Staff Report to the Planning Commission

Application Number: 06-0156

Applicant: Jim Mosgrove, Architect
Owner: Michael and Deborah Collins
APN: 043-152-70 (formerly–55)

Agenda Date: October 24,2007
Agenda Item #: 7
Time: After 9:00 a.m.

Project Description: Proposal to construct a 3-story, five bedroom single-family dwelling and grade more than 1,000 cubic yards within a Coastal Scenic Area. Requires a Coastal Development Permit, Preliminary Grading Approval, A Variance to increase the number of stories to three, Design Review, Soils Report Review, and a Geoteclmical Report Review.

Location: Property located on the north side of Beach Drive about 1 mile southeast of Rio Del Mar Blvd. (at 546 Beach Dr, a vacant parcel).

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

Permits Required: Coastal Development Permit

Staff Recommendation:

- Certification of the Mitigated Negative Declaration to the California Environmental Quality Act.
- Approval of Application 06-0156, based on **the** attached findings and conditions.

Exhibits

A. Project plans
B. Findings
C. Conditions
D. Mitigated Negative Declaration (CEQA document)
E. Updated plan review letters from Haro, Kasunich, and Associates dated 5/11/07 and Nielsen and Associates dated 5/2/07.
F. Public Comments

Parcel Information

Parcel Size:	12,888 square feet (determined by survey)
Existing Land Use - Parcel:	Vacant
Existing Land Use - Surrounding:	Single-family dwellings
Project Access:	Beach Drive (a private road at this location)
Planning Area:	Aptos
Land Use Designation:	R-UL (Urban Low Density Residential)
Zone District:	RB (Ocean Beach Residential)
Coastal Zone:	X Inside ___ Outside
Appealable to Calif. Coastal Comm.	X Yes ___ No

Environmental Information

Geologic Hazards:	FEMA Flood Zone V (Wave run-up hazard zone), landslide potential at the base of coastal bluff
Soils:	Beach sand (soils map index number 109) and Purisima Foundation Sands
Fire Hazard:	Not a mapped constraint
Slopes:	50% to over 70% (base of coastal bluff)
Env. Sen. Habitat:	Not mapped/no physical evidence on site
Grading:	About 1,600 cubic yards
Tree Removal:	One 14" pine may be removed during grading
Scenic:	Designated Coastal Scenic Resource Area
Drainage:	Drainage to beach
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 Sanitation District
Fire District:	Aptos/La Selva Fire Protection District
Drainage District:	Zone *6*

Background

A previous development permit (96-0159) was approved in May of **1996** for the construction of a single-family dwelling on site, but was never exercised. On March 17,2006, the County Planning Department accepted this application to construct one single-family dwelling at the toe of the bluff, requiring a Coastal Development Permit and a Variance ***to*** allow a three-story single-family dwelling within the Urban Services Line. The application required Environmental Review as more than 1,000 cubic yards of grading are proposed within a designated scenic resource area (about 1,600 cubic yards). The Environmental Coordinator issued a Negative Declaration with Mitigations on January 30,2007 to comply with the California Environmental Quality Act (CEQA) (Exhibit D).

Coastal Commission Appeal of Permit 04-0255

An application to construct a house of a similar design and size was submitted for the lot immediately downcoast of the project site, on parcel (043-152-71). This project was denied by the Planning Commission but approved by the Board of Supervisors on September 26, 2006 on appeal. Subsequent to this approval, the project was appealed to the California Coastal Commission, and on December 13, 2006 the Coastal Commission found substantive issue and took jurisdiction over the application. A de novo hearing by the Coastal Commission was held on March 14, 2007, and the item was continued for further investigation. On September 6, 2007 the Coastal Commission approved the Coastal Development Permit with minor modifications to the permit conditions. No changes to the design were made. Staff has incorporated most of the wording from the Coastal Commission approval into the proposed conditions for this application.

Project Setting

The project site is located on the bluff side of the private section of Beach Drive in Aptos, between existing residences at 544 Beach Drive and 615 Beach Drive. The property is steeply sloped, with the entire site in excess of 50% slopes. A line of mostly one-story homes already exists on the coast side of Beach Drive, between the project site and the beach.

Zoning & General Plan Consistency

The subject parcel is zoned RB (Ocean Beach Residential) with a General Plan/Local Coastal Program Land Use designation of Urban Low Density Residential)(Exhibit D, Attachments 2 and 3). One single-family dwelling is permitted within the RB zone district. The proposed development is consistent with the purposes of the RB zone district as the proposal is for a single-family dwelling.

	RB Zone [illegible]	Proposed
Front yard setback	10'*	About 5'
Side yard setbacks	0' and 5'	24' 6" each side
Rear yard setback	10'	48'
Lot Coverage	40%	27%
Floor Area Ratio	50%	49.75%
Maximum height	25' on bluff side	22'

* No front yard setback is required for RB zoned parcels with slopes greater than 25% within 30 feet of the right-of-way per Section 13.10.323(d)(5)(B) of the County Code.

Local Coastal Program/General Plan Consistency

The subject parcel retains a General Plan/Local Coastal Program Land Use Designation of R-UL (Urban Low Density Residential), implemented by the RB (Ocean Beach Residential) zone district. The proposed single-family dwelling complies with the purposes of this Land Use Designation, as the primary use of the site will remain residential.

Geologic Hazards

General Plan policy 6.2.10 requires all development to be sited and designed to avoid or minimize hazards as determined by geologic or engineering investigations. **Due** to the location of the parcel adjacent to an open beach at the toe of a coastal bluff, potential coastal flooding and landslide hazards cannot be avoided and therefore must be mitigated. General **Pian** policy 6.2.15 allows for new development on existing lots of record in areas subject to storm wave inundation or coastal bluff erosion where a technical report demonstrates that potential hazards can be mitigated over the 100-year lifetime of the structure. Mitigations can include, but are not limited to, building setbacks, elevation of the structure, friction pier or deep caisson foundation; and where a deed restriction indicating the potential hazards on the site and level of prior investigation conducted is recorded on the property deed with the County Recorder. If properly constructed and maintained, the project design is expected to provide protection from landslide hazards and flooding during 100-year storm events within the 100-year life span of the structure.

Due to the location of the proposed dwelling at the base of a coastal bluff, the structure will be vulnerable to damage or destruction from landslides and slope failure. Consequently, Engineering Geologic and Geotechnical Reports have been prepared addressing geologic hazards, site conditions, and hazard mitigations for the proposed dwelling (excerpts of conclusions and recommendations in Exhibit D, Attachments **8** and 9). The project soils engineer and geologist recommend constructing the dwelling with a reinforced concrete structure designed to withstand the impact of any expected landslides, utilizing **a** "bunker" style design with a flat roof constructed of reinforced concrete and the sides of ***the*** structure designed as retaining walls to prevent damage by landslide flows along the side yards. The structure will be built flush with the face of the slope to minimize impacts to the rear **of the** dwelling. Finally, the foundation is designed to withstand slope failure and to mitigate for unconsolidated soils. As recommended by the project geologist and soils engineer, deck areas will be covered by **an** overhang to provide refuge in the event of a landside.

The project site is located within the FEMA Flood Zone-V, an 100-year coastal flood hazard zone designating areas subject to inundation resulting from run-up from waves and storm surges. FEMA regulations and the County Geologic Hazards ordinance (Chapter 16.10) require flood elevation of all new residential structures within 100-year flood zones. FEMA determined the expected 100-year wave impact height to be 21 feet above mean sea level (M.S.L.). **The** lowest habitable floor of the proposed dwelling is elevated more than one foot above 21 feet **M.S.L.** to prevent the habitable portions of the dwelling from flooding due to a 100-year storm surge. *The* garage doors and non-load bearing walls must function as "break-away" walls as required by the FEMA regulations for development in the V-Zone and in Chapter 16.10 of the County Code.

The dwelling at 641 Beach Drive was the first structure approved incorporating this design (approved in 1993 as permit 91-0506), and dwellings of a similar design have been approved elsewhere on Beach Drive, including at the southeast end of Beach Drive under Coastal Development Permits 99-0354 and 04-0044, and the adjacent downcoast property under permit 04-0255.

Grading and Erosion Control

General Plan/LCP policy 8.2.2 requires new development to be sited and designed to minimize grading, avoid or provide mitigations for geologic hazards and conform to the physical constraints

and topography of the site. The project has been designed to step down the slope to reduce excavation and to conform to the topography of the site to the greatest extent possible while maintaining a dwelling of similar size to neighboring homes on Beach Drive.

The proposed dwelling will not destabilize or exacerbate erosion of the bluff, and when completed will act as retaining structures to stabilize the toe of the bluff. **The** only potential for bluff destabilization will occur during excavation and construction. To minimize the chances of a failure occumng during this period, the project soils engineer has outlined a **plan** for construction phasing (See Exhibit D, Attachment 8). The key elements of this plan are as follows:

- Site grading and retaining wall construction must take place between April 15'' and October 15th, when the site is *dry.*
- The project soils engineer and geologist must be on site during the work.
- Excavation and construction should begin at the top and **work** downward, a section at a time. Under this plan, a portion of the cliff would be excavated, followed by construction of that portion of **the** wall. After that section of the wall **is** completed, the next lower section of the cliff would be excavated.

A detailed work plan following these elements will be submitted with the building permit application. This work plan will detail the height of each individual section to be excavated and retained, and will take into account any concurrent excavation into the bluff for neighboring projects. Furthermore, a Waiver, Indemnification, Bonding, and Insurance Agreement will be required, which will include **a** requirement that the applicant/owner obtain and maintain Comprehensive Personal Liability (or equivalent) or Owner's Landlord and Tenant Liability Insurance coverage (as appropriate) of $1,000,000 plus an additional $1,000,000 of excess coverage to insure construction of the retaining structure will be completed in a timely manner **(See** Condition of Approval I.D). In addition, security bonds will be required to ensure bluff stabilization work can be completed by the County if construction stops prior to completion of all necessary shoring, retaining walls, tie-backs, and any other construction required to stabilize the bluff. One bond will be for 150% of the total construction cost to stabilize the bluff, which will be released after satisfactory completion of all retention structures as determined by the County Geologist. The second bond will be for 50% of the above construction costs, to be released not **less** than one year after final inspection (Condition of Approval 11.0).

Public Access

The proposal complies with Policy 7.7.10 of the General Plan/LCP (Protecting Existing Beach Access) in that pedestrian and emergency vehicle access will not be impeded by the proposed dwelling and construction, and no public access easements exist across **the** subject property. Furthermore, the site is not designated for Primary Public Access in Policy 7.7.15 of the General Plan/LCP, and is not suitable for access due to the steep topography ***of* the** site.

Design Review

The project is located within a mapped scenic resource area, and therefore must comply with General Plan Objective 5.10b (New Development within Visual Resource Areas). The purpose of this objective is to ensure that new development is appropriately designed and constructed to have minimal to no adverse impact upon identified visual resources. General Plan/LCP policies 5.10.2 and 5.10.3 require that development in scenic areas be evaluated against the context of their environment, utilize natural materials, blend with the area and integrate with the landform and that significant public vistas be protected from inappropriate structure design. Moreover, General Plan/LCP policy 5.10.7 allows structures to be visible from a public beach where compatible with the pattern **of** existing development. Generally, impacts to existing public views occur when development extends into areas that are currently natural and are visible from the beach. In this case, the project site is located behind a line of existing one-story homes on the coast side of Beach Drive, and adjacent to existing single-family dwellings constructed in the late 1960's. The upper story of the proposed dwelling will be visible from the open beach at low tides (See photo-simulations in Exhibit D, Attachment 15). However, the design of the structure will be integrated into the Beach Drive neighborhood in terms of height, bulk, mass, scale, architectural style, colors, and materials. The size of the proposed residence will be larger than some **of** the adjacent residences, but will be proportioned to the size of the lot, as the residence will comply with County standards for Floor Area Ratio and lot coverage. The mass of the residence will be broken up by stepping back each of the three levels to be flush with the hillside, and by the central clearstory which breaks the structure up into three horizontal components.

General Plan/LCP policies 8.6.5 and 8.6.6 require that development be complementary with the natural environment and that the colors and materials be chosen blend with the natural landforms. To comply with this policy, the proposed dwelling will incorporate teak wood-siding with earth-tone colored concrete to better blend in with the coastal bluff and vegetation behind the residence, minimizing the visual impact **of** the residence.

The County's Urban Designer evaluated the project for conformance with the County's Coastal Zone Design Criteria (Section 13.20.130) and the County's Site, Landscape, and Architectural Design Review Ordinance (Section 13.11) (Exhibit D, Attachment 14). The Urban Designer determined the proposed single-family dwelling to be in conformance with all applicable provisions of these ordinances, including criteria regarding protection of the public viewshed and compatibility with the existing neighborhood and coastal setting. Although the project will be visible from the beach, the design, materials, and colors minimize the visual impact of the dwelling to the greatest extent possible while maintaining a similar bulk, mass, and scale to existing and proposed houses on the bluff side of Beach Drive.

Variance **to allow** three stories

To construct a house within the limitations placed on the site by **flooding** hazards, visual compatibility, and General Plan policies to minimize grading, the applicant has requested variances to site standards to increase the maximum number of stories to three from two.

Inside the Urban Services Line, the County Code prohibits single-family dwellings greater than two stones absent a variance approval. To compensate for FEMA **flood** elevation requirements,

construct within the constraints of the site, and minimize grading, the applicant has requested a variance to construct a three-story single-family dwelling similar to existing houses on the bluff side of Beach Drive. The steep topography of the site (with slopes greater **than** 70%) and the FEMA flood elevation requirements present special circumstances inherent to the property that would deny the property owner a reasonably sized dwelling as enjoyed by residents of similar structures on the bluff side of Beach Drive. Many homes along the bluff side of Beach Drive already have three stones, including the house at 641 Beach Drive and the dwellings recently approved on adjacent lots. For this reason, the granting of a variance to allow three stones will not constitute the granting of a special privilege.

Environmental Review

Environmental review has been required for the proposed project per the requirements of the California Environmental Quality Act (CEQA), as more than 1,000 cubic yards of grading is proposed. The project was reviewed by the County's Environmental Coordinator on January 22, 2007. A preliminary determination to issue a Negative Declaration with Mitigations (Exhibit D) was made on February 5, 2007. The mandatory public comment period expired on March ***6,*** 2007, with no comments received.

Conclusion

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

Staff Recommendation

Staff recommends your Commission:

- Certify the Mitigated Negative Declaration to the California Environmental Quality Act.
- APPROVE Application Number **06-0156,** based on the attached findings and conditions.

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

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

Report Prepared By: _____

Maria Porcila Perez
Santa Cruz County Planning Department
701 Ocean Street, 4th Floor
Santa Cruz CA 95060
Phone Number: (831) 454-5321
E-mail: maria.perez@co.santa-cruz.ca.us

Report Reviewed By: _____

Mark Deming
Assistant Planning Director
Development Review

EXHIBIT B

Coastal Development Permit Findings

1. That the project is a use allowed in one of the basic zone districts, other than the Special Use (SU) district, listed in section 13.10.170(d) as consistent with the General Plan and Local Coastal Program LUP designation.

This finding can be made, as a single-family dwelling is a principal permitted use in the "RB" (Ocean Beach Residential) zone district with the approval of a Coastal Development Permit. The "RB" zone district is consistent with the General Plan and Local Coastal Program land use designation of Urban Low Residential.

2. That the project does not conflict with any existing easement or development restrictions such as public access, utility, or open space easements.

This finding can be made, as the parcel is not encumbered by any open space easements **or** similar land use contracts. The project will not conflict with any existing right-of-way easement or development restrictions as none exist. The proposed dwelling will not affect public access as none exists down the cliff face at this location, and the project will not impede lateral pedestrian access.

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.**

The proposed single-family dwelling is consistent with the design criteria and special use standards and conditions of County Code Section 13.20.130 et seq. for development in the coastal zone. Specifically, the house follows the natural topography by stepping up the hillside, proposes minimal grading considering the topography of the site, and is visually compatible with the character of the surrounding residential neighborhood, and includes mitigations for the coastal hazards which may occur within its' 100 year lifespan (landslides, seismic events and coastal inundation). The project is not on a ridgeline, and does not obstruct any public views to the shoreline. The design **and** siting of the proposed residence will minimize impacts on the site and the surrounding neighborhood. The house will incorporate earth-tone colors and teak wood siding to blend in with the vegetation on the bluff to the rear.

The architecture is complementary to the existing pattern of development and will blend with the built environment. The size of the dwelling is larger than most of the dwellings along the bluff side of Beach Drive due to the larger parcel size, but *the* structure will be proportional to the size of the parcel and will be comparable in size to the existing residence at 629 Beach Drive. The structure will be flood elevated, but will meet the 25 foot RB height limit. This height is consistent with the existing older development along the bluff of side of Beach Drive, most of which is three stones similar to the proposed dwelling.

4. That the project conforms with the public access, recreation, and visitor-serving policies, standards and maps of the General Plan and Local Coastal Program land use plan, specifically Chapter 2: figure 2.5 and Chapter 7, and, as to any development between and nearest public road and the sea or the shoreline of any body of water located within the

coastal zone, such development is in conformity with the public access and public recreation policies of Chapter 3 of the Coastal Act commencing with section 30200.

The project site is located in the appealable area between the shoreline and the first through public road. Public access to the beach is located further up Beach Drive at the State Parks parking lot (about 600 feet northwest of the proposed dwelling). The project will not interfere with public access to the beach, ocean, or any other nearby body of water. The project site is not identified as a priority acquisition site in the County Local Coastal Program, and is not designated for public recreation or visitor serving facilities.

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

The proposed single-family dwelling is consistent with the County's certified Local Coastal Program in that a single family dwelling is a principal permitted use in the RB (Ocean Beach Residential) zone district with an approved Coastal Development Permit. General Plan policy 6.2.15 allows for development on existing lots of record in areas subject to storm wave inundation or beach or bluff erosion within existing developed neighborhoods and where technical reports demonstrate that the potential hazards can be mitigated over the 100-year lifetime of the structure. Mitigations can include, but are not limited to, building setbacks, elevation of the structure, friction pier or deep caisson foundation; and where mitigation of the potential hazard is not dependent on shoreline protection structures except on lots where both adjacent parcels are already similarly protected; and where a deed restriction indicating the potential hazards on the site and level of prior investigation conducted is recorded on the property deed with the County Recorder. ***An*** Engineering Geologic and Geotechnical report have been prepared for this project evaluating the hazards and mitigations. These reports have been reviewed and accepted by the County of Santa Cruz. The proposed structure will be engineered to withstand landslide impacts on a reinforced roof, retaining most of the landslide materials on the roof with any excess flowing over the structure. The project is specifically designed to accommodate natural coastal erosion processes of the bluff face. The dwelling must be constructed flush with the bluff as any exposed rear walls cannot be feasibly designed to withstand the impact of a catastrophic landslide event. Thus, the rear walls must be designed as retaining walls and anchored into the bluff to prevent landslide impacts from displacing the structure. The dwelling will be elevated with no habitable portions under 21 feet above mean sea level, in accordance with FEMA regulations, the County General Plan policies and Chapter 16.10 of the County Code for development within the 100-year wave hazard zone (V-zone). Thus, the proposed development is consistent with this General Plan policy.

General Plan policy 6.2.16 **for** Structural Shoreline Protection Measures states that such structures shall be limited to those which protect existing structures from a significant threat, vacant lots which through lack of protection threaten adjacent developed lots, public works, public beaches or coastal dependent uses. The proposed reinforced concrete dwelling is not specifically a structural shoreline protection measure, but does provide some stability to the toe of the cliff.

General Plan/LCP policy 5.10.7 allows structures, which would be visible from a public beach, where compatible with existing development. The subject lot is located on the bluff side of Beach Drive within a line of existing and proposed single-family dwellings of a similar height. The project is consistent with General Plan policies for residential infill development as the proposed dwelling

will integrate with the built environment along Beach Drive by retaining a similar height, bulk, mass, and scale to existing and recently approved development in the vicinity. The height of the dwelling does note exceed *25* feet in conformance with the height limit for the RB zone district, and consistent with most of the existing and proposed adjacent residences. The size of the structure is consistent with the lot coverage and Floor Area Ratio of the zone district. The bulk of the residence, though slightly larger than homes in the immediate vicinity, will be broken up by the central clearstory and the stepped design. Dwellings on the beach side of Beach Drive have different site standards and therefore cannot be used to determine compatibility. General Plan/LCP policies *8.6.5* and 8.6.6 require that development be complementary with the natural environment and that the colors and materials chosen blend with the natural landforms. The proposed dwelling will use wood siding and earth-tone colors to blend in with the bluff to the rear.

Development Permit Findings

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

This finding can be made, as the proposed project complies with all development regulations applicable to the site with the exception of the limitation on the maximum number of stones, for which a Variance is being sought. The parcel is located within a coastal hazard area and is expected to be subject to wave inundation, landslides and seismic shaking hazards. Engineering Geologic and geotechnical reports have been completed for this project analyzing these hazards and recommending measures to mitigate them. The habitable portions of the dwelling will be constructed above 21 feet mean sea level (msl), which is the expected height of wave inundation predicted for a 100-year storm event. The garage will incorporate break away garage doors and non-structural walls on the lower level to minimize structural damage from wave action.

Construction will comply with prevailing building technology, the Uniform Building Code, the County Building ordinance, and the recommendations of the Engineering Geologic and Geotechnical report to insure the optimum in safety and the conservation of energy and resources. The structure will be engineered to withstand landslide impacts by incorporating a flat reinforced concrete roof, retaining most of the landslide materials on the roof with any excess flowing over the structure. The project is specifically designed to accommodate natural coastal erosion processes of the bluff face. The dwelling must be constructed flush with the bluff face and be anchored into the bluff to withstand the impact of a catastrophic landslide event and prevent it from displacing the structure. An engineered foundation is required in order to anchor the dwellings in the event of a landslide impact and to withstand seismic shaking. Adherence to the recommendations of the soils engineer and geologist in the house design and construction will provide an acceptable margin of safety for the occupants of the proposed home. The project design will not change the existing pattern debris flow and will not adversely affect the adjacent dwellings. The retaining walls incorporated into the design of both dwellings will provide some stability to the toe of the cliff, but will not affect the stability of the upper cliff. **A** drainage system will be constructed, which the upslope neighbors may use to control his/her drainage on the slope face. Thus, the project will provide a small benefit to the upslope property, although natural erosion of the upper bluff face is expected to continue.

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.

