Th 15a

STATE OF CALIFORNIA -- THE RESOURCES AGENCY GRAY DAVIS, *Governor*

CALIFORNIA COASTAL COMMISSION
SOUTH CENTRAL COAST AREA
89 SOUTH CALIFORNIA ST., SUITE 200
VENTURA, CA 93001
(805) 641 - 0142

Filed:	6/23/99
49th Day:	8/11/99
180th Day:	12/20/99
Staff:	CAREY
Staff Report:	11/18/99
Hearing Date:	12/7-10/99

STAFF REPORT: REGULAR CALENDAR

APPLICATION NO: 4-97-243

APPLICANT: Beverley Higgins **AGENT:** Alan Block, Matthew Higgins

PROJECT LOCATION: 33400 Pacific Coast Highway, City of Malibu, Los Angeles County

PROJECT DESCRIPTION: Request for the after-the-fact approval of the construction of a rock revetment at the toe of a coastal bluff across three vacant beachfront parcels to protect an existing driveway and residence, remedial grading (40 cu. yds. cut and 170 cu. yds. fill) to buttress damaged roadway, and construction of stairs along roadway. The application also includes the new construction of retaining walls (ranging in height from 2 ft. to 6 ft.) along roadway and below existing residence, paving existing driveway on the bluff face, installation of drainage devices, and offer to dedicate a lateral public access easement.

LOCAL APPROVALS RECEIVED: City of Malibu Approval in Concept

SUMMARY OF STAFF RECOMMENDATION

Staff recommends approval of the proposed project with Special Conditions relating to the applicant's assumption of risk, implementation of the applicant's offer to dedicate lateral public access, conformance with geologic recommendations, construction responsibilities, sign restrictions, revised plans, recordation of a geologic hazard restricted use area deed restriction, preparation and implementation of a bluff revegetation plan, timing of condition compliance, and timing of implementation of the project plans. The proposed improvements will protect existing development, as permitted under §30235 of the Coastal Act. Only as conditioned to implement the applicant's proposal to record an offer to dedicate lateral public access, to submit revised plans, and to prepare and implement a bluff revegetation plan, the proposed project will be consistent with §30235, §30253 and §30250 of the Coastal Act. Only as conditioned to record an assumption of risk deed restriction, to conform with the geotechnical consultant's recommendations, to record a geologic hazard restricted use deed restriction over the bluff face area, to revegetate disturbed bluff areas, and to remove all construction debris will the proposed project minimize risks to life and property, consistent with §30253. The project, as conditioned to implement the applicant's offer to dedicate lateral public access, and to require permits for signs, will minimize impacts to public access, consistent with §30210, §30211, §30212, and §30220 of the Coastal Act. As conditioned to submit revised plans and to prepare and implement a bluff revegetation plan, the project will minimize impacts to sensitive resources and visual resources, consistent with §30230, §30231, §30240, and §30251 of the Coastal Act.

SUBSTANTIVE FILE DOCUMENTS: 1) Permit Applications 4-93-092 (Higgins); 5-90-1033 (Higgins); 5-90-830 (Sprik); 5-88-918 (Haagen); 5-86-160 (Haagen). 2) Geologic Memoranda, dated 6/17/98, 2/19/98, 12/26/97, 2/7/94; Response to Geology and Geotechnical Engineering Review Sheet, dated 10/15/98; Engineering Geologic Report for Proposed Single Family Residence, dated 1/3/91, all prepared by Donald B. Kowalewsky. 3) Drain Rock Toe for Rock Revetment, dated 5/16/99, prepared by David C. Weiss. 4) Wave Uprush Study Update, dated 3/3/99, prepared by Pacific Engineering Group. 5) Response to Coastal Commission Staff Report, dated 2/8/95; Response to Coastal Commission Permit Application Review, dated 3/9/94; Report of On-Site Observations, dated 3/1/93; and Wave Uprush Study, dated 3/13/90, all prepared by David C. Weiss. 5) Emergency Remedial Bluff Repairs and Roadway Repair, dated 12/29/97, prepared by RJR Engineering Group, Inc.

STAFF RECOMMENDATION:

The staff recommends that the Commission **APPROVE** the permit application with special conditions.

MOTION

Staff recommends a **YES** vote on the following motion. This will result in the adoption of the following resolution and findings.

> ***I move that the Commission approve with special conditions Coastal Development Permit 4-97-243 per the staff recommendation as set forth below.***

A majority of the Commissioners present is required to pass the motion.

RESOLUTION

I. APPROVAL WITH CONDITIONS

The Commission hereby grants, subject to the conditions below, a permit for the proposed development on the grounds that the development, as conditioned, will be in conformity with the provisions of Chapter 3 of the California Coastal Act of 1976, will not prejudice the ability of the local government having jurisdiction over the area to prepare a Local Coastal Program conforming to the provisions of Chapter 3 of the Coastal Act, is located between the sea and the first public road nearest the shoreline and is in conformance with the public access and public recreation policies of Chapter 3 of the Coastal Act, and will not have any significant adverse effects on the environment within the meaning of the California Environmental Quality Act.

II. STANDARD CONDITIONS

1. **Notice of Receipt and Acknowledgment.** The permit is not valid and development shall not commence until a copy of the permit, signed by the permittee or authorized agent, acknowledging receipt of the permit and acceptance of the terms and conditions, is returned to the Commission office.

2. **Expiration.** If development has not commenced, the permit will expire two years from the date on which the Commission voted on the application. Development shall be pursued in a diligent manner and completed in a reasonable period of time. Application for extension of the permit must be made prior to the expiration date.

3. **Compliance.** All development must occur in strict compliance with the proposal as set forth below. Any deviation from the approved plans must be reviewed and approved by the staff and may require Commission approval.

4. **Interpretation.** Any questions of intent or interpretation of any condition will be resolved by the Executive Director or the Commission.

5. **Inspections.** The Commission staff shall be allowed to inspect the site and the development during construction, subject to 24-hour advance notice.

6. **Assignment.** The permit may be assigned to any qualified person, provided assignee files with the Commission an affidavit accepting all terms and conditions of the permit.

7. **Terms and Conditions Run with the Land.** These terms and conditions shall be perpetual, and it is the intention of the Commission and the permittee to bind all future owners and possessors of the subject property to the terms and conditions.

III. SPECIAL CONDITIONS

1. Assumption of Risk/Shoreline Protection

A. By acceptance of this permit, the applicant acknowledges and agrees to the following:

1. The applicant acknowledges and agrees that the site may be subject to hazards from liquefaction, storm waves, surges, erosion, landslide, flooding, and wildfire.

2. The applicant acknowledges and agrees to assume the risks to the applicant and the property that is the subject of this permit of injury and damage from such hazards in connection with this permitted development.

3. The applicant unconditionally waives any claim of damage or liability against the Commission, its officers, agents, and employees for injury or damage from such hazards.

4. The applicant agrees to indemnify and hold harmless the Commission, its officers, agents, and employees with respect to the Commission's approval of the project against any and all liability, claims, demands, damages, costs (including costs and fees incurred in defense of such claims), expenses, and amounts paid in settlement arising from any injury or damage due to such hazards.

