



Staff Report to the Zoning Administrator

Application Number: **171216**

Applicant: Arvind Agarwal
Owner: Beach Drive Investors, LLC
APN: 043-152-71

Agenda Date: April 20, 2018
Agenda Item #: 2
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, located in the RB (Single-Family Ocean Beach Residential) district, and a determination that the project will not have a significant adverse effect on the environment with the proposed mitigations.

Location: Property located on the north side of Beach Drive about 1 mile southeast of Rio Del Mar Blvd. (at 548 Beach Drive, a vacant parcel).

Supervisory District: District 2 (District Supervisor: Zach Friend)

Permits Required: Requires a Coastal Development Permit, Large Dwelling Permit, Preliminary Grading Approval, a Variance to increase the number of stories to three and to reduce the required 20 foot setback to the entrance of the garage to about 9 feet, Design Review.

Technical Reviews: Requires a combined Geologic/Geotechnical Report Review (REV171087).

Staff Recommendation:

- Adopt the Mitigated Negative Declaration prepared pursuant to the California Environmental Quality Act.
- Approval of Application 171216, based on the attached findings and conditions.

Exhibits

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|----|---|----|------------------------------------|
| A. | Project Plans | F. | Review of Addendum to |
| B. | Findings | | Geotechnical and Geological Report |
| C. | Conditions | G. | Assessor's, Location, Zoning and |
| D. | Mitigated Negative Declaration
(CEQA document submitted for
permit # 04-0255) | | General Plan Maps |
| E. | Addendum to Geotechnical and
Geological Report | H. | Photo Simulations |
| | | I. | Comments & Correspondence |
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County of Santa Cruz Planning Department
701 Ocean Street, 4th Floor, Santa Cruz CA 95060

Parcel Information

Parcel Size: 12,888 square feet (determined by survey)
Existing Land Use - Parcel: Vacant land
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 (Single-Family Ocean Beach Residential)
Coastal Zone: ☒ Inside ☐ Outside
Appealable to Calif. Coastal Comm. ☒ Yes ☐ No

Environmental Information

Geologic Hazards: FEMA Flood Zone VE (wave run-up hazard zone), landslide potential at the base of coastal bluff
Soils: Beach sand (soils map index number 109, 133) 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: Approximately 1,440 cubic yards
Tree Removal: No trees proposed to be removed
Scenic: Scenic
Drainage: Drainage system reviewed by Department of Public Works
Archeology: Not mapped/no physical evidence on site

Services Information

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

History

This project was previously approved by the Board of Supervisors on September 26, 2006 (Application # 04-0255). The project was appealed to the California Coastal Commission on October 17, 2006 and later approved by them on September 6, 2007. The Coastal Commission granted a one year extension to the Coastal Development Permit to expire on September 6, 2012. The owner, Mr. Agarwal, submitted plans for a building permit, but later decided not to develop and sold the land to another entity who continued the building permit process. The building permit was approved, but the new owners never exercised it and the permit expired. The previous owner, Mr. Agarwal, bought back the land, and has submitted almost identical plans for a new coastal permit since the previous one expired.

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. There are mostly one-story homes that exist on the coast side of Beach Drive between the project site and the beach.

Zoning & General Plan Consistency

The subject property is a parcel of approximately 12,888 square feet, located in the RB (Single-Family Ocean Beach Residential) zone district, a designation which allows residential uses. The proposed single-family home is a principal permitted use within the zone district and the zoning is consistent with the site's R-UL (Urban Low Density Residential) General Plan designation.

Outlined below are the required site standards and what the applicant is proposing:

	RB Site Standards	Proposed
Front yard setback	10 feet*	6 feet
Setback to garage	20 feet	9 feet**
Side yard setbacks	0 feet and 5 feet	24 feet, 5 inches each side
Rear yard setback	10 feet	62 feet, 3 inches
Lot coverage	40%	17.74%
Floor Area Ratio	50%	46.8%
Maximum height	25 feet on bluff side	24 feet, 6 inches
Maximum # of stories	2	3**

*No front yard setback requirements 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.

**Variance required.

Local Coastal Program 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 (Single-Family 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 Plan policy 6.2.15 allows for new development on existing lots of record in areas subject to storm wave inundation or coastal bluff erosion in circumstances 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, foundation design, and recorded deed restrictions that describe the potential hazard and the level of geologic and/or geotechnical investigation conducted.

If properly constructed and maintained, the project design is expected to provide protection from landslide hazards and flooding during 100-year storm events within a 100-year lifespan of the structure.

The proposed dwelling is located at the base of a coastal bluff where it will be vulnerable to damage or destruction from landslides and slope failure. The original geotechnical and geologic report dated June 21, 2013 was prepared to address these hazards and provided recommendations for the proposed single family home for approved application # 04-0255. The project soils engineer and geologist recommended 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 landslide. The proposed single family home is almost identical to the home proposed in permit # 04-0255. Addendums to the geotechnical and geological report were submitted to present additional recommendations for the proposed project (Exhibit E). The addendums indicated the previously submitted Geotechnical and Geological Report and recommendations dated June 21, 2013 were still valid with some additional seismic design provisions to comply with the 2013 California Building Code. The County Geologist accepted the submitted addendums with additional requirements (Exhibit F).

The project site is located within FEMA Flood Zone VE, a 100-year coastal flood hazard zone designation area 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 22 feet above mean sea level (M.S.L.). The lowest habitable floor of the proposed dwelling is elevated more than one foot above 22 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 VE Zone and by Chapter 16.10 of the County Code.

The dwelling at 641 Beach Drive was the first structure approved incorporating this design (permit # 91-0506, approved in 1993). Other dwellings with a similar design have been approved elsewhere on Beach Drive, including at the southeast end of Beach Drive under Coastal Development Permit 99-0354 and 04-0044, and further south at 631 Beach Drive under permit 06-0688.

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 occurring during this period, the project soils engineer has outlined a plan for construction phasing. Following are the key elements of this plan:

- Site grading and retaining wall construction must take place between April 15th 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 (see Condition of Approval II.D.7).

Public Access

The proposed project 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 proposed single family home is located within a mapped scenic resource area and 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. General Plan/LCP policy 5.10.7 allows structures to be visible from a public beach when compatible with existing homes.

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 1960s. The upper story of the proposed dwelling will be visible from the open beach at low tides (see photo simulations, Exhibit H). 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.

Large Dwelling Review

The proposed dwelling is 6,035 square feet which includes the ground floor garage and habitable space on the upper floors. Section 13.10.325 states a Large Dwelling Permit is required when residential structures exceed 5,000 square feet.

The size of the residence will be larger than some, but it will be proportional to the size of the lot. The floor area ratio for the proposed project is below what is allowed at 46.8%. Listed in the chart below are other homes in the neighborhood have received discretionary approvals to exceed the allowable floor area ratio:

Permit #	Allowed FAR (%)	Proposed FAR (%)
99-0354	50%	63.7%
05-0200	50%	56%
08-0227	50%	55%
111215	50%	58%

The proposed project complies with the site standards for floor area ratio and lot coverage. The overall mass of the structure will be broken up by stepping back the top (third) level to be flush with the hillside, and by the central clearstory which breaks the structure into three horizontal components. 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 and style. The project 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 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. The height of the dwelling does not exceed 25 feet in conformance with the height limit for the RB zone district, and is consistent with most of the existing and proposed adjacent residences. The proposed dwelling will use earth-tone colors to blend in with the bluff to the rear.

Variance to Allow Three Stories and Reduced Setback to Garage Entry

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 and to allow a reduced setback to the garage entry from 20 feet to 9 about feet.

The County Code prohibits single-family dwellings greater than two stories within the urban services line without obtaining 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 homes 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 stories, including recently approved applications on adjacent lots. For this reason, the granting of a variance to allow three stories will not constitute the granting of a special privilege.

District site standards (County Code 13.10.323) require a 20 foot minimum setback to a garage or carport entrance for all districts, to allow for off street parking and sight distance. The proposal sets the face of the garage at approximately 9 feet from the front property line. The steep slopes and unstable bluff are special circumstances that restrict the garage to the forward part of the property. Any other location would require extensive grading, which is discouraged by Code. The proposal requires 5 off street parking spaces. All five are being provided in the proposed garage. The variance to allow a reduced setback to the garage will not be detrimental to the public health, safety, or welfare, or be injurious to property or improvements in the vicinity. There is approximately 19 feet from the edge of the traveled roadway to the face of the garage. Nine of those feet are located entirely outside of the right-of-way to back out and all of the parking for the home is out of the right of way. The variance is not a grant of special privilege, as construction of any home under similar circumstances would be granted a similar variance.