The project is located within the RB (Ocean Beach Residential) zone district. The proposed dwelling will be consistent with all pertinent County ordinances, site standards, and the purpose of the RB zone district, with the exception of the number of stories, for which a Variance is sought. The increase in the number of stories will not significantly increase the bulk of building mass and will allow adequate light, air and open space to adjacent neighbors, as the design of the proposed single-family dwelling is consistent with that of the surrounding neighborhood, as it is visually compatible

and integrated with the character of surrounding neighborhood (both existing and proposed dwellings), and meets the intent of County Code Section 13.10.130, "Design Criteria for Coastal Zone Developments" and Chapter 13.11 "Site, Architectural and Landscape Design Review." Homes in the area range from one story on the beach side of Beach Drive to three-stones on the bluff side, with a wood or stucco exteriors and large expanses of windows and decks. The majority of houses in the neighborhood have flat roofs. The proposed colors and materials and architecture will harmonize and blend with the other homes in this neighborhood. Thus, the design of the proposed single-family dwelling is consistent with that of the surrounding neighborhood. As discussed in Finding #1, Engineering Geologic and Geotechnical **reports** have been prepared evaluating the landslide and coastal flooding hazards, which will be mitigated in accordance with the regulations set forth in Chapter 16.10 (Geologic Hazards) of the County Code. As discussed in the Coastal Findings above, the project is consistent with the County's Coastal Regulations (Chapter 13.20).

3. That the proposed use is consistent with all elements of the County General Plan and with any specific plan which has been adopted for the area.

The project is located in the R-UL (Urban Law Residential) General Plan/Local Coastal Program land use designation. As discussed in Coastal Development Permit Finding 5, all General Plan/LCP policies have been met in the proposed location of the project, the hazard mitigations and with the required conditions of this permit. The design of the single-family dwelling is consistent with that of the surrounding neighborhood on the bluff side of Beach Drive, and is sited and designed to be visually compatible and integrated with the character of surrounding neighborhood and the coastal bluff. The dwelling will not block public vistas to the public beach and will blend with the built environment when viewed from the public beach. The house is designed to step down the slope, requiring minimal grading considering the limitations placed on the site with regards to slope and construction requirements to minimize geologic hazards. For this reason the project conforms with General Plan policies to minimize grading.

A specific plan has not been adopted for this portion of Río Del Mar.

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

This finding can be made, as the proposed single-family dwelling will not overload utilities and will not generate more than the acceptable level of traffic on the roads in the vicinity. Specifically, adequate water and sewer service is available to the property and there will be minimal increase in traffic resulting from the construction of one new single family dwelling on a legal lot of record designated for residential use. Traffic generated by construction will be limited to weekdays between **the** hours of **8** AM and 5 PM and any damage to Beach Drive resulting from heavy equipment will be required to be repaired (Condition of Approval II.R., III.H, and IV.G).

5. That the proposed project will complement and harmonize with the existing and proposed

land **uses** in the vicinity and will be compatible with the physical design aspects, land use intensities, and dwelling unit densities of the neighborhood.

This finding can be made, as the home will not appear significantly different from the existing or proposed development on the bluff side of Beach Drive, which must be designed with the same constraints and limitations resulting in non-habitable lower floors and flat roofs. The proposed project will result in a home of **a** similar size and mass to other homes on the bluff side of Beach Drive, and will be designed to be visually compatible and integrated with the character of the surrounding neighborhood.

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

This finding can be made, in that the proposed single-family dwelling is consistent with the County's Design Review Ordinance as the site design, architectural style, materials, colors, flat roof, and three story design within the RB **zone district** height result in a structure that is compatible with the surrounding development along the bluff side of Beach Drive (see Urban Designer's comments in Exhibit D, Attachment 14).

Variance Findings

1. That because of special circumstances applicable to the property, including size, shape, topography, location, and surrounding existing structures, the strict application of the zoning ordinance deprives such property of privileges enjoyed by other property in the vicinity under identical zoning classification.

This finding can be made, as the subject parcel contains very steep slopes (slopes in excess of 70%) on an unstable coastal bluff, with the only suitable area for development near the base of the bluff within the coastal flood hazard area (Flood Zone-V). Due to the topography and location within a flood hazard area, the structure must be elevated above the expected 100-year coastal inundation level at 21 feet above mean sea level in accordance with the regulations set forth by the Federal Emergency Management Agency **(FEMA)** and Chapter 16.10 (Geologic Hazards Ordinance) of the County Code. The lower floor area cannot be used as habitable space due to potential flood hazards from wave run-up, so a variance has been requested to increase the maximum number of stories from two to three in order to construct a home comparable to existing and recently approved homes in the vicinity. The majority of homes along the bluff side of Beach Drive are three stories, so a variance to height requirements would not constitute the granting of a special privilege **as** existing dwellings in the neighborhood already have three stories. Due **to** the step-down design of the structure, the house will still meet the maximum 25 foot height limit for the RE3 **zone** district despite the increase in the number of stories.

2. That the granting of the Variance will be in harmony with the general intent and purpose of zoning objectives and will not be materially detrimental to the public health, safety, or welfare or injurious to property or improvements in the vicinity.

Compliance with the recommendations and construction methods required by the Engineering Geologic and Geotechnical reports accepted by the Planning Department will insure that granting the variance to construct the proposed three-story single family dwelling will not he materially detrimental to the public health, safety and welfare or be materially injurious to property or improvements in the vicinity. The residence is required to be elevated above 21 feet mean sea level with no habitable features on the ground floor and constructed with a break-away garage door and walls (except those used as support structures). No mechanical, electrical or plumbing equipment shall be installed below the base flood elevation. The dwelling will be engineered to withstand landslide impacts upon the roof and to allow slide debris to accumulate upon it. This design allows for the natural pattern **of** debris flow and minimizes deflection onto the adjacent properties.

3. That the granting of such variances shall not constitute a grant of special privileges inconsistent with the limitations upon other properties in the vicinity and zone in which such is situated.

The granting of variances to increase the maximum number of stories from two to three will not constitute a grant of special privilege, as similar variances have been granted for houses of similar construction on the bluff side of Beach Drive due to FEMA flood elevation requirements. Variances to increase the number of stones from two to three are frequently granted along Beach Drive, including the house approved by the Board of Supervisors on the adjacent site downcoast (permit 04-0255).

Conditions of Approval

Exhibit **A:** Project plans, **8** sheets, drawn by Jim Mosgrove, Architect, dated 6/30/06. Preliminary Improvement plans and surveys, 5 sheets, drawn by Michael Beautz, and dated July 2006. Landscape plan, 1 sheet, drawn by Michael Arnone, Landscape Architect, dated 2/7/06. Shoring plans, 6 sheets, drawn by Buchanan Engineering, dated 2/23/06.

I. This permit authorizes the construction of a three-story single-family dwelling. Prior to exercising any rights granted by this permit including, without limitation, any construction or site disturbance, the applicant'owner shall:

A. Sign, date, and return to the Planning Department one copy of the approval to indicate acceptance and agreement with the conditions thereof.

B. Obtain a Building Permit from the Santa Cruz County Building Official.

C. Obtain a Grading Permit from the Santa Cruz County Building Official.

D. The owner shall execute the attached WAIVER, INDEMNIFICATION, BONDING, AND INSURANCE AGREEMENT with the County (see Attachment 1 to the conditions of approval) and meet all requirements therein. This agreement will require the applicant'owner to obtain and maintain Comprehensive Personal Liability (or equivalent) or Owner's Landlord and Tenant Liability Insurance coverage (as appropriate) of $1,000,000 plus an additional $1,000,000 of excess coverage per single-family dwelling. Proof of insurance shall be provided.

II. Prior to issuance of a Building Permit the applicant'owner shall:

A. Submit proof that these conditions have been recorded in the official records of the County of Santa Cruz (Office of the County Recorder).

B. Submit a detailed construction plan following the recommendations of the project soils engineer. The plan shall indicate the shoring plan, the phases of excavation, five foot maximum height for temporarily unsupported cuts, plan to work from the top down, and requirements for the project geotechnical engineer to be on site during excavation. The construction plan shall not be submitted without an accompanying letter from the project geotechnical engineer approving the plan.

C. Submit final architectural plans for review and approval by the Planning Department. The final plans shall be in substantial compliance with the plans marked Exhibit "**A**" on file with the Planning Department. Any changes from the approved Exhibit "**A**" for this development permit on the plans submitted for the Building Permit must be clearly called out and labeled by standard architectural methods to indicate such changes. Any changes that are not properly called out and labeled will not be authorized by any Building Permit that is issued for the proposed development. The final plans shall include the following additional

information:

1. Identify finish of exterior materials and color of roof covering for Planning Department approval. Any color boards must be in 8.5" x 11" format.

2. Exterior elevations identifying finish materials and colors. Colors shall be subdued within the brown to green range, and shall blend in with the colors and forms of the coastal bluff. All windows facing the beach shall utilize low-reflective glazing materials.

3. The final plans shall include a specification that all windows, doors and other openings will be designed to resist and hold the force of a landslide as specified by the geotechnical engineer. No openings are allowed in the rear of the buildings, and all side windows be no greater than 14 inches by 18 inches unless supported by structural steel and approved by the County Geologist and the project Geotechnical Engineer.

4. The structure shall be engineered to resist and hold the force of a landslide, as specified by the geotechnical engineer. **The** roof shall be engineered to support the static load of anticipated landslide debris in conformance with the soils engineering report recommendations.

5. Plans shall show details showing compliance with the following FEMA and County flood regulations:

   a. The lowest habitable floor and the top of the highest horizontal structural members (joist or beam) which provides support directly to the lowest habitable floor and elements that function as a part of the structure such as furnace or hot water heater, etc. shall be elevated above **the** 100-year wave inundation level. Elevation at this site is a minimum of 21 feet above mean sea level. The building plans must indicate the elevation of the lowest habitable floor area relative to mean sea level and native grade. Locations for furnaces, hot water heaters shall be shown.

   b. Show that the foundations shall be anchored and the structures attached thereto to prevent flotation, collapse and lateral movement of **the** structure due to the forces to which they may be subjected during the base flood and wave action.

   c. The garage doors and non-bearing walls shall function as breakaway walls. The garage doors and front wall shall be certified by a registered civil engineer or architect and meet the following conditions:

      i. Breakaway wall collapse shall result from a water load less than that which would occur during the base flood, and

ii. The elevated portion of the building shall not incur any structural damage due to the effects of wind and water loads acting simultaneously in the event of a base flood.

iii. Any walls on the ground floor not designated as breakaway shall be demonstrated to be needed for shear or structural support and approved by Environmental Planning.

6. Submit a grading plan.

7. A site plan showing the location of all site improvements, including, but not limited to, points of ingress and egress, parking areas, sewer laterals and drainage improvements. A standard driveway and conform is required.

8. **A** fmal landscape plan. This plan shall include the location, size, and species of all existing and proposed trees and plants within the front yard setback and shall meet the following criteria:

a. Plant Selection. At least 80 percent of the plant materials selected for non-turf areas (equivalent to ***60*** percent of the total landscaped area) shall be drought tolerant. Native plants are encouraged. The plan shall not include any species listed on the ***California Invasive*** *Plant Council* ***List.*** Vegetation must be able to survive without irrigation once established.

b. Turf Limitation. Turf area shall not exceed 25 percent of the total landscaped area. Turf area shall be of low to moderate water-using varieties, such as tall fescue. Turf areas should not be **used** in areas less than 8 feet in width.

9. Final plans shall reference and incorporate all recommendations of the Engineering Geologic and Geotechnical reports prepared for this project, with respect to the construction and other improvements on the site. All pertinent Geotechnical report recommendations shall be included in the construction drawings submitted to the County for a Building Permit. Plan review letters from the soils engineer and geologist shall be submitted with the plans stating that the plans have been reviewed and found to be in compliance with the recommendations **of** the Geotechnical and Engineering Geologic reports.

10. Final plans shall conform with the conditions of the Soils and Geologic Reports Review dated December 18,2006 (Exhibit D, Attachment 7).

11. Final plans shall note that Soquel Creek Water District will provide water service and shall meet all requirements of the District including payment of any inspection fees. Final plans shall show the water connection and shall be reviewed and accepted by the District.

12. The building plans must include a **roof** plan and a surveyed contour map of

the ground surface, superimposed and extended to allow height measurement of all features. Spot elevations shall be provided at points on the structure that have the greatest difference between ground surface and the highest portion of the structure above. This requirement is in addition to the standard requirement of detailed elevations and cross-sections and the topography of the project site which clearly depict the total height of the proposed structure.

13. Details showing compliance with fire department requirements.

14. Final plans shall mclude an engineered drainage plan conforming with the requirements of the Drainage Section of the Department of Public Works. This drainage plan shall show an enclosed drainage system above the proposed residence of adequate size and capacity to carry the runoff from the upslope property and all proposed impervious areas within the parcel. All requirements of the Drainage Section of the Department of Public Works shall be met and the owner/applicant shall pay all fees for Zone 6 Santa Cruz County Flood Control and Water Conservation District, including plan check and permit processing fees.

15. Submit a detailed erosion and sedimentation control plan to be reviewed and accepted by Environmental Planning. The plan shall indicate that prior to the commencement of grading, the Permittees shall delineate the approved construction areas with fencing and markers to prevent land-disturbing activities from taking place outside of these areas. The Erosion and Sedimentation Control Plan shall identify the type and location of the measures that will be implemented during construction to prevent erosion, sedimentation, and the discharge of pollutants during construction. These measures shall be selected and designed in accordance with the California Storm Water Best Management Practices Handbook. Among these measures, the plans shall limit the extent of land disturbance to the minimum amount necessary to construct the project; designate areas for the staging of construction equipment and materials, including receptacles and temporary stockpiles of grading materials, which shall be covered on a daily basis; provide for the installation of silt fences, temporary detention basins, and/or other controls to intercept, filter, and remove sediments contained in any runoff from construction, staging, and storage/stockpile areas; and provide for the replanting of disturbed areas immediately upon conclusion of construction activities in that area. The plans shall also incorporate good construction housekeeping measures, including the use of dry cleanup measures whenever possible; collecting and filtering cleanup water when *dry* cleanup methods are not feasible; cleaning and refueling constructions equipment at designated offsite maintenance areas; and the immediate clean-up of any leaks or spills.

16. Any new electrical power, telephone, and cable television service connections shall be installed underground.

17. All improvements shall comply with applicable provisions of the Americans

With Disabilities Act and/or Title 24 of the State Building Regulations

18. Include in the plan set a Surveyor's Map showing areas contributing to off-site runoff to this parcel. This map can be the same as that submitted for the Preliminary Improvement Plan for the discretionary stage.

D. Meet all requirements of and pay Zone ***6*** drainage fees **to** the County Department of Public Works, Drainage. Drainage fees will be assessed on the net increase in impervious area.

E. Submit four copies of the approved Discretionary Permit with the Conditions of Approval attached. The Conditions of Approval shall be recorded prior to submittal, if applicable.

F. Meet all requirements and pay any applicable plan check fee of the Aptos/La Selva Fire Protection District.

G. Pay the current fees for Parks and Child Care mitigation for five bedrooms. Currently, these fees are, respectively, $1,000 and $109 per bedroom.

H. Pay the current fees for Roadside and Transportation improvements for one single-family dwelling. Currently, these fees are $4,400 per unit (divided evenly between Roadside and Transportation fees).

I. Provide required off-street parking for four **(4)** cars. Parking spaces must be 8.5 feet wide by 18 feet long and must be located entirely outside vehicular rights-of way. Parking must be clearly designated on the plot plan.

J. Submit a written statement signed by an authorized representative of the school district in which the project is located confirming payment in full of all applicable developer fees and other requirements lawfully imposed by the school district.

K. The owner shall record a Declaration of Geologic Hazards to be provided by Environmental Planning staff on the property deed. Proof of recordation shall be submitted to Environmental Planning. **YOU MAY NOT ALTER THE WORDING OF THIS DECLARATION.** Follow the instructions to record and return the form to the Planning Department.

L. A Deed Restriction shall be recorded which prohibits the use of the roof, side yards and rear yard except for the purpose of maintenance or repair.

M. Submit a plan review letter from the project structural engineer stating the plans comply with FEMA elevation requirements.

N. Submit an engineer's statement estimating construction costs including earthwork, drainage, all inspections (soils, structural, and civil engineers, etc.), and erosion control associated with the foundation, retaining walls, and drainage system for

review and approval per the Waiver, Indemnification, Security, and Insurance Agreement. These estimates will be reviewed by the County Geologist and will be used for determining the appropriate amounts for each bond.

O. The two security bonds (one for 150% of the total construction cost released after completion of all slope stabilization construction, one for 50% released one year after final inspection) shall be in place prior to issuance of the building permit. Please submit proof indicating if Certificate of Deposits or Letters of Credit will be used to satisfy the bonding requirement.

P. Obtain a permit from the Monterey Bay Air Pollution District, if required. This permit may require a diesel health risk assessment depending on the equipment used, the timing, and the distance of the construction from the nearest residence.

Q. Submit a signed, notarized, and recorded maintenance agreement for the silt & grease traps prior to permit issuance.

R. Submit photos showing the condition of Beach Drive from the project site to the private gate. These photos will be used to determine if any repairs are required to Beach Drive after construction due to construction related damage.

III. Prior to and during site disturbance and construction:

A. Prior to any disturbance on either property the applicant shall convene a pre-construction meeting on the site with the grading contractor supervisor, construction supervisor, project geologist, project geotechnical engineer, Santa Cruz County grading inspector, and any other Environmental Planning staff involved in **the** review of the project.

B. All land clearing, grading and/or excavation shall take place between April 15 and October 15. Excavation and/or grading is prohibited before April 15 and after October 15. Excavation and/or grading may be required to start later than April 15 depending on site conditions, as determined by Environmental Planning staff. If grading/excavation is not started by August 1st, grading must not commence until after April 15''the following year to allow for adequate time to complete grading prior to October 15''

C. Erosion shall be controlled at all times. Erosion control measures shall be monitored, maintained and replaced as needed. No turbid runoff shall **be** allowed to leave the immediate construction site.

D. Dust suppression techniques shall be included as part of **the** construction plans and implemented during construction. These techniques shall comply with the requirements of the Monterey Air Pollution Control District.

E. All earthwork and retaining wall construction shall be supervised by the project soils engineer and shall conform with the Geotechnical **report** recommendations.

F. **All** foundation and retaining wall excavations shall be observed and approved in writing by the project soils engineer prior to foundation pour. **A** copy of the letter shall be kept on file with the Planning Department.

G. Prior to sub-floor building inspection, compliance with the elevation requirement shall be certified by a registered professional engineer, architect or surveyor and submitted to the Environmental Planning section of the Planning Department. Construction shall comply with the FEMA flood elevation requirement of 21 feet above mean sea level **for** all habitable portions of the structure. Failure to submit the elevation certificate may be cause to issue a stop work notice for the project.

H. Construction shall only occur between the hours of 8 AM and 5 PM, Monday through Friday, with no construction activity allowed on weekends and holidays.

IV All construction shall be performed according to the approved plans **for** the Building Permit. Prior to final building inspection, the applicant/owner must meet the following conditions:

A. All site improvements shown on the final approved Building Permit plans shall he installed.

B. All inspections required by **the** building and grading permits shall be completed to the satisfaction of the County Building Official, the County Senior Civil Engineer, and the County Geologist.

C. The soils engineer/geologist shall submit a letter to the Planning Department verifying that all construction has been performed according to the recommendations of the accepted geologic and soils report. **A** hold will he placed on the building permit until such a letter is submitted. **A** copy ***of*** the letter shall be kept in the project file for future reference.

D. Final erosion control and drainage measures shall be completed,

E. The project must comply with all recommendations of the approved soils reports.

F. Pursuant to Sections 16.40.040 and 16.42.100 of the County Code, if at any time during site preparation, excavation, or other ground disturbance associated with this development, any artifact **or** other evidence of an historic archaeological resource or a Native American cultural site is discovered, the responsible persons shall immediately cease and desist from all further site excavation and notify the Sheriff-Coroner if the discovery contains human remains, or the Planning Director if the discovery contains no human remains. The procedures established in Sections 16.40.040 and 16.42.100, shall be observed.

G. Any damage to Beach Drive caused by construction activities shall be repaired

V. Operational Conditions

A. Modifications to the architectural elements including hut not limited to exterior finishes, window placement, roof design and exterior elevations are prohibited, unless an amendment *to* this permit is obtained.

B. **All** portions of either structure located below 21 feet mean sea level shall be maintained as non-habitable.

1. The ground floor shall not be mechanically heated, cooled, humidified or dehumidified.

2. The structure may be inspected for condition compliance twelve months after approval and at any time thereafter at the discretion of the Planning Director.

C. This permit prohibits the use of the roof, side yards and rear yard except for the purpose of maintenance and/or repair.

D. The homes must be maintained at all times. In the event of a significant slope failure, the owner must remove the debris from the roof within **48** hours under the direction of a civil engineer.

E. All landscaping shall **be** permanently maintained.

F. The residence shall maintain a subdued earth-tone coloration.

G. In the event that future County inspections of the subject property disclose noncompliance with any Conditions of this approval or any violation of the County Code, the owner shall pay to the County the full cost of such County inspections, including any follow-up inspections and/or necessary enforcement actions, up to and including permit revocation.

VI. As a condition of this development approval, the holder of this development approval ("Development Approval Holder"), is required to defend, indemnify, and hold harmless the COUNTY, its officers, employees, and agents, from and against any claim (including attorneys' fees), against the COUNTY, it officers, employees, and agents to attack, set aside, void, or annul this development approval of the COUNTY or any subsequent amendment of this development approval which is requested by the Development Approval Holder.

A. COUNTY shall promptly notify the Development Approval Holder of any claim, action, or proceeding against which the COUNTY seeks to be defended, indemnified, or held harmless. COUNTY shall cooperate fully in such defense. If COUNTY fails to notify the Development Approval Holder within sixty (60) days of any such claim, action, or proceeding, or fails to cooperate fully in the defense thereof, the Development Approval Holder shall not thereafter be responsible to

defend, indemnify, or hold harmless the COUNTY if such failure to notify or cooperate was significantly prejudicial to the Development Approval Holder.

B. Nothing contained herein shall prohibit the COUNTY from participating in the defense of any claim, action, or proceeding if both of the following occur:

1. COUNTY bears its own attorney's fees and costs; and

2. COUNTY defends the action in good faith.

C. Settlement. The Development Approval Holder shall not be required to pay or perform any settlement unless such Development Approval Holder has approved the settlement. When representing the County, the Development Approval Holder shall not enter into any stipulation or settlement modifying or affecting the interpretation or validity of any of the terms or conditions of the development approval without the prior written consent of the County.

D. Successors Bound. "Development Approval Holder" shall include the applicant and the successor'(s) in interest, transferee(s), and assign(s) of the applicant.

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

A. Pre-construction site meeting: Prior to any disturbance on the property, the applicant shall convene a pre-construction meeting on site with the applicant, grading contractor supervisor, project geologist, project geotechnical engineer, and the Santa Cruz County grading inspector (Condition III.A.). No inspections by Environmental Planning staff shall occur until this meeting is convened, and failure to conduct this meeting prior to the start of construction will be in violation of this permit and will result in a Stop Work order from the Building Department.