5. No future repair or maintenance, enhancement, reinforcement, or any other activity affecting the shoreline protective device approved pursuant to Coastal Development Permit 4-97-243, as shown on Exhibit 3, shall be undertaken if such activity extends the seaward footprint of the subject shoreline protective device. By acceptance of this permit, the applicant hereby waives, on behalf of itself and all successors and assigns, any rights to such activity that may exist under Public Resources Code section 30235.

B. PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall execute and record a deed restriction, in a form and content acceptable to the Executive Director incorporating all of the above terms of this condition. The deed restriction shall include a legal description of the applicant's entire parcel. The deed restriction shall include a legal description of the applicant's entire parcel and an exhibit showing the location of the shoreline protective device approved by this permit. The deed restriction shall run with the land, binding all successors and assigns, and shall be recorded free of prior liens that the Executive Director determines may affect the enforceability of the restriction. This deed restriction shall not be removed or changed without a Commission amendment to this coastal development permit.

2. Offer to Dedicate Lateral Public Access

In order to implement the applicant's proposal of an offer to dedicate an easement for lateral public access and passive recreational use along the shoreline as part of this project, the applicant agrees to complete the following prior to issuance of the permit: the landowner shall execute and record a document, in a form and content acceptable to the Executive Director, irrevocably offering to dedicate to a public agency or private association approved by the Executive Director an easement for lateral public access and passive recreational use along the shoreline. The document shall provide that the offer of dedication shall not be used or construed to allow anyone, prior to acceptance of the offer, to interfere with any rights of public access acquired through use which may exist on the property. Such easement shall be located along the entire width of the property from the mean high tide line landward to the toe of the rock revetment, as shown on the Grading and Drainage Plan prepared by VPL Engineering, dated 11/10/99.

The document shall be recorded free of prior liens which the Executive Director determines may affect the interest being conveyed, and free of any other encumbrances which may affect said interest. The offer shall run with the land in favor of the People of the State of California, binding all successors and assignees, and shall be irrevocable for a period of 21 years, such period running from the date of recording. The recording document shall include legal descriptions of both the applicant's entire parcel(s) and the easement area. This deed restriction shall not be removed or changed without a Coastal Commission-approved amendment to this coastal development permit unless the Executive Director determines that no amendment is required.

3. Geology

All recommendations contained in the Geologic Memoranda, dated 6/17/98, 2/19/98, 12/26/97, 2/7/94; Response to Geology and Geotechnical Engineering Review Sheet, dated 10/15/98; Engineering Geologic Report for Proposed Single Family Residence, dated 1/3/91, all prepared by Donald B. Kowalewsky. as well as all recommendations contained in the Wave Uprush Study Update, dated 3/3/99, prepared by Pacific Engineering Group and the Response to Coastal Commission Staff Report, dated 2/8/95; Response to Coastal Commission Permit Application Review, dated 3/9/94; Report of On-Site Observations, dated 3/1/93; and Wave Uprush Study, dated 3/13/90, all prepared by David C. Weiss shall be incorporated into all final project plans and designs and shall be implemented during construction, and all plans must be reviewed and approved by the geotechnical and coastal engineering consultants prior to commencement of construction. Prior to the issuance of the coastal development permit, the applicant shall submit evidence to the Executive Director's satisfaction that the geotechnical and coastal engineering consultants have reviewed and approved all final project plans and designs and construction procedures as incorporating their recommendations, and have so indicated by stamping and signing all relevant final plans and drawings.

The final plans approved by the consultants shall be in substantial conformance with the plans approved by the Commission. Any substantial changes in the proposed development approved by the Commission which may be required by the consultants shall require an amendment to the permit or a new coastal development permit. The Executive Director shall determine whether any changes to the plans approved by the Commission constitute a "substantial change."

4. Construction Responsibilities and Debris Removal

No stockpiling of construction materials or storage of equipment shall occur on the beach and no machinery will be allowed in the intertidal zone at any time. The permittee shall immediately remove from the beach area any and all debris that results from the construction activities.

5. Sign Restrictions

No signs shall be posted on the property subject to this permit (and/or on immediately adjacent properties) which (a) explicitly or implicitly indicate that the portion of the beach on Assessor's Parcel Numbers (APN) 4473-019-005, 4473-019-006, or 4473-019-007 located seaward of the bulkhead approved by Coastal Development Permit 4-97-243 is private or (b) contain similar messages that attempt to prohibit public use of this portion of the beach. In no instance shall signs be posted which read "*Private Beach*" or "*Private Property.*" To effectuate the above prohibitions, the permittee is required to submit to the Executive Director for review and approval prior to posting the content of any proposed signs.

6. Revised Plans

Prior to issuance of the coastal development permit, the applicant shall submit, for the review and approval of the Executive Director, revised grading plans which show that the graded and paved areas of the driveway to the beach have been reduced in width to a maximum of 15 feet. All areas outside the 15-foot maximum width shall be revegetated as required by Condition 7 below.

7. Bluff Revegetation Plan

Prior to issuance of the coastal development permit, the applicant shall submit for the review and approval of the Executive Director, a detailed bluff revegetation plan prepared by a qualified Landscape Architect, resource specialist or biologist. The plan shall be reviewed and approved by the geotechnical consultant to ensure that the plans are in conformance with the consultants' geotechnical recommendations. The plans shall include, but not be limited to, the following criteria:

a. Provisions and specifications for removal of all non-native plants, including provisions for phasing of removal, if necessary, to minimize the extent of area devoid of vegetation.

b. Bluff revegetation program which utilizes only native drought resistant plants, endemic to coastal bluffs. The revegetation program shall use a mixture of seeds and container plants to increase the potential for successful revegetation. All areas of the bluff face not developed with the driveway, revetment, or retaining walls approved in Permit 4-97-243 shall be planted for erosion control and visual enhancement purposes. No hydroseeding shall occur in areas of the bluff where native plant material is already established. A temporary irrigation system may be used until the plants are established, as determined by the consulting landscape architect or resource specialist, but in no case shall the irrigation system be in place longer than three (3) years.

c. An interim erosion control plan for the interim stabilization of disturbed areas on the coastal bluff. The interim erosion control measures shall include, but not limited to: sand bag barriers or silt fencing, installation of geotextiles or mats for disturbed areas on the bluff and

measures to ensure stockpiled materials are stabilized. These interim erosion control measures shall be maintained until the permanent drainage system is installed and the disturbed areas are revegetated.

d. Monitoring and maintenance program to ensure the successful revegetation of the bluff. The bluff revegetation plan shall be implemented within 30 days of the completion of the roadway, drainage, and retaining wall improvements. However, the removal of exotic vegetation and revegetation with native species may be carried out in several phases to minimize bluff disturbance. The plan shall specify the areas for phased removal and the timing necessary for each phase. Revegetation shall provide 90 percent coverage within five (5) years and shall be repeated, if necessary, to provide such coverage. This time period may be extended by the Executive Director for good cause.