Environmental Review

Environmental review was required for this project when it was first proposed under permit # 04-0255 per the requirements of the California Environmental Quality Act (CEQA) because more than 1,000 cubic yards of grading was and is currently being proposed on this submittal. The previous project was reviewed by the County's Environmental Coordinator on December 14, 2005. The mandatory public comment period expired on January 20, 2006, with comments received from the Monterey Bay Air Pollution Control District and the Association of Monterey Bay Area Governments (AMBAG) (Exhibit D). The currently proposed project (Application # 171216) is almost identical to the home proposed under permit # 04-0255). As reports indicate, there are similar physical and ecological conditions today compared to 2006. It is therefore determined that the same mitigations to the project that were proposed under permit # 04-0255 shall apply to this project as well (application 171216).

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

- Adopt the Mitigated Negative Declaration prepared pursuant to the California Environmental Quality Act.
- **APPROVE** Application Number 171216, 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

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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, in that the property is zoned RB (Single-Family Ocean Beach Residential), a designation which allows residential uses. The proposed single-family dwelling is a principal permitted use within the zone district, and the zoning is consistent with the site's R-UL (Urban Low Density Residential) General Plan designation.

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 and Section 13.20.140 et seq.

The proposed single-family dwelling is consistent with the design criteria and special use standards and conditions of County Code 13.20.130 and 13.20.140 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 to blend in with the vegetation on the bluff to the rear.

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 the nearest through 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 principally permitted use in the RB (Single-Family 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. Amendments to the previously submitted Engineering Geologic and Geotechnical report have prepared for this project evaluating 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 22 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 (VE-zone). Thus, the proposed development is consistent with this General Plan Policy.

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 not exceed 25 feet in conformance with the height limit for the RB zone district, and is 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 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, in that the project is located in an area designated for residential uses, and the proposed project complies with all development regulations applicable to the site with the exception of the limitation on the maximum number of stories, 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 22 feet mean sea level (M.S.L.), 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 and addendums 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 borne. 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 the dwelling 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 up-slope 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 (Single-Family 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 13.20.130, "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-stories 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.

This finding can be made, in that the proposed residential use is consistent with the use and density requirements specified for the R-UL (Urban Low Density Residential) land use designation in the County General Plan.

The project is located in the R-UL (Urban Low 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 the County.

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

This finding can be made, in that the proposed single-family dwelling is to be constructed on an existing undeveloped lot. The expected level of traffic generated by the proposed project is anticipated to be only 1 peak trip per day (1 peak trip per dwelling unit), such an increase will not adversely impact existing roads or intersections in the surrounding area.

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 will be of an appropriate scale and type of design that will enhance the aesthetic qualities of the surrounding properties and will not reduce or visually impact available open space in the surrounding area.

Large Dwelling Permit Findings

1. The proposed structure is compatible with its surroundings given the neighborhood, locational and environmental context and its design is consistent with the large dwelling design guidelines in County Code Section 13.10.325(D).

This finding can be made, in that pursuant to County Code Section 13.10.325, large dwellings are allowed uses within the residential zone district with consideration for siting and design of the proposed home relative to the specific property characteristics and surrounding properties. Situating a large home in a neighborhood with large and smaller homes does not render a large house incompatible with an existing neighborhood by itself. The floor area ratio ordinance regulates the size of the dwelling based on the size of the parcel. The proposed structure provides 46.8% floor area ratio where 50% is allowed. The parcel is larger than many with 12,888 square feet and the proposed structure will be proportional to the size of the lot. The proposed structure will not exceed the allowable height of 25 feet with 24 foot side setbacks. Due to the step-down design of the structure, the house will still meet the maximum 25 foot height limit for the RB zone district despite the increase in the number of stories.

The proposed structure has been designed to minimize impacts to the existing topography by proposing a bunker style home that steps back into the existing slope with minimal grading being proposed. The home is visually compatible with the character of the surrounding residential neighborhood utilizing earth-tone colors to blend in with the bluff to the rear and adjacent homes.

Variance Findings

2. 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-VE). 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 22 feet above (M.S.L.) 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 story 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 RB zone district despite the increase in the number of stories.

3. 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 be 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 22 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.

4. 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. The most recently approved variances, permits 04-0044, 05-0097, and 05-0098, encompass homes on the bluff side of Beach Drive downcoast from the project site.

Conditions of Approval

Exhibit A: Project plans, 10 sheets, prepared by Warren Design, dated 10/23/2017.
Engineered drawings, 25 sheets, drawn by Mesiti-Miller Engineering, Inc. dated 10/23/2017.

- I. This permit authorizes the construction of a three-story single-family dwelling as indicated on the approved Exhibit "A" for this permit. This approval does not confer legal status on any existing structure(s) or existing use(s) on the subject property that are not specifically authorized by this permit. 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.
 1. Any outstanding balance due to the Planning Department must be paid prior to making a Building Permit application. Applications for Building Permits will not be accepted or processed while there is an outstanding balance due.
 - 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 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.
 - E. Obtain an Encroachment Permit from the Department of Public Works for all off-site work performed in the County road right-of-way.
 - F. Submit proof that these conditions have been recorded in the official records of the County of Santa Cruz (Office of the County Recorder) within 30 days from the effective date of this permit.
- II. Prior to issuance of a Building Permit the applicant/owner shall:
 - A. 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

EXHIBIT C

final plans shall include the following additional information:

1. A copy of the text of these conditions of approval incorporated into the full size sheets of the architectural plan set.
2. One elevation shall indicate materials and colors as they were approved by this Discretionary Application. If specific materials and colors have not been approved with this Discretionary Application, in addition to showing the materials and colors on the elevation, the applicant shall supply a color and material sheet in 8 ½ " x 11" format for Planning Department review and approval.
3. Grading, drainage, and erosion control plans.
4. 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.
5. A final 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 side setbacks and shall meet the following criteria:
 - a. Plant Selection. At least 80% of the plant materials selected for non-turf areas (equivalent to 60% of the total landscaped area) shall be drought tolerant. Native plants are encouraged. Up to 20% of the plant materials in non-turf areas (equivalent to 15% of the total landscaped area), need not be drought tolerant, provided they are grouped together and can be irrigated separately.
 - b. Turf Limitation. Turf area shall not exceed 25% 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.
6. 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.

7. 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.
 8. 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. Maximum height is 25 feet.
 9. Details showing compliance with Fire Department requirements.
- B. Meet all requirements of and pay Zone 6 drainage fees to the County Department of Public Works, Stormwater Management. Drainage fees will be assessed on the net increase in impervious area. Comply with all conditions of approval Stormwater Management including:
1. This project is expected to construct the designed & approved detention system as described by Mesiti Miller Engineering (dated 1/23/18).
 - a. As described in the submitted letter...each tank is required to have a volume of 109 cubic feet, or 812 gallons. Two standard 1,000 gallon storage tanks would be appropriate. To maintain the pre-development 2-year flow rate of 0.008 cubic feet per second, the lower orifices shall have a diameter of 0.4 inches. A 6-inch diameter upper outlet shall be required as an overflow in a large rain event. The 0.4-inch outlet shall be placed about 6 inches above the bottom of the tank. Both outlets shall be piped at 2% minimum to outlets through the front retaining wall. The tanks shall be securely located on a compacted base rock building pad and plumbed and fitted to provide a water tight and resilient drainage system. If the tanks are backfilled, the tanks shall be rated for burial. Occasional cleaning and maintenance of the tanks and piping will be required to maintain function.
 - b. This detention system shall be constructed within the parcel's property boundary and shall not impact the approved bui-filtration system as shown on sheet C 3.0 (dated 10/23/17 by MME) of discretionary application 171216.
 2. Please provide cross-section construction details for all proposed permanent stormwater drainage features. Include a maintenance schedule for all features on the future civil plan set. This schedule shall be included as an exhibit when the applicant submits their SWM-25A maintenance agreement to the

County Recorder's Office.

