on the front elevation.***
Parking location and layout	✔		
Relationship to natural site features and environmental influences	✔		
Landscaping	✔		
Streetscape relationship			**N/A**
Street design and transit facilities			**N/A**
Relationship to existing structures	✔		
Natural Site Amenities and Features			
Relate to surrounding topography	✔		
Retention of natural amenities	✔		
Siting and orientation which takes advantage of natural amenities	✔		

Ridgeline protection			N/A
Views			
Protection of public viewshed	✔		
Minimize impact on private views	✔		
Safe and Functional Circulation			
Accessible to the disabled, pedestrians, bicycles and vehicles			N/A
Solar Design and Access			
Reasonable protection for adjacent properties	✔		
Reasonable protection for currently occupied buildings using a solar energy system	✔		
Noise			
Reasonable protection for adjacent properties	✔		

13.11.073 Building design.

Evaluation Criteria	Meets criteria In code (✔)	Does not meet criteria (✔)	Urban Designer's Evaluation
Compatible Building Design			
Massing of building form		✔	
Building silhouette		✔	
Spacing between buildings			N/A
Street face setbacks	✔		
Character of architecture		✔	
Building scale	✔		
Proportion and composition of projections and recesses, doors and windows, and other features		✔	
Location and treatment of entryways	✔		
Finish material, texture and color	✔		
Scale			
Scale is addressed on appropriate levels	✔		
Design elements create a sense of human scale and pedestrian interest	✔		
Building Articulation			
Variation in wall plane, roof line, detailing, materials and siting	✔		
Solar Design			
Building design provides solar access that is reasonably protected for adjacent properties	✔		

EXHIBIT 1

Building walls and major window areas are oriented for passive solar and natural lighting	✔		

Urban Designers Comments

- *The combination of roof forms adds to the appearance of bulk. The designer should seek to simplify the roof forms.*
- *The garage must be determined to see if it meets the test of a basement or there may possibly be a third story.*
- *Before the hearing, story poles should be provided.*
- *Glazing shall not be tinted or have films. Low-E clear glazing shall be used to reduce reflectance.*

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

December 20, 2005

Emily and Tom Oswalt, Trustees
P.O. Box 310
Aptos, CA 95001

Subject: Review of **Engineering Geology Report**, by Rogers E. Johnson dated October 24, 2005, Project # C05041-56 and **Geotechnical Engineering** Report by Haro, Kasunich and Assoicates, Inc. Dated November 2005, Project #: SC8970
APN 038-151-89, Application #: 05-0753

Dear Emily and Tom Oswalt,

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 a *plan review letters* shall be submitted to Environmental Planning. The authors of the reports shall write the *plan review letters*. These letters shall state that the project plans conform to the reports' recommendations.

4. The Engineering Geologist must identify the location of the Coastal Bluff on their geologic map, and a copy of that map must be submitted with any future permit application. All further submittal to the County must include a site plan that has a representation of the site relief, the geologic acceptable development envelope, and the Coastal Bluff. A civil engineer must prepare this site plan and any grading plans.

5. The attached declaration of geologic hazards must be recorded before the issuance of the building permit issuance.

After building permit issuance the soils engineer *must remain involved with the project* during construction. Please review the *Notice to Permits Holders* (attached). In addition, the engineering geologist will need to approve in writing the location of the buildings footings and provide a

(over)

EXHIBIT J

final letter at the end of the project that indicates that all of the work complies with the recommendations to the report.

Our acceptance of the reports 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, or e-mail joe.hanna@co.santa-cruz.ca.us if we can be of any further assistance.

Sincerely,

Joseph L. Hanna, CEG 1313
County Geologist

Cc: Robert Loveland, Environmental Planning
Haro, Kasunich and Assoicates, Inc, attention Rick Parks PE
Rogers E. Johnson and Associates

coefficient (k) of 0.54. This is based on a predicted PGA of 0.64g (mean plus one standard deviation), a total bluff height of 99 feet and an estimated slide height of 37 feet, occurring within the marine terrace deposits and Aromas Sand.

Current Santa Cruz County standards require that the pseudostatic slope stability analysis show the site stable beyond a 1.2 factor of safety. Given this standard, a minimum seismic coefficient (k) of 0.15 should be used as suggested within Special Publication 117 (California Division of Mines and Geology, 1997).