Five years from the date of the issuance of this permit, the applicant shall submit, for the review and approval of the Executive Director, a revegetation monitoring report, prepared by a licensed Landscape Architect or qualified Resource Specialist, that certifies the bluff revegetation is in conformance with the revegetation plan approved pursuant to this Special Condition. The monitoring report shall include photographic documentation of plant species and plant coverage.

If the landscape monitoring report indicates the revegetation is not in conformance with or has failed to meet the performance standards specified in the revegetation plan approved pursuant to this permit, the applicant, or successors in interest, shall submit a revised or supplemental revegetation plan for the review and approval of the Executive Director. The revised revegetation plan must be prepared by a licensed Landscape Architect or a qualified Resource Specialist and shall specify measures to remediate those portions of the original plan that have failed or are not in conformance with the original approved plan.

8. Geologic Hazard Restricted Use Area

A. No development, as defined in Section 30106 of the Coastal Act, shall occur on the bluff face portions of Assessor's Parcels Number 4473-019-003, -004, -005, -006, and -007, as shown in Exhibit 5 except for:

1. Construction of the rock revetment and drainage structures, remedial driveway grading, road paving, retaining walls, and bluff revegetation approved under Coastal Development Permit 4-97-243.

2. Repair and maintenance of development approved under Coastal Development Permit 4-97-243, provided that such repair or maintenance is in conformance with a Commission-approved amendment or new coastal development permit, unless the Executive Director determines that no amendment or coastal development permit is required.

B. Prior to issuance of the coastal development permit, the applicant shall execute and record a deed restriction in a form and content acceptable to the Executive Director, reflecting the above restriction on development in the designated geologic hazard restricted area. The deed restriction shall include legal descriptions of both the applicant's entire parcel and the restricted area. The deed restriction shall run with the land, binding all successors and assigns, and shall be recorded free of prior liens that the Executive Director determines may affect the enforceability of the restriction. This deed restriction shall not be removed or changed without a Commission-approved amendment to this coastal development permit unless the Executive Director determines that no amendment is required.

9. Condition Compliance

Within 90 days of Commission action on this coastal development permit application, or within such additional time as the Executive Director may grant for good cause, the applicant shall satisfy all requirements specified in the conditions hereto that the applicant is required to satisfy prior to issuance of this permit. Failure to comply with this requirement may result in the institution of enforcement action under the provisions of Chapter 9 of the Coastal Act.

10. Implementation of Project Plans

Within 60 days of issuance of this coastal development permit, or within such additional time as the Executive Director may grant for good cause, the applicant shall implement the approved project plans to stabilize the bluff, including the revetment, buttress, retaining walls, paving, and drainage devices. Failure to comply with this requirement may result in the institution of enforcement action under the provisions of Chapter 9 of the Coastal Act.

IV. FINDINGS AND DECLARATIONS

The Commission hereby finds and declares:

A. Project Description.

The proposed project site is located on Encinal Beach in the western area of the City of Malibu. The applicant owns five parcels that make up the project site. The parcel map for the project site is shown in Exhibit 2. Access to the project site is provided by a driveway from Pacific Coast Highway. Two of the parcels contain area on the top of a coastal bluff, as well as area on the face of this bluff. The western lot contains the applicant's residence and the eastern lot is developed with a driveway and deck associated with the applicant's residence. The three other parcels owned by the applicant are vacant and are located seaward of the other two. These three parcels contain bluff face as well as sandy beach areas. There is a private beach access driveway which descends the bluff face to the beach below on the applicant's property.

The applicant requests after-the-fact approval of the construction of a rock revetment across the three vacant beachfront parcels. The applicant's consultants contend that the revetment is necessary to protect the toe of the bluff from wave erosion because further erosion could destabilize the bluff as well as the existing residence above. The applicant also requests after-the-fact approval of remedial grading (40 cu. yds. cut and 170 cu. yds. fill) to regrade the toe of the bluff and buttress the damaged roadway. The fill was imported to the site and dumped down the bluff face from the road above. The applicant further requests after-the-fact approval of the construction of stairs along the roadway. These stairs were constructed from concrete some time ago (but not prior to the Coastal Act). Finally, the application also includes the new construction of retaining walls (ranging in height from 2 ft. to 6 ft.) along the roadway and below the existing residence, paving the existing road on the bluff face, installation of drainage devices, and an offer to dedicate public access to the beach seaward of the revetment across the three lots.

Permit Continuance from the July 1999 Hearing

The proposed project was originally heard by the Commission at its July 13, 1999 hearing. Several issues were raised by the Commission in relation to the permit history of the single family residence and driveway on the proposed project site, as well as technical issues relating to the geologic stability of the site, the necessity for the proposed revetment, and the design of the revetment. The hearing was continued so more information could be assembled by the applicant and staff.

Since that hearing, the Commission's Engineer, Lesley Ewing has visited the site with the applicant and the applicant's geologic consultant and has provided staff and the applicant with comments and recommendations. This information is discussed in Sections C and D below.

Staff has also reviewed Commission records and the applicant has furnished supplemental information with regard to the permit history of the existing residence and driveway on the bluff face. This information is discussed in Section B below.

Emergency Permits

The subject permit application is in part a follow-up to Emergency Permit Applications 4-97-243-G (Higgins) and 4-98-039-G (Higgins). In Application 4-97-243-G, the applicant requested approval to pave the roadway on the bluff face in order to minimize infiltration of runoff into terrace deposits on the bluff. The application was later modified to include the construction of a temporary sand berm at the toe of bluff to protect from wave erosion. Staff determined that the paving of the access road was not necessitated by an emergency. However, Emergency Permit 4-97-243-G was granted on January 8, 1998 for the construction of a sand berm across the property to protect the toe of the bluff from wave erosion.

In February 1998, the applicant submitted Emergency Permit Application 4-98-039-G in response to wave erosion to the base of the bluff during El Nino storms. The applicant stated that a sand berm had been constructed along the beach on three different occasions, but that storm waves had continued to erode the bluff. In this application, the applicant requested approval to: 1) construct a rip-rap revetment to protect the roadway, drainage structure and slope; 2) buttress the destroyed portion of the roadway and slope; 3) perform remedial maintenance on the roadway; 4) construct retaining wall below the existing residence; and 5) pave the roadway to prevent water infiltration. On February 20, 1998, Emergency Permit 4-98-039-G was granted for:

> The construction of a 100-foot long (approximate), 14 foot high rock rip-rap revetment. The revetment shall be tied into the existing rip-rap revetment located on the adjacent property to the east and shall run along the entire length of the property. The purpose of the rock revetment is to protect the coastal bluff from further erosion which may cause harm to the existing structures of the property.

However, staff determined that the other four requested items (buttress grading, roadway maintenance, retaining wall, and road paving) were not necessary on an emergency basis and were not made part of the emergency permit approval. This emergency permit was approved subject to nine conditions of approval. Condition No. 2 stated that: "Only that work specifically described above and for the specific property listed above is authorized. Any additional work requires separate authorization from the Executive Director". Additionally, Condition No. 3 stated that: "The work authorized by this permit must be completed within 30 days of the date of this permit".