3. Please address and clarify the purpose for the proposed drainage easements. Please submit an official record to the County with all respective parties/parcels that are intended to utilize and maintain any/all features within this easement boundary. (This document should clearly outline financial responsibilities along with any and all necessary maintenance requirements and if applicable inspection frequencies. Runoff will not be allowed to be concentrated at any point due to the existing steep slopes and potential for erosion).
4. Please provide a maintenance schedule establishing the ongoing requirements for maintenance and monitoring of all permanent stormwater management facilities in compliance with County Code 7.79 (this schedule shall also be included in the maintenance agreement as a packet when the applicant records and notarizes their SWM-25A form). It will be the responsibility of the homeowner to inspect and maintain all drainage features.
 - a. A recorded maintenance agreement will be required for the drainage system on this parcel. Please include the following additional information as required by the CDC:
 - i. Statement of the operating requirements to ensure proper performance of the stormwater management facility.
 - ii. Specification of any Best Management Practices that must be implemented and maintained.
 - iii. Specification of any restriction on system use or property use, such as limitations on amount of impervious surface, limits on fertilizer or pesticide use, limits on vehicle parking or maintenance, restrictions on building additions, etc.
 - iv. Notification that County staff may conduct routine inspections of the facility to ensure that the stormwater facilities are functioning properly and being maintained as needed.
 - v. Notification that the property owner may be assessed an annual service charge and/or re-inspection fee to cover the County costs of inspection and oversight. See the current Unified Fee Schedule for Stormwater Management Maintenance inspection and oversight fees.
 - vi. Notification that the property owner may be required to report to the County on the management and maintenance of the stormwater management facility. All large projects are required to report on at least an annual basis regarding system maintenance and are expected to be assessed an annual service charge.

- vii. All large projects shall include an attached exhibit that shows the stormwater management facility location/s on the project site along with delineations of the subwatershed area/s draining to each facility.
 - viii. All large projects shall include an attached exhibit that lists at a minimum for each stormwater mitigation: the operation and maintenance requirements, inspection and maintenance intervals, and symptoms of the system failure or not functioning as designed. The annual report shall address each item from the attached exhibit and shall include date/s of inspection, name/s of inspector/s, and a detailed list of maintenance and repairs completed. The annual report shall include photos, as necessary, to document operation, maintenance and repairs completed. See Section B Design References, references j (Appendix H) and I (Chapter 6) for details.
 - ix. The maintenance agreements shall be binding on and shall inure to the benefit of the successors, heirs, executors, administrators, and assigns of the owner.
 - b. Please contact the County of Santa Cruz Recorder's Office for appropriate recording procedures. The maintenance agreement form can be picked up from the Public Works office or can be found online at <http://dpw.santacruzcounty.us/Portals/19/pdfs/FigureSWM25A.pdf>
5. This site receives runoff from upstream/adjacent areas and shall be required to abide with Section C Part G #3 of the CDC. Please provide the Stormwater Section with an applicable/acceptable recorded document on the parcel deed.
- a. Per Section C Part G #3 of the CDC, "The recorded document shall acknowledge that the parcel does and will continue to receive upstream runoff, that the property owner is responsible for maintenance of the drainage pathway (natural and/or man-made) through the parcel, and that the County and Flood Control Districts(s) are not responsible for the upstream runoff on for the maintenance of the drainage pathway."
6. This project is within an established Flood Control District as part of Santa Cruz County and shall be charged a fee based on the total new impervious area created. The current fee is \$1.27 per square foot but is subject to change based on the most updated fee amount applicable at the time of permit issuance. The County of Santa Cruz currently has four Zones with the associated fee rate (Zone 5 established in 1969, Zone 6 established in 1985, Zone 7 established in 1975, and Zone 8 established in 1977).
- a. This project may be eligible for fee credits for existing impervious areas that may be removed or replaced as part of this permit

application if documentation is presented that demonstrates such areas were permitted or built prior to the zone's creation. Otherwise County staff will utilize 1975 aerial photos to establish credit if no additional information is furnished by the applicant.

- b. A 50% credit is given to all projects that implement semi-pervious surfaces such as: pervious/porous/permeable pavers, porous concrete, porous asphalt, base rock, etc.
7. Upon approval of the project, a drainage "Hold" will be placed on the permit and will be cleared once the construction is complete and the stormwater management improvements are constructed per the approved plans: In order to clear the Hold, one of these options has to be exercised:
- a. The designer must inspect the drainage improvements on the parcel and provide public works with a letter confirming that the work was completed per the plans. The designer's letter shall be specific as to what got inspected whether invert elevations, pipe sizing, the size of the mitigation features and all the relevant design features. Notes of "general conformance to plans" are not sufficient.
 - b. As-built plans stamped by the designer may be submitted in lieu of the letter. The as-built stamp shall be placed on each sheet of the plans where stormwater management improvements were shown.
 - c. The designer may review as-built plans completed by the contractor and provide the county with an approval letter of those plans, in lieu of the above two options. The contractor installing the drainage improvements will provide the designer as-built drawings of the drainage system, including construction materials, invert elevations, pipe sizing and any modifications to the horizontal or vertical alignment of the system. The as-built drawings, for each sheet showing drainage improvements and/or their construction details, must be identified with the stamp (or label affixed to the plan) stating the contractor's name, address, license and phone number. The designer will review the as-built plans for conformance with the design drawings. Upon satisfaction of the designer that the as-built plans meet the design intent and are adequate in detail, the designer shall submit the as-built plans and a review letter, stamped by the designer to the County Public Works Department for review to process the clearance of the drainage Hold, if the submittal is satisfactory.
8. This project will be held to the most current Design Criteria requirements implemented by the County of Santa Cruz at the time of application for a building permit. Further comments may be made at the building permit stage if clarification is needed. Contact Forrest Revere if you have questions

regarding these comments: dpw172@santacruzcounty.us.
Counter hours: Monday-Friday 8-12pm; Phone: 831-454-2160.

- C. Meet all requirements of the Santa Cruz County Sanitation District. Proof of sanitary sewer service availability is required prior to application for a Building Permit.
1. Additional conditions of approval is that the sewer clean out (and backflow prevention device, if required by code) must be behind the property line, not within the public right-of-way.
- D. Meet all requirements of the Environmental Planning section of the Planning Department including the following added conditions of approval:
Prior to issuance of a Building Permit, the applicant/owner shall:
1. 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 must be approved by the County Geologist.
 2. 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.
 3. 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.
 4. 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.
 5. 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.
 6. Submit a plan review letter from the project structural engineer stating the plans comply with FEMA elevation requirements.
 7. 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.

8. 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.
9. 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 22 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.

Prior to and during site disturbance and construction:

1. Prior to any disturbance on the 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.
2. 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 15 must not commence until after April 15th the following year to allow for adequate time to complete grading prior to October 15th.
3. 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.
4. 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 Bay Air Pollution Control District.
5. All earthwork and retaining wall construction shall be supervised by the project soils engineer and shall conform with the Geotechnical report recommendations.
6. 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.
7. 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 22 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.
8. 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.

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:

1. All site improvements shown on the final approved Building Permit plans shall be installed.
2. 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.
3. 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 be 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.
4. Final erosion control and drainage measures shall be completed.
5. The project must comply with all recommendations of the approved soils reports.
6. Pursuant to Sections 16.40.040 and 16.42.080 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 16.42.080, shall be observed.
7. Modifications to the architectural elements including but not limited to exterior finishes, window placement, roof design and exterior elevations are prohibited, unless an amendment to this permit is obtained.
8. All portions of either structure located below 22 feet mean sea level shall be maintained as non-habitable.
9. The ground floor shall not be mechanically heated, cooled, humidified or dehumidified.
10. The structure may be inspected for condition compliance twelve months after approval and at any time thereafter at the discretion of the Planning Director.
11. This permit prohibits the use of the roof, side yards and rear yard except for the purpose of maintenance and/or repair.
12. The home 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. Meet all requirements and pay any applicable plan check fee of the Aptos/La Selva Fire Protection District.
 - F. Pay the current fees for Parks and Child Care mitigation for six (6) bedrooms. Currently, these fees are, respectively, \$1,000 and \$109 per bedroom.
 - G. Pay the current fees for Roadside and Transportation improvements for six (6) bedrooms. Currently, these fees are, respectively, \$3,000 per unit for each-\$6,000 total.
 - H. Pay the current Affordable Housing Impact Fee. The fees are based on unit size and the current fee for a dwelling over 4,100 square feet is \$15 per habitable square foot.
 - I. Provide required off-street parking for 5 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.
- III. 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 be installed.
 - B. All inspections required by the building permit shall be completed to the satisfaction of the County Building Official.
 - C. The project must comply with all recommendations of the approved soils reports.
- IV. Operational Conditions
- A. 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.
- V. 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, its 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.
- VI. 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. 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, and that the design meets the recommendations of their reports and the review letter from the County Geologist (J. Hanna, letter dated November 22, 2017). A plan review letter shall also be submitted from the project structural engineer that the FEMA elevation requirements for non-habitable and break away construction below 22 feet MSL has been met.