Aseismic Slope Stability

The sea cliff is also subject to slope failure under aseismic conditions. Not all of the materials that are loosened by earthquakes fail as landslides; some remains on the bluff. This "earthquake weakening" together with weathering of the bluff can produce loose debris on the slope. Subsequent storms can mobilize this loose debris. Although generally smaller than seismically generated failures, storm generated landslides are an order of magnitude more common (a ten year cycle versus a hundred year cycle).

Our review of time sequential aerial photographs revealed numerous failures of the subject coastal bluff. Subsequent to construction of the seawall, these failures were primarily the result of over saturation of loose debris mantling the slope. Individual failures tended to be localized either within the upper bluff composed of the marine terrace deposits and the Aromas Sand or within the lower bluff composed of the Purisima Formation sandstone. A significant portion of the failures were relatively large, covering the entire width of the property.

During a site visit on August 10, 2005, we observed a relatively large, aseismic, joint controlled, block failure of the bluff at the subject property. The failure was restricted to the upper approximately 30 feet of the Purisima Formation sandstone and incorporated approximately 150 cubic yards of material. It spanned about a 30 foot width of bluff-face and was up to a maximum of 6 feet thick (measured perpendicular to the bluff-face).

CONCLUSIONS and RECOMMENDATIONS

1. The coastal bluff at the subject property is protected from surf erosion and as a consequence the rate of retreat of the toe of the bluff is very slow. However, the top of the bluff at the subject property will continue to retreat until the alluvial deposits reach their natural angle of repose, forming a stable slope. The ultimate configuration of the bluff top in 100 years is difficult to predict with accuracy. However, given our observations of the materials that underlie the bluff at the subject property we can establish a reasonable estimate. The Purisima Formation sandstone forming the base of the bluff may continue to fail in joint bounded blocks. Therefore we have estimated an additional 20 feet of additional block failure (measured perpendicular to the bluff-face, see Plate 2). The upper bluff deposits, which include the Aromas Sand and marine terrace deposits, will continue

EXHIBIT K

to erode and fail until the angle of their slope is about 33 degrees (1.5:1 slope gradient). The projection of the 1.5:1 slope to the terrace surface from the contact in the cliff face of the upper bluff deposits with the underlying Purisima Formation sandstone defines the 100 year bluff top. This estimate assumes no significant shifts in climactic conditions causing an increased rate of erosion. All future construction on the bluff top should be located behind this 100 year geologic setback line (Plate 1).

2. The site is located in an area of high seismic activity and will be subject to strong seismic shaking in the future. Modified Mercalli Intensities of up to VIII are possible. The controlling seismogenic source for the subject property is the San Andreas fault, 12 kilometers to the northeast. The design earthquake on this fault should be M_w 7.9. Expected duration of strong shaking for this event is about 31 seconds. Deterministic analysis for the site yields a mean peak ground acceleration plus one dispersion of 0.64g.

3. If the project geotechnical engineer performs pseudostatic slope stability analysis of the coastal bluff backing the subject residence, they should utilize our geologic cross sections. Current practice suggests that a site-specific seismic coefficient (k) be used in the analysis when considering a factor of safety of greater than 1.0. Ashford and Sitar (2002) recommend a method for calculating a site-specific pseudostatic seismic coefficient (k) specifically for a coastal bluff top setting. Following their guidelines yields a coefficient (k) of 0.54. Current Santa Cruz County standards require that the pseudostatic slope stability analysis show the site stable beyond a 1.2 factor of safety. Given this standard, a minimum seismic coefficient (k) of 0.15 should be used as suggested within Special Publication 117 (California Division of Mines and Geology, 1997).

4. Drainage from improved surfaces, such as walkways, patios, roofs and driveways, at the top of the bluff should be collected in impermeable gutters or pipes and either carried to the base of the bluff via closed conduit or discharged into an established storm drain system that does not issue onto the bluff. At no time should any concentrated discharge be allowed to spill directly onto the ground adjacent to the existing residence. Any drain water on paved areas should not be allowed to flow toward the residence or toward the bluff top. The control of runoff is essential for control of erosion and prevention of ponding.

5. We request the privilege of reviewing all geotechnical engineering, civil engineering, drainage, and architectural reports and plans pertaining to the proposed development.