B. Plan review letters: Prior to building permit approval by Environmental Planning, the applicant shall provide plan review letters from the project geologist and project geotechnical engineer indicating they have reviewed the site plans and preliminary improvement plans (M. Beautz, July 2006), and that the design meets the recommendations of their reports and the review letter fiom the County Geologist (J. Hanna, letter dated December 18,2006). A plan review letter shall also be submitted from the project structural engineer that the FEMA elevation requirements for non-

habitable and break away constructionbelow 21 feet MSL has been met (Conditions of Approval II.C.9 and II.M).

C. Construction plan: Prior to approval of the building and/or grading permit by Environmental Planning, the applicant shall submit a detailed construction plan, prepared by a Civil Engineer, indicating how the earthwork will proceed. The plan shall indicate the shoring plan, the phases of excavation, five foot maximum height for temporarily unsupported cuts, plan to work from the top down, and requirements for the project geotechnical engineer to be on site during excavation. The construction plan shall not be submitted without an accompanying letter from the project geotechnical engineer approving the plan (Condition of Approval II.B.).

D. Resmction on winter grading: Grading shall not occurbetween October 15 and April 15. Further, if grading has not started before **August** 1st, it cannot start until April 15 of the following year (Condition III.B.). Environmental Planning will not issue a winter grading permit, and any grading during this time period will be in violation of the conditions of this permit and will be referred to Code Compliance.

E. Declaration of Geologic Hazards: Prior to approval of the building permit application by Environmental Planning, a Declaration of Geologic Hazards must be recorded which identifies the hazards on the site, references the technical reports, and identifies the required mitigation measures and maintenance required to maintain the original level of risk (Condition II.K.).

F. Drainage plan: Prior to approval of the building permit application by both Environmental Planning and the Department of Public Works, Drainage, the applicant shall submit a drainage plan prepared by the project Civil Engineer, presented on an accurate topographic base, **for** review and approval by the Department of Public Works Drainage staff, the project geotechnical engineer, and the County Geologist (Condition II.C.14).

G. Erosion control plan: Prior to approval of the building permit by Environmental Planning, the applicant shall submit an erosion control plan for review and approval. Plans shall indicate that the destination of **excess** fill is either the municipal landfill or a receiving site with a valid permit (Condition II.C.15).

H. Visual impacts: Prior to approval of the building permit by Development Review, the applicant shall submit a color board (in an 8½" x 11" format, not to exceed ¼" in thickness) and indicate on the plans the exterior colors and materials. These colors and materials shall be earth tone within the brown to green range, trim and accent colors will be subdued, and exterior materials will blend in with the colors and forms of the coastal bluff (Condition II.C.1, 2).

I. Landscaping: Landscaping shall use native species and shall not be imgated once established (Condition II.C.8.a).

J. Side windows: Side windows shall be a maximum size of 14 inches **by 18** inches

unless supported **by** structural steel and approved **by** the County Geologist and the project Geotechnical Engineer (Condition II.C.3).

Minor variations to this permit which do not affect the overall concept or density may be approved by the Planning Director at the request of the applicant or **staff** in accordance with Chapter 18.10 of the *County* Code.

Please note: This permit expires on the expiration date listed below unless you obtain the required permits and commence construction.

Approval Date: _____

Effective Date: _____

Expiration Date: _____

Mark Deming	Maria Perez
Assistant Planning Director	Project Planner

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

COUNTY OF SANTA CRUZ

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

NOTICE OF ENVIRONMENTAL REVIEW PERIOD

SANTA CRUZ COUNTY

APPLICANT: Jim Mosarove, Architect, for Michael and Deborah Collins

APPLICATION NO.: 06-0156

APN: 043-152-70 (formerly 043-152-55)

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

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

XX Mitigations will be attached to the Negative Declaration

_____ No mitigations will be attached.

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

As part of the environmental review process required by the California Environmental Quality Act (CEQA), this is your opportunity to respond to the preliminary determination before it is finalized. Please contact Paia Levine, Environmental Coordinator at (831) 454-3178, if you wish to comment on the preliminary determination. Written comments will be received until 5:00 p.m. on the last day of the review period.

Review Period Ends: March 7, 2007

David Kevon
Staff Planner

Phone: 454-3561

Date: January 30, 2007

EXHIBIT D

NAME: Mosgrove for Collins
APPLICATION: 06-0156
A.P.N: 043-152-70

NEGATIVE DECLARATION MITIGATIONS

A. In order to ensure that the mitigation measures B – F (below) are communicated to the various parties responsible for constructing the project, prior to any disturbance on the property the applicant shall convene a pre-construction meeting on the site. The following parties shall attend: applicant, grading contractor supervisor, construction supervisor, project geologist, project geotechnical engineer, Santa Cruz County grading inspector and /or other Environmental Planning staff. The permit conditions and work plan shall be reaffirmed by all parties and the destination for the excess fill shall be identified at that time.

B. In order to avoid impacts from potential geologic and geotechnical hazards on the property. specifically potential for landslide and liquefaction:

1. The project shall be fully engineered and designed for the site conditions in accordance with the approved engineering geologic investigation (Nielsen and Associates, February, 2004), the approved geotechnical report (Haro, Kasunich, Associates, 2004 and March, 2006) and the review letter from the County Geologist detailing additional recommendations (J. Hanna, letter dated December 18, 2006).

   Prior to scheduling the public hearing the applicant shall provide a letter from the project geologist and project geotechnical engineer indicating that they have reviewed the site plans and preliminary improvement plans (that the design meets the recommendations of their reporls and the review letter from the County Geologist cited above.

2. Prior to approval of a building or grading permit, the applicant shall submit a detailed construction plan, prepared by a Civil Engineer, indicating how the earthwork will proceed. The plan shall indicate the shoring plan, the phases of excavation, five foot maximum height for temporarily unsupported cuts, plan to work from the top down, project geotechnical engineer on site during excavation, etc. The construction plan shall not be submitted without an accompanying letter from the project geotechnical engineer approving the plan.

4. Grading shall not occur between October 15 and April 15. Further, if grading has not started before August 1 it cannot be started until April 15 of the following year;

5. Prior to approval of any building or grading permit, the applicant shall submit a plan check letter from the project geologist and project geotechnical engineer indicating that they have reviewed the plans and that they meet the recommendations of their reports, and from the project structural engineer that the FEMA elevation requirements and requirement for non habitable break away construction below 21 feet M.S.L. has been met;

6. Prior to approval of any building or grading permit, the applicant shall record a

EXHIBIT D

Declaration of Geologic Hazard onto the deed which identifies the hazards on the site, references the technical reports, and identifies the required mitigation measures and maintenance required to maintain the original level of mitigation.

7. Plans showing side windows shall indicate maximum size of 14 inches by 18 inches unless the windows are supported by structural steel.

8. Landscape plans shall indicate that the slope will not be irrigated once plantings are established.

C. Prior to scheduling the public hearing, the applicant shall submit a drainage plan prepared by the project Civil Engineer, presenled on an accurate topographic base, for review and approval by the Department of Public Works drainage staff, the project geotechnical engineer and the County Geologist. The plan shall meet the requirements of the County Geologist and Department of Public Works, specifically: show control of all drainage and the drainage path through the outlet point onto the beach; detail pipes, inlets and outlets; show control of drainage originating upslope, indicate five foot drainage easement on both side properly lines to accommodate drainage originating upslope, and calculations and sizing for all pipes.

D. In order to avoid impacts from flooding and wave run up, prior to public hearing applicant shall revise the plans to clearly indicate that the elevation of the bottom of the lowest structural member of the lowest finished floor is above 21 feet MSL and that enclosed areas below that level are designed to "breakaway" under pressure, pursuant to FEMA regulations.

E. In order to minimize impacts from accelerated erosion, winter grading shall not be approved. In addition, prior to issuing building or grading permits the applicant shall submit a detailed erosion control plan for review and approval of Environmental Planning Staff. Plans shall indicate that the destination of excess fill is either the municipal landfill or a receiving site with valid permit.

F. To mitigate the visual impacts of the new home to the public beach the applicant shall revise the plans to indicate that exterior colors of the structure shall be earth tones in the brown-green range, trim and accent colors shall be subdued, and exterior materials shall be chosen lo blend with the colors and form of the coastal bluff.

EXHIBIT D

Environmental Review
Initial Study

Application Number: 06-0156

Date: January 22,2007
Staff Planner: David Keyon

I. OVERVIEW AND ENVIRONMENTAL DETERMINATION

APPLICANT: Jim Mosgrove, Architect

APN: 043-152-70 (formerly 043-152-55)

OWNER: Michael and Deborah Collins

SUPERVISORAL DISTRICT: 2nd District

LOCATION: Northeast side of Beach Drive, about one mile southeast of Rio del Mar Boulevard on the bluff side, 500 feet past the entry gate to the private road.

SUMMARY PROJECT DESCRIPTION:

The proposed project consists of the construction of a three-story, five bedroom single-family dwelling, requiring about 1,600 cubic yards of grading within a Coastal Scenic Area. The proposal requires a Coastal Development Permit, Preliminary Grading Approval, A Variance to increase the number of stories to three, Design Review, Soils Report Review, and a Geologic Report Review.

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

_X_ Geology/Soils	____ Noise
____ Hydrology/Water Supply/Water Quality	____ Air Quality
____ Energy & Natural Resources	____ Public Services 8 Utilities
_X_ Visual Resources 8 Aesthetics	____ Land Use, Population 8 Housing
____ Cultural Resources	____ Cumulative Impacts
____ Hazards & Hazardous Materials	____ Growth Inducement
____ Transportation/Traffic	____ Mandatory Findings of Significance

DISCRETIONARY APPROVAL(S) BEING CONSIDERED

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

NON-LOCAL APPROVALS
Other agencies that must issue permits or authorizations: None.

ENVIRONMENTAL REVIEW ACTION
On the basis of this Initial Study and supporting documents:

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

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

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

Paia Levine

1.29.07
Date

For: Ken Hart
Environmental Coordinator

EXHIBIT D

II. BACKGROUND INFORMATION

EXISTING SITE CONDITIONS
Parcel Size: About 12,888 square feet
Existing Land Use: Vacant
Vegetation: Coastal shrubs
Slope in area affected by project: ___ 0 - 30% _X_ 31 – 100%
Nearby Watercourse: Pacific Ocean
Distance **To:** About 300 feet

ENVIRONMENTAL RESOURCES AND CONSTRAINTS
Groundwater Supply: NIA
Water Supply Watershed: N/A
Groundwater Recharge: N/A

Timber **or** Mineral: N/A
Agricultural Resource: N/A
Biologically Sensitive Habitat: N/A
Fire Hazard: N/A
Floodplain: Property subject to Coastal Flooding and wave action
Erosion: Coastal erosion & landsliding
Landslide: Landslide hazard area

Liquefaction: High probability
Fault Zone: N/A
Scenic Corridor: Coastal scenic area
Historic: N/A
Archaeology: NIA
Noise Constraint: None
Electric Power Lines: None
Solar Access: Adequate

Solar Orientation: South
Hazardous Materials: None

SERVICES
Fire Protection: Aptos/La Selva
School District: Pajaro Valley Unified
Sewage Disposal: SC County Sanitation

Drainage District: Zone 6
Project Access: Beach Drive (private)
Water Supply: Soquel Creek Water Dist.

PLANNING POLICIES
Zone District: RB (Ocean Beach Res.)
General Plan: R-UL (Urban Low Res.)
Special Designation: None
Urban Services Line: _X_ Inside ___ Outside
Coastal Zone: _X_ Inside ___ Outside

PROJECT SETTING AND BACKGROUND:

The project site is located on the bluff side of the private section of Beach Drive in Aptos, between existing residences at 544 Beach Drive and 615 Beach Drive. The property is steeply sloped, with the entire site in excess of 50% slope. A line of mostly one-story homes already exists on the coast side of Beach Drive, between the project site and the beach.

The project site is located within the Federal Emergency Management Agency (FEMA) designated coastal hazard zone, subject to storm surges and wave action. This location

EXHIBIT D

is subject to Federal regulations which require all habitable space to be located at least one foot above the 100-year flood level, which in this case is 21 feet above sea level.

Previous Coastal Development Permits have been approved for the construction of a single-family dwelling on site (Coastal Development Permits 96-0159 and 98-0161) but none were exercised.

DETAILED PROJECT DESCRIPTION:

The proposed single-family will be constructed along the face and toe of the coastal bluff on Beach Drive. The proposed house consists of three stories, with the lowest level being non-habitable due to Federal Emergency Management Agency (FEMA) regulations applying to wave run up areas (Flood Zone-V), which require all habitable space to be raised above the 100-year wave run up zone. The house is about 5,530 square feet in size, including five bedrooms and three and a half bathrooms, with *a* five-car garage on the **1"'** level. The house is larger than recently approved homes of similar construction on Beach Drive. The size of the parcel, however, is about twice the size of most parcels down coast from the project site. The exception is the house approved on the immediate downcoast property (permit 04-0255), approved by the Board of Supervisors on September 26, 2006, which is about 5,800 square feet in size.

Despite the size of the structure, the amount of grading will be comparable to recently approved homes of similar construction. This is because the amount of grading is determined by the angle of the slope on site.

Visibility of the house from the beach will be minimal, due to the existing line of houses on the coast side of Beach Drive, and the incorporation of earth-tone colors which will blend with the surrounding environment. Finally, the height of the house will match the existing and proposed development on the bluff side of Beach Drive.

The construction will be of a "bunker" style design as recommended in the Soils and Engineering Geologic Report prepared for the site. A "bunker house" is designed to withstand impacts from landslide debris on and around the structure and to withstand the weight of landslide debris on the roof. The house will be excavated into the bluff, with the rear and side walls functioning as retaining structures. Construction will be of reinforced concrete, specially designed glass to withstand impact by debris, and a foundation of drilled concrete piers founded in bedrock. To protect occupants from landslide debris, the third-story deck will be entirely covered, and the second-story deck will be covered for the first three feet to comply with the recommendations of the project's geotechnical report.

A lot line adjustment (permit 04-0037 approved in 2004), resulted in the transfer of about 4,500 square feet from the subject parcel to the adjacent up coast parcel, resulting in a change in parcel numbers from APN 043-152-55 to APN 043-152-70.

EXHIBIT D 1

Significant Or Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Or No Impart	Not Applicable

III. ENVIRONMENTAL REVIEW CHECKLIST

A. Geology and Soils

Does the project have the potential to:

1. Expose people or structures to potential adverse effects, including the risk of material loss, injury, or death involving:

   A. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or as identified by other substantial evidence? ___ X ___

   B. Seismic ground shaking? ___ X ___

   C. Seismic-related ground failure, including liquefaction? ___ X ___

A geologic investigation for the project was prepared by Nielsen and Associates, dated February, 2004 (Attachment 9), and a geotechnical investigation was prepared by Haro, Kasunich, and Associates, dated March 17, 2004 (Attachment 10). These reports have been reviewed and accepted by the County Geologist (Attachment 7). The reports conclude that fault rupture will not be a potential threat to the proposed development, and that seismic shaking and resulting landslides can be managed by following the recommendations in the geologic and geotechnical reports referenced above.

   D. Landslides? ___ X ___

The structure, at the base of the coastal bluff, will be vulnerable to damage or destruction from the expected landsliding and slope failure characteristic of coastal bluffs. Consequently, the Engineering Geologic and Geotechnical Reports(Attachments 9 and 10) prepared for the proposed residence address these hazards and propose mitigations to reduce the risk. The project soils engineer and geologist recommend constructing the dwelling as a reinforced concrete structure and flat roof designed to withstand the impact and resultant dead loads of any expected landslides. To comply with these recommendations, a "bunker" style design is proposed with the roof constructed of reinforced concrete and the sides of the structure designed as retaining walls to prevent damage by landslide flows along the side yards. The

EXHIBIT D

	Significant Or Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Lars than Significant Or No Imparl	Not Applicable

flat roof and location of the house in the center of a wide lot will prevent landslide debris from being deflected into neighboring residences. Moreover, the home will be built flush with the face of the slope with minimal projection above the slope to minimize impact to the rear of the dwelling. Finally. the foundation is designed to withstand slope failure and to mitigate for unconsolidated soils. The soils engineer recommends that all decks and exterior stairways be covered with a 3 foot roof extension and that all side windows be designed to withstand landslide impacts and dead loads to minimize landslide hazards to occupants (see Geofechnical Plan Review Letter from Haro. Kasunich: and Associates dated. March 14, 2006, Attachment 6).

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

The project site is *located in an area subject to soil instability due to landsliding and coastal erosion processes. The design of the structure along the recommendations of the Geotechnical and Engineering Geologic Reports requires the use of reinforced concrete, a flat roof, covered decks, and impact resistant side windows to minimize harm to inhabitants in the event of a landslide by allowing landslide debris to flow on top of and over the house without sustaining significant structural damage (As discussed in A.1.d). To minimize potential instability during construction, a detailed work plan and shoring plan will be required for review and approval by the Planning Department prior to building permit issuance, and excavation will be monitored by the project geotechnical engineer.*

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

The proposed project site will be located on slopes of 70% and greater. However, the design of the structure will mitigate impacts from potential hazards resulting from slope instability and landslides (See responses 1. and 2., above).

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

During grading, the unconsolidated material of the bluff will be exposed. A detailed erosion control plan will be required to be submitted with the grading plans. Implementation of this plan, once approved, combined with only dry season grading (April 15 to October 15), will minimize the erosion impacts to a less than significant level.

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

The geotechnical report for the project did not identify any elevated risk associated with

EXHIBIT n 4

	Significant Or Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Or No Impact	Not Applicable
expansive soils.				
6. Place sewage disposal systems in areas dependen?upon soils incapable of adequately supporting the use of septic tanks, leach fields, or alternative waste water disposal systems?			X	
No septic systems are proposed. The project will connect to the Santa Cruz County Sanitation District, and the applicant will be required to pay standard sewer connection and service fees that fund sanitation improvements within the district as a Condition of Approval for the project.				
7. Result in coastal cliff erosion?		X		
*The proposed single-family dwelling will be required to be constructed in a manner that does not de-stabilize the coastal bluff by excavating from the top down, limiting the area of unsupported face to 5'at a time, and excavating only during the dry season (April **15** to October 15), all pursuant to the recommendations of the Geotechnical and Engineering Geologic reports. Shallow erosion of the surface bluff material will be controlled by standard Best Management practices, such as no winter grading, re-vegetation of the disturbed areas, etc. An erosion control plan will be required to be submitted to the Planning Department for approval prior to issuance of the building permit, and this plan will be implemented during construction (see A-4).*				

B. Hydrology, Water Supply and Water Quality

Does the project have the potential to:

1. Place development within a 100-year flood hazard area?		X		
The house will be located on a parcel within Flood Zone-V, the Coastal High Hazard zone. Federal Emergency Management Agency (FEMA} flood hazard zone maps (attachment 14) indicate that the expected wave height during a 100 year storm could be up to 21 feet above mean sea level. The area of a structure below this height must be non-habitable and constructed of breakaway parfitions that will collapse during a storm event without damage to the rest of the structure. Prior to issuance of a building permit, cerfification from an licensed architect or civil engineer stating compliance with all applicable FEMA regulations for dwellings subject to wave inundation. Prior to subfloor inspection, certification by a registered professional engineer, architect, or surveyor will be required to verify that the elevation requirement is met. Prior to building permit final, an Elevation Cerfificate must be completed to ensure compliance with flood elevation requirements.				
2. Place development within the floodway resulting in impedance or redirection of flood flows?			X	

EXHIBIT D

	Significant Or Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Or No Imparl	Not Applicable

*The structure will **be** located within a line of existing development.*

3. Be inurdated by a seiche or tsunami? X

The location of the proposed dwelling on a beach leaves little protection from a seiche or tsunami. However, the reinforced concrete construction and elevation above the FEMA 100-year wave run up level will minimize potential hazards for small-scale events. The house will be subject to the same risk as existing beach development in a larger event.

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

The project will obtain water from the Soquel Creek Water District and will not rely on private well water. Although the project will incrementally increase water demand, the Soquel Creek Water District has indicated that adequate supplies are available to serve the project (Attachment 12). The project is not located in a mapped groundwater recharge area.

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

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

6. Degrade septic system functioning? X

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

EXHIBIT D

	Significant Or Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Or No Impact	Not Applicable

Construction of a new dwelling on an exposed bluff face will alter existing drainage patterns. To handle runoff from the top of the bluff, the Geotechnical Report recommends construction of a concrete V-ditch on top of the uppermost retaining wa!! to collect runoff and direc! it to the proposed drainage system. This system will direct both the runoff from the bluff above and the dwelling onto the beach. Prior to approval of the building permit, the Project Engineering Geologist, the Project Geotechnical Engineer, Environmental Planning, and the Department of Public Works, Drainage Division, must approve the final drainage plan. Control of uphill drainage will reduce existing erosion problems on fhe bluff face from uphill development. A plan for maintenance of the drainage svstem will be reauired as wart of the "Declaration of Geologic Hazards" to be recorded on the property deed.

a.	Create or contribute runoff which would exceed the capacity *of* existing or planned storm water drainage systems, or create additional source(s) of polluted runoff?			X	
9.	Contribute to flood levels or erosion in natural water courses by discharges of newly collected runoff?			X	
10.	Otherwise substantially degrade water supply or quality?			X	

C. Biological Resources

Does the project have the potential to:

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

According to the California Natural Diversity Data Base (CNDDB), maintained by the California Department of Fish and Game, there are no known special status plant or *animal species in the site vicinity, and there were no special status species observed in the project area.*

EXHIBIT D

	Significant Or Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Or *No* Impact	Not Applicable
2. Have an adverse effect on a sensitive biotic community (riparian corridor), wetland, native grassland, special forests, intertidal zone, etc.)?			X	

There are no mapped or designated sensitive biotic communities on or adjacent to the project site.

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

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

4. Produce nighttime lighting that will illuminate animal habitats?			X	

There are no sensitive animal habitats within or adjacent to the project site

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

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

No trees in excess of 6 inches in diameter will be removed as part of this project

EXHIBIT D

	Significant Or Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Or No Impact	Not Applicable
7. Conflict with the provisions of an adopted Habitat Conservation Plan, Biotic Conservation Easement, or other approved local, regional,or state habitat conservation plan?				X

D. Energy and Natural Resources

Does the project have the potential to:

1. Affect or be affected by land designated as "Timber Resources" by the General Plan?				X
2. Affect or be affected by lands currently utilized for agriculture, or designated in the General Plan for agricultural use?				X
3. Encourage activities that result in the use of large amounts of fuel, water, or energy, or use of these in a wasteful manner?			X	
4. Have a substantial effect on the potential use, extraction, or depletion of a natural resource (i.e., minerals or energy resources)?				X

E. Visual Resources and Aesthetics

Does the project have the potential to:

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

The proposed house will be visible from the public beach. However, the public viewshed is not pristine at this location, as it includes development on Beach Drive in the foreground, the

EXHIBIT D

	Significant Or Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Or No Impact	Not Applicable

coastal bluff above, and development along the top of the bluff on Bay View Drive. Rows of single-family dwellings already exist along the toe of the bluff about 25 feet upcoast and 200 feet downcoast of the project site, and the proposed dwelling will be of similar height to this existing development (See atfachment 16 for a photo-simulation of the project).