In this case, the permitted construction of the rock revetment was not completed or even begun within 30 days of the issuance of the emergency permit. In fact, the construction of the rock revetment and other development was begun in May 1998. Furthermore, the applicant carried out remedial grading to create a buttress at the toe of the bluff, including the dumping of fill material down the bluff face from the road above. This development was not permitted. As such, at the time the applicant attempted to carry out this construction, the revetment was unpermitted because it was not completed within 30 days of the issuance of the emergency permit and the grading was unpermitted because it was not even approved in the emergency permit.

As such, when the applicant began the construction in May 1998, there was no active coastal development permit. Additionally, the applicant did not have permits from the City of Malibu. In May 1998, the City of Malibu issued a stop-work notice to the applicant, halting the construction before the revetment or buttress were complete. Therefore, these elements of the subject permit application are requests for after-the-fact approval, even though the revetment and buttress have yet to be completed.

B. Background.

As described above, there is a driveway on the proposed project site which extends from Pacific Coast Highway across a parcel not included in the subject site, across the blufftop portion of the site providing access to the existing single family residence, and

switchbacks down the bluff face to the beach below. The bluff face portion of this roadway is currently in disrepair. Most of this portion of the driveway is unpaved and subject to erosion from uncontrolled runoff and lack of vegetation. The original construction of a roadway on the project site predated the effective date of the California Coastal Zone Conservation Act of 1972 (Proposition 20). A photograph of the site from 1961 (exact date in 1961 unknown) in the Commission files clearly shows this road in a rough-graded condition, although it is clearly not paved. In another photograph from the files of the South Coast Regional Commission dated 1972 (exact date in 1972 unknown), the road is in a paved condition, but no other structures are present on site.

At the request of the Commission after the July hearing, the applicant has submitted additional information with regard to the origins of the road. A copy of a grading permit from the County of Los Angeles granted to Jean Houle for the subject site has been submitted (Exhibit 6). The work approved under this permit is "Grade and pave road to beach for access to future residence and gst (sic) house". The grading permit application was filed on 9/1/61 and the final certification of the County engineer was noted on 11/15/61. In addition, the applicant submitted a copy of a "Complaint for Foreclosure of Mechanic's Lien-Breach of Contract", wherein a grading and paving contractor is suing Jean Houle for payment for the grading and paving of approximately 8,000 sq. ft. of driveway between 10/11/61 and 11/14/61. Although this document does not contain any information about the final disposition of this action, the time frame noted is consistent with the grading permit. Based on the whole of this evidence, the driveway was graded and paved prior to Proposition 20.

In addition to the development of the driveway, there has been an extensive permit application history both on the applicant's property and adjacent parcels.

1. Past Commission Actions

a. Subject Project Site.

There have been several past Commission actions on several of the five parcels that make up the proposed project site. (Exhibit 2 shows the assessor's parcel map for the project site).

Proposition 20 Actions

In September 1972, Edward Higgins placed a pre-fabricated factory-built structure, consisting of two separate sections on temporary wooden supports on Parcel 4473-019-003, prior to securing any building permits from the County of Los Angeles. A building permit was secured for this structure on January 26, 1973. However no construction was undertaken on the site prior to the February 1, 1973 effective date of Proposition 20. (Staff would note that similar structures were also placed on two of the beachfront parcels which are part of the proposed project site considered herein. Further, two similar structures were placed on the two parcels immediately adjacent to the proposed project site to the north). The Higgins applied to the Regional Commission for a

determination of vested rights. The vested rights request was denied by the Commission.

Subsequently, the Higgins applied for Permit P-12-19-73-2414 for the placement of 4 modular homes on Parcels 4473-019-002, -003, -005, and -007 . Part "C" of this permit was to approve the placement of the modular home that is the subject of Permit 4-97-243 (Parcel 4473-019-003). This permit application was denied by the South Coast Regional Commission. The staff report for this permit states that: "This is a suitable use for the general area but the specific site if (sic) unsuitable for this type of intensive use. The instability of the bluff would suggest removal to another site". The following reasons are listed as the basis for the recommendation of denial:

1. This structure represents a threat to bluff stability
2. The structure should be removed
3. Inconsistent with existing land use in the area
4. Not feasable (sic) to meet County requirement of 2 car garage or carport on this site.

The applicants appealed the decision to the State Coastal Commission (Appeal 113-74). The appeal was also denied. [Staff would note that the other structures placed on other parcels that make up the subject project site were similarly denied.]

In a subsequent court action, the trial court found that the Higgins had not obtained a permit from the Commission for the development of any of the lots (including that containing the subject residence) and that none of the development was exempt from the permit requirement by reason of substantial lawful construction on the property prior to February 1, 1973. The court issued judgment enjoining development of the properties and imposing civil penalties. The Higgins appealed the judgment but the judgment was affirmed by the Court of Appeal on March 30,1977.

Staff could locate no information in the Commission's files or the Attorney General's files pertaining to the enforcement of this judgment. The applicant's agent has asserted that an "informal agreement" was entered into between the Commission and Higgins whereby Higgins agreed to remove the two units placed on the beach lots in return for the Commission permitting the subject residence as well as two other modular units on adjacent parcels. [Staff would note that no evidence of any agreement, informal or otherwise was provided.] The applicant's agent has also provided evidence that the monetary portion of the judgment was satisfied in 1979.

The two modular units on the beach were eventually removed. However, the Commission did not take action to require removal of the residence on Parcel 4473-019-003, which is the subject of this application and, in fact, the Commission approved additions to the residence. In December 1980, the Commission considered three permits (A-80-7340, A-80-7341, and A-80-7342) for additions to the modular units that remained on Parcels 4473-019-001, -002, and –003. Permit A-80-7342 was the application for additions to the structure that is the subject of the subject permit

application. This administrative permit was approved for the: "addition of a carport, master bedroom, recreation room and decks to an existing single family residence". The applicant's agent has provided a copy of a transcript of a portion of the December 1, 1980 hearing tape of the South Coast Regional Commission (Exhibit 7 contains the relevant part). During the hearing, Commission Chair Ruth Gallanter asked several questions about the legality of the modular units considered under these three permit. In response to her questions, staff states that:

> These are ones that were on violation for a long time, but the court did not order them removed. And, so although they were put on after the Coastal Act was in effect, no permit was ever received for them.

Given this exchange, it seems clear that the Commission was aware of the unpermitted status of the subject residence when the additions were approved. Permit A-80-7342 is attached as Exhibit 8. The applicant's agent asserts that the Commission's approval of this permit was in furtherance of the "informal agreement". No evidence has been provided that suggests the Commission was satisfying any agreement with the applicant in approving the additions, but they were aware that the "existing" residence had not been permitted and had been the subject of court action. The applicant has submitted evidence of a County building permit for the approved additions and these additions were constructed.