INVESTIGATION LIMITATIONS

1. The conclusions and recommendations contained herein are based on probability and in no way imply that the proposed development will not possibly be subjected to ground failure, seismic shaking or landsliding of such a magnitude that it overwhelms the site.

DISCUSSIONS, CONCLUSIONS AND RECOMMENDATIONS

Based on the results of our investigation, the proposed project appears compatible with the site, provided the following recommendations are incorporated into the design and construction of the proposed project.

One of the primary purposes of our investigation was to work with the project engineering geologists, Rogers Johnson & Associates, to estimate the configuration of the coastal blufftop in 100 years in order to determine a blufftop setback line allowing for a project building envelope design life of at least 100 years.

The slope stability model used to determine the blufftop setback included 20 feet of recession of the blufftoe/bluff face preceding a design seismic failure of the blufftop. We have included a copy of the Geologic Map dated 5 October 2005 with this report showing the "100 Year Geologic Setback Line" and the "Geologically Stable Building Envelope". The delineated building envelope is about 32 feet landward of the existing blufftop.

The referenced parcel is one of about sixteen bluff parcels including Seacliff Beach State Park, which are situated above Las Olas Drive. Historically, bluff face failures or rockfall events have impacted the blufftoe and the adjacent Las Olas Drive. Rockfall

EXHIBIT L

mitigation recommendations for the referenced parcel are beyond the scope of this report. We recommend future owners of the parcel consult with a geotechnical engineer or engineering geologist experienced in rockfall mitigation regarding such measures.

The proposed residence may be founded upon a drilled pier and grade beam foundation system.

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

Site Grading

1. The geotechnical 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 geotechnical engineer will perform the required testing and observation during grading and construction. It is the owner's responsibility to make the necessary arrangements for these required services.

2. Where referenced in this report, Percent Relative Compaction and Optimum Moisture Content shall be based on ASTM Test Designation D1557 current.

3. Areas to be graded should be cleared of all obstructions including loose fill, building foundations, trees not designated to remain, or other unsuitable material. Existing depressions or voids created during site clearing should be backfilled with engineered fill.

4. Cleared areas should then be stripped of organic-laden topsoil. Stripping depth should be from 2 to 4 inches. Actual depth of stripping should be determined in the field by the geotechnical engineer. Strippings should be wasted off-site or stockpiled for use in landscaped areas if desired.

5. Areas to receive engineered fill should 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 suitable moisture content for compaction. These areas may then be brought to design grade with engineered fill.

6. Engineered fill should be placed in thin lifts not exceeding 8 inches in loose thickness, moisture conditioned, and compacted to at least 90 percent relative

compaction. The upper 12 inches of pavement and slab 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.

7. If grading is performed during or shortly after the rainy season, the grading contractor may encounter compaction difficulty, such as pumping or bringing free water to the surface, in the upper surface clayey and silty sands. If compaction cannot be achieved after adjusting the soil moisture content, it may be necessary to over-excavate the subgrade soil and replace it with angular crushed rock to stabilize the subgrade. We estimate that the depth of over-excavation would be approximately 24 inches under these adverse conditions.

8. Fills should be keyed and benched into firm soil in areas where existing slope gradients exceed 6:1 (horizontal to vertical). Subdrains will be required in areas where keyways or benches expose potential seepage zones.

9. The on-site soils generally appear suitable for use as engineered fill. Materials used for engineered fill should be free of organic material, and contain no rocks or clods greater than 6 inches in diameter, with no more than 15 percent larger than 4 inches.

EXHIBIT L

10. We estimate shrinkage factors of about 15 percent for the on-site materials when used in engineered fills.

11. All permanent cut and fill slopes should be inclined no steeper than 2:1 (horizontal to vertical).

12. Following grading, all exposed slopes should be planted as soon as possible with erosion-resistant vegetation.

13. After the earthwork operations have been completed and the geotechnical 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 geotechnical engineer.

Foundations

14, The proposed residence may be supported on a drilled pier and grade beam foundation system. The foundation perimeter should be setback from the blufftop in conformance with the building envelope delineated on the project Geologic Map, Figure 2 in the Appendix of this report.