7he visual impact of the house on the beach will be limited as houses along the coast side of Beach Drive partially block views of the proposed house from the public beach, except during very low tides when the upper floors of the residence become visible to beach goers. When visible, the subdued coloration and limitations in building height will integrate the dwelling into the surrounding built and natural environment and break ***up*** *the mass of fhe structure.*

The applicant submitted a photo-simulation, showing how the proposed dwelling will appear on the site (attachment 16). The proposed colors, specifically the yellow stucco as shown, will not blend in with the natural colors of the site. Therefore, a condition will be added that the colors and materials must blend with the natural colors of the site, using earth-tone colors in the green-brown range. A color version of attachment 16 is on file with the Planning Department. Project conditions will require Planning Deparlment approval of future changes to the exterior, including changes in materials and colors.

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

As discussed in E.1. above, the proposed dwelling will be built info a coastal bluff that is visible from a beach. However, the visual impact of the project will be minimized through the usage of earth tone colors to integrate with the surrounding natural and built environment.

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

The proposed single-family dwelling will use earth-toned colors to minimize the visual impact on the beach (as discussed in E.1., above), and will not alter the coastal bluff surrounding the construction site. No cuts will be visible from the beach, as the structure is required to be flush with the slope.

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

A condition of approval for the Coastal Permit will require no exterior illumination of the beach and the use of non-glare windows. **A** *lighting plan will be required prior to approval of the building permit, which must be reviewed and approved by the Planning Department prior to*

EXHIBIT D

	Significant Or Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less rbrn Significant Or No Imparl	Not Applicable

building permit issuance.

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

The proposed residence will be notched into a coastal bluff, but will only cover a small portion of the existing bluff face.

F. Cultural Resources

Does the project have the potential to:

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

The existing structure(s) on the property is not designated as a historic resource on any federal, State or local inventory.

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

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

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

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

EXHIBIT D

	Significant Or Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Or No Impact	Not Applicable
4. Directly or indirectly destroy a unique paleontological resource or site?			X	

G. Hazards and Hazardous Materials

Does the project have the potential to:

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

No hazardous materials beyond household chemicals and materials will be used, posing no significant hazard to the environmenl.

2. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?			X	
3. Create a safety hazard for people residing or working in the project area as a result of dangers from aircraft using a public or private airport located within two miles of the project site?				X
4. Expose people to electro-magnetic fields associated with electrical transmission lines?				X

EXHIBIT D

	Significant Or Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Or No Impact	Not Applicable
5. Create a potential fire hazard?			X	

The project design incorporates all applicable fire safety code requirements and will include fire protection devices as required by the local fire agency. Furthermore, the reinforced concrete construction and the setbacks of at least 24 ½ feet from the side property lines will reduce any potential fire hazards to adjacent properties.

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

H. Transportation/Traffic

Does the project have the potential to:

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

The new five-bedroom dwelling will result in a minimal increase in traffic, which can be accommodated by Beach Drive and !he road system in the vicinity. Construction traffic will be limited to the hours of 8am to 5pm Monday through Friday (excluding National holidays) as a Condition of Approval to minimize traffic impacts for residents and beachgoers.

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

The project meets the code requirements for the required number of off-street parking spaces for a five-bedroom single-family dwelling

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

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

EXHIBIT D

	Significant Or Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Or No Impart	Not Applicable
4. Exceed, either individually (the project alone) or cumulatively (the project combined with other development), a !evelof service standard established by the county congestion management agency for designated intersections, roads or highways?			X	

The level of traffic generated by one single-family dwelling (about 10 trip-ends) will not present a significant impact.

I. Noise

Does the project have the potential to:

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

Any noise generated on site will be consistent with ambient noise levels from surrounding residential uses.

2. Expose people to noise levels in excess of standards established in the General Plan, or applicable standards of other agencies?				X
3. Generate a temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?			X	

During construction, neighboring properties will be *subjected to temporary increases in noise. Construction will be confined to the hours of 8am to 5pm Monday through Friday (except National holidays) so the impact to residents and weekend beachgoers will not be significant.*

J. Air Quality

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

EXHIBIT D

	Significant Or Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Or No Impact	Not Applicable
1. Violate any air quality standard or contribute substantially to an existing or projected air quality violation?			X	
2. Conflict with or obstruct implementation of an adopted air quality plan?			X	
3. Expose sensitive receptors to substantial pollutant concentrations?		X		
4. Create objectionable odors affecting a substantial number of people?			X	

K. Public **Services and Utilities**

Does the project have the potential to:

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

EXHIBIT D

	Significant Or Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Or No Impact	Not Applicable
d. Parks or other recreational activities?			X	
e. Other public facilities; including the maintenance of roads?			X	

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

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

Prior to project approval, a drainage plan prepared by the project Civil Engineer shall be approved by the Department of Public Works drainage staff, the project geotechnical engineer, and the County Geologist.

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

The project will connect to an existing municipal water supply. The Soquel Creek Water District has determined that adequate supplies are available to serve the project with appropriate mitigation measures (Attachment 12).

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

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

EXHIBIT D

	Significant Or Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Or No Impact	Not Applicable
5. Create a situation in which water supplies are inadequate to serve the project or provide fire protection?				

The water mains serving the project site provide adequate flows and pressure for fire suppression. Additionally, Aptos/La Selva Fire Protection District, has reviewed and approved the project plans, assuring conformity with fire protecfion standards that include minimum requirements for water supply for fire protection.

6. Result in inadequate access for fire protection?			X	

The project's road access meets County standards and has been approved by the Aptos/La Selva Fire Protection District. Construction of a house in a hazard prone area will result in an incremental increase in the need for all emergency services. During and after a catastrophe, emergency crews may not be able to access the area due to debris and/or landslide material. To offset this, the applicants shall consult with the County Office of Emergency Services and the Aptos-La Selva Fire District to establish a contingency plan for emergency response after a catastrophe.

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

The project will make an incremental contribution to the reduced capacity of regional landfills However, this contribution will be relatively small and will be of *similar magnitude to that created by existing land uses around the project. Erosion control plans submitted for the grading and building permit which shall indicate the destination of excess fill.*

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

L. Land **Use,** Population, and Housing

Does the project have the potential to:

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

General Plan/LCP policy 6.2.15(a) requires that for all properties subject to storm wave inundation or beach or bluff erosion, technical reports must demonstrate that the hazards can be mitigated over the expected 100 year lifespan of the building. The project meets this policy (see discussion under B.1, above).

EXHIBIT D

	Significant Or Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Or No Impact	Not Applicable

General Plan/LCP policy 6.3.9 requires that site grading be minimized by requiring foundations to be designed to minimize cuts and fills and requiring avoidance of particularly erodible areas, and General Plan/LCP policy 8.2.2 requires new development to be sited and designed to minimize grading, avoid or provide mitigations for geologic hazards and conform to the physical constraints and topography of the site. The project meets this policy in that the design is a "bunker" style structure that fully considers the physical hazards on the site.

The "bunker" style construction recommended by the Geotechnical Report requires the rear of the house to be flush with the coastal bluff to serve as a retaining wall. This requires excavation into the bluff. The proposed 1,600 cubic yards of grading is not excessive for a house constructed in this style, as the amount of grading is similar to recently approved homes of a similar design at the southern end of Beach Drive. Furthermore, the proposed residence steps up the bluff to minimize excavation.

The County Geologist has determined that the cumulative effects of a number of excavations into the bluff on overall stability of that bluff will be insignificant as long as each operation is carried out per the guidelines of Geologic and Geofechnical reports as well as under the supervision of the report's authors, as outlined in the Geotechnical Report Review Letter, Attachment 8.

General Plan/LCP policies 5.10.2 & 5.10.3 require that development in scenic areas be evaluated against the context of their environment, utilize natural materials, blend with the area and integrate with the landform and that significant public vistas be protected from inappropriate structure design. The County's Urban Designer evaluated the proposed house for conformance with the County's Coastal Zone Design Criteria (County Code Section 13.20.130) and for compliance with the County's Design Review Ordinance (County Code Section 13.11). The proposed location and design of the dwelling has been determined by the Urban Designer to comply with all applicable provisions of these ordinances (attachment 15).

General Plan/LCP policy 5.10.7 allows structures which would be visible from a public beach, where compatible with existing development. Subsequent to Design Review the proposed dwelling has been determined to be compatible with the existing development along Beach Drive in terms of bulk, mass, scale, color, and materials. Furthermore, the visual impact of the proposed house on the beach will be minimized by the presence of existing development on the coast side of Beach Drive, with only the top story visible from the beach during low tides.

General Plan/LCP policies 8.6.5 and 8.6.6 require that development be complementary with the natural environment and that the colors and materials chosen blend with the natural landforms. The proposed dwelling will comply with this policy by incorporating earth-tone colors to blend in with the colors of the bluff to the rear (attachment 7, color versions of this photosimulation are on file).

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

EXHIBIT D

	Significant Or Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Or No Impact	Not Applicable

Development on the subject parcel could potentially conflict with County Code Section 13.20.130(d)2ii, requiring ihat the design of permitted structures shall minimize visual intrusion, and shall incorporate materials and finishes which harmonize with the character of the area. To minimize potential conflicts; the architect proposes earth-tone colored stucco to match the bluff and subdued window and door trim. Furthermore, the height, bulk, and scale of the house will be consistent with the recently approved house immediately downcoast (permit 04-0255 approved by the Board of Supervisors on 9/26/06), the existing house at 641 Beach Drive, and the two proposed bluff-toe residences approved under 99-0354.

3. Physically divide an established community? X

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

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

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

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

The proposed project will occur on a vacant parcel

EXHIBIT D

M. Non-Local Approvals

Does the project require approval of federal, state, or regional agencies? Yes ____ No __X__

This project is located within the appeal jurisdiction of the California Coastal Commission, and if approved is subject to the Coastal Commission's appeal process. However, the County of Santa Cruz is the issuing agency for the Coasfal *Permit (unless the project is appealed to and accepted* ***by*** *the Coastal Commission).*

N. Mandatory Findings **of** Sianificance

1. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant, animal, or natural community, or eliminate important examples of the major periods of California history or prehistory? Yes ____ No __X__

2. Does the project have the potential to achieve short term, to the disadvantage of long term environmental goals? **(A** short term impact on the environment is one which occurs in a relatively brief, definitive period of time while long term impacts endure well into the future) Yes ____ No __X__

3. Does the project have impacts that are individually limited, but cumulatively considerable ("cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, and the effects of reasonably foreseeable future projects which have entered the Environmental Review stage)? Yes ____ No X

4. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly? Yes ____ No X

EXHIBIT D

TECHNICAL REVIEW CHECKLIST

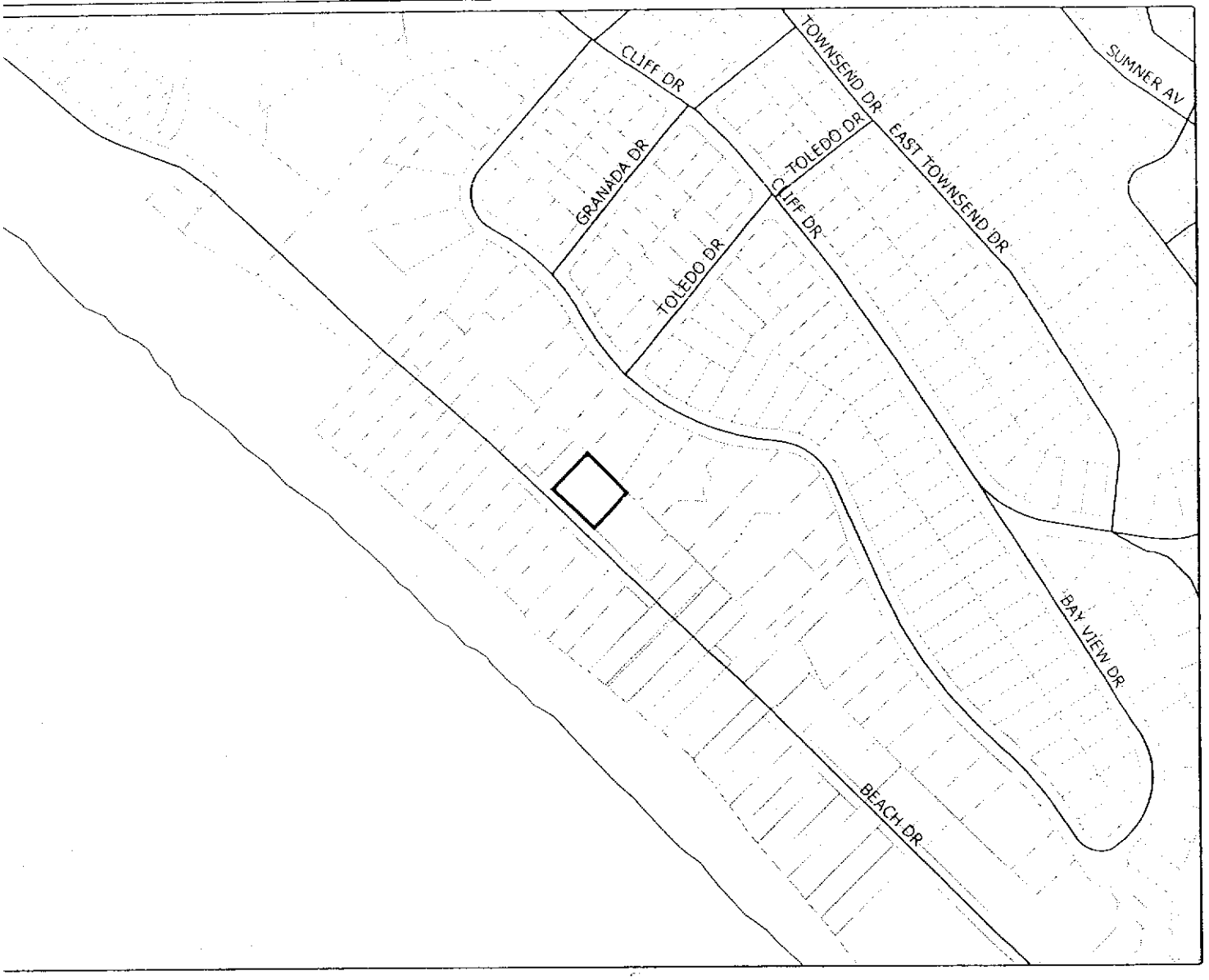
	REQUIRED	COMPLETED*	N/A
Agricultural Policy Advisory Commission (APAC) Review			X
Archaeological Review			X
Biotic Report/Assessment			X
Geologic Hazards Assessment (GHA)			
Geologic Report		2/04	
Geotechnical (Soils) Report		2/04	
Riparian Pre-Site			X
Septic Lot Check			X
Other:			

Attachments:

1. Vicinity Map
2. Map of Zoning Districts
3. Map of General Plan Designations
4. Project Plans (on file)
5. Assessors Parcel Map
6. Geotechnical Review Letter prepared by Haro, Kasunich, and Associates, dated March 14, 2006.
7. Engineering Geologic and Geotechnical Report Acceptence Letter, prepared by Joe Hanna, County geologist, dated December 18, 2006.
8. Geotechnical Investigation (Conclusions and Recommendations) prepared by Haro, Kasunich, and Associates, dated February 2004.
9. Engineering Geologic investigation (Report Summary, Conclusions, Recommendations, Map & Cross Sections) prepared by Nielsen and Associates, dated February 2004.
10. Discretionary Application Comments, dated October 23, 2006.
11. Letter from Soquel Creek Water District, dated April 5, 2006
12. Memo from Department of Public Works, Sanitation, dated April 5, 2006.
13. FEMA Flood Plain Map
14. Urban Designer's Comments, dated April 18, 2006.
15. Photo-simulations of proposed project.

EXHIBIT D

Location Map



0 280 560 1,120 1,680 2,240 Feet

Legend

AFN 043-152-70

Streets

Assessors Parcels

N

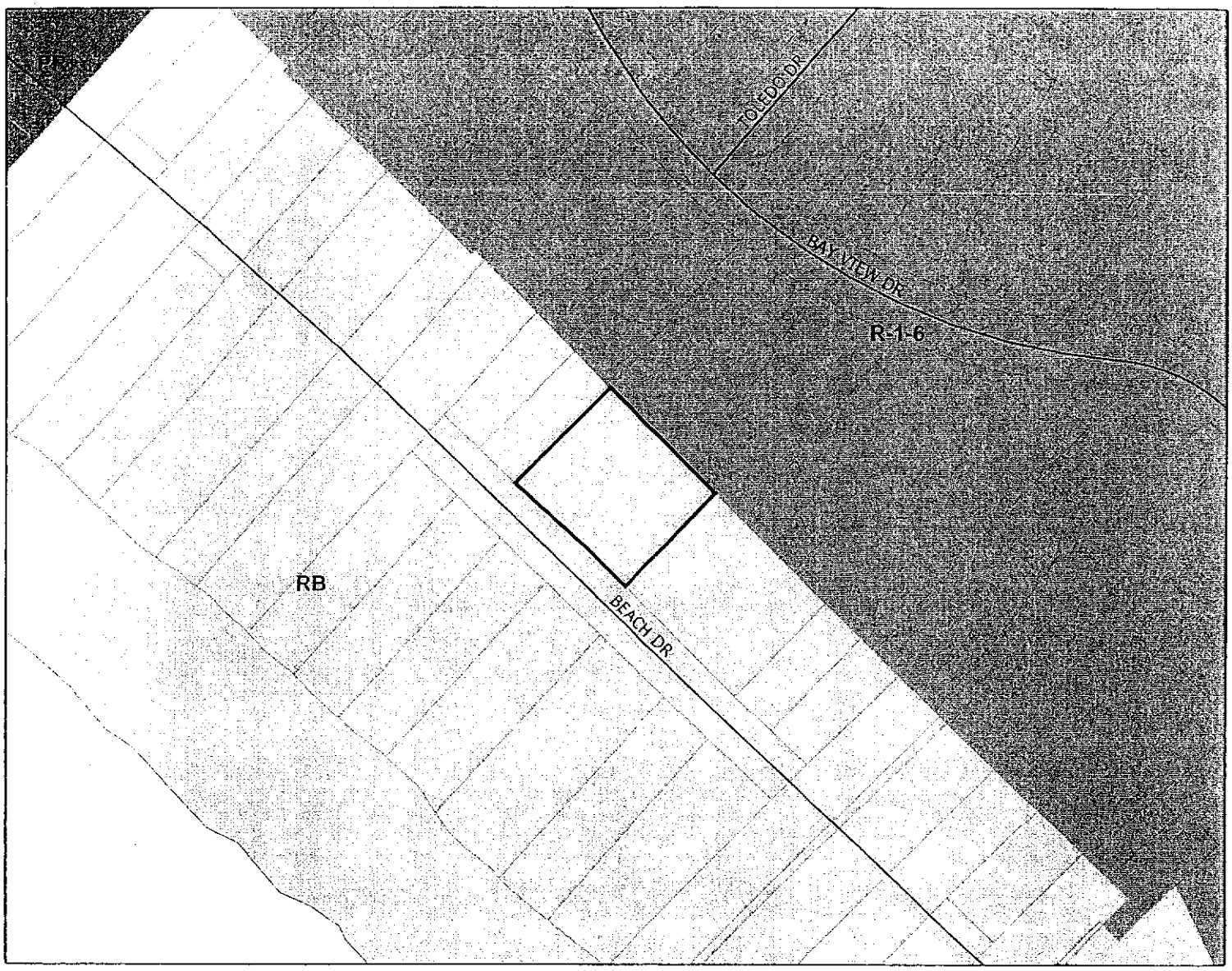
W E

Environmental Review Inital Study
ATTACHMENT 1
APPLICATION 06-0156

Map Created by
County of Santa Cruz
Planning Deparlment
March 2006

EXHIBIT D

Zoning Map



0 105 210 420 630 840 Feet

Legend

- APN 043-152-70
- Streets
- Assessors Parcels
- RESIDENTIAL- OCEAN BEACH (RB)
- RESIDENTIAL-SINGLE FAMILY (R-1)
- PARK (PR)

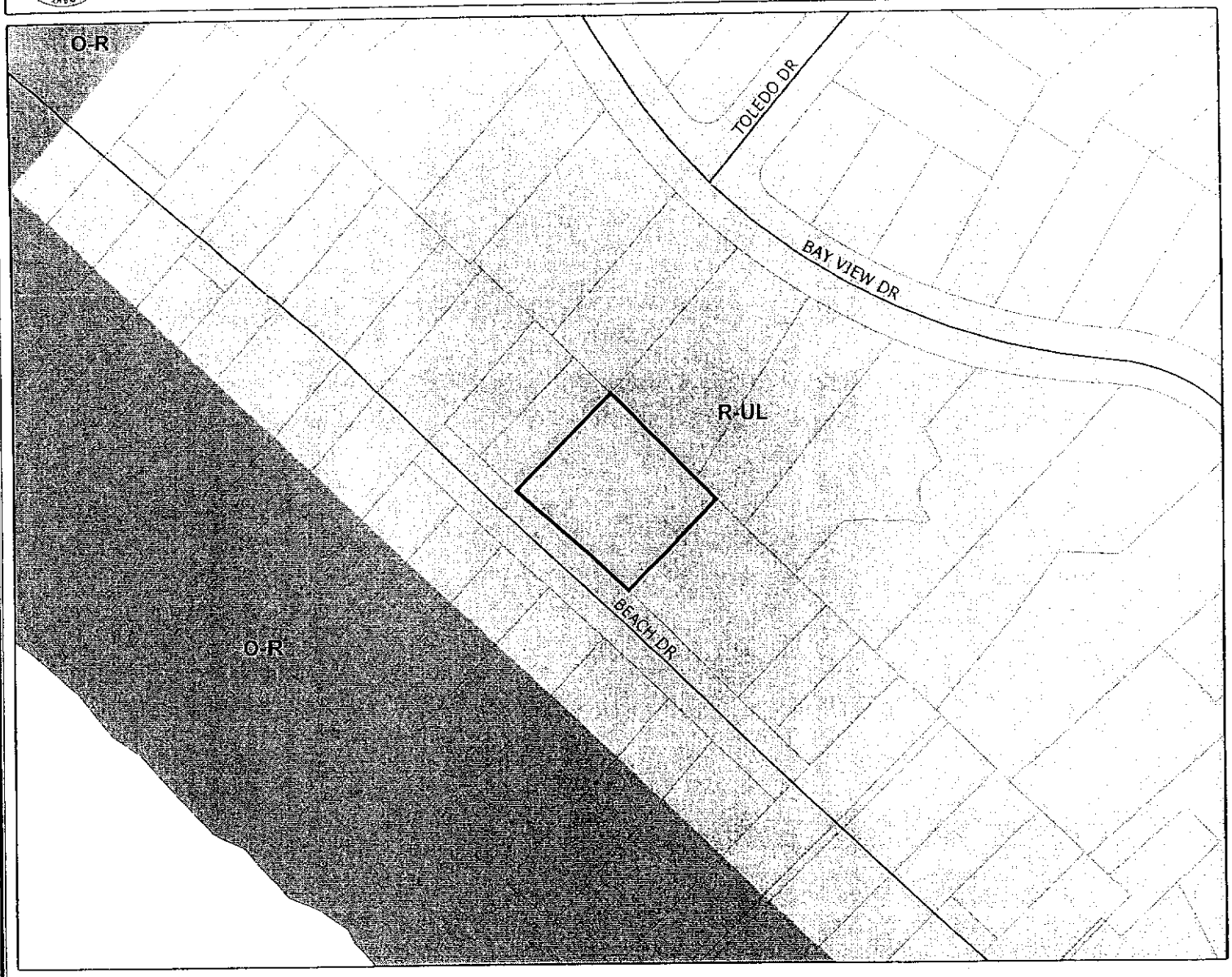
N
W E
S

Environmental Review Inital Study
ATTACHMENT 2
APPLICATION 06-0156

Map Creaied by
County of Santa Cruz
Planning Department
March *2006*

EVUIDIT n 1

General Plan Designation Map



0 105 210 420 630 840 Feet

Legend

- APN 043-152-70
- Streets
- Assessors Parcels
- Residential - Urban Low Density (R-UL)
- Parks and Recreation (O-R)

N
W E

Environmental Review Inital Study
ATTACHMENT 3
APPLICATION 06-0156

Map Created by
County of Santa Cruz
Planning Department
March 2006

EXHIBIT D

EROSION CONTROL NOTES

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

SEE SHEETS C-1 THRU C-3 FOR EROSION CONTROL, GRADING AND DRAINAGE PLANS.