- 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.
- D. Restriction on winter grading: Grading shall not occur between October 15 and April 15. Further, if grading has not started before August 1, it cannot start until April 15 of the following year. 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.
- 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.
- 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.
- H. Visual impacts: Prior to approval of the building permit by Development Review, the applicant shall submit a color board (in an 8 ½" 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.

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 three years from the effective date listed below unless a building permit (or permits) is obtained for the primary structure described in the development permit (does not include demolition, temporary power pole or other site preparation permits, or accessory structures unless these are the primary subject of the development permit). Failure to exercise the building permit and to complete all of the construction under the building permit, resulting in the expiration of the building permit, will void the development permit, unless there are special circumstances as determined by the Planning Director.

Approval Date: _____

Effective Date: _____

Expiration Date: _____

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



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 Mosgrove, Architect, for Michael & Deborah Collins

APPLICATION NO.: 04-0255

APN: 043-152-71 (formerly 043-152-56)

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: **January 20, 2006**

David Keyon
Staff Planner

Phone: 454-3561

Date: December 14, 2005

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.

- C. Prior to scheduling the public hearing, 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. 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 property 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 to blend with the colors and form of the coastal bluff.

NAME: Mosgrove for Collins
APPLICATION: 04-0255
A.P.N: 043-152-71

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 geologic report (Nielsen and Associates, February 2004), the approved geotechnical report (Haro, Kasunich, Associates, dated March, 2004) and the review letter from the County Geologist detailing additional recommendations (J. Hanna, letter dated October 5, 2005).

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 (M. Beautz, October 2004) that the design meets the recommendations of their reports 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

DISCRETIONARY APPROVAL(S) BEING CONSIDERED

<input type="checkbox"/> General Plan Amendment	<input type="checkbox"/> Use Permit
<input type="checkbox"/> Land Division	<input checked="" type="checkbox"/> Grading Permit
<input type="checkbox"/> Rezoning	<input type="checkbox"/> Riparian Exception
<input type="checkbox"/> Development Permit	<input checked="" type="checkbox"/> Other: Variance
<input checked="" type="checkbox"/> Coastal Development Permit	

NON-LOCAL APPROVALS

Other agencies that must issue permits or authorizations: Project is appealable to the California Coastal Commission.

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.

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

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


Paia Levine

12/16/05
Date

For: Ken Hart
Environmental Coordinator



Environmental Review Initial Study

Application Number: **04-0255**

Date: 8/22/05

Staff Planner: David Keyon

I. OVERVIEW AND ENVIRONMENTAL DETERMINATION

APPLICANT: Jim Mosgrove, Architect

APN: 043-152-71 (formerly 043-152-56)

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, 650 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 1,250 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.

<input checked="" type="checkbox"/> Geology/Soils	<input type="checkbox"/> Noise
<input type="checkbox"/> Hydrology/Water Supply/Water Quality	<input type="checkbox"/> Air Quality
<input type="checkbox"/> Energy & Natural Resources	<input type="checkbox"/> Public Services & Utilities
<input checked="" type="checkbox"/> Visual Resources & Aesthetics	<input type="checkbox"/> Land Use, Population & Housing
<input type="checkbox"/> Cultural Resources	<input type="checkbox"/> Cumulative Impacts
<input type="checkbox"/> Hazards & Hazardous Materials	<input type="checkbox"/> Growth Inducement
<input type="checkbox"/> Transportation/Traffic	<input type="checkbox"/> Mandatory Findings of Significance

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

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% ☒ 31 - 100%
Nearby Watercourse: Pacific Ocean
Distance To: About 300 feet

ENVIRONMENTAL RESOURCES AND CONSTRAINTS

Groundwater Supply: N/A	Liquefaction: High probability
Water Supply Watershed: N/A	Fault Zone: N/A
Groundwater Recharge: N/A	Scenic Corridor: Coastal scenic area
Timber or Mineral: N/A	Historic: N/A
Agricultural Resource: N/A	Archaeology: N/A
Biologically Sensitive Habitat: N/A	Noise Constraint: None
Fire Hazard: N/A	Electric Power Lines: None
Floodplain: Property subject to Coastal Flooding and wave action	Solar Access: Adequate
Erosion: Coastal erosion & landsliding	Solar Orientation: South
Landslide: Landslide hazard area	Hazardous Materials: None

SERVICES

Fire Protection: Aptos/La Selva	Drainage District: Zone 6
School District: Pajaro Valley Unified	Project Access: Beach Drive (private)
Sewage Disposal: SC County Sanitation	Water Supply: Soquel Creek Water Dist.

PLANNING POLICIES

Zone District: RB (Ocean Beach Res.)	Special Designation: None
General Plan: R-UL (Urban Low Res.)	
Urban Services Line: <input checked="" type="checkbox"/> Inside	<input type="checkbox"/> Outside
Coastal Zone: <input checked="" type="checkbox"/> Inside	<input type="checkbox"/> 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 a Federal Emergency Management Act (FEMA) designated Coastal Hazard Zone due to potential storm surges and wave action. This

designation requires all habitable space to be located at least one foot above the 100-year flood line, 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 (notably Coastal Development Permits 96-0159 and 98-0161, but none have been 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 5,800 square feet in size, including five bedrooms and three and a half bathrooms, with a five-car garage on the 1st level. The house is larger than recently approved homes of similar construction on Beach Drive due to the size of the parcel, which is about twice the size of most parcels down coast from the project site. Despite the size, the amount of grading will be comparable or less than that done for recently approved homes of similar construction due to 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 accented by teak veneer to better complement 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. Due to landslide hazards on site, the house is specially designed to withstand the impact of landslide debris on and around the structure and to withstand the weight of the 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 043-152-56 to APN 043-152-71.

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Less than
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Less than
Significant
Or
No Impact

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 Environmental Planning Section of the Planning Department (Attachment 8). The reports conclude that fault rupture will not be a potential threat to the proposed development, and that seismic shaking can be managed by following the recommendations in the geologic and geotechnical reports referenced above.

- D. Landslides?

_____ X _____

A structure on the base of the coastal bluff will be vulnerable to damage or destruction from the 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 posed by landslides. 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

Significant Or Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Or No Impact	Not Applicable
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yards. The 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 Geotechnical Plan Review Letter from Haro, Kasunich, and Associates dated, 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).

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 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

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 expansive soils.

6. Place sewage disposal systems in

X

EXHIBIT D

Significant Or Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Or No Impact	Not Applicable
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areas dependent upon soils incapable of adequately supporting the use of septic tanks, leach fields, or alternative waste water disposal systems?

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.

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 break-away partitions that will collapse during a storm event without damage to the rest of the structure. Prior to issuance of a building permit, certification 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 Certificate 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

3. Be inundated 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-

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

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 wall to collect runoff and direct 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

Significant Or Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Or No Impact	Not Applicable
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drainage will reduce existing erosion problems on the bluff face from uphill development. A plan for maintenance of the drainage system will be required as part of the "Declaration of Geologic Hazards" to be recorded on the property deed.

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

_____ 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.

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.

Significant Or Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Or No Impact	Not Applicable
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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	
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The proposed project 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	
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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	
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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
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No trees in excess of 6 inches in diameter will be removed as part of this project.

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
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D. Energy and Natural Resources

Significant Or Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Or No Impact	Not Applicable
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Does the project have the potential to:

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

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

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

_____	_____	_____	X
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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	_____	_____
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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 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 140 feet upcoast and 60 feet downcoast of the project site, and the proposed dwelling will be of similar height to this existing development (See attachment 16 for a photo-simulation of the project).

The 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, use of teak veneer, and limitations in building height will

Significant Or Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Or No Impact	Not Applicable
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integrate the dwelling into the surrounding built and natural environment and break up the mass of the structure.