Drilled Piers

15. We recommend a drilled pier and grade beam foundation to support the proposed residence.

16. Drilled piers should be at least 18 inches in diameter and be embedded at least 10 feet below existing grades.

17. Piers constructed in accordance with the above may be designed for an allowable end bearing of 4 ksf.

18. For passive lateral resistance, an equivalent fluid pressure of 250 psf may be assumed to act against two pier diameters. The upper 3 feet of soil should be neglected when computing passive resistance.

19. Prior to placing concrete, all foundation excavations should be thoroughly cleaned. The foundation excavations must be observed by the geotechnical engineer or his representative prior to placing concrete.

Retaining Walls and Lateral Pressures

20. Retaining walls should be designed to resist lateral earth pressures, a seismic surcharge and any additional surcharge loads. Walls up to 12 feet high should be

designed to resist an active equivalent fluid pressure of 35 pcf for level backfills, and 50 pcf for sloping backfills inclined up to 2:1 (horizontal to vertical). Restrained walls should be designed to resist uniformly applied wall pressure of 23H psf per linear foot of wall for level backfills. A seismic surcharge within the retaining wall active pressure zone of 18H psf per linear foot of wall should also be used. The seismic surcharge should be applied at 0.6H above the base of the active zone.

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

Slabs-on-Grade

22. We recommend that proposed slabs-on-grade be supported on at least 12 inches of non-expansive engineered fill compacted to at least 95 percent relative compaction. Prior to construction of the slab, the subgrade surface should be proof-

EXHIBIT L

rolled to provide a smooth, firm, uniform surface for slab support. The project design professionals should determine the appropriate slab reinforcing and thickness, in accordance with the anticipated use and loading of the slab. However, we recommend that consideration be given to a minimum slab thickness of 5 inches and steel reinforcement necessary to address temperature and shrinkage considerations. At is recommended that rebar in lieu of wire mesh be used for slab reinforcement. The steel reinforcement should be held firmly in the vertical center of the slab during placement and finishing of the concrete with pre-cast concrete dobies.

23. In areas where floor wetness would be undesirable, a blanket of at least inches of free-draining gravel should be placed beneath the floor slab to act as a capillary break. Capillary break material should be free-draining, clean, angular gravel such as ¾-inch drainrock. The gravel should be washed to remove fines and dust prior to placement on the slab subgrade. The vapor retarder should be a high quality membrane at least 10 mil thick and puncture resistant. An acceptable product for use as a vapor retarder is the Stego Wrap 10-mil Class A vapor retarder system manufactured by Stego Industries, LLC. Provided the Stego Wrap system is installed per manufacturers recommendations, the concrete may be poured directly upon the Stego Wrap Vapor Retarder. The primary considerations for installing the vapor retarder are: taping all seams; sealing all penetrations such as pipe, ducting, wire, etc; and repairing all punctures.

24. It should be clearly understood slabs are not waterproof, nor are they vapor-proof. The aforementioned moisture retardant system will help to minimize water and water vapor transmission through the slab; however moisture sensitive floor coverings require additional protective measures. Floor coverings must be installed according to the manufacturer's specifications, including appropriate waterproofing applications and/or any recommended slab and/or subgrade preparation. Consideration should also be given to recommending a topical waterproofing application over the slab.

25. Exterior concrete slabs-on-grade should be founded on firm, well-compacted ground. 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.

Flexible Pavements

26. Asphaltic concrete, aggregate base and subbase, and preparation of the subgrade should conform to and be placed in accordance with the Caltrans Standard Specifications, latest edition, except that the test method for compaction should be determined by ASTM D1557-Current.

27. To have the selected sections perform to their greatest efficiency, it is important that the following items be considered:

A. Moisture condition the subgrade and compact to a minimum relative compaction of at least 95 percent, at about 2 percent over optimum moisture content.

B. Provide sufficient gradient to prevent ponding of water.

C. Use only quality materials of the type and thickness (minimum) specified. Base rock should meet Caltrans Standard Specifications for Class II Aggregate Base, and be angular in shape.

D. Compact the base rock to a relative dry density of 95 percent.

E. Place the asphaltic concrete during periods of fair weather when the free air temperature is within prescribed limits per Caltrans specifications.

F. Provide a routine maintenance program.

Site Drainage

28. Thorough control of runoff is essential to the performance of the project.

29. Runoff must not be allowed to sheet flow over graded slopes. Berms or lined V-ditches should be constructed at the top of slopes to divert water toward suitable collection facilities.