Other Permit Actions

5-90-830 (Sprik)

In 5-90-830 (Sprik), the Commission denied the construction of a 3,900 sq. ft. single family residence on Parcel No. 4473-019-005. The proposed structure would have cascaded down the bluff to the beach level. The Commission denied the permit based on its inconsistency with the visual resource, hazards, access, and environmentally sensitive habitat policies of the Coastal Act. The Commission found that the proposed residence could not be considered infill development as the bluff in the area was largely undeveloped. The Commission also found that if a home were approved in the proposed location, the applicants would likely later request a seawall to protect the home and that it was unlikely that such a protective device could be found consistent with the Coastal Act. The Commission further found that the residence would have adverse cumulative impacts on public access. Finally, the Commission found that the proposed project would have adverse impacts on the environmentally sensitive habitat area on the bluff face.

5-90-1033 (Higgins)

The Commission subsequently denied Permit 5-90-1033 (Higgins) for the construction of a 4,003 sq. ft. single family residence on Parcels No. 4473-019-004 and 007 (as adjusted by a proposed lot line adjustment). The Commission denied this permit application based on its inconsistencies with the visual resource, hazards, access, and ESHA policies of the Coastal Act. In this permit application, the applicant proposed a lot

line adjustment whereby the project site would be combined with a portion of the lot above it, ostensibly to give a potential building pad area on the bluff face that would not extend to beach level. However, this proposed building pad area was extremely steep and highly eroded. The Commission found that this proposed project could not be considered infill development and that it would destroy a relatively undeveloped bluff face. They further found that a home built in this location could be subject to hazards from wave damage and erosion and that it was very likely that in the future the applicant would request a protective device to protect the structure. It was finally found that the proposed residence would have adverse impacts on coastal access and on the environmentally sensitive habitat area on the bluff face.

4-93-092 (Higgins)

Permit Application 4-93-092 (Higgins) was denied by the Commission. This application proposed the construction of a 14-foot high, 120-foot long rock revetment across the three beachfront parcels (Parcels Nos. 4473-019-005, 006, and 007). The applicants originally proposed the revetment to protect a cabana on the site. However, staff considered this structure to be temporary in nature, and in any case, unpermitted. The applicants later revised their application to request the revetment to protect an existing roadway and turnaround area on the site. However, the Commission found that while the road predated Proposition 20, the bottom portion of the road and turnaround area had been modified without permits. Additionally, the Commission found that there was no evidence that the road or turnaround were in danger from erosion. Finally, the Commission found that there were alternatives to the proposed project such as regrading and revegetating the toe of the bluff which could be effective in maintaining the road. The Commission findings state that:

> Given the minimal amount of erosion which has taken place on the site to date, it would be premature at this point to commit this beach to a revetment when there are clearly less environmentally damaging alternatives available. It is possible that the erosion situation on the site may change in the future. Nothing precludes the applicants from applying at a later date to remedy any future problems.

It should be noted that the applicant did not apply to carry out such a project as regarding and revegetating the toe of the bluff.

4-98-223-G (Higgins)

As described above, the applicant applied for and was granted two emergency permits (4-97-243-G for a sand berm, and 4-98-039 for the construction of a rock revetment). However, as discussed above, construction was carried out after the 30 days that the emergency permit was effective and development was undertaken that had not been approved under the emergency permit. As such, when the applicant began the construction in May 1998, there was no active coastal development permit. Additionally, the applicant did not have permits from the City of Malibu. In May 1998, the City of Malibu issued a stop-work notice to the applicant, halting the construction before the revetment or buttress were complete. In August 1998, the applicant submitted a

request for an emergency permit (4-98-223-G) to complete the construction of the buttress fill to support the coastal bluff, retaining wall adjacent to the roadway, and repair of underground drainage devices. This request for an emergency permit was denied. Staff determined that no emergency existed at the time of the application.

b. Adjacent Parcels.

The Commission has taken several actions on the adjacent parcel to the east of the project site. In Permit 5-86-160 (Haagen), the Commission approved the demolition and rebuilding of an existing cabana, regrading of an existing access path and the construction of a rock revetment. At the hearing for this permit, the applicant's agent presented information to the Commission that the revetment was pre-existing at the proposed location. The Commission found that, on the basis of this information, the applicant's proposed improvements to the revetment were "repair and maintenance". Permit 5-86-160 was approved with conditions relating to revised plans, lateral access offer to dedicate, assumption of risk, and a requirement to remove any rock which might migrate from the revetment. The applicant failed to meet the permit conditions and begin construction before this permit expired. In Permit 5-88-918 (Haagen), the Commission approved the very same project approved under Permit 5-86-160 subject to the same conditions.

2. Pending Applications.

The applicant has a separate permit application pending before the Commission. Permit Application 4-95-105 (Higgins) was submitted in May 1995 for the after-the-fact approval of additions to the existing residence, stairs along the roadway (these stairs are now proposed as part of the subject application), deck, and a lot-line adjustment. At the time of submittal, staff requested that the applicant submit additional information in order for staff to fully analyze the permit request and prepare a recommendation for Commission action. To date, most of the requested items have been submitted by the applicant. Still outstanding is evidence that the proposed development has received approval from the local government. At this time therefore, the application remains incomplete, but still pending.

C. Shoreline Protective Devices

The applicant proposes to construct a rock revetment across the width of the project site. The proposed revetment would be located at the toe of a coastal bluff. The revetment would be approximately 110 feet in length, 30 feet wide, and 14 feet high. The revetment would tie-in to the return wall of an existing revetment on the downcoast end of the property. On the upcoast side of the property, the revetment would be joined to a bedrock area of bluff. At the recommendation of the Commission's Engineer, the applicant has submitted a revised revetment plan which shows a more concave design. This revision was recommended to reflect waves back to the south rather than onto the toe of the bluff on the upcoast property.

The applicant contends that the bluff on the proposed project site was subject to extreme erosion during the El Nino Storms in 1997-1998, resulting in the loss of up to 30 feet of the toe of the bluff. The applicant has submitted evidence, in the form of investigations conducted by coastal engineers and an engineering geologist, that a shoreline protective device and other improvements are needed to prevent further erosion of the bluff, and to protect existing development from damage. The applicant's consultants contend that if a shoreline protective device is not constructed on the subject site, the bluff would continue to erode, further damaging the existing roadway, further destabilizing the bluff slopes, and causing support for the existing residence to be lost.

After identifying the applicable Coastal Act sections upon which the Commission relies as the standard of review of the proposed project, and the certified Malibu/Santa Monica Mountains Land Use Plan (LUP) policies upon which the Commission has relied as guidance in past permit decisions, the discussion of the impacts of the shoreline protective device will proceed in the following manner:

First, the staff report describes the physical characteristics of the Encinal Beach shoreline; second the report analyzes the dynamics of the Encinal Beach shoreline; and third, the report analyzes the location of the proposed shoreline protective device in relation to wave action. Finally, the report evaluates whether the proposed shoreline protective device is warranted, weighing the available evidence in light of the Coastal Act requirements and the past guidance of the LUP policies, and whether the proposed revetment will adversely impact the shoreline sand supply and shoreline processes.

Section **30235** of the Coastal Act states that:

> Revetments, breakwaters, groins, harbor channels, seawalls, cliff retaining walls, and other such construction that alters natural shoreline processes shall be permitted when required to serve coastal-dependent uses or to protect existing structures or public beaches in danger from erosion, and when designed to eliminate or mitigate adverse impacts on local shoreline sand supply. Existing marine structures causing water stagnation contributing to pollution problems and fish kills should be phased out or upgraded where feasible.