ALL EARTHWORK AND DRAINAGE & NEW CONSTRUCTION SHALL COMPLY WITH THE SOILS REPORT RECOMMENDATIONS AND THE REQUIREMENTS OF THE ENVIRONMENTAL PLANING DEPT. OF SANTA CRUZ COUNTY.

PROJECT DESCRIPTION

NEW RESIDENCE

PROJECT DATA

OWNER: COLLINS/WENGER
13 SOUTH CALIFORNIA ST
LODI, CA 95240

PROJECT 546 BEACH DR.
ADDRESS: APTOS, CA 95003
A.P.N. 043-152-30

LOT COVERAGE CALCULATIONS

1. ZONE DISTRICT: RB
2. PARCEL AREA: 13,952 sq ft
3. AREA OF RIGHTS OF WAY: 0
4. NET PARCEL AREA (2-3): 13,952 sq ft
5. COVERAGE BY STRUCTURES: 3,952 sq ft
6. PERCENTAGE OF PARCEL COVERAGE (5/4 100%): 27%

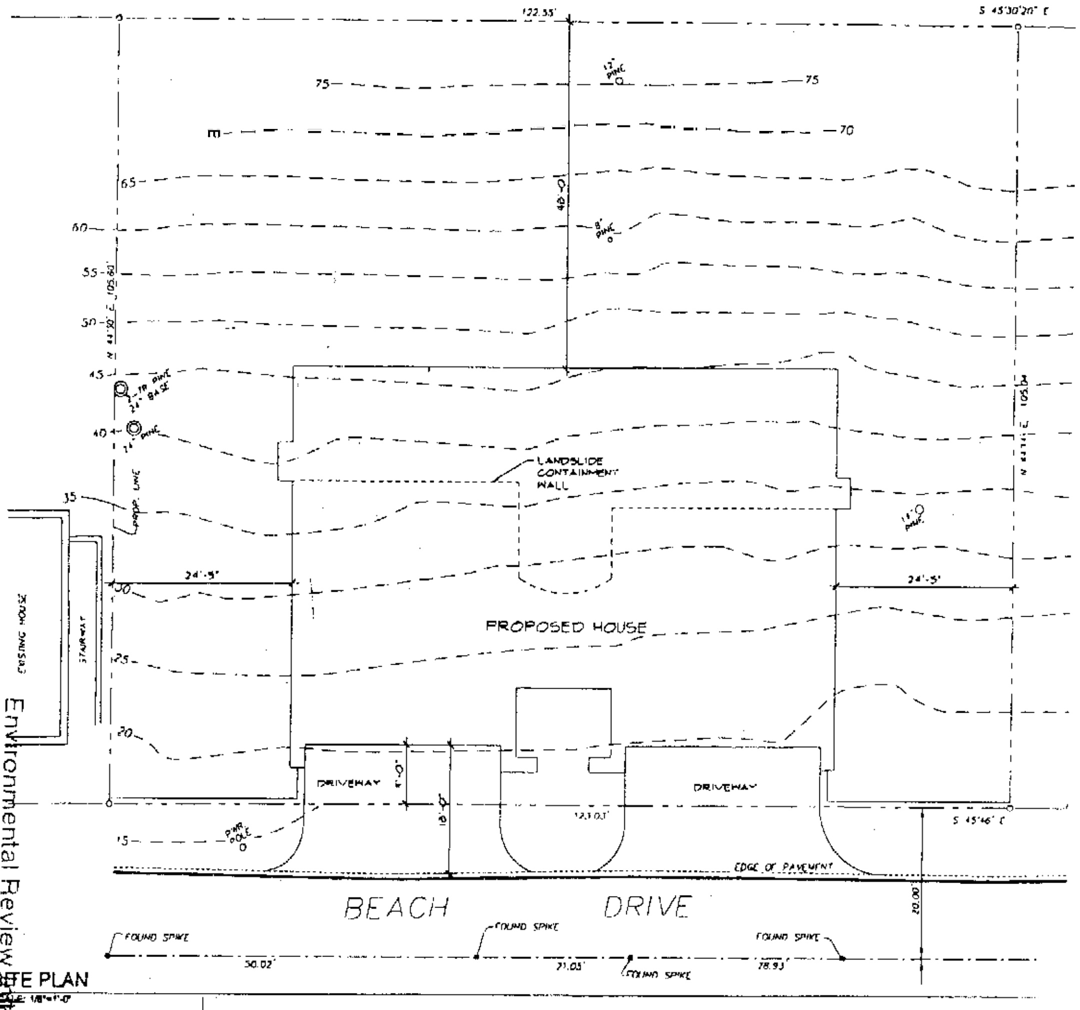
HEATED SPACE CALCULATIONS

1. TOTAL HEATED SPACE: 4,048 sq ft
2. TOTAL UNHEATED SPACE: 1,101 sq ft

FLOOR AREA CALCULATIONS BY TYPE OF SPACE

1. BASEMENT/UNDERFLOOR: NOT APPLICABLE
2. FIRST FLOOR (BEDROOM LEVEL)
   a. AREA WITH CEILING LESS THAN 16' IN HEIGHT: 1828 sq ft
   b. AREA WITH CEILINGS 16'-24' (X2): NOT APPLICABLE
   c. AREA WITH CEILINGS (24' (X3)): NOT APPLICABLE
   d. TOTAL FIRST FLOOR AREA (CONDITIONED): 1828 TOTAL SQ FT

2.1 FOYER
   a. AREA WITH CEILING LESS THAN 16' IN HEIGHT: 211 sq ft
3. SECOND FLOOR (LIVING LEVEL)
   a. AREA WITH CLG LESS THAN 16' IN HEIGHT: 1,985 sq ft
   b. AREA WITH CEILINGS 16'-24' (X2): NOT APPLICABLE
   c. AREA WITH CEILINGS (24' (X3)): NOT APPLICABLE
   d. TOTAL SECOND FLOOR AREA (CONDITIONED): 2008 TOTAL SQ FT
4. MEZZANINE: NOT APPLICABLE
5. ATTIC (HEIGHT IS LESS THAN 7'-6"): NOT APPLICABLE
6. GARAGE: 1,101 PROPOSED SQ FT, 225 CREDIT SQ FT, 956 TOTAL SQ FT
7. TRELLIS AND ARBOR: NOT APPLICABLE
8. UNENCLOSED, COVERED AREAS: NOT APPLICABLE (OVERHANG)
   a. AREA BELOW EAVE MORE THAN 15' IN HEIGHT: 769.5 sq ft
   b. AREA OF FIRST 3' OF EAVE: 260 sq ft
   c. REMAINING AREA (a-b): 509.5 sq ft
   d. TOTAL COVERED AREA OF SIDE: 509.5 sq ft
   e. TOTAL COVERED AREA OF ALL SIDES: 509.5 sq ft
9. TOTAL FLOOR AREA OF BUILDING: 5,380.5 TOTAL SQ FT
10. TOTAL FLOOR AREA OF ALL BUILDINGS: 5,380.5 TOTAL SQ FT
11. FLOOR AREA RATIO CALCULATIONS
   PROPOSED F.A.R.: 43.16%



SITE PLAN
SCALE: 1/8"=1'-0"

VICINITY MAP

SHEET INDEX

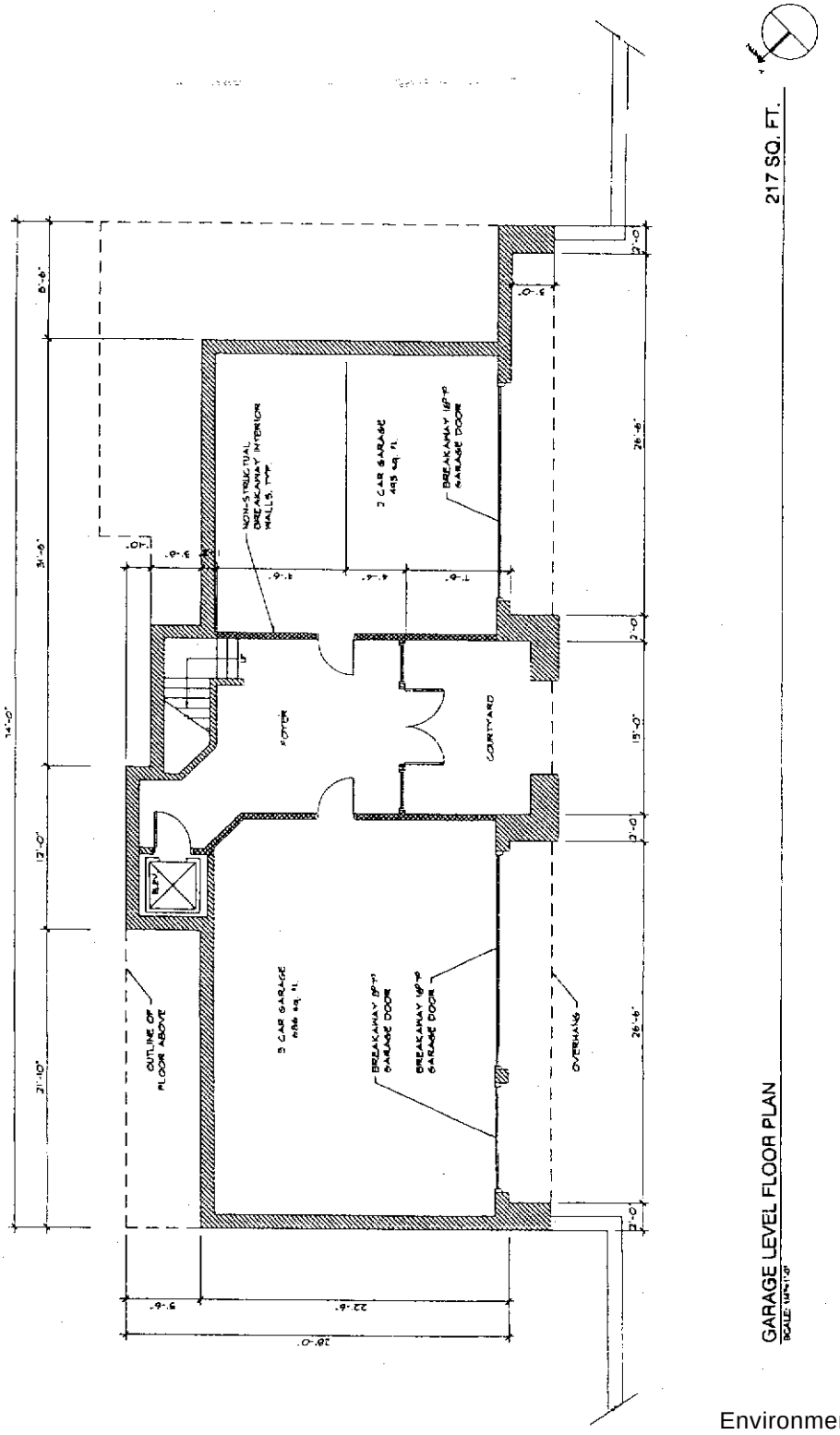
JIM MOSGROVE, ARCHITECT
117 LITTLE CREEK RD. SOQUEL, CALIFORNIA 95073

NEW CONSTRUCTION FOR
COLLINS / WENGER RESIDENCE
546 BEACH DRIVE APTOS, CA 95003

DRAWN: AWSB
DATE: 6/30/06
SCALE: AS SHOWN
SHEET: A1

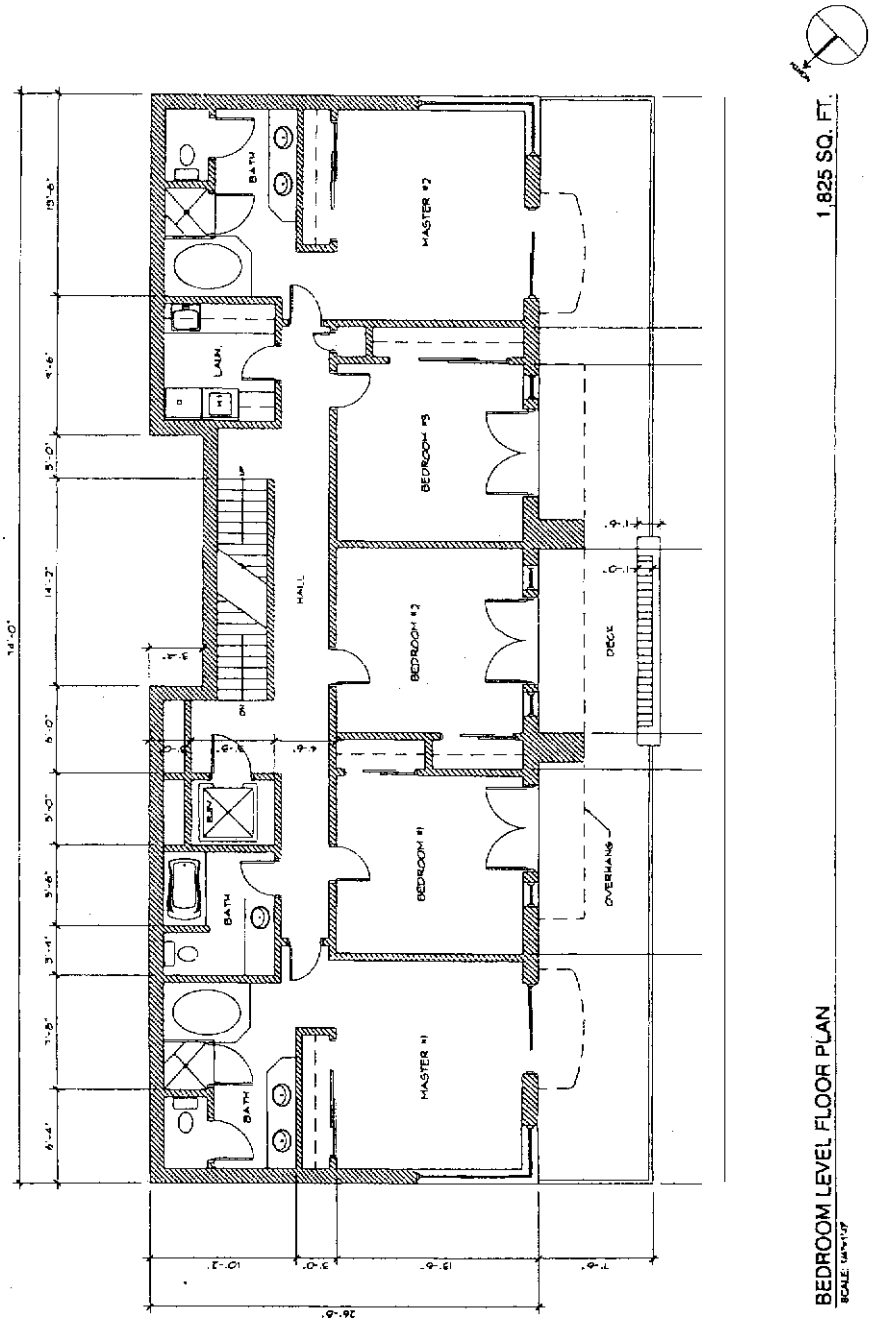
Environmental Review Initial Study
ATTACHMENT 4, 1 of 8
APPLICATION 06-0156

EXHIBIT D



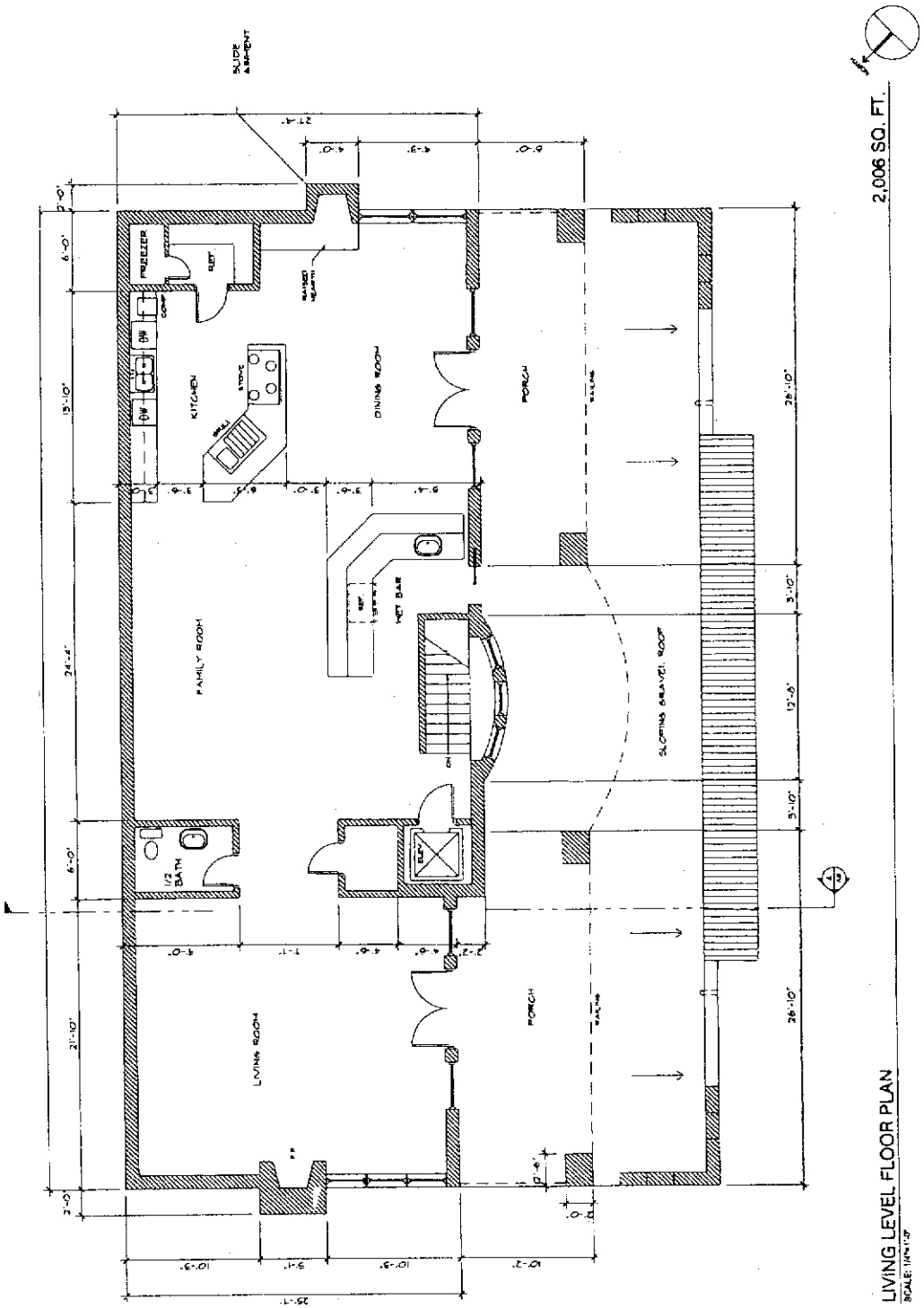
Environmental Review Initial Study
ATTACHMENT 4, 2 of 8
APPLICATION 06-0156