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30. Permanent subdrains may be required adjacent to pavements or building foundations where groundwater levels are near the surface. The location and depth of these drains will need to be determined in the field by the geotechnical engineer.

31. Surface drainage should include provisions for positive gradients so that surface runoff is not permitted to pond adjacent to foundations and pavements. Surface drainage should be directed away from the building foundations.

32. Full roof gutters should be placed around all eaves. Discharge from the roof gutters should be conveyed away from the downspouts by closed conduit to either: an approved energy dissipater; on site detention; or street drainage as determined by the project civil engineer.

33. 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

34. Our firm should be provided the opportunity for a general review of the final project plans 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 require our review of final plans and specifications prior to construction and upon 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.

ROGERS E. JOHNSON & ASSOCIATES
CONSULTING ENGINEERING GEOLOGISTS
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Watsonville, California 95076-2458
e-mail: rogersjohnson@sbcglobal.net
Ofc (831) 728-7200 • Fax (831) 728-7218

20 October 2008

Brian Arthur
382 Belle Monte Avenue
Aptos, California 95003

Job No. C07027-56

Subject: Request for Exception
Oak Hill Road, Aptos, California
Santa Cruz County APN 038-151-89
Application # 07-0548

Dear Mr. Arthur:

As described in our geologic investigation for the subject site (Johnson, 2005), the property is situated atop a very steep, 100 foot high coastal bluff overlooking Las Olas Drive, Monterey Bay and a row of beachfront houses. The "100 year geologic setback line" designated by our firm lies 33 feet landward of the top of the bluff and our geologically suitable building envelope begins landward of the geologic setback line. This creates a zone between the top of the bluff and the building envelope in which the bluff is expected to fail during the economic lifetime of the development. Within this zone is an existing iron rail fence, brick retaining wall and loose surface soil. The eventual failure of the bluff creates a geologic hazard to persons, structures and property at its base and can impede the right-of-way on Las Olas Drive. Structures such as the brick wall and iron fence and loose soil within this zone increase the hazard.

The Santa Cruz County Planning Department (2007) cited "Issues of Consistency with County Regulations and Policies" with the development plans for this project with respect to site grading; specifically, grading within the "100 year setback" (County Code section 16.10.070(h)(1)(ii) and development within the "100 year setback" (County Code section 16.10.040(s). The purpose of this letter is to request an exception, as outlined in Section 16.10.100 of the Santa Cruz County Code which, if granted, will allow for the proposed mitigations within the 100 year geologic setback zone to be performed.

The construction plans (Tracy Robert Johnson, 2008) for the proposed residence include removing the existing fence and a portion of the brick retaining wall and regrading the surface soils within the 100 year setback zone. This will help improve site drainage and improve the stability of the bluff. These proposed actions will help mitigate the geologic hazard at the base of the bluff.

Bluff failure is already a significant geologic hazard in this area, particularly at the base of the bluff. The surface soil on the blufftop at the subject site is extensively burrowed, creating a conduit for rainwater or runoff to infiltrate the underlying loose, unconsolidated earth materials, which in turn decreases the stability of the bluff. As shown on the plans, creating an impermeable

EXHIBIT

barrier on the ground surface within the 100 year setback zone will significantly reduce infiltration and eliminate burrowing.

Removal of the fence, wall and surface soil will also reduce the hazard at the base of the bluff by lessening the driving force (mass) that contributes to blufftop failures.

Left unmitigated, the iron fence, brick wall and loose soil existing at the blufftop within the 100 year setback zone will ultimately fail, which poses a hazard to persons, structures and property at the base of the bluff. In our opinion, the hazards posed by the iron fence, brick wall and loose soil can be easily mitigated by their careful removal.

Please call if you have questions.

Sincerely,

ROGERS E. JOHNSON AND ASSOCIATES

Gregory Easton
Project Geologist
C.E.G. No. 2502

PROFESSIONAL GEOLOGIST
GREGORY EASTON
No. 2502
CERTIFIED ENGINEERING GEOLOGIST
STATE OF CALIFORNIA

Rogers E. Johnson
Principal Geologist
C.E.G. No. 1016

CERTIFIED ENGINEERING GEOLOGIST
ROGERS E. JOHNSON
No. 1016
Exp. 7/09
STATE OF CALIFORNIA

GFE/REJ/gfe

References:

Rogers E. Johnson and Associates, 2005, Geologic Investigation, Oswalt Property, Oak Hill Road, Aptos, California, Santa Cruz County APN 038-151-89, 24 October, 2005, unpublished consultants report, Job No. C05041-56.