The applicant submitted a photo-simulation, showing how the proposed dwelling will appear on the site (attachment 16). The proposed colors and materials will not degrade the public viewshed as they will blend with the natural colors of the site, using earth-tone colors and teak siding that will blend in with the natural elements of the site. A color version of attachment 16 is on file with the Planning Department. A project condition will require Planning Department 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 into a coastal bluff that is visible from a beach. However, the visual impact of the project will be minimized through the usage of gray concrete and teak veneer 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 teak veneer and earth-toned concrete 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 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

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EXHIBIT D

Significant Or Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Or No Impact	Not Applicable
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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 with this project, human remains are discovered, the responsible persons shall immediately cease and desist from all further site excavation and notify the sheriff-coroner and the Planning Director. If the coroner determines that the remains are not of recent origin, a full archeological report shall be prepared and representatives of the local Native California Indian group shall be contacted. Disturbance shall not resume until the significance of the archeological resource is determined and appropriate mitigations to preserve the resource on the site are established.

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

X

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

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 _____

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.

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Significant Or Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Or No Impact	Not Applicable
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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 the 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 current road requirements to prevent potential hazards to motorists, bicyclists, and/or pedestrians.

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

_____ X _____

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

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

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 _____

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

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

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 (see mitigation measure C).

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.

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

_____ X _____

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 protection standards that include minimum requirements for water supply for fire protection.

6. Result in inadequate access for fire protection?

_____ X _____

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

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 (mitigation measure E).

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).

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 1,250 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

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

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 Geotechnical 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 complies with this policy by incorporating earth-tone colored concrete and teak wood siding to blend in with the colors of the bluff to the rear (attachment 16, 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

Development on the subject parcel could potentially conflict with County Code Section 13.20.130(d)2ii, requiring that 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, subdued window and door trim, and horizontal wood siding with a natural finish as an accent. Furthermore, the height, bulk, and scale of the house will be consistent with the existing house at 641 Beach Drive and the two proposed bluff-toe residences approved under 99-0354.

3. Physically divide an established

X

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

community?

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

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

X

The proposed project will occur on a vacant parcel.

M. Non-Local Approvals

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

Yes X No

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.

N. Mandatory Findings of Significance

1. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant, animal, or natural community, or eliminate important examples of the major periods of California history or prehistory?

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?

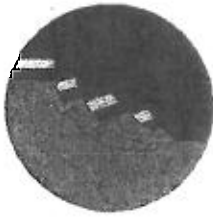
Yes No X

TECHNICAL REVIEW CHECKLIST

	<u>REQUIRED</u>	<u>COMPLETED*</u>	<u>N/A</u>
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 (reduced)
5. Assessors Parcel Map
6. Geotechnical Review Letter prepared by Haro, Kasunich, and Associates, dated May 26, 2005.
7. Geologic Review Letter, prepared by Joe Hanna, County geologist, dated August 9, 2004
8. Engineering Geologic and Geotechnical Report Acceptance Letter, prepared by Joe Hanna, County geologist, dated October 5, 2005.
9. Engineering Geologic Investigation (Report Summary, Conclusions, Recommendations, Map & Cross Sections) prepared by Nielsen and Associates, dated February 2004.
10. Geotechnical Investigation (Conclusions and Recommendations) prepared by Haro, Kasunich, and Associates, dated February 2004.
11. Discretionary Application Comments, dated September 2, 2005.
12. Letter from Soquel Creek Water District, dated June 11, 2004
13. Memo from Department of Public Works, Sanitation.
14. FEMA Flood Plain Map
15. Urban Designer's Comments, dated November 22, 2004
16. Photo-simulations of proposed project.



CMAG ENGINEERING, INC.

P.O. BOX 640, APTOS, CALIFORNIA 95001

PH: 831.475.1411

WWW.CMAGENGINEERING.COM

August 18, 2017
Project No. 13-110-SC

Arvind Agarwal
11487 Lindy Place
Cupertino, California 95014

SUBJECT: ADDENDUM TO GEOTECHNICAL REPORT
Proposed Single Family Residence
548 Beach Drive, Rio Del Mar, Santa Cruz County, California
APN 043-152-71

REFERENCE: CMAG Engineering, Inc. (June 21, 2013). *Geotechnical and Geologic Investigation, Proposed Single Family Residence, 548 Beach Drive, Rio Del Mar, Santa Cruz County, California, APN 043-152-71. Project No. 13-110-SC.*

Dear Mr. Agarwal:

In accordance with your authorization, we have completed an addendum to the existing geotechnical investigation for the subject project. This addendum presents additional geotechnical recommendations based on the field exploration and laboratory testing presented in the referenced report. It is a pleasure being associated with you on this project. If you have any questions, or if we may be of further assistance, please do not hesitate to contact our office.

Sincerely,

CMAG ENGINEERING, INC.

Adrian L. Garner, PE, GE
Principal Engineer
C 66087, GE 2814
Expires 6/30/18



Distribution: Addressee (Electronic Copy)

1.0 2013 CALIFORNIA BUILDING CODE SEISMIC PROVISIONS

The County of Santa Cruz has adopted the seismic provisions set forth in the 2013 California Building Code (2013 CBC) to address seismic shaking. The seismic provisions in the 2013 CBC are minimum load requirements for the seismic design for the proposed structure. The provisions set forth in the 2013 CBC will not prevent structural and nonstructural damage from direct fault ground surface rupture, coseismic ground cracking, liquefaction and lateral spreading, seismically induced differential compaction, or seismically induced landsliding.

Table 1 has been constructed based on the 2013 CBC requirements for the seismic design of the proposed structure. The Site Class has been determined based on our field investigation and laboratory testing.

Table 1. Seismic Design Parameters - 2013 CBC

S_s	S_1	Site Class	F_a	F_v	S_{MS}	S_{M1}	S_{DS}	S_{D1}	PGA_M
1.522g	0.602g	D	1.0	1.5	1.522g	0.903g	1.015g	0.602g	0.574g

2.0 LIMITATIONS

Our addendum was performed in accordance with the usual and current standards of the profession, as they relate to this and similar localities. No other warranty, expressed or implied, is provided as to the conclusions and professional advice presented in this report.

Soil and geologic conditions can vary significantly between sample locations.

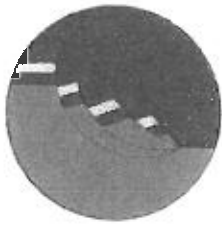
As in most projects, conditions revealed during construction excavation may be at variance with preliminary findings. If this occurs, the changed conditions must be evaluated by the Project Geotechnical Engineer and the Geologist, and revised recommendations be provided as required.

This addendum is issued with the understanding that it is the responsibility of the Owner, or of his Representative, to ensure that the information and recommendations contained herein are brought to the attention of the Architect and Engineer for the project and incorporated into the plans, and that it is ensured that the Contractor and Subcontractors implement such recommendations in the field.

This firm does not practice or consult in the field of safety engineering. We do not direct the Contractor's operations, and we are not responsible for other than our own personnel on the site; therefore, the safety of others is the responsibility of the Contractor. The Contractor should notify the Owner if he considers any of the recommended actions presented herein to be unsafe.

The findings of this addendum are considered valid as of the present date. However, changes in the conditions of a site can occur with the passage of time, whether they be due to natural events or to human activities on this or adjacent sites. In addition, changes in applicable or appropriate codes and standards may occur, whether they result from legislation or the broadening of knowledge.

Accordingly, this addendum may become invalidated wholly or partially by changes outside our control. Therefore, this addendum is subject to review and revision as changed conditions are identified.



CMAG ENGINEERING, INC.

P.O. BOX 640 APTOS, CALIFORNIA 95001

PHONE: 831.475.1411

WWW.CMAGENGINEERING.COM

May 22, 2017
Project No. 13-110-SC

Arvind Agarwal
11487 Lindy Place
Cupertino, California 95014

SUBJECT: GEOTECHNICAL UPDATE
Proposed Single Family Residence
548 Beach Drive, Rio Del Mar, Santa Cruz County, California
APN 043-152-71

REFERENCE: CMAG Engineering, Inc. (June 21, 2013). *Geotechnical and Geologic Investigation, Proposed Single Family Residence, 548 Beach Drive, Rio Del Mar, Santa Cruz County, California, APN 043-152-71. Project No. 13-110-SC.*

Dear Mr. Agarwal:

It is our opinion that no substantial geotechnical changes have occurred to the subject site since the production of the referenced report. Therefore, it is our opinion that the report is still valid and all recommendations should be adhered to. It is a pleasure being associated with you on this project. If you have any questions, or if we may be of further assistance, please do not hesitate to contact our office.