EXHIBIT D



Environmental Review Initial Study
ATTACHMENT 4, 3
APPLICATION 06-0156

EXHIBIT D



Environmental Review Initial Study
ATTACHMENT 4, 4 of 8
APPLICATION 06-0156

EXHIBIT D

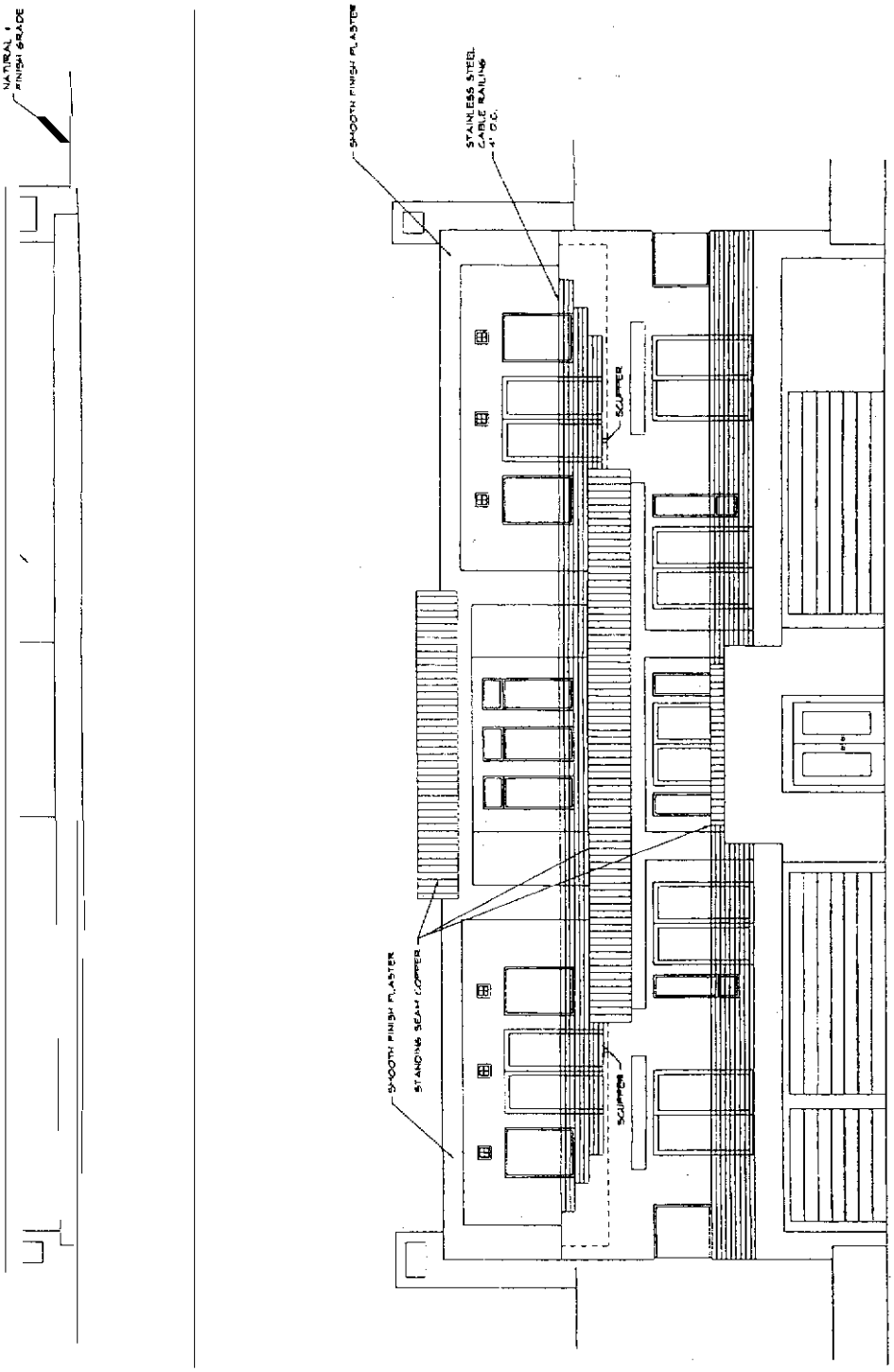
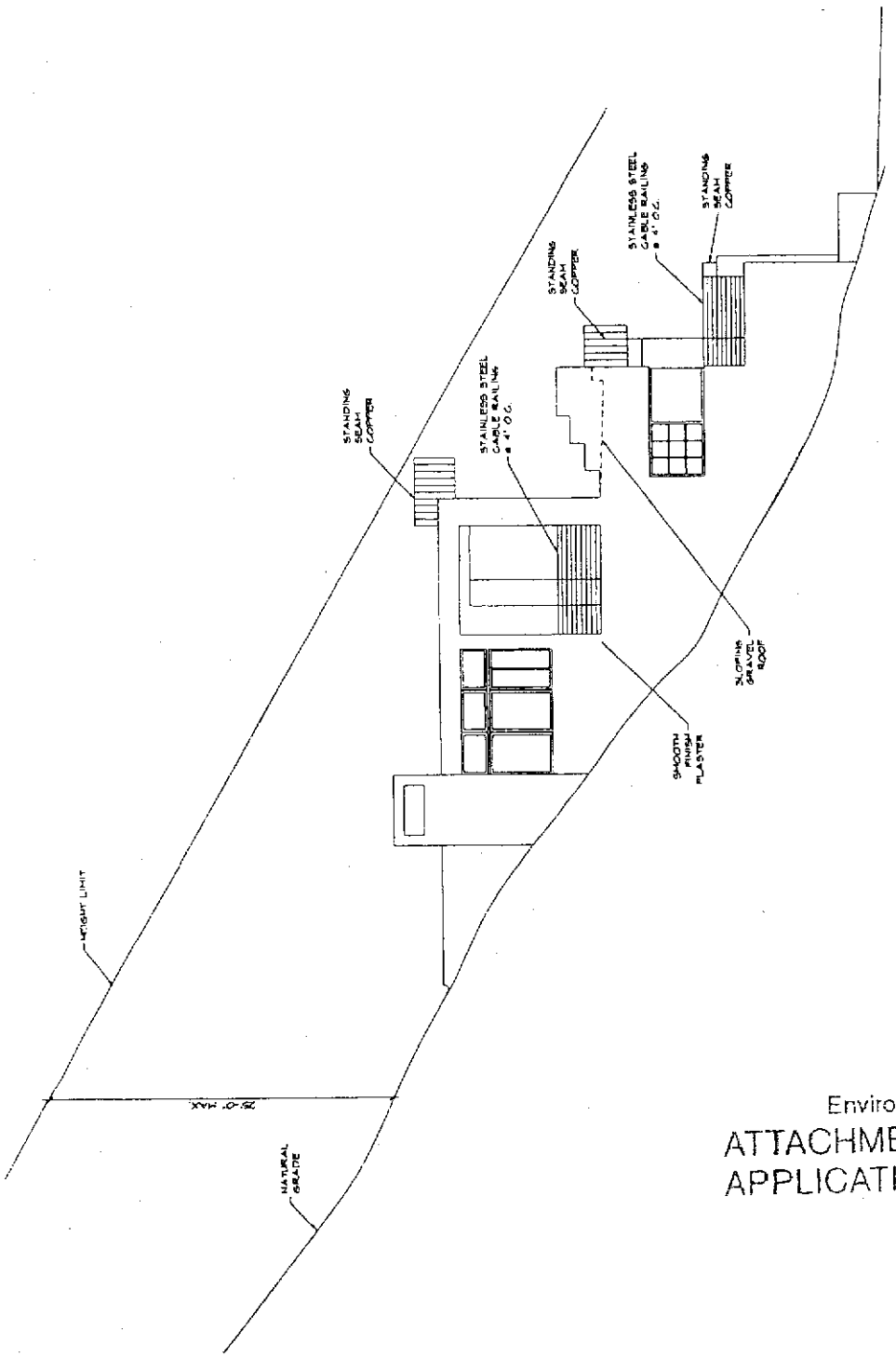


EXHIBIT D

JIM MOSGROVE, ARCHITECT
117 LITTLE CREEK RD. SOQUEL, CALIFORNIA 95073

COLLINS / WENGER RESIDENCE
NEW CONSTRUCTION FOR
546 BEACH DRIVE APTOS, CA 95003

A6



WEST ELEVATION
SCALE: 1/4"=1'-0"

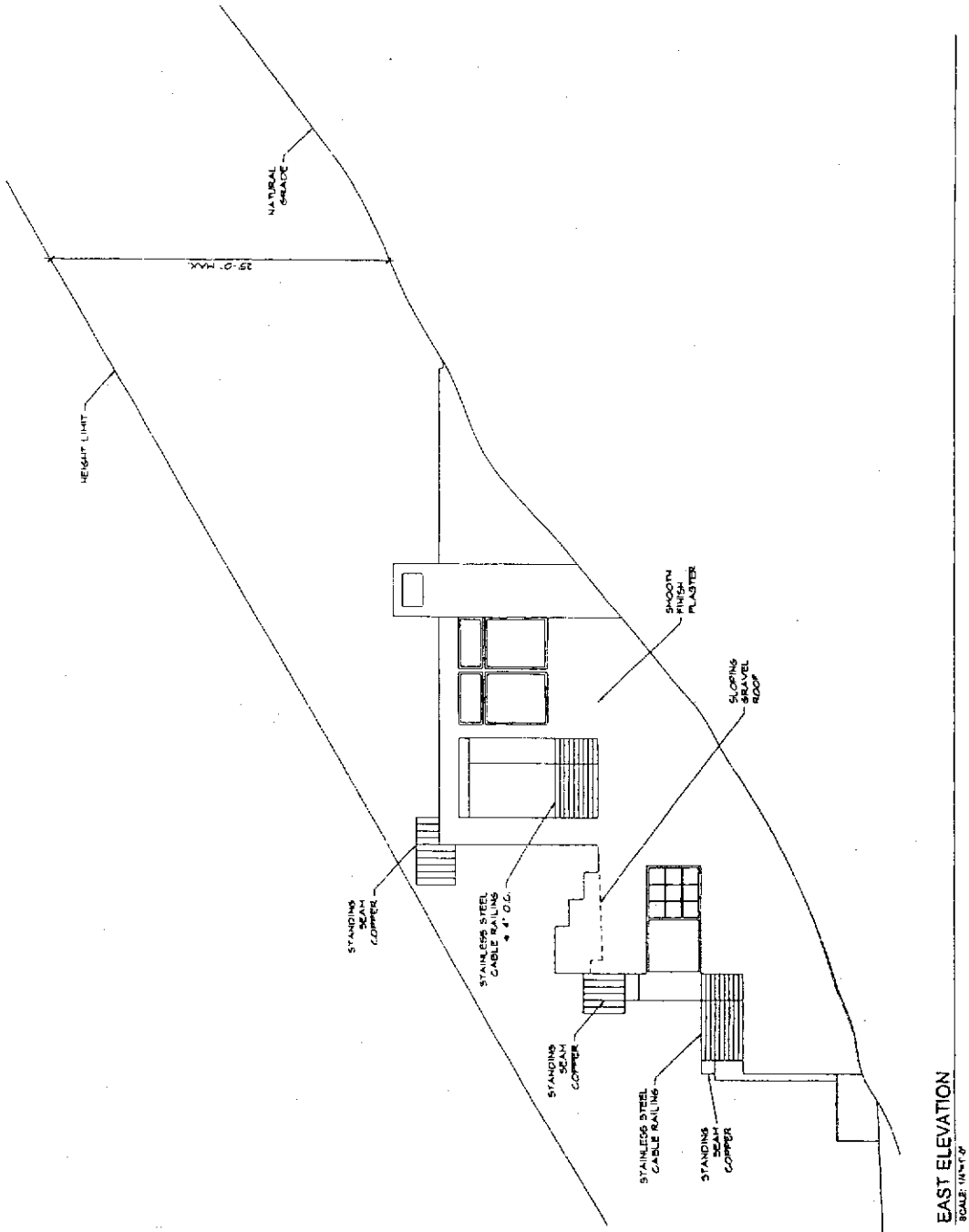
Environmental Review Initial Study
ATTACHMENT 4, 6 of 8
APPLICATION 06-0156

EXHIBIT D

JIM MOSGROVE, ARCHITECT
117 LITTLE CREEK RD. MOSS BEACH, CALIFORNIA 94038

COLLINS / WENGER RESIDENCE
NEW CONSTRUCTION FOR:
548 BEACH DRIVE APTOS, CA 95003

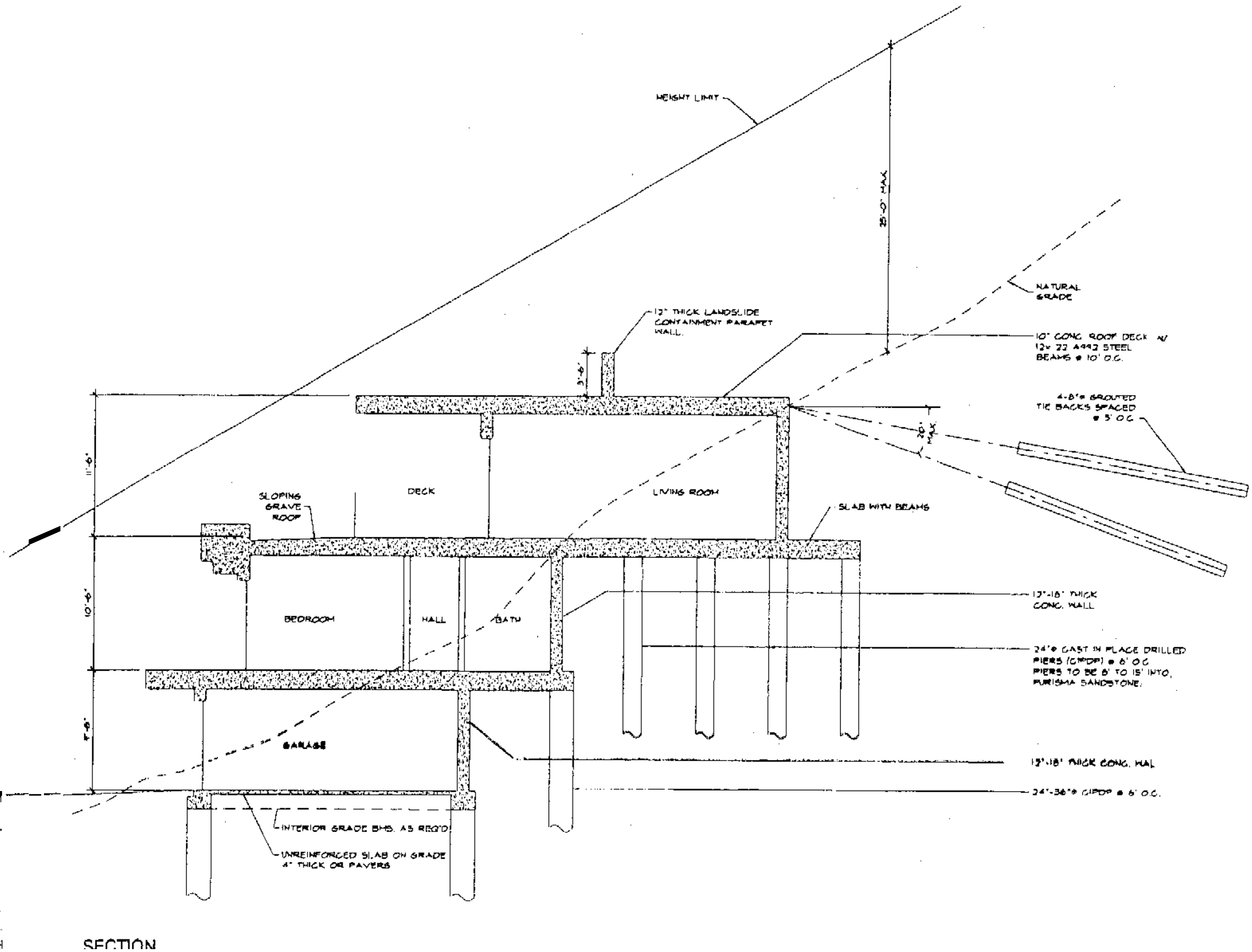
A7



EAST ELEVATION

Environmental Review Initial Study
ATTACHMENT 4, 7 of 8
APPLICATION 06-0156

EXHIBIT D



SECTION

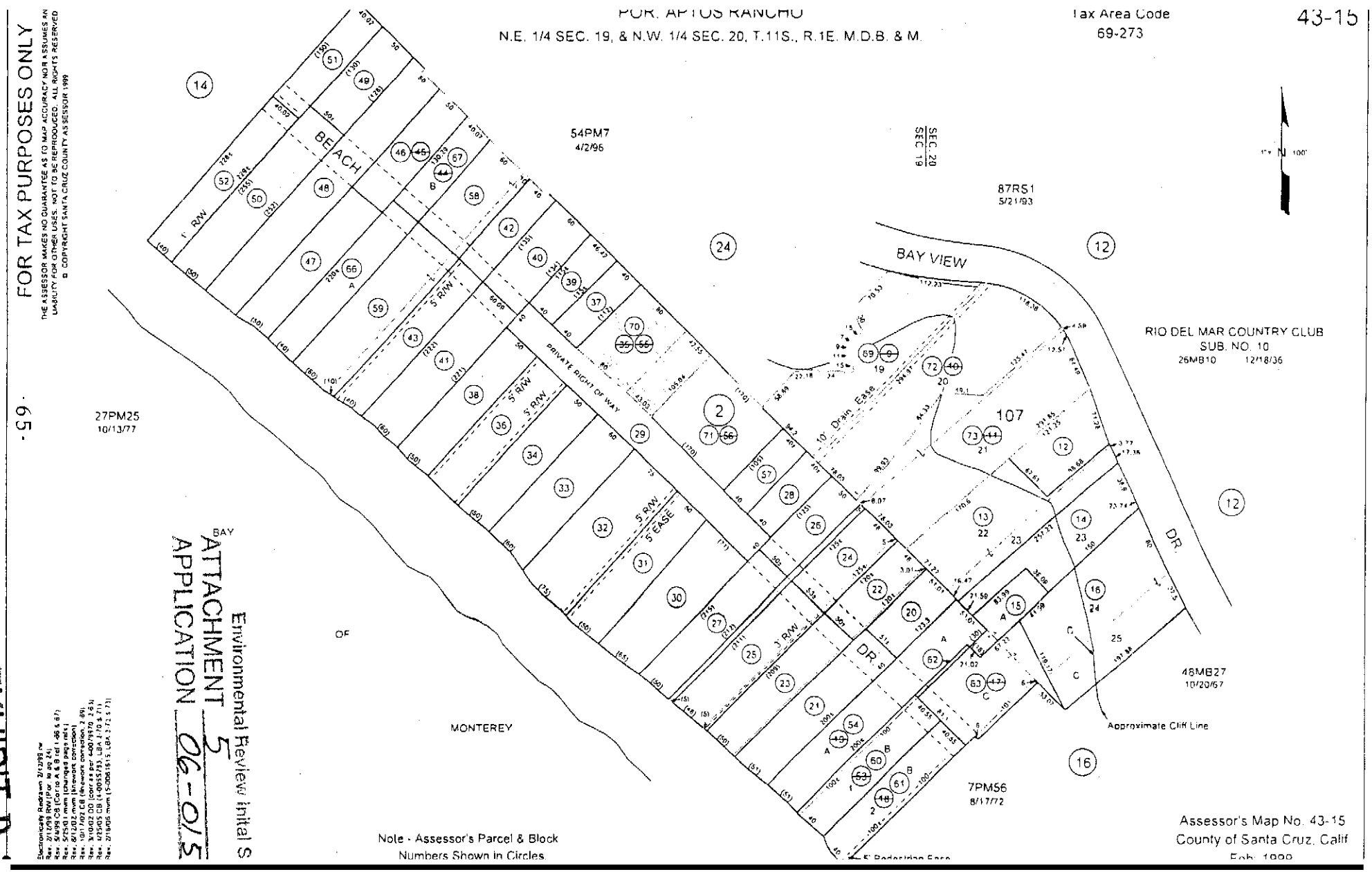
JIM MOSGROVE, ARCHITECT
117 LITTLE CREEK RD. SOQUEL, CALIFORNIA 95073

NEW CONSTRUCTION FOR
COLLINS / WENGER RESIDENCE
548 BEACH DRIVE APTOS, CA 95003

AJH
6/30/06
AS SHOWN
A8

Environmental Review Initial Study
ATTACHMENT 4, 8
APPLICATION 06 0156

EXHIBIT D



Environmental Review Initial Study
ATTACHMENT 5
APPLICATION 06-0152

EXHIBIT D

HARO, KASUNICH AND ASSOCIATES, INC.
CONSULTING GEOTECHNICAL & COASTAL ENGINEERS

Project No SC8462 56
14 March 2006

MIKE AND DEBBIE COLLINS
13 South California Street
Lodi, California 95240

Subject: Project Plan Review

Reference: Proposed Blufftoe Residence
APN 043-152-55
546 Beach Drive
Santa Cruz County, California

Dear Mr. and Mrs. Collins:

Our firm prepared the Geotechnical Investigation for Two Proposed Blufftoe Residences dated 17 March 2004 for the proposed residence at the referenced site. We also prepared the letter tilled Addendum Design Criteria dated 1 March 2006 outlining project specific debris impact loads and temporary shoring recommendations.

This letter is written to outline our review of the geotechnical aspects of the architectural plans and the preliminary structural details of the bluff face retaining wall system. Architectural plans were prepared by Jim Mosgrove and are dated 1 January 2006. Preliminary structural engineering plans were prepared by Buchanan Engineering, dated 23 February 2006. Specifically we reviewed the following plan sheets:

1) Sheet A I - Site Plan;
2) Sheet A-4- Living Level with Covered Deck & Landslide Containment Wall;
3) Sheet A6- West Elevation;
4) Sheet A7- East Elevation;
5) Sheet A8- Site Section with Preliminary Structural System;
6) Sheet 1- Michael Beautz, C.E.- Drainage Plan dated February 2006;
7) Sheet 2 & 3- Michael Beautz, C.E.- Sections dated February 2004;
8) Sheet L-I- Erosion Control Notes by Michael Arnone daled 7 February 2006;
9) Sheet SHI- Shoring Specifications;
10) Sheet SH2- Shoring Plan;
11) Sheet SH3- Shoring Sections

Environmental Review Inital Study
ATTACHMENT 6, 1 of 2
APPLICATION 06-0156

116 EAST LAKE AVENUE • WATSONVILLE, CALIFORNIA 95076 • (831) 722-4175 • FAX (831) 724-3202
EXHIBIT D

12) Sheet SH4- Shoring Elevations; and
13) Sheet SH5- Shoring Details.

The Preliminary Improvement Plans by Michael Beautz, C.E. show the lowest living story at elevation 25.5 feet NGVD, above the FEMA Base Flood Elevation of 21 feet NGVD.

The Landscape Plan - Erosion Control Notes outlines the use of an irrigation system for slope planting. We recommend irrigation be temporary and water cut off after planting is established.

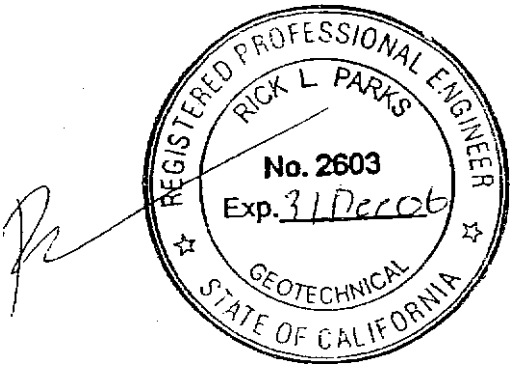
It is our opinion the aforementioned plan sheets were prepared in general conformance to our geotechnical recommendations.