Santa Cruz County Planning Department, 2007, Incomplete Application - Additional Information Required, Application #: 07-0548; Assessor's Parcel #: 038-151-89, Owner: Brian Arthur, 15 October 2007, 4p.

Tracy Robert Johnson, 2008, Grading Plan (sheet 6), Erosion Control and Stormwater Management Plan (sheet 8), and Sections & Details (sheet 11) for Brian Arthur, 17 March 2008, Job No. 0704RN, 11 Sheets.

Copies:

Addressee (1)
Tracy Johnson (4)
Haro, Kasunich and Associates, Inc., Attn: Rick Parks (1)

HARO, KASUNICH AND ASSOCIATES, INC.

CONSULTING GEOTECHNICAL & COASTAL ENGINEERS

Project No. SC9551
22 October 2008

MR. BRIAN ARTHUR
382 Belle Monti Avenue
Aptos, California 95003

Subject: Geotechnical Recommendation for Approval of Exception to County Code Sections 16.10.070(h)(1)(ii) and 16.10.040(s)

Reference: Blufftop Grading Within a Geologic Hazards Setback Area
Adjacent to Proposed Arthur Residence Building Envelope
APN 038-151-89
Oak Hill Road
Santa Cruz County, California

Dear Mr. Arthur:

A new residence is proposed to be constructed at the referenced coastal blufftop parcel adjacent Oak Hill Road in Santa Cruz County, California. Our Geotechnical Investigation for the proposed project is dated 25 November 2005. An engineering geology report for the project was prepared Rogers E. Johnson & Associates. The engineering geology report delineates a 100 year erosion setback line for the project site blufftop building envelope. The new residence must be placed landward of the 100 year erosion setback line.

A Grading Plan was developed for the proposed residence by the project civil engineer, Mr. Mike Van Horn, CE. The Grading Plan and Cross Section show the blufftop at the center of the parcel being cut down from about elevation 117 to elevation 114 feet. The blufftop will be cut to drain toward the center of the parcel with a shallow swale conveying the collected blufftop runoff landward. The 2005 Geologic and Geotechnical Investigations prepared for the development of the referenced parcel noted the bluff face will destabilize over time due to natural processes whether or not the new residence is constructed. Las Olas Drive is situated immediately adjacent the toe of the bluff with a beachfront residential development at the seaward perimeter of Las Olas Drive. Las Olas Drive has been historically impacted with landslide debris from the oversteepened bluff.

Our letter titled Geotechnical Review of Grading, Erosion Control, and Storm Water Management Plan with Supplemental Geotechnical Analyses, dated 30 April 2008 outlines our engineering opinion that removal of the top 3 feet of the blufftop will reduce the volume of soil that has the potential to impact Las Olas

EXHIBIT N

116 EAST LAKE AVENUE • WATSONVILLE, CALIFORNIA 95076 • (831) 722-4175 • FAX (831) 722-3202

Drive below as well as provide a positive increase to the slope stability of the bluff face by reducing the driving forces within the potential blufftop failure wedge

It is our understanding current Santa Cruz County regulations do not allow grading or development within a geologic hazards setback area. Pursuant to Santa Cruz County Code Chapter 16.10.100, we recommend an exception be granted to County Code Sections 16.10.070(h)(1)(ii) and 16.10.040(s) in order to allow the cutting of the blufftop in order to reduce the existing threat to public safety.

If you have any questions regarding this letter, please call our office.

Sincerely,

HARO, KASUNICH AND ASSOCIATES, INC.