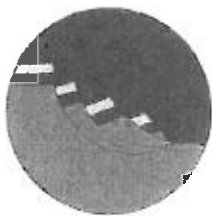
Sincerely,

CMAG ENGINEERING, INC.

Adrian L. Garner, CE, GE
Principal Engineer
CE 66087, GE 2814
Expires 6/30/18



Distribution: Addressee (Electronic Copy)



CMAG ENGINEERING, INC.

P.O. BOX 640 APTOS, CALIFORNIA 95001

PHONE: 831.475.1411

WWW.CMAGENGINEERING.COM

September 25, 2017
Project No. 13-110-SC

Arvind Agarwal
11487 Lindy Place
Cupertino, California 95014

SUBJECT: GEOLOGIC UPDATE
Proposed Single Family Residence
548 Beach Drive, Rio Del Mar, Santa Cruz County, California
APN 043-152-71

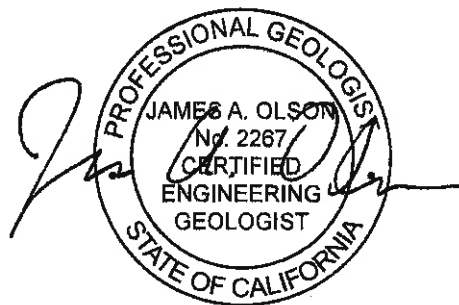
REFERENCE: CMAG Engineering, Inc. (June 21, 2013). *Geotechnical and Geologic Investigation, Proposed Single Family Residence, 548 Beach Drive, Rio Del Mar, Santa Cruz County, California, APN 043-152-71. Project No. 13-110-SC.*

Dear Mr. Agarwal:

It is our opinion that no substantial geological changes have occurred to the subject site since the production of the referenced report. Therefore, it is our opinion that the report is still valid and all recommendations should be adhered to. It is a pleasure being associated with you on this project. If you have any questions, or if we may be of further assistance, please do not hesitate to contact our office.

Sincerely,

CMAG ENGINEERING, INC.



James A. Olson, PG, CEG
Senior Engineering Geologist
PG 7244, CEG 2267

Distribution: Addressee (Electronic Copy)



COUNTY OF SANTA CRUZ

PLANNING DEPARTMENT

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

November 22, 2017

Arvind Agarwal
11487 Lindy Place
Cupertino, CA 95014

Subject: Review of Addendum to Geotechnical and Engineering Geology Investigation / Report By CMAG Engineering, dated August 18, 201; and Geotechnical Update by CMAG Engineering, dated May 22, 2017 and Geologic Update by CMAG Engineering dated September 25, 2017: Project: 13-110-SC APN 043-152-71, Application #: REV171087

Dear Mr. Agarwal,

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

1. All construction shall comply with the recommendations of the report.
2. Final plans shall reference the reports and include a statement that the project shall conform to the report's recommendations.
3. Prior to building permit issuance a *plan review letter* shall be submitted to Environmental Planning. After plans are prepared that are acceptable to all reviewing agencies, please submit a geotechnical and geologic plan review letter that states the project plans conform to the recommendations of the geotechnical report. *Please note that the plan review letter must reference the final plan set by last revision date.* The author of the report shall write the *plan review letter*.
4. A declaration of geologic hazards (attached) must be recorded before the final inspection on this project.

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

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

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

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

(over)

Sincerely,



Joe Hanna
County Geologist

Cc: Jessica deGrassi, Environmental Planning
CMAG Engineering
owner (if different from applicant)

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

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

1. **When a project has engineered fills and / or grading,** a letter from your soils engineer must be submitted to the Environmental Planning section of the Planning Department prior to foundations being excavated. This letter must state that the grading has been completed in conformance with the recommendations of the soils report. Compaction reports or a summary thereof must be submitted.
2. **Prior to placing concrete for foundations,** a letter from the soils engineer must be submitted to the building inspector and to Environmental Planning stating that the soils engineer has observed the foundation excavation and that it meets the recommendations of the soils report.
3. **At the completion of construction,** a *final letter* from your soils engineer is required to be submitted to Environmental Planning that summarizes the observations and the tests the soils engineer has made during construction. The final letter must also state the following: "Based upon our observations and tests, the project has been completed in conformance with our geotechnical recommendations."

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

(over)

Return recorded form to:
Planning Department
County of Santa Cruz
701 Ocean Street, 4th Floor

Attention: Joe Hanna
County Geologist
831-454-3175

Notice

THIS PAGE ADDED TO PROVIDE ADEQUATE SPACE FOR RECORDING INFORMATION (CALIFORNIA GOVERNMENT CODE §27361.6)

(over)

EXHIBIT F

RECORDED AT REQUEST OF:
County of Santa Cruz

WHEN RECORDED MAIL TO:

**Santa Cruz County Planning
701 Ocean St.
Santa Cruz, CA 95060**

(Space above this line for Recorder's use only)

Note to County Recorder:

Please return to the staff geologist in the Planning Department when completed.

**DECLARATION REGARDING THE ISSUANCE OF A DEVELOPMENT PERMIT
IN AN AREA SUBJECT TO GEOLOGIC HAZARDS**

The undersigned _____
(names of property owners) (does) (do) hereby certify to be the owner(s) of the real property located in the County of Santa Cruz, State of California, commonly known as

_____ (Street address); legally described in that certain deed recorded in Document
Number _____ of the official records of the Santa Cruz County Recorder on
_____ (deed recordation date); Assessor's Parcel Number 043-152-71.

And, acknowledge that records and reports, filed with the Santa Cruz County Planning Department, indicates that the above described property is located within an area that is subject to geologic hazards, to wit:

The home has been constructed at the bases of the coastal bluff in an area of potential flooding and erosion.

Please read the Geotechnical and Engineering Geology Investigation / Report by CMAG Engineering; Dated June 21, 2013, updated August 18, 2017; Project: 13-110-SC for more information about these hazards and their mitigation.

This report is in the files for APN 043-152-71, Application #: B-134364.

The site may be subject to intense seismic shaking and tsunami.

In addition, having full understanding of said hazards and the proposed mitigation of these hazards, we elect to pursue development activities in an area subject to geologic hazards and do hereby agree to release the County from any liability and consequences arising from the issuance of the development permit.

This declaration shall run with the land and shall be binding upon the undersigned, any future owners, encumbrancers, their successors, heirs, or assignees. This document should be disclosed to the forgoing individuals. This declaration may not be altered or removed from the records of the County Recorder without the prior consent of the Planning Director of the County of Santa Cruz.

EXHIBIT F

OWNER: _____ OWNER: _____

Signature

Signature

ALL SIGNATURES ARE TO BE ACKNOWLEDGED BEFORE A NOTARY PUBLIC. IF A CORPORATION, THE CORPORATE FORM OF ACKNOWLEDGEMENT SHALL BE USED.

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California
County of Santa Cruz

On _____, before me, _____, Notary Public, personally appeared _____, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

(Seal)

Signature _____

This form must be reviewed and approved by a County Planning Department staff person after notarization and prior to recordation.

Dated: _____

COUNTY OF SANTA CRUZ

By: _____
Planning Department Staff

FOR TAX PURPOSES ONLY

THE ASSESSOR MAKES NO GUARANTEE AS TO MAP ACCURACY NOR ASSUMES ANY LIABILITY FOR OTHER USES. NOT TO BE REPRODUCED. ALL RIGHTS RESERVED.
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Electronically Redrawn 2/12/99 rw
Rev. 2/12/99 RW (Per. to pg 24)
Rev. 5/4/99 CB (Cor to A & B ref 1-66 & 67)
Rev. 5/25/01 mm (changed page refs.)
Rev. 6/12/02 mm (line work correction)
Rev. 10/17/02 CB (line work correction, 2-69)
Rev. 3/1/02 DD (corr me per 4-0079970, 2-63)
Rev. 4/25/05 CB (4-0055783, LBA 2-70 & 71)
Rev. 2/16/06 mm (5-0081615, LBA 2-72 & 73)
Rev. 2/5/08 nrc (Cor to cancelled APN's)
Rev. 1/25/09 CB (114R514)
Rev. 1/11/13 MC (Cor to parcel config. 2-62 & 63)
Rev. 5/28/19 AR (15-0008034, Comb 2-74)
Rev. 7/18/17 CB (Cor dims as per LBA deed and original length on 2-71)
Rev. 10/26/17 CB (127R82)