Additionally, Section **30253** of the Coastal Act states that:

> New development shall:
>
> (1) Minimize risks to life and property in areas of high geologic, flood, and fire hazard.
>
> (2) Assure stability and structural integrity, and neither create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding area or in any way require the construction of protective devices that would substantially alter natural landforms along bluffs and cliffs.

Malibu/Santa Monica Mountains Land Use Plan (LUP)

To assist in the determination of whether a project is consistent with sections 30235, 30250(a), and 30253 of the Coastal Act, the Commission has, in past Malibu coastal development permit actions, looked to the certified Malibu/Santa Monica Mountains Land Use Plan (LUP) for guidance. The Malibu LUP has been found consistent with the Coastal Act and provides specific standards for development along the Malibu coast. For example, policies 166 and 167 provide, in concert with Coastal Act section 30235, that revetments, seawalls, cliff retaining walls and other shoreline protective devices be permitted only when required to serve coastal-dependent uses, to protect existing structures or new structures which constitute infill development and only when such structures are designed and engineered to eliminate or mitigate the resultant adverse impacts on the shoreline sand supply. In addition, Policy 153 indicates that development of sites that are exposed to potentially heavy tidal and wave action shall require that development be set back a minimum of ten (10) feet landward from the mean high tide line.

1. Proposed Project and Site Shoreline Characteristics

The City of Malibu includes a narrow strip of coast that is some 27 miles long, backed by the Santa Monica Mountains. The proposed project site is located on the less densely developed west end of Malibu. The applicant's proposed project is located on Encinal Beach, a narrow sandy beach backed by high, steep bluffs. The bluffs backing this beach contain areas of highly erodeable deposits as well as bedrock outcrops of harder materials. This beach is located in an area between Nicholas Canyon County Beach and the three pocket beaches that make up the Robert H. Meyer Memorial State Beach (El Pescador, La Piedra, and El Matador). The project site consists of sandy beach area, a steep bluff face developed with a road, and bluff top area developed with a single family residence, and decks, driveway. There are several resistant rock outcrops located in the intertidal zone seaward of the project site.

The property immediately downcoast of the project site has similar site characteristics. There is an existing grouted rock revetment located on this property which is located significantly seaward of the toe of the bluff. There is a grout rock return wall at the end of this revetment which ties into the bluff along the downcoast edge of the proposed project site. The end of this wall is shown on the grading plans for the subject project, shown in Exhibit 3. As noted above, improvements to this revetment were found by the Commission to constitute repair and maintenance.

On the property immediately upcoast of the project site, the bluff face is composed of more resistant bedrock outcrops. The applicant's consultants have stated that this material: "is considered non-scourable from a coastal engineering perspective". The toe of the bluff on the upcoast property is located slightly seaward of the toe of the bluff on the subject site.

The applicant's consultants have identified a process at work on the subject site which

is asserted to result in increased erosion to the toe of the bluff. As early as 1993, David Weiss stated that the wave action acting on the toe of the bluff is magnified due to the "flushing" action of waves being forced between the rock revetment on the downcoast property and the rock outcroppings located in the intertidal zone. Weiss's 1993 report concluded that:

> The scouring action of the water is intensified as the waves are forced between the natural rock outcropping on your beach and the existing rock revetment. The water is reflected off the face of the revetment and onto the toe of the adjacent embankment.

The Commission Engineer has confirmed that in addition to poor drainage and the lack of or wrong types of vegetative cover, the location and design of the revetment on the downcoast property has contributed to bluff instability. The existing downcoast revetment is located far out onto the beach, is grouted between the rocks, and is constructed at an angle oblique to the shoreline. The grouting reduces the amount of energy that can be absorbed by the revetment, increasing the amount that is reflected from the structure. Additionally, the location and angle of the revetment will direct much of the reflected wave energy onto the toe of the bluff on the proposed project site.

As described in the background section above, in 1993, the Commission considered a permit application (5-93-092) for the construction of a rock revetment across the three lots of the subject site. The applicants originally proposed the revetment to protect a cabana on the site. However, staff considered this structure to be temporary in nature, and in any case, unpermitted. The applicants later revised their application to request the revetment to protect an existing roadway and turnaround area on the site. However, the Commission found that while the road predated Proposition 20, only minor erosion has taken place and that there was no evidence that the road or turnaround were in danger from erosion. Finally, the Commission found that there were alternatives to the proposed project such as regrading and revegetating the toe of the bluff, which could be effective in maintaining the road.

Unlike the conditions in 1993, the toe of the bluff on the proposed project site sustained more significant erosion as the result of the 1997-1998 El Nino storm waves. The waves generated by heavy surf conditions attacked the toe of the bluff. The applicant's consultants investigated the site and concluded that:

> During the February 1998 El Nino storms, the bluff on the subject property suffered extensive erosion. The base of the bluff eroded landward approximately 30 feet. The lower portion of the driveway was eroded away by the avulsive nature of the wave uprush[1]. The bedrock slope at the base of the bluff protected the property to the west. The existing rock revetment on the east adjacent property protected that property.

[1] The Commission does not agree that the erosion of the driveway was the product of an "avulsive" event. The term "avulsion" is a legal boundary term and not a term that coastal engineer would use to describe physical events on the shoreline.

In addition to damage to the existing roadway, the applicant's engineering geologist determined that wave erosion at the base of the bluff decreased overall slope stability on the site and endangered the residence at the top of the bluff which is supported on standard foundations. The applicant has submitted evidence, in the form of investigations conducted by coastal engineers and an engineering geologist, that a shoreline protective device and other improvements are needed to prevent further erosion of the bluff, and to protect existing development from damage. The applicant's consultants contend that if a shoreline protective device is not constructed on the subject site, the bluff would continue to erode, further damaging the existing roadway, further destabilizing the bluff slopes, and causing support for the existing residence to be lost.

Additionally, observation by staff since at least 1990 indicates that much more extreme erosion has taken place at the toe of the bluff on the project site after the El Nino storms of 1998. As detailed above, the Commission has considered various applications for development on the proposed project site. The past condition of the bluff did not indicate significant erosion of the base of the bluff necessitating the construction of shoreline protective devices. However, the increased erosion after 1998 is readily apparent.

Further, as discussed above, after the proposed project was continued from the July 1999 hearing, the Commission Engineer Lesley Ewing visited the project site with the applicant and the applicant's geologic consultant to assess the threat to development on the site and the proposed stabilization. She concluded that continued erosion of the toe of the bluff will threaten the residence. She states that the residence will probably be threatened in the next 5 to 10 years. However, one large storm could change the situation significantly or mild weather for the next ten years could postpone the need for protection. The Commission Engineer determined that eventually, the bluff will retreat landward such that a much larger revetment and or bluff retaining wall will be required to protect the existing development.

Based on the consultant's analysis and staff's observations of the wave erosion that has taken place at the base of the bluff, the Commission concludes that that it is necessary to protect the toe of the bluff from further erosion in order to prevent further damage to the existing structures on the site and to avoid the necessity to construct larger protective structures later. As such, the Commission finds that the proposed revetment is necessary to protect existing development from wave erosion, as allowed under Section 30235 of the Coastal Act.