Rick L. Parks
GE 2603

RLP/dk

Copies: 1 to Addressee
1 to Roger E. Johnson & Associates
Attention: Greg Easton, C.E.G.
3 to Tracy Robert Johnson – Residential Design and Planning
Attention: Tracy Johnson

COUNTY OF SANTA CRUZ | Planning Department

MEMORANDUM

Date: November 27, 2008

To: Porcila Perez, Development Review Planner

From: Joe Hanna, County Geologist CEG 1313

Re: Proposed Exception to the Geologic Hazards Code
APN 038-151-89, Application Number 07-0548

Rogers E. Johnson and Associates in their letter dated October 20, 2008 and Haro, Kasunich, and Associates in their letter dated October 22, 2008 state that the eventual failure of the bluff creates a geologic hazard to persons, structures and property below the proposed Arthur Home on Oak Hill Road. To resolve this hazard, the letters recommend an exception to the Geologic Hazards Code Section *16.10.070 Permit conditions (h)* to allow grading within the 25-foot and 100 year setbacks to remove 3 to 5 feet of the permeable soils that contribute potential infiltration of surface water. All of this work is shown on a plan prepared by the project Civil Engineer Mike Van Horn.

Previously, Rogers E. Johnson and Associates stated in their report dated October 24, 2005 that a home could be built on the property if the home was setback approximately 33 feet from the crest of the bluff. The report identified the vertical rock bluff face and rock slope stability as the control factor in bluff retreat. County staff accepted this report and its conclusions, and subsequent project approvals have been based upon this report.

I agree with the addendum reports in their conclusions that coastal bluff retreat poses a potential hazard to the occupants of the homes at the base of the slope as well as any vehicles or pedestrians that are on Las Olas Drive. Improving surface drainage may increase the length of time before the next bluff top failure occurs by decreasing pore pressure along the various fractures. I disagree that this minor excavation resolves the hazard, and the current information has not demonstrated that removing this material will significantly reduce the geological hazard. In fact a majority of the benefit of the proposed work is related to the drainage control and can be accomplished without the exception and related grading of the soils zone at the top of the bluff. My reasons for these conclusions are:

i. The effect on stability of the removal of the relatively small amount of weight contributed by the soil on the crest of the slope is unclear. Depending upon the orientation of fractures within this rock, removal of weight from the crest of the slope may decrease resisting forces with a resulting decrease in slope stability after removal. A detailed kinematic analysis and related stability analysis would be necessary to assure that removals form crest would not adversely affect slope stability.

ii. Clearly, the engineering geologist has indicated that adverse water conditions contribute to block slope failure. In as far as the site contributes to adverse water conditions, an effective drainage system can be installed on the existing ground surface with minimal excavation without the need for the exception.

EXHIBIT O

iii. The iron fence, and brick wall can be removed with little additional grading.

iv. There are proven methods to control bluff retreat that do not require an exception to the Code. An example of one of these methods is the retaining wall with reinforced caisson or pier foundations completed on the Minott property at 745 Oak Hill Road (see Rogers E. Johnson September 17, 2007.)

Exception:

An exception to the geologic hazards Code is needed to allow the grading into the 25 foot setback per Section ***16.10.070 Permit conditions (h) Coastal Beaches and Bluffs*** *which states in* ***ii,***

"for all development, including that which is cantilevered, and for non-habitable structures, a minimum setback shall be established at least 25 feet from the top edge of the coastal bluff, or alternatively, the distance necessary to provide a stable building site over a 100-year lifetime of the structure, whichever is greater."

To make an exception to section 16.10.070 (h) ii findings are required under section 16.10.100 (c) of the Geologic Hazards Codes. The difficulties in making these findings are as follows:

Required Finding 1. - that hardship, as defined in Section 16.10.040(2j), exists

This finding cannot be made, in that applicant does not demonstrate that a hardship will exist as defined in Section 16.10.040 (2j) if the exception is not granted. Grading 3 to 5 feet of the bluff is not necessary to develop the parcel as the conclusions of the Rogers E. Johnson 10/25/2005 report demonstrates. Furthermore, coastal bluff retreat issue are common to hundreds of homes along the Santa Cruz Coast and are not exceptional, unusual, and peculiar to this property.

Required Finding 2. - the project is necessary to mitigate a threat to public health, safety, or welfare

The excavation of a few feet of the crest of the bluff will have little impact on the amount or rate of coastal bluff retreat, and may have unforeseen adverse affects on the stability of the bluff. A true solution would be to construct a retaining system with the capacity to stabilize the entire slope.

Finding 2 cannot be made, in that the proposed grading within the 25 foot and 100 year setbacks does not mitigate for the threat to public health and safety as it is not clear that the grading will significantly reduce the rate of coastal bluff retreat. Furthermore, the grading work may have unforeseen affects on the stability of the bluff.