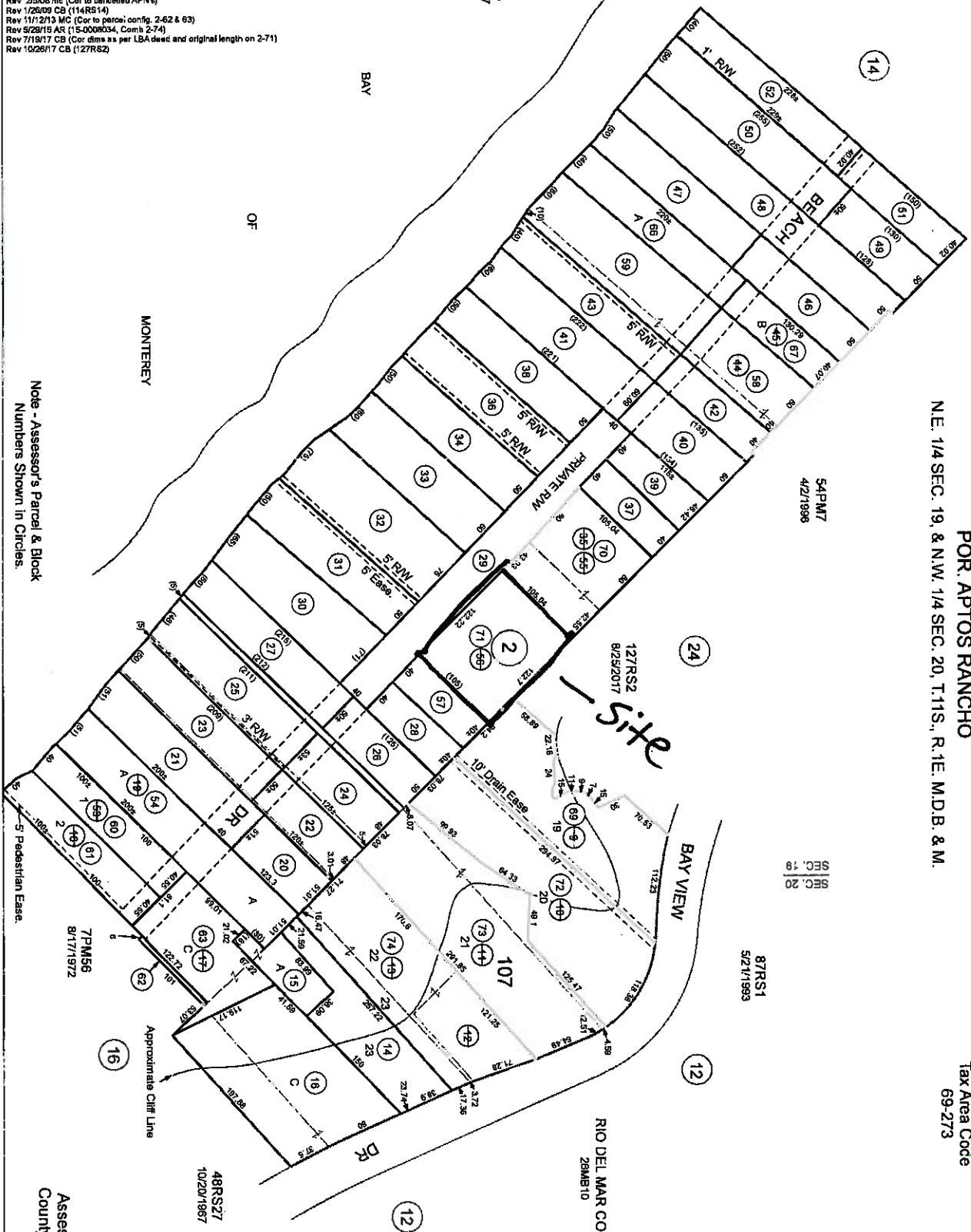
27PM25
10/13/1977

NE. 1/4 SEC. 19, & NW. 1/4 SEC. 20, T.11S., R.1E. M.D.B. & M.

POR. APTOS RANCHO

Tax Area Code
69-273

43-15



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

Assessor's Map No. 43-15
County of Santa Cruz, Calif.
Feb. 1999

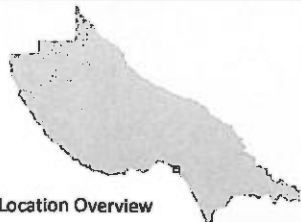
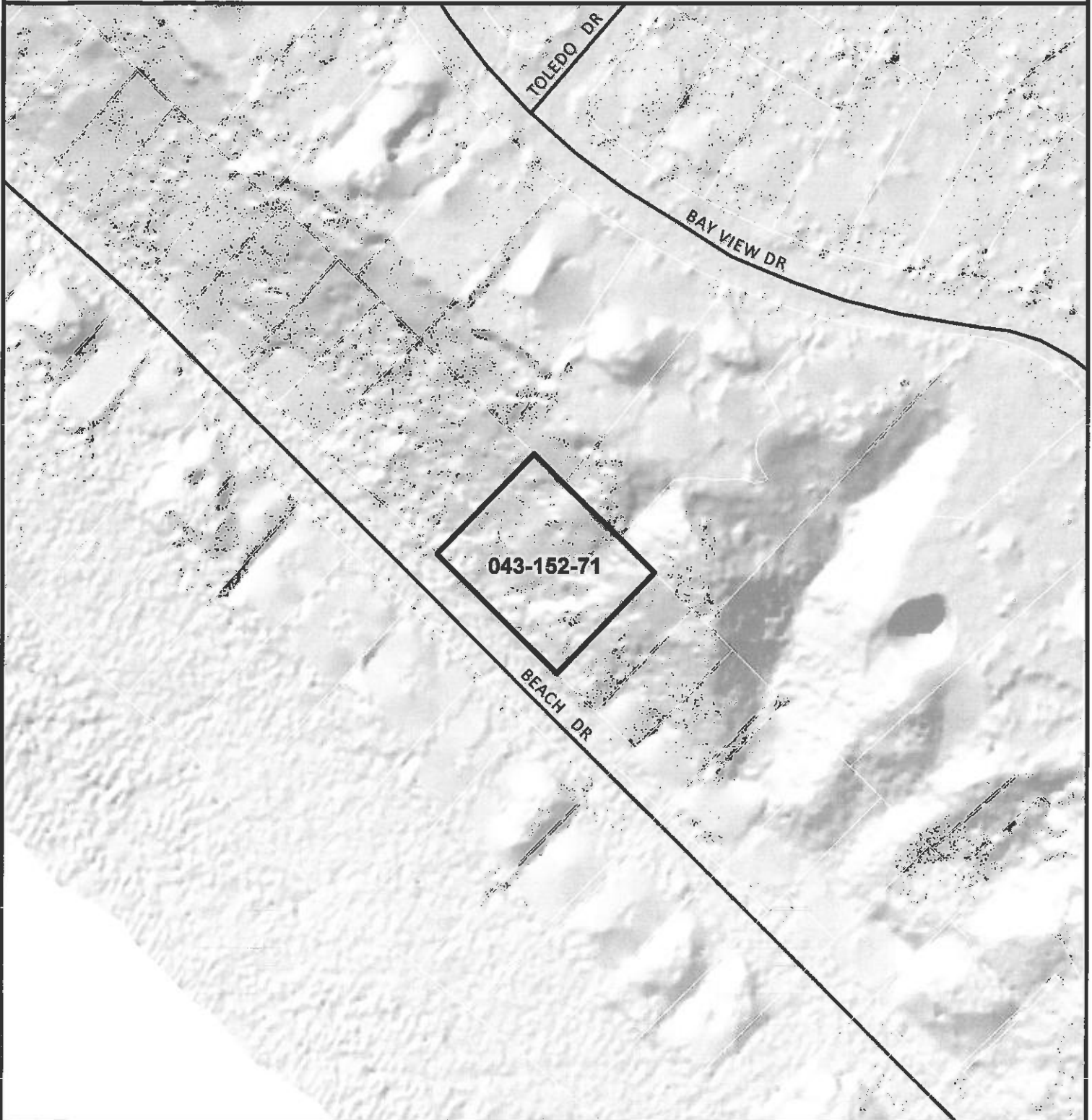
EXHIBIT G