Beach Erosion Pattern

Having defined Encinal Beach as a narrow bluff-backed beach, the next step is to consider the overall trend of sand supply on the beach. Evaluating whether or not a pattern of beach erosion exists is the key factor in determining the impact of the proposed seawall on the shoreline. Generally, beaches fit into one of three profile

categories: 1) eroding; 2) equilibrium, or 3) accreting. The persistent analytical problem in dealing with shore processes in California is distinguishing long-term trends in shoreline change from normal seasonal or cyclical variation.

The applicant's consultants have provided no information on shoreline change in the area of the proposed project site. However, Encinal Beach has been identified as an eroding beach. The U.S. Army Corps of Engineers, Los Angeles District, identifies the beaches from the Ventura County line to Lechuza Point as trending from stable to slowly eroding (Reconnaissance Study of the Malibu Coast, 1994). An earlier study, titled Shoreline Constraints Study, by Moffatt and Nichols (June 30, 1992) concluded that Encinal Beach is a retreating shoreline, and provides confirmation of the Army Corps analysis that the beach shows evidence of a long term erosional trend.

Additionally, observation by staff since at least 1990 indicates erosion taking place at the project site. Additionally, investigations conducted by the applicant's consultants over the years has indicated increased erosion. When the Commission considered an application (5-90-830) for development of a single family residence on one of the three bluff face/beachfront lots, the wave uprush study prepared for the project indicated that, in the opinion of the consultant (David C. Weiss, 3/13/90) a residence could be constructed on the bluff face, supported on caissons, and no shoreline protective device would be necessary for protection of the residence (this application was denied). In 1993, the applicant's consultants identified the presence of erosion at the base of the bluff and the applicant applied (5-93-092) for the construction of a revetment to protect an unpermitted beach cabana and the existing roadway. At that time, the Commission found that the erosion at the toe of the bluff was minor and that alternatives, such as regrading or filling the toe to repair the existing road, existed to the construction of a shoreline protective device. Finally, after the El Nino storms in 1998, the base of the bluff experienced significant erosion, which the applicant's consultants have determined necessitates the construction of the proposed revetment and road buttressing. Staff site visits to the site after these storms confirmed that significant erosion of the bluff has taken place. As such, the trend on the site has been increasing erosion over time.

Furthermore, the Commission notes that many studies performed on both equilibrium and eroding beaches have concluded that loss of beach occurs on both types of beaches where a shoreline protective device is placed. Therefore, based on the preponderance of evidence of these studies, considered in conjunction with site-specific evidence of beach erosion, the Commission concludes that the site proposed for placement of a seawall is located on an eroding beach.

2. **Location of the Proposed Shoreline Protective Device in Relation to Wave Action.**

The Commission notes that loss of beach is widely understood to occur when shoreline protective devices are placed on equilibrium or eroding beaches. To determine what the impacts of the proposed bulkhead on the shoreline are likely to be, the location of the proposed protective device in relationship to the expected wave runup must be

analyzed.

The applicant has submitted a number of reports prepared by the coastal engineering consultants, including a wave uprush study, dated 3/13/90 for the construction of a residence on one of the beachfront parcels (This Application 5-90-830 was denied), by David C. Weiss as well as a wave uprush study update, dated 3/3/99, prepared by Pacific Engineering Group. Based on the consultant's information, the proposed revetment would be located landward of documented positions of the mean high tide line. To avoid approving development that will encroach on public tidelands during any time of the year, the Commission, usually relying on information supplied by the State Lands Commission, will look to whether the project is located landward of the most landward known location of the mean high tide line. In this case, the State Lands Commission has reviewed the proposed revetment and presently does not assert a claim that the project intrudes onto sovereign lands (SLC letter dated February 22, 1999). Notwithstanding the location of the mean high tide line, wave uprush will extend to the revetment during high tide and low beach profile conditions in the winter.

It is important to accurately calculate the potential of wave runup and wave energy to which the seawall will be subject. Dr. Douglas Inman, a widely recognized authority on Southern California shoreline processes, states that[2]:

> While natural sand beaches respond to wave forces by changing their configuration into a form that dissipates the energy of the waves forming them, seawalls are rigid and fixed, and at best can only be designed for a single wave condition. Thus, seawalls introduce a disequilibrium that usually results in the reflection of wave energy and increased erosion seaward of the wall. The degree of erosion caused by the seawall is mostly a function of its reflectivity, which depends upon its design and location.

Rock revetments operate on the principle that wave energy is dissipated within the voids of the wall, thereby producing less wave reflected energy than a smooth vertical wall. However, similar to a vertical wall, a rock revetment is a rigid structure fixed in place and will reflect wave energy and produce the same type of erosional impacts cited by Dr. Inman above.

In past permit actions, the Commission has found that one of the most critical factors controlling the impact of a shoreline protective device on the beach is its position on the beach profile relative to the surf zone. All other things being equal, the further seaward the revetment is, the more often and more vigorously waves interact with it. The best place for a revetment, if one is necessary, is at the back of the beach where it provides protection against the largest of storms.

The applicant's consultants used two design waves to determine the wave uprush to be expected on the proposed project site. The two waves were found to represent the most hazardous situations for the subject beach. An 11.7 ft. wave with a period of 10 seconds

---

[2] Letter from Dr. Inman to Coastal Commission staff civil engineer Lesley Ewing dated February 25, 1991.

was found to have minimal effect on structures due to energy loss. The more serious wave was a 3.3ft. wave with a period of 18 seconds. It was determined that the uprush zone from this wave would extend to elevation 13.9 feet MSL on the proposed revetment.

Based on the above discussion, the Commission finds that the proposed revetment, at its proposed location, has the potential to encroach into an area of the beach that is currently subject to wave action during storm and high tide events. As previously discussed, the Commission finds that Encinal Beach is a narrow, eroding beach and that the proposed revetment will, at times, be subject to wave action during storm and/or high tide events. Therefore, the following section evaluates the impacts of the proposed seawall on the beach based on the above information which identified the specific structural design, the location of the structure, and the shoreline geomorphology.

a. Effects of the Shoreline Protective Device on the Beach

The proposed 110 ft. long rock revetment will be constructed on the sandy beach at the base of the coastal bluff. Although the precise impact of a structure on the beach is a persistent subject of debate within the discipline of coastal engineering, and particularly between coastal engineers and marine geologists, it is generally agreed that a shoreline protective device will affect the configuration of the shoreline and beach profile. Adverse impacts upon the shoreline may accrue as the result of beach scour, end scour (undermining of the beach areas at the ends of the seawall), the retention of potential beach material behind the wall, the fixing of the back beach and the interruption of alongshore processes. To evaluate these potential impacts relative to the proposed structure and its location at Encinal Beach, each of the identified effects will be evaluated below.