If you have any questions, please call our office

Very truly yours,

HARO, **KASUNICH AND ASSOCIATES, INC.**

Rick L Parks
G E. 2603



RLP/dk

Copies: 1 to Addressee
4 to Jim Mosgrove
1 to John Buchanan
1 to Hans Nielsen

Environmental Review Initial Study
ATTACHMENT 6, 7 of 7
APPLICATION 06-0156

EXHIBIT D

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 18,2006

Michael Collins
13 S. California Street
Lodi, CA 95240

And,

Jim Mosgrove
117 Little Creek Road
Soquel, CA 95073

Subject: Review of Engineering Geology Report, by Neilsen and Associates, February 2004, Project # 1058; and Geotechnical Report by Haro, Kasunich and Associates Dated March 14, 2006 and March 17,2004 Project #: SC8642, **APN *043-152-70,*** Application ***#: 06-0156***

Dear Messers Collins and Mosgrove,

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

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

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

3. Before building permit issuance. *plan-review letters* shall be submitted to Environmental Planning from both the geotechnical engineer and engineering geologist. The authors of the reports shall write the *plan review letters.* Each letter shall state that the project plans conform to the report's recommendations.

4. Prior to the public hearing on any permit related to this project, the engineering geologist and geotechnical engineer must confirm the strength of the on site rock and soils materials through on site testing program and submit this testing data to the County for approval by the County Geologist.

Environmental Review Inital Study
ATTACHMENT 7 Lof 3
APPLICATION 06-0156

(over)

EXHIBIT D

5. The construction must compiy with all County Geologic Hazards Code, the provisions of FEMA regulation, and the County Building Code. This shall include the raising the lowest floor elevation so that it is located above the flood hazard zone.

6. All decks must be covered to protect any one using the decks from potential landslide debris.

7. All windows on the sides of the building and potential impacted by landsliding must be designed so that they have a dimension less than 14 inches.

8. A complete shoring plan must be reviewed and approved before issuance of any building permit

9. **The** application for a building permit shall include **an** engineered grading and drainage plan.

10. Drainage easements must be designated on the property lines on either side of the property *so* that the properties above the proposed residence are able to conduct their drainage through the subject lot in a controlled manner.

11. Before the final inspection of the home, the engineering geologist, geotechnical engineer, civil engineer, and contractor must indicate that with regards to area of expertise that the home has been has been constructed in accordance with the approved plans, and the home **is** safe to occupy.

12. **A** notice of geologic hazards shall be recorded with County Recorders Office that indicates that home is located in an area of flooding, wave attack, and landsliding.

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

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.

Environmental Review Inital Study
ATTACHMENT 7, 2 of 3
APPLICATION 06-0156

EXHIBIT D

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

Sincerely,

Joseph L. Hanna CEG 1313
County Geologist

Cc: Haro, Kasunich and Associates
Neilsen **and** Associates

Environmental Review Inital Study
ATTACHMENT 7, 3 of 3
APPLICATION 06-0156

EXHIBIT D

Project No. SC8462
17 March 2004

DISCUSSIONS, CONCLUSIONS AND RECOMMENDATIONS

The residential structures are to be supported by drilled piers embedded into undisturbed sandstone bedrock The Purisima Formation is described by geologic maps (Brabb, 1989) as a siltstone/sandstone. The Purisima formation along the base of !he Beach Drive bluff consists of very dense, silty sand with very little cementation. Pier drilling below the average groundwater elevation, aboul +2 feet NGVD, is problematic. At a minimum, we anticipate full length casing will be needed *to* maintain pier excavation integrity. Weighted drilling fluid may also need io be used with the casing to mitigaie the potential for saturated sands flowing into the casing as the auger is withdrawn. Large diameter pier excavations, 3 to 5 feel in diameier, may be drilled with weighted drilling fluid and a surface conductor casing.

The residential structures will be elevated above the FEMA Base Flood Elevation, 21 feet NGVD. The driveways and the seaward portions of the understories for the proposed residences will be situated upon about 16 feet of beach sand, talus deposiis, and roadway fill. During a severe seismic even! the soil materials within the wave cut platform underlying the aforementioned area may settle due to either dry seismic consolidaiion and/or liquefaction. The vertical bearing of !he prcposed residence will not be effected by either liquefaction or lateral spreading provided the piers are designed per our geotechnical recommendations. During severe seismic shaking, we do expect the driveways and

possibly the understory parking areas to be damaged and need to be repaired or replaced. To minimize settlement and minimize maintenance from normal usage, we recommend the driveway areas plus 3 feet horizontally in all directions on property be redensified to a depth oi 3 feet to at ieast 90 percent relative compaction. The top 12 inches of the redensified soils should be compacted to ai least 95 percent relative compaction. As per FEMA guidelines the understory slabs on grade will be displaced during a design storm event, allowing flood waters to flow through the foundation systems with minimal obstruction and wave deflection. Tne driveway and parking platform at each residence is expected to be undermined, lost and replaced during the design life of the structure.

We recommend the residences be constructed to withstand impact and debris loads from the inevitable future slope failures. It is our opinion concrete roofs supported by a steel and concrete irames will be necessary to protect the residences. In order to prevent landslide debris from being deflected onto the adjacent upcoasi and downcoast parcels, the roofs should be flat.

Due to the transition from infilled wave cut platform to undisturbed, dense native soil at the seaward perimeter of the building envelopes, and to comply with the FEMA requirement the residences be supported by open foundation systems, it wiii be necessary to support the structures on drilled pier foundation systems. The seaward piers will penetrate the beach sand and fill materials. Drilled piers should be embedded such that the bases are

at least 10 feet horizontally from !he surface of !he undisturbed sandstone bluff face. The geologic cross sections can be utilized to estimate the minimum pie: depths.

During construction of the residences. it will be necessary to temporarily shcre the excavated backslopes as well as portions of the side yard talus slopes during construction. The talus deposiis above the residences can be expected to slough off the slope during construction. We will work with the project earthwork contractor and engineering geologist during construction to evaluate the upslope talus deposit wedge and remove the loose soils if necessary prior to excavation of the building envelopes.

If all recommendations in ihe geologic and geotechnical reports are closely followed and properly implemented during design and construction, and maintained for the lifetime of the proposed residence, then in our opinion, the occupants within the residence should not be subject to risks from geologic hazards beyond the "Ordinary Risks Level," in the "Scale of Acceptable Risks" contained in the Appendix of Ihis report.

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

Site Grading

1. The geotechnical engineer should he notified a! leas! 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 geoiechnical engineer will perform the required iesting 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 I e s t Designation D1557-78

3. Areas io be graded should be cleared *of* ail 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.

Environmental Review Inital Study
ATTACHMENT 8, 4 of 13
APPLICATION 06-0156

EXHIBIT D

5. Areas io receive engineered fill shouia 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 io be moisture conditioned io achieve a suitable moisture conient for compaction. Tnese areas rnay 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 io at least 90 percent relative compaciion. The driveway areas plus 3 feet horizontally in all on property directions should be supporled by ai least 3 feet oi engineered fill compacted to at least 90 percenl relative compaction. The upper 12 inches of driveway pavement and exterior slab subgrades should be compacted io at least 95 percent relative ccmpaction. If engineered fill is utilized upslope of the residences io fill voids between the structures and the hillside, engineered fill requirements will be prepared on a specific basis during the final structural engineering design process.

The aggregate base below asphaltic pavement sections should likewise be compacted *to* at least 95 percent relative cornpaction.

7. 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.

8. We estimate shrinkage factors of about 20 percent for ihe on-site materials when used in engineered fills

9 We recommend a maximum vertical height of five (5) feet for temporary cut slopes We recorninend rop down construction for the bluff face retaining wall system

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

11. 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

12. The proposed residential structures may be supported on a drilled pier foundation system Drilled piers should penetrate talus deposits and beach sand and be embedded into undisturbed native soil

Drilled Fiers

13. Drilled piers should be at least 18 inches in diameter and be embedded a! least 8 feet into undisturbed Purisima sandstone. Drilled piers should be embedded such that ihe bases are ai least 10 feet horizontally from the surface of the undisturbed native soiis as delineated 0n the Nielsen & Associates Geologic Cross-Sections

14. Piers constructed in accordance with the above may be designed ior an ailowable end bearing capacity of 20 ksf for a minimum piers spacing of three (3) pier diameters or greater. This value may be increased by one third for short ierm seismic and wind loading. The bottom of the excavation should be clear of debris. Due to the loose nature of the talus deposiis and groundwater at about +2 feet, NGVD, we anticipate the pier holes will need to be cased, shielded or maintained with weighted drilling mud. If drilled piers are to be greater in diameter than two (2) feet, a settlement analysis should be performed.

15. For passive lateral resistance, **all** fill materials, beach sand and the top 1 foot of the cut Purisirna Formation should be neglected in pier design. A horizontal setback of 5 feet between the top of the passive zone and ihe surface of the engineering geologist's undisturbed native slope boundary should also be maintained. From -1 foot to -4 feet below the aforementioned horizontal setback, a lateral passive lateral resistance of 500 pcf (efw) times 2 pier diameters may be used. Below -4 feet, a passive lateral resistance of 600 pcf (efw) times 3 pier diameters may be used for structural design.

Environmental Review Inital Study
ATTACHMENT 8, 7 of 13
APPLICATION 06-0156

EXHIBIT D

16 To resist uplift forces. an allowable skin friction value of 315 psf of pier sidewall may be used within the Purisima formation. The uplift skin friction requires a horizontal setback of at least 5 feet from the face of the Purisima sandstone delineated on the Geologic Cross-Sections

Retainina Wails and Lateral **Pressures**

17. Retaining walls should be designed *io* resist both lateral earth pressures and any additional surcharge loads. Cantilever or unrestrained walls up to 30 feet high should be designed *to* resist an active equivalent fluid pressure of 70 pcf for sloping backfills inclined up io 1:1 (horizontal to vertical). Restrained walls should be designed to resist uniformly applied rectangular wall pressures of 45H psf where H is the height of the wall. The ccniiguration of the landward portion of the residence can have a dramatic effect on aciive and seismic surcharge loading. A stepped floor system at 1:1 (H:V) or less steep up the hillside will significantly reduce surcharge loading from above structure levels as well as break up the total height of the active zone into smaller components versus a 30 foot height active zone. We will work with the project architect and structural engineer io evaluate specific design scenarios in order to produce an efficient design.

18. Wiihin the active zone, a seismic surcharge of 16H/ft should be utilized in design of the retaining walls. The resultant of the seismic loading should act at 0.6H, where H is the height of the wall

EXHIBIT D

19. In addition, the walls should be designed for any adjacent live or dead loads which will exert a force on them.

20 Retaining walls that act as interior house walls should be thoroughly waterproofed

21. For fully drained conditions as delineated above, we recommend a geotextile drainage blanket equivalent to Miradrain 6000 be used.

22. If engineered fill is utilized upslope of the residence to fill voids between the structure and the hillside, engineered fill requirements will be prepared on a specific basis during the final structural engineering design process.

Tieback Anchors

23. For design of the tieback anchors, the pressure grcuted anchor bulb (bonded zone) should be at least 20 feet from Ihe face of the retaining wall.

24. Tieback loading is dependeni upon anchor tendon strength. The small diameier anchor shafts should be designed for tension in the direction of the axis of the anchor.

25. Grouted tieback anchors should have a minimum overburden cover of at least 25 feet

Environmental Review Inital Study
ATTACHMENT 8 9 of 13
APPLICATION 06-0156

EXHIBIT D

26 *A* working shaft bond friction of 2,200 psf between soil and non-pressure grouted anchor diameters may be considered for design of small diameter (4 to 8 inch) tieback anchors where building envelope/property boundaries allow the use oi a longer bonded zone tieback.

27. The maximum bond strength/design load should not exceed 100,000 pounds

28. The tieback anchors nay be installed up to a maximum angle of 20 degrees from horizontal.

29. Upon completion of the backfill behind the walls, all tiebacks should permanently stressed io 60 percent of their design load or as directed by the project structural engineer. In addition, all tiebacks must be tested by the contractor in the presence of the geotechnical engineer to 100 percent oi their design load, Any tiebacks that fail during testing must be replaced and re-tested by the contractor.

30. All tiedback anchor systems must be corrosion prolected and reviewed by the geotechnical engineer before the contractor purchases and installs them.

Environmental Review Inital Study
ATTACHMENT 8, 10 of 13
APPLICATION 06-0156

26

EXHIBIT D

Landslide Debris - Dead Loads

31. Landslide debris may pile up on the flat roof with the pile having slopes on ?hesides and front of about 1.5:1 (horizontal to vertical).

32. We recommend designing the sidewails and windows to accommodate static active earth pressures of 30 pcf ior a non-restrained condition or 19.5H psf/ft if the floor and roof between the sidewalls act to restrain the walls. During the design process, we will work wilh the project design team lo specify sidewall debris loading relative to a working design.

Lateral Spreading Active Force

33. The seaward perimeter (only) foundation systems of the two proposed residences should be designed to withstand an active lateral force of 30 pcf (efw) to accommodate any future lateral spreading of the beach sediments above the historic sour line. The potential lateral spreading will extend from the historic scour line at 0 feet NGVD up io an elevation of +6 feel NGVD.

Parking Slab on Grade

34. As outlined in the FEMA Coastal Construction Manual, see Figures 22 to 24, parking may be iacililated by use of a unreinforced slab, supported directly on the soil present at the site.

35. It is our opinion paving stones or asphaltic pavement may be used as an alternative to the unreinforced frangible concrete driveway section outlined by FEMA

36. For design of the driveway parking areas, we recommend the proposed pavement section, unreinforced frangible concrete slab or paving blocks be supported by at least 3 feet of redensified soils compacied to at leas: 90 percent relative compaction. The top 12 inches of the redensified soils should be cornpacied to at least 95 percent relative compaction. AS per FEMA guidelines, the understory slabs on grade will he displaced during a design storm event, allowing flood waters to flow through the foundation system with minimal obstruction and wave deflection. The parking platforms are expected io be undermined, lost and replaced during the design life of the structure.

Site Drainage

37. An erosion control and drainage plan should be prepared for the project. The plan should be.reviewed and approved by the project geotechnical engineer and engineering geologist. Because of the potential slope instability at the site, erosion control and drainage systems will need to be maintained, repaired and replaced in the future after instability occurs.

28

38. We recommend a concrete v-ditch *be* constructed at the top of the uppermost retaining walls that will collect surface water which flows downslope as a result of direct rainfall or surface water spilling onto the lop of the bluff from above.

Plan Review, Construction Observation and Testing

39. Cur firm should be provided the opportunity *for* a general review of the final project plans prior to construction so that our geotechnical recommendatisns may be properly inierpreted 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 lo public agencies, to expedite project review. The recommendations presented in this report require our review of final plans and specifications prior lo construction and upon our observation and, where necessary, testing *of* the earthwork and foundation excavations. Observation oi grading and foundation excavations allows anticipated soil conditions to be correlated to those actually encountered in the field during construction.

EXHIBIT D

CONCLUSIONS + RECOMMENDATIONS
NIELSEN + ASSOC, 2/04

significant amount of sediment could erode from the hill and fill or block subsurface drain pipes or inlets

All areas on the slope that are stripped of vegetation during construction of the retaining wall must be revegetated prior to the onset of the next rainfall season

CONCLUSIONS

1. The subject properties occupies a steep hillside that rises above the beach at the south end of Beach Drive The toe of the hillside is at about 14 feet MSL and the crest at about 120 feel MSL Two single family homes are proposed on the lower portion of the hillside

2. Four different earth inaterials occur at the subject properties. These are 1) terrace deposits, 2) Purisima Formation "bedrock", 3) colluvium/landslide deposits, and 4) beach sand. Terrace deposits comprise the top 25 feet of the coastal bluff. The homesite is underlain by a combination of colluvium/landslide deposits which overlie either Purisima sand or beach sand The beach sand occurs in the lowermost portion of the homesite area and rests on top of the Purisima. The relationship of these deposits is shown on our geologic cross sections, Plates 2 and 3.

3. The steep hillside at the properties and along the entire length of Beach Drive has experienced numerous landslides in historic time, particularly during the past 17 years. Landslides will occur on the hillside above the home in the future, most likely during rainstorms but may also be also as a result of strong ground shaking caused by strong ground shaking from large magnitude earthquakes.

4. A slope stability analysis shall be conducted for this properties to evaluate the degrees of potential slope failure or landsliding to design for. We understand that the project geotechnical engineers are conducting this analysis.

5. There is a potential flood hazard on the lowermost portion of the properties. The 100-year flood elevation has been determined by FEMA as 21 feet above mean sea level based on the 1929 national geodetic vertical datum (NGVD).

6. Moderate to severe ground shaking is likely at the subject properties if a large magnitude earthquake occurs on a nearby fault. Refer to the body of the report for specific seismic criteria and fault information.

7. The beach sand under the lowermost part of the properties are typically saturated, at least below a depth of about 10 feet below Beach Drive. However, the groundwater level probably rises and falls with the tide level, and it is probably elevated during winter rainfall periods

8 The proposed homes are feasible if the recommendations presented in this report and those in the accompanying geotechcal and structural engineering reports being prepared for these properties Those reports shall accompany this report in all future phases of the development of the properties All recommendations in all reports must be adhered to during design, implemented during construction: and maintained for the lifetime of the dwelling. In this event, the occupants within the dwelling should not be subject to risks beyond an ordinary level of risk as defined in the Scales of Acceptable Risk presented in Appendix C of this report.

RECOMMXNDATIONS

1 The following landslide mitigation measures (or approved equivalent) must be implemented into the design of the homesite:

A. The homes should be constructed into the hillside so that landslide masses flow over them This requires that the homes be excavated into the hillside such that the rear walls and portions of the side walls act as engineered retaining walls.

B. Every effort should be extended to minimize the effect of the temporary cutslopes in the homesite excavations on the adjacenl properties to the northwest and the hillside upslope of the excavation. It is anticipated that temporary shoring will be needed to support the cutslopes during construction of engineering retaining walls, but this will be decision of the project geotechnical engineers.

C. The rear wall of the dwellings and the rear roof eaves should closely coincide with the slope at the rear of the house so that there is very minimal potential for landslides originating above the home to impact the rear wall of the dwelling. In concept, landslide debris will flow onto and over the home, and seismically generated failures are thought to be very large masses of earth. **A** smaller failure such as a saturation generated landslide has a moderate to perhaps high probability of occumng on the bluff face above the proposed home. Either of these landslides could deposit earth and debris on the roof of the proposed home. We anticipate that landslide masses may travel at velocities on the order of 32 feet-per-second based on empirical comparisons to observed landslide velocities However, the project engineers should verify this velocity and use values that they develop The loads on the roof from the potential slide masses will probably require concrete and steel frame building methods.

D The foundation of the homes shall be designed against slope failure on the sides of the home since it is assumed that the side yard will not be protected by retaining walls

F The existing retaining walls at the top of the hillside may become entrained in a massive slope failure, so we recommend that the project engineers consider the effects of these walls on the proposed home in the event that it completely fails and travels downslope

G Exposed deck area should be kept to a minimum, and any deck should include a partially covered area where occupants can take refuge in the event that landslide debris cascades over the home

2. The homes should be designed and constructed to County Building requirements regarding floor level elevations relative to 100-year flood levels. The designated 100-year flood elevation is 21 feet above sea level based on the National Geodetic Vertical Datum of 1929.

3. The homes should be designed to withstand moderate to severe seismic shaking. Refer to the body of the report for seismic criteria

4. The project geotechnical engineer should evaluate the liquefaction potential of the beach sand underlying the homesites or develop mitigation measures for liquefaction hazards if the analysis indicates a susceptibility This applies to the homes and particularly the dnveways because the latter will be located over a thick deposit of beach sand We anticipate the use of pier and grade beam foundations that penetrate below the beach sand and colluvium/landslide deposits into the more competent Purisima Formation sands and gravels, not only to mitigate the effects of liquefaction potential but for potential instability in the colluviudlandslide deposits and beach sand deposits.

5. **A** surface drain system shall be developed for the properties which accommodates potential surface flow off the steep hillsides above the properties. It is best to accommodate this potential flow in a shallow surface depression such as a shallow drain trough because of the possibility that a significant amount of sediment could erode **from** the hill and fill or block subsurface dram pipes or inlets All roof and driveway runoff should be conveyed to Beach Drive where there is a storm drain system.

6. All areas where vegetation is stripped during construction should be revegetated with appropriate erosion resistant vegetation prior to the next rainfall season.

7. This report should be reviewed in conjunction with the forthcoming soils report by Haro, Kasunich and Associates. The recommendations of the soils engineer should be closely followed.

Environmental Review Inital Study
ATTACHMENT 9, 3 of 4
APPLICATION 06-0156

8 We shall be afforded an opportunity to review the final design plans *to* ensure that our recommendations have been incorporated. If we are not afforded this opportunity, we will assume no responsibility for the misinterpretation of our recommendations

Environmental Review Inital Study
ATTACHMENT 9, 4 of 4
APPLICATION 06-0156

EXHIBIT D

Environmental Planning Completeness Comments

========= REVIEW ON APRIL 10. 2006 BY ANDREA M KOCH =========
1) No comments

========= UPDATED ON JUNE 7, 2006 BY JOSEPH L HANNA =========
1 Submit plan review letters from the engineering geologist. and geotechncial engineer

2. Submit shoring plan

3. Submit construction phasing plan

Environmental Planning Miscellaneous Comments

========= REVIEW ON APRIL 10, 2006 BY ANDREA M KOCH =========
1) Submit plan review letters from the engineering geologist and geotechnical (soils) engineer stating that the final plans are in conformance with the recommendations in the respective reports.

2) Submit an erosion control plan showing details and proposed locations of erosion/sediment control devices The plan should include a construction access covered in rock to prevent construction vehicles from tracking sediment offsite

3) Prior to building permit issuance. record a Declaration of Geologic Hazards at the County Recorder's Office and return a copy to Environmental Planning. To obtain the Declaration. call me at 454-3164. ========= UPDATED ON APRIL 10, 2006 BY ANDREA M KOCH =========

Dpw Drainage Completeness Comments

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

========= REVIEW ON APRIL 10, 2006 BY CARISA R DURAN =========
Discretionary stage application review is complete for this division.

This application is for development in Zone 6. For increases in impervious area, a drainage fee will be assessed. The fees are currently $0.90 per square foot.

Please call or visit the Dept. of Public Works. Stormwater Management Division, from 8:00 am to 12:00 pm if you have any questions.

Dpw Drainage Miscellaneous Comments

Environmental Review Inital Study
ATTACHMENT 10, 1 of 2
APPLICATION 06-0156

EXHIBIT D

LATEST COMMENTS HAVE NDT YET BEEN SENT TO PLANNER FOR THIS AGENCY

========== REVIEW ON APRIL 10, 2006 BY CARISA R DURAN ==========
For the building application stage, please submit a signed. notarized, and recorded maintenance agreement for silt & grease traps prior tc permit issuance.

Dpw Driveway/Encroachment Completeness Comments

========== REVIEW ON MARCH 22, 2006 BY RUTH L ZADESKY ==========
No Comment, project adjacent to a non-County maintained road.

Dpw Driveway/Encroachment Miscellaneous Comments

========== REVIEW ON MARCH 22, 2006 BY RUTH L ZADESKY ==========
No comment.