Parcel Location Map

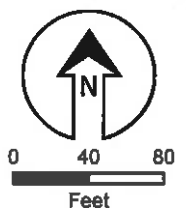
Santa Cruz County Planning Department

Parcel Number
043-152-71
Feb. 15, 2018



Symbol Key

— Street

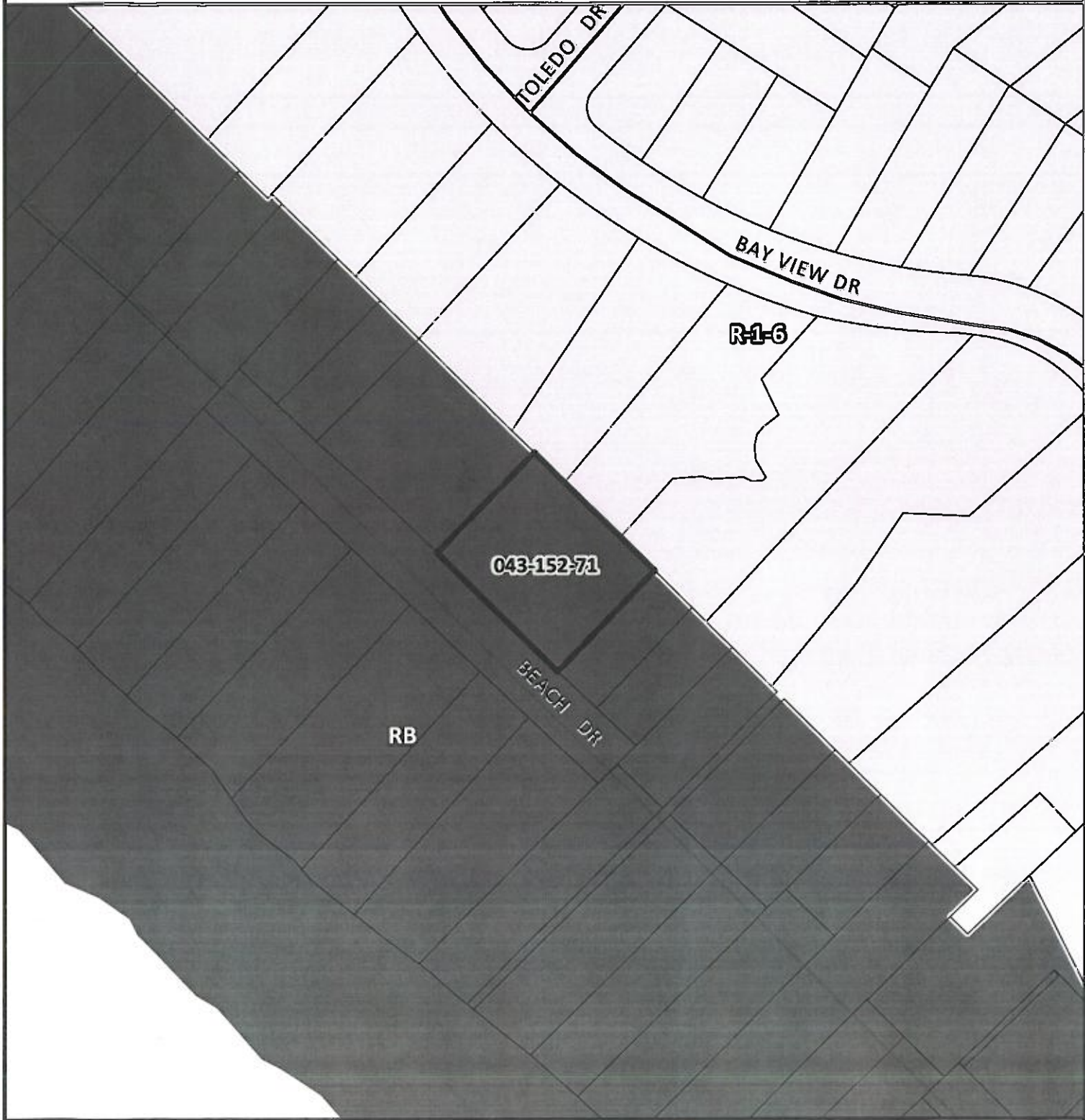




Parcel Zoning Map

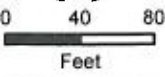
Santa Cruz County Planning Department

Parcel Number
043-152-71
Feb. 15, 2018



Zoning

- (R-1) Single-Family Residential
- (RB) Single-Family Ocean Beach Residential





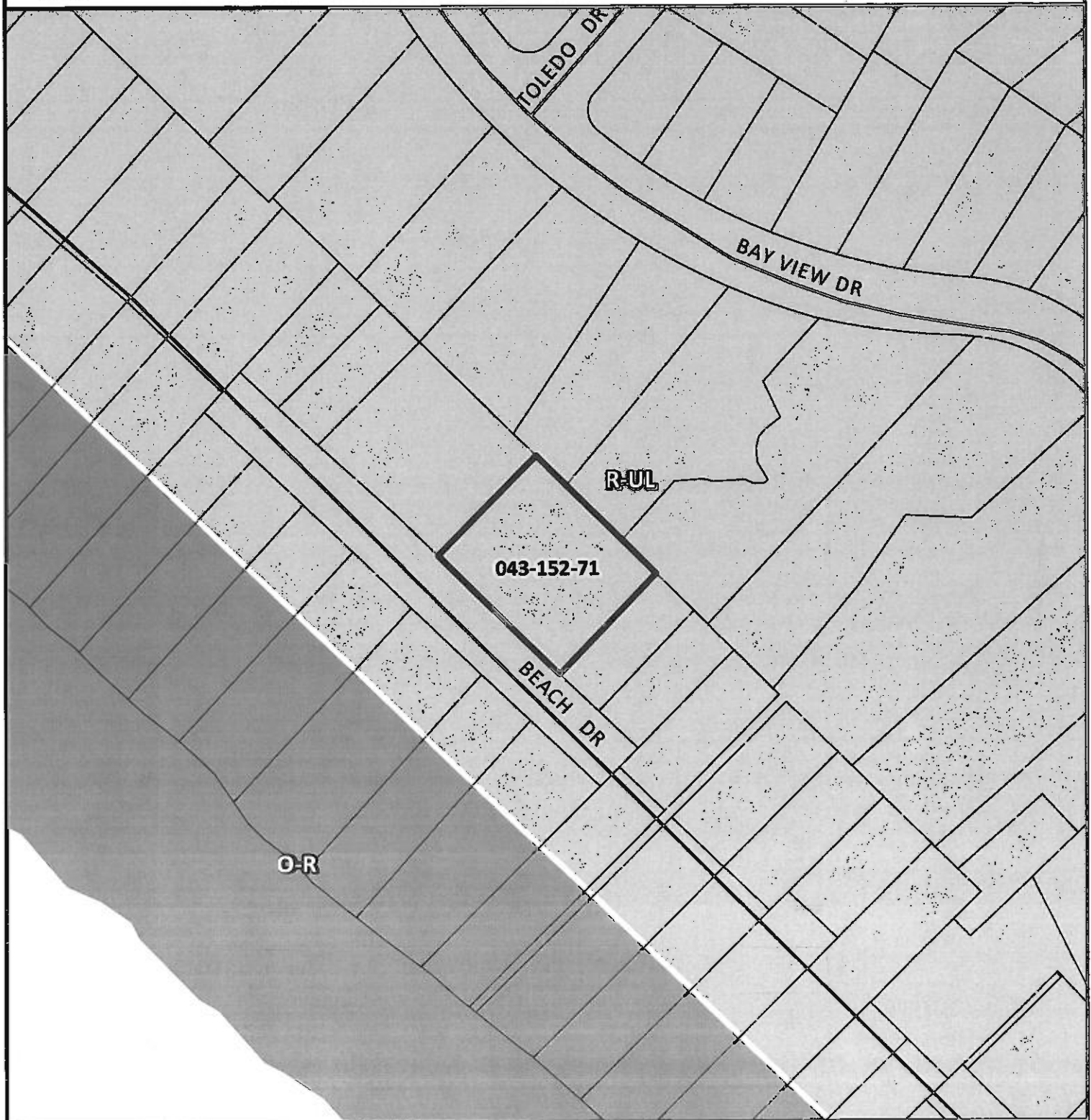
Parcel General Plan Map

Santa Cruz County Planning Department


Parcel Number

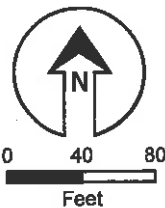
043-152-71

Feb. 15, 2018



General Plan

-  O-R - Parks and Recreation
-  R-UL - Residential - Urban Low Density





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

EXHIBIT II