(1) Beach Scour

Scour is the removal of beach material from the base of a cliff, seawall or revetment due to wave action. The scouring of beaches caused by seawalls is a frequently-observed occurrence. When waves impact a hard surface such as a coastal bluff, rock revetment, or vertical bulkhead, some of the energy from the wave will be absorbed, but much of it will be reflected back seaward. This reflected wave energy in combination with the incoming wave energy, will disturb the material at the base of the seawall and cause erosion to occur in front and down coast of the hard structure. This phenomenon has been recognized for many years and the literature acknowledges that seawalls do affect the supply of beach sand. The Wave Uprush Study prepared by the applicant's coastal engineer notes that the maximum wave uprush applicable to the subject site, will extend to the proposed revetment.

The Commission notes that the proposed revetment will be located seaward of the maximum wave uprush and will therefore be periodically acted upon by wave action. In past permit actions, the Commission has found that shoreline protective devices which are subject to wave action tend to exacerbate or increase beach erosion. The following

quotation summarizes a generally accepted opinion within the discipline of coastal engineering that:

> These structures are fixed in space and represent considerable effort and expense to construct and maintain. They are designed for as long a life as possible and hence are not easily moved or replaced. They become permanent fixtures in our coastal scenery but their performance is poor in protecting community and municipalities from beach retreat and destruction. Even more damaging is the fact that these shoreline defense structures frequently enhance erosion by reducing beach width, steepening offshore gradients, and increasing wave heights. As a result, they seriously degrade the environment and eventually help to destroy the areas they were designed to protect.[3]

The above 1981 statement signed by 94 respected coastal geologists indicates that sandy beach areas available for public use can be harmed through the introduction of seawalls. Thus, in evaluating an individual project, the Commission assumes that the principles reflected in that statement are applicable. To do otherwise would be inconsistent with the Commission's responsibilities under the Coastal Act to protect the public's interest in shoreline resources and to protect the public's access along the ocean and to the water, as discussed in more detail in the subsequent section concerning public coastal access.

The impact of seawalls as they are related to sand removal on the sandy beaches is further documented by the State Department of Boating and Waterways:

> While seawalls may protect the upland, they do not hold or protect the beach which is the greatest asset of shorefront property. In some cases, the seawall may be detrimental to the beach in that the downward forces of water, created by the waves striking the wall rapidly remove sand from the beach.[4]

Finally this observation was underscored more recently in 1987 by Robert G. Dean in "Coastal Sediment Processes: Toward Engineering Solutions":

> Armoring can cause localized additional storm scour, both in front of and at the ends of the armoring...Under normal wave and tide conditions, armoring can contribute to the downdrift deficit of sediment through decreasing the supply on an eroding coast and interruption of supply if the armoring projects into the active littoral zone.[5]

It is generally agreed that where a beach is eroding, the erection of a shoreline protective device will eventually define the boundary between the sea and the upland. This result can be explained as follows: on an eroding shoreline fronted by a beach, a beach will be present as long as some sand is supplied to the shoreline. As erosion

---

[3] Saving the American Beach: A Position Paper by Concerned Coastal Geologists (March 1981, Skidaway Institute of Oceanography), pg. 4.

[4] State Department of Boating and Waterways (formerly called Navigation and Ocean Development), Shore Protection in California (1976), page 30.

[5] Coastal Sediments '87.

proceeds, the entire profile of the beach also retreats. This process stops, however, when the retreating shoreline comes to a seawall. While the shoreline on either end of the seawall may continue to retreat shoreline retreat in front of the seawall stops. Eventually, the shoreline fronting the shoreline protective device protrudes into the water, with the winter mean high tide line fixed at the base of the structure. In the case of an eroding shoreline, this represents the loss of beach area as a direct result of the shoreline protective device.

Dr. Craig Everts found that on narrow beaches where the shoreline is not armored, the most important element of sustaining the beach width over a long period of time is the retreat of the back beach and the beach itself. He concludes that:

> Seawalls inhibit erosion that naturally occurs and sustains the beach. The two most important aspects of beach behavior are changes in width and changes in the position of the beach. On narrow, natural beaches, the retreat of the back beach, and hence the beach itself, is the most important element in sustaining the width of the beach over a long time period. Narrow beaches, typical of most of the California coast, do not provide enough sacrificial sand during storms to provide protection against scour caused by breaking waves at the back beach line. This is the reason the back boundary of our beaches retreats during storms.[6]

Dr. Everts further concludes that armoring in the form of a seawall or revetment interrupts the natural process of beach retreat during a storm event and that:

> ...a beach with a fixed landward boundary is not maintained on a recessional coast because the beach can no longer retreat.[7]

The Commission has observed this phenomenon up and down California's coast where a seawall has successfully halted the retreat of the shoreline, but only at the cost of usurping the beach. For example, at La Conchita Beach in Ventura County, placement of a rock revetment to protect an existing roadway has caused narrowing of the existing beach. Likewise, at City of Encinitas beaches in San Diego County, construction of vertical seawalls along the base of the bluffs to protect existing residential development above has resulted in preventing the bluffs' contribution of sand to the beaches, resulting in narrowing.

As set forth in earlier discussion, Encinal Beach is a narrow, receding beach backed by steep bluffs. The applicant's coastal engineering consultant has indicated that the revetment will be acted upon by waves during storm conditions. If a seasonal eroded beach condition occurs with greater frequency due to the placement of a revetment on the subject site, then the subject beach would also—at a minimum—accrete at a slower rate. The Commission notes that many studies performed on both eroding and oscillating beaches have concluded that loss of beach occurs on both types of beaches where a shoreline protective device exists. Therefore, the Commission notes that the

---

[6] Letter Report dated March 14, 1994 to Coastal Commission staff civil engineer Lesley Ewing from Dr. Craig Everts, Moffatt and Nichol Engineers.
[7] ibid.

proposed revetment, over time, will prevent natural erosion of the bluff and halt the contribution of sand to the beach through this process. This will result in potential adverse impacts to the beach sand supply resulting in increased seasonal erosion of the beach and longer recovery periods.

The impacts of potential beach scour are important relative to beach use for two reasons. The first reason involves public access. The subject property is located between two public beach areas (Nicholas Canyon County Beach and Robert H. Meyers State Beach). If the beach scours at the base of the revetment, even minimal scouring in front of the 110 ft. long bulkhead will translate into a loss of beach sand available (i.e., erosion) at an accelerated rate than would otherwise occur under a normal winter season if the beach were unaltered. Loss of sand at an accelerated rate could reduce the width of beach in front of the project site available for the public to walk along. The second impact relates to the potential turbulent ocean condition. Scour at the face of a seawall will result in greater interaction with the wall and thus, make the ocean along Encinal Beach more turbulent than it would be along an unarmored beach area.

Thus, the Commission has ordinarily required that shoreline protection devices be located as far landward as possible to reduce adverse impacts from scour and erosion. The proposed revetment is located at the toe of the bluff and designed to tie into the return wall of the revetment downcoast and to the bluff upcoast. The Commission finds that the applicant has sited the proposed revetment as landward as possible.

In past permit actions, the Commission has also required a lateral public access easement for new shoreline protection devices to mitigate adverse impacts to beach sand supply and public access. To ensure that any potential adverse effects of the proposed