Dpw Road Engineering Completeness Comments

========== REVIEW ON APRIL 5, 2006 BY TIM N NYUGEN ==========
NO COMMENT

Dpw Road Engineering Miscellaneous Comments

========== REVIEW ON APRIL 5, 2006 BY TIM N NYUGEN ==========
NO COMMENT

Aptos-La Selva Beach Fire Prot Dist Completeness C

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

========== REVIEW ON APRIL 6, 2006 BY ERIN K STOW ==========
DEPARTMENT NAME:Aptos/La Selva Fire Dept. APPROVED.
If the public fire hydrant is further than 250 feet from any portion of the building. a new fire hydrant will be required. The hydrant will be located between 546 & 548 Beach Drive.
All Fire Department building requirements and fees will be addressed in the Building Permit phase
Plan check is based upon plans submitted to this office. Any changes or alterations shall De re-submitted for review prior to construction.

Aptos-La Selva Beach Fire Prot Dist Miscellaneous

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

========== REVIEW ON APRIL 6, 2006 BY ERIN K STOW ==========
NO COMMENT

Environmental Review Inital Study
ATTACHMENT 10 2 of 2
APPLICATION 06-0156

EXHIBIT D

SOQUEL CREEK WATER DISTRICT
P.O. Box 158
Mail to: 5180 Soquel Drive
Soquel, CA 95073-0158
PHONE (831) 475-8500 FAX (831) 475-4291

PROJECT COMMENT SHEET

Date of Review: 04/05/06
Reviewed By: Carol Carr

Returne Comments to: David Keyon
County of Santa Cruz
Planning Department
701 Ocean St., Ste. 410
Santa Cruz, CA 95060

Owner: Deborah & Michael Collins
13S. California St.
Lodi, CA 95240

Applicant: Jim Mosgrove
117 Little Creek Rd.
Soquel, CA 95073

Environmental Review Inital Study
ATTACHMENT 11 1 of 2
APPLICATION 06-0156

Type of Permit: Development Permit Application
County Application # **06-0166**

Subject APN: **043-162-70**
Location: Property is located on the bluff side of Beach Drive, about 1 mile southeast of Rio Del Mar Esplanade (at 546 Beach Drive)

Project Description: Proposal to construct a 3-story single-family dwelling of about 4,330 square feet and grade about **1,070** cubic yards in a Coastal Scenic Area. Requires a Coastal Development Permit, a Variance to increase the number of stories to 3 within the Urban Services Line, Preliminary Grading Review, and Environmental Review.

Notice

Notice is hereby given that the Board of Directors of tbe Soquel Creek Water Dietrict is considering adopting policies to mitigate tbe impact of development on the local groundwater basins. The proposed project would be subject to these and *any* other conditions *of* service that the District may adopt prior to granting water service.

It should not be taken as a guarantee that service will be available to the project *in* the future or that additional conditions will not be imposed by the District prior to granting water service.

Requirements

The developer/applicant, without cost to the Diatrict, shall:

1) Destroy any wells on the property in accordance with State Bulletin No. 74;
2) Satisfy all conditione imposed by the District to assure necessary water pressure, flow ond quality;
3) Satisfy all conditione for water conservation required by the District at the time of application for service, including tbe following:
   a) All applicants for new water service from Soquel Creek Water District shall be required *to* offset expected water use of their respective development by a 1.2 to 1ratio by retrofitting existing developed property within the Soquel Creek Water District service area so that any new development has a "zero impact" on the District's groundwater supply. Applicants for new service shall bear those *coats* associated with the retrofit as deemed appropriate by the District up to a maximum set by the District and pay any associated Pees set by the Diatrict to reimburse administrative and inspection costs in accordance witb District procedures for implementing this program.
   b) Plans for a water efficient landscape and irrigation system shall be submitted to District Conservation Staff for approval;

SOQUEL CREEK WATER DISTRICT
P.O. Box 158
Mail to: 5180 Soquel Drive
Soquel, CA 95073-0158
PHONE (831) 475-8500 FAX (831) 475-4291

PROJECT COMMENT SHEET

c) All interior plumbing fixtures shall he low-flow and have the EPA Energy Star label;

District Staff shall inspect the completed project for compliance with all Conservation requirements prior to commencing water service;

4) Complete LAFCO annexation requirements, if applicable;
5) All units shall be individually metered with a minimum size of 5/8-inch by ¾-inch standard domestic water meters;
6) A memorandum of the terms of this letter shall be recorded with the County Recorder of the County of Santa Cruz *to* insure that any future property owners we notified of the conditions 3et forth herein.

Soquel Creek Water District Project Review Comments:

SCWD has reviewed plane prepared by Jim Mosgrove, Architect and has made comments. 1) A *New Water* Service *Application Request* will need to he completed and submitted to the SCWD Board of Directors. 2) The applicant shall be required to offset the expected water use of their respective development by a 1.2 to 1 ratio by retrofitting existing developed property within the Soquel Creek Water District service area. Applicants for new service shall bear those costs associated with the retrofit. 3) District policy requires all units to be metered individually. 4). All interior plumbing *fixtures* shall be low flow and have the EPA Energy Star label. 6) The landscape-planting plans have been reviewed and approved by District Conservation Staff. 6) A *Fire Protection Requirements* Form will need to be reviewed and completed by the appropriate Fire District. 7) Water pressure in this area is high. A Water *Waiver for Pressure &/or Flow* will need to be recorded.

Attachments:

- ☐ Soquel Creek Water District Procedures for Processing Minor Land Divisions (MLD) dated November 9,1992
- ☐ Soquel Creek Water District Procedures for Processing Water Service Requests for Subdivisions and Multiple Unit Developments
- ☒ The Soquel Creek Watsr District Water Use EfficiencyRequirements for Single-Family Lots
- ☐ The Soquel Creek Water District Water Use Efficiency Requirements for Development other than Single-Family Lots
- ☒ Water Demand Offset Policy Fact Sheets
- ☐ Soquel Creek Water District Will Serve Letter
- ☐ Soquel Creek Water District Variance Application
- ☒ Soquel Creek Water District Water Waiver For Pressure and/or Flow
- ☒ Fire Protection Requirements Form

Environmental Review Inital Study
ATTACHMENT 11, 2 of 2
APPLICATION 06-0156

EXHIBIT D

SANTA CRUZ COUNTY SANITATION DISTRICT

INTER-OFFICE CORRESPONDENCE

DATE: April 5, 2006

TO: Planning Department, ATTENTION: David Keyon

FROM: Sanra Cruz County Sanitation District, Steve Harper

SUBJECT: SEWER AVAILABILITY **AND** DISTRICT'S CONDITIONS OF SERVICE FOR THE FOLLOWTNG PROPOSED DEVELOPMENT:

APN: 43-152-70 APPLICATION NO.: 06-0156

PARCEL ADDRESS: 546 Beach Drive

PROJECT DESCRIPTION: Construct 3-Story Single Family Dwelling

---

Sewer sei-vice is available for the subject development upon completion of the following conditions. This notice is effective for one year from the issuance date to allow the applicant the time to receive tentative map, development or other discretionary permit approval. If after this time frame this project has not received approval from the Planning Department, a new sewer service availability letter must be obtained by the applicant. Once a tentative map is approved this letter shall apply until the tentative map approval expires.

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.

The plan shall show proposed plumbing fixtures on floor plans of building application. Completely describe all plumbing fixtures according to table 7-3 of the uniform plumbing code.

S.M. Harper
Sanitation Engineering

Environmental Review Inital Study
ATTACHMENT 12
APPLICATION 06-0156

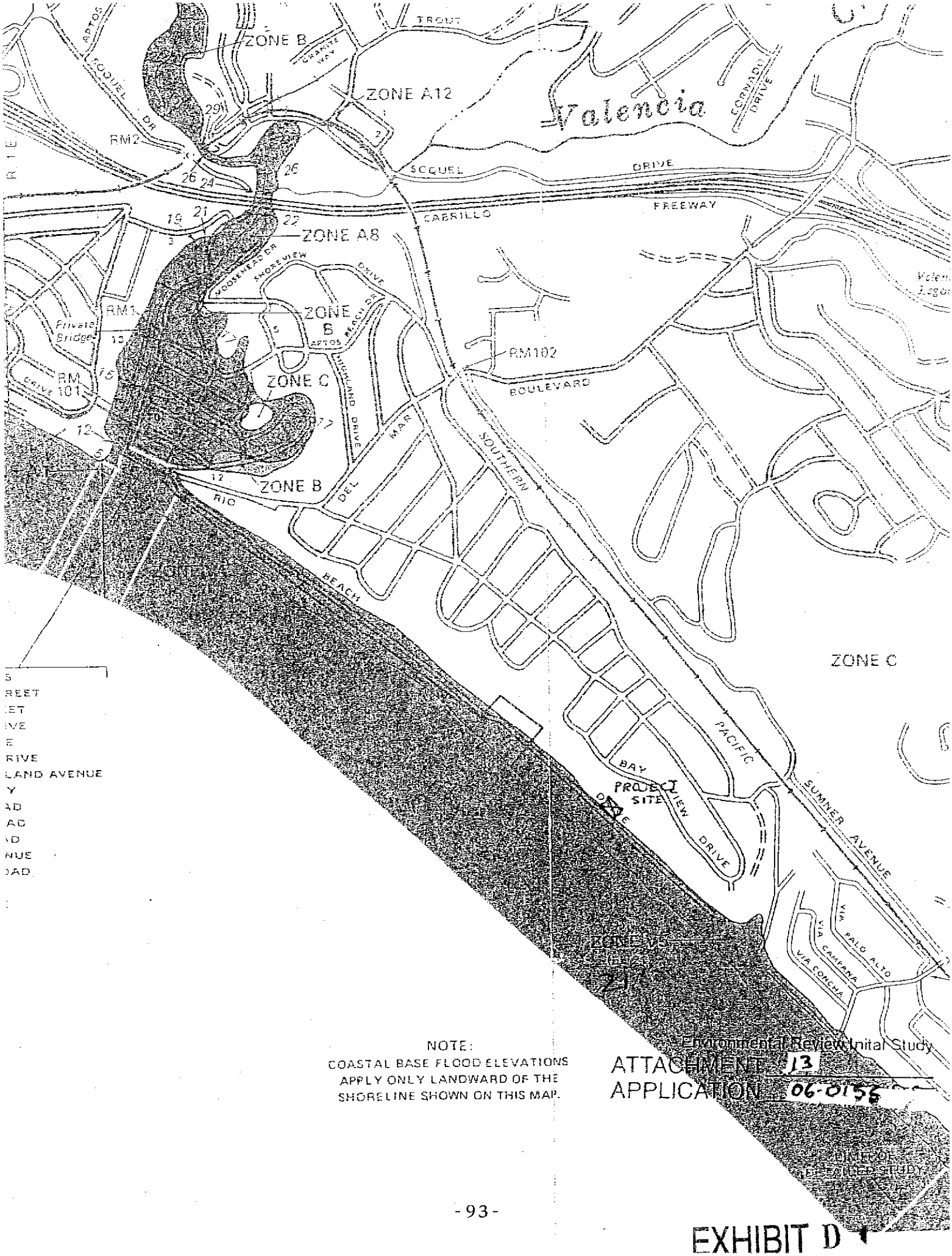
SMH:mh/671

c: Applicant: Jim Mosgrove, Architect
117 Little Creek Road
Soquel, CA 95073

Property Owner: Michael and Deborah Collins Etal
13S. California Street
Lodi, CA 95240

(Rev. 3-96)

EXHIBIT D



NOTE:
COASTAL BASE FLOOD ELEVATIONS APPLY ONLY LANDWARD OF THE SHORELINE SHOWN ON THIS MAP.

Environmental Review Inital Study
ATTACHMENT 13
APPLICATION 06-0156

LIMIT OF DETAILED STUDY

EXHIBIT D

COUNTY OF SANTA CRUZ | Planning Department

MEMORANDUM

Application **No: 06-0156**

Date: April 18, 2006

To: David Keyon, Project Planner

From: Lawrence Kasparowitz, Urban Designer

Re: Design Review for a new residence at 546 Beach Drive, Aptos

GENERAL PLAN / ZONING CODE ISSUES

Design Review Authority

13.11.040 Projects requiring design review.

(a) Single home construction, and associated additions involving 500 square feel 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 adjacenl 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

Environmental Review Inita
ATTACHMENT
APPLICATION

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	✔		
Parking location and layout	✔		
Relationship to natural site features and environmental influences	✔		
Landscaping	✔		
Streetscape relationship			N/A

Environmental Review Inital Study
ATTACHMENT H
APPLICATION 06-0156

EXHIBIT D

Street design and transit facilities			N/A
Relationship to existing structures	✔		
Natural Site Amenities and Features			
Relate lo surrounding topography	✔		
Retention of natural amenities	✔		
Siting and orientation which lakes advantage of natural amenities	✔		
Ridoeline protection			N/A
Prolection of public viewshed	✔		
Minimize impact on private views	✔		
Accessible to the disabled, pedestrians, bicycles and vehicles			N/A
Solar Design and Access			
Reasonable protection lor adjacent properties	✔		
Reasonable protection for currently occupied buildings using a solar energy system	✔		
Noise			
Reasonable protection for adjacenl properties	✔		

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	✔		
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	✔		

Environmental Review Inital Study
ATTACHMENT 4 2 of 2
APPLICATION 06-0156

EXHIBIT D

Scale			
Scale is addressed on appropriate levels	✔		
Solar Design			
Building design provides solar access thal is reasonably protected for adjacent properties	✔		
Building walls and major window areas are oriented for passive solar and natural lighting	✔		

URBAN DESIGNERS COMMENTS:

The cable railings do nor meet building rode

The front doors seem out of scale. Perhaps they could be 8'-0" high?

The copper should be pre-patina.

Environmental Review Inital Study
ATTACHMENT 14, 3 of 3
APPLICATION 06-0156

EXHIBIT D

COLLINS / WENGER RESIDENCE
546 Beach Drive, Aptos CA
Jim Mosgrove, Architect
Rendering: ArchiGraphics

Environmental Review Inital Study
ATTACHMENT 15, 1 of 2
APPLICATION 06-0156

EXHIBIT D

COLLINS / WENGER RESIDENCE
546 Beach Drive, Aptos CA
Jim Mosgrove, Architect
Rendering: ArchiGraphics

Environmental Review Inital St

ATTACHMENT 15, 2 of 2
APPLICATION 06-0156

EXHIBIT D

Project No. SC8462.546
11 May2006

MIKE AND DEBBIE COLLINS
13 South California Street
Lodi. California 95240

Subject: Project Plan Review

Reference: Proposed Bluffloe Residence
APN 043-152-55
546 Beach Drive
Santa Cruz County, Caiifornia

Dear Mr. and Mrs. Collins:

Our firm prepared the Geotechnical Investiqation for Two Proposed Bluffloe Residences dated 17 March 2004 for the proposed residence at the referenced site. We also prepared the letter titled Addendum Design Criteria dated 1 March 2006 outlining project specific debris impact loads and temporary shoring recommendations.

This letter is written to outline our review of the geotechnical aspects of the architectural plans and the preliminary structural details of the bluff face retaining wall system. Architectural plans were prepared by Jim Mosgrove and are dated **1** January 2006. Preliminary structural engineering plans were prepared by Buchanan Engineering, dated 23 February 2006. Specifically we reviewed the following plan sheets:

1) Sheet A I - Site Plan;
2) Sheet A-4- Living Level with Covered Deck & Landslide Containment Wall;
3) Sheet A6- West Elevation;
4) Sheet A7- East Elevation;
5) Sheet A8- Site Section with Preliminary Structural System;
6) Sheet 1- Michael Beautz, C.E.- Drainage Plan dated February 2006;
7) Sheet 2 & 3- Michael Beautz. C.E.- Sections dated February 2004;
8) Sheet L-1- Erosion Control Notes by Michael Arnone dated 7 February 2006;
9) Sheet SH1- Shoring Specifications;
10) Sheet SH2- Shoring Plan;
11) Sheet SH3- Shoring Sections

EXHIBIT E

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

12) Sheet SH4- Shoring Elevations; and
13) Sheet SH5- Shoring Details.

The Preliminary Improvement Plans by Michael Beautz, C.E. show the lowest living story at elevation 25.5 feet NGVD, above the FEMA Base Flood Elevation of 21 feet NGVD.

The Landscape Plan - Erosion Control Notes outlines the use of an irrigation system for slope planting. We recommend irrigation be temporary and water cut off after planting is established.

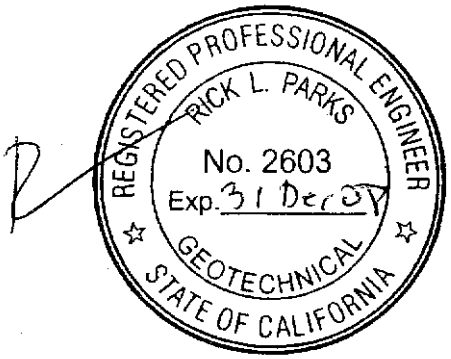
It is our opinion the aforementioned plan sheets were prepared in general conformance to our geotechnical recommendations.

If you have any questions, please call our office

Very truly yours,

HARO, KASUNICH AND ASSOCIATES, INC.

Rick L. Parks
G.E. 2603



RLP/dk

Copies: 1 to Addressee
4 to Jim Mosgrove
1 to John Buchanan
1 to Hans Nielsen

EXHIBIT E

NIELSEN and ASSOCIATES

ENGINEERING GEOLOGY AND COASTAL CONSULTING

May 2, 2007

Job No. SCr-1058-G

Mike and Debbie Collins
13 South California Street
Lodi, California 95240

SUBJECT Updated plan review **letter** for a new single family home

REFERENCE 546 Beach Drive, Santa Cruz County, California, APN 043-152-70 (formerly 043-152-55)

Dear Mr. and *Mrs.* Collins:

At the request of you architect, we are providing **this** updated plan review letter. We previously reviewed plans for a new home on **this** property in February 2006 and prepared a letter, a copy of which **is** attached.

This updates our review. **It** is **our** understanding that there have been no changes to the plans that we reviewed in February 2006. **The plans** are still acceptable relative to our report and recommendations.

Sincerely,

Hans Nielsen
C.E.G. 1390

REGISTERED GEOLOGIST
HANS NIELSEN
No. 1390
CERTIFIED
ENGINEERING
GEOLOGIST
STATE OF CALIFORNIA

EXHIBIT E

1070 W. Antelope Creek Way • Gro Valley, Arizona 85737 • (831) 295-2081

County of Santa Cruz
Planning Department

Planning Commission
Meeting Date: 10124107
Agenda Item: # 7
Time: After 9:00 a.m.

Additions to the Staff Report for the Planning Commission

Item 7: 06-0156

Late Correspondence

HASELTON
& HASELTON
ATTORNEYS AT **LAW**

2425 Porter Street, Suite 14
Soquel, California 95073
Telephone: 831.475.4679
Facsimile: 831.462.0724

Britt L. Haselton, **Esq.**
Joseph G. **Haselton, Esq.**

October 16,2007

Santa Cruz County Planning Commission
Planning Department
701 Ocean Street
Santa Cruz, CA 95060

RE: Application 06-0156
APN: 043-152-70, 546 Beach Drive, Aptos

Dear Members of the Commission:

Our **firm** represents a coalition of neighbors who own homes on Beach Drive and are opposed to this application based on its imminent threat to their safety, concerns for **the** public safety and also, concerns for property destruction and damage. The site is one recognized by many certified geological engineers including John Wallace of Cotton Shires and Associates and the California Coastal Commissions' own **staff** geologist as being a severe geohazards site with significant concern for landslide, erosion and earthquake movement. It is a steeply sloped coastal bluff made up **of** soft sandy material which is sloped from 50-70% on most **of** its surface.

On this cliff face, the owners propose a large **3** story bunker style home which will cut excessively deep into the bluff face destabilizing it and causing it to **pose** serious damage in the event of collapse to all surrounding properties including those above on Bayview Drive and those across the street on Beach Drive as well as neighboring adjacent properties.

This **type** of construction is in clear violation of the California Coastal Act, Public Resources Code $30253 (1) and (2) which states:

'New development shall:

(I) Minimize risks to life and property in areas of high geologic, flood and fire hazard.

(2) Assure stability and structural integrity, and neither create nor contribute significantly to erosion, geologic instability, or destruction **of** the site or surrounding area, or in any way require the construction **of** protective devices that would substantially alter natural landforms along bluffs **and** cliffs."

Although, it is claimed that the inhabitants would be safely protected inside this home in the event of a large scale earth movement, there is no evidence that the surrounding properties and their inhabitants and innocent bystanders would be out of harms way. This lot and its adjoining neighbor, with a similar proposed structure, are huge areas of unprotected bluff which in the event of a slide would decimate the surrounding areas and

remove the subjacent support from Bayview Drive. This bunker house depends on its deep set concrete and steel foundation and thus is a protective device and clearly alters the natural bluff face. Additionally, with the movement of 1070 cubic yards of earth, it substantially alters the natural landform as well. The only allowed use for a protective device is in Public Resources Code $30255 but that is only for pre-existing homes.

Thus, the construction of this bunker style home is in violation of the above statute. It also violates the General Plan/ Local Coastal Program Policy 6.2.10 (Site Development to **Minimize** Hazards) safety standards and prohibitions against structures in Geoharzardous areas.

Further, it is not appropriate to use a variance to allow a third story for this structure. This has become a customary practice on **the** inland side of Beach Drive rather than **to** address a particular constraint of a specific parcel. The California Coastal Commission has criticized the County for this approach in the past and continues to urge the County to submit an LCP amendment to **the** LCP's height standards for which variances are routinely approved. The Planning Commission should discuss and await implementation of this measure before approving the variance to this application.

Lastly, the Commission may be aware of **the** status of the neighboring properly at 548 Beach Drive which has a similar structure proposed. After thorough consideration of the matter and much discussion,this Commission adopted findings for denial of that project on June 28,2006. After the Board **of** Supervisors overturned the denial and approved the project on September 26,2006, an appeal was made to the California Coastal Commission. The Commission found a substantial issue and, after continuing, conducted a de novo review of the project on September 6,2007. Voting against their own Staffs' recommendation, **the** Commission approved the project with conditions. That matter is now being appealed on a Writ **of** Mandate to the Superior Court **of** California.

Since it is so closely related to the project at hand and could affect the future viability of all such similar proposed bunker style homes, we would strongly urge the Commission to deny this project based on **the** above considerations or, in the alternative, to delay hearing the matter until the Courts have made their decision. **This** is a very important decision which should be carefully considered and may well have a long range effect on the issues of *safe* coastal development on the California coastline. **We** strongly believe that these homes **are** in violation of the Coastal Act and the LCP and for these reasons should be denied.

Thank you for your consideration of this matter.

Very truly yours,

Britt L. Haselton

Britt L. Haselton, Esq.
Haselton & Haselton