Required Finding 3. - the request is for the smallest amount of variance from the provisions of this Chapter as possible

This finding cannot be made, in that the applicant's consultants have not analyzed alternatives to their proposal. Most of the benefits of the grading can be accomplished with on site control drainage without the excavation within the 25 setback, and alternatively must evaluate if a bluff wall is the only alternative to control the geologic hazard.

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Required Finding 4. - adequate measures will be taken to ensure consistency with the purposes of this chapter and this Chapter and the County General Plan. (Ord. 3340, 11/23/82; 3598, 11/6/84; 4518-C, 3/8/99)

This finding cannot be made, in that the grading on the bluff is inconsistent with Section 6.2.12 of the General Plan and is inconsistent Section 5.10.3 of the General Plan in that it will modify a public vista with an adverse change in the aesthetic character of the community.

Conclusions:

The following conclusion can be made concerning the current proposed additional grading:

1. Alternative methods of controlling drainage must be assessed. I believe that a drainage system set at grade with similar fabric as proposed by the Van Horn's grading plan would control drainage at least as well as the current proposal.

2. I cannot see how Finding 1 can be made for this project because a clear hardship, as defined in Section 16.10.040(2j), does not exist with regards to the applicant and the project.

3. Excavating a few feet into the bluff as proposed by the Consultants will not substantially mitigate coastal bluff retreat. Without a clear mitigation making Finding 2 is infeasible, as the Finding requires mitigation of the hazard. Similarly, Finding 3 is complicated as the condition assumes that the least amount of variance required to Code to accomplish the mitigation of a geologic hazard. If mitigation of a geologic hazard is the goal then the applicant should consider options that do not require an exception to the Code such as bluff top walls. These walls have a proven ability to control the retreat of bluff.

4. The consultants must also consider the design of the project in relationship to the adjacent properties and interplay bluff retreat on each parcel will have with the others.

MIKE VAN HORN, INC.
Registered Civil and Geotechnical Engineer
101 Forest Avenue, Santa Cruz, CA 95062-2622
soilsurgeon@cruzio.com
cell (831) 234-5966
Tel. (831) 429-9364
Fax (831) 429-9822

File Number: 12073

22 August 2008

Mr. Brian Arthur
382 Belle Monti Avenue
Aptos, CA 95003

Subject: Proposed Single Family Dwelling Development, APN 038-151-89
Oakhill Road
Santa Cruz County, California

Evaluation of Brick Retaining Wall

Dear Mr. Arthur:

As requested by Mr. Tracy Johnson on your behalf, I have visited the subject site, observed the condition of the existing brick retaining wall, and I have observed the under floor area of the residence east/adjacent to the brick retaining wall. I am providing herein my conclusions regarding the stability of the brick retaining wall with respect to its proposed alterations to the affected site features.

It is my understanding the existing brick retaining wall, located within the geologic setback within the subject site, is planned to be reduced in length such that only the east most approximately nine to ten feet of the retaining wall is to remain following completion of the proposed improvements. The proposed plans also call for the reduction of the height of the backfill for a significant portion of the remaining brick wall.

I visited the subject site today, 22 August 2008. I observed the existing conditions of the brick retaining wall. The east most nine feet of the retaining wall is in relatively good condition and is slightly curved in plan view. The retaining wall does not extend under the residence to the east of the wall.

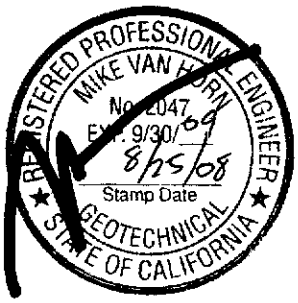
Additionally, at the home owner's permission, I observed the under floor area of the residence to the east of the wall and observed the foundation of this residence extends down to the base elevation of the brick retaining wall so that the residence's foundation does not depend upon the presence of the brick retaining wall for structural support of any kind.

Based on the above conditions and assumptions, I conclude the proposed alterations to the brick retaining wall and adjacent grade do not threaten the structural integrity of the wall.

EXHIBIT p

This concludes this letter. If you have any questions, please contact this office.

Sincerely Yours,



Mr. Mike Van Horn, CE 35615, GE 2047 (expires 9/30/09)

COPIES: 1 to Addressee
3 to Tracy Johnson, Residential Design
1 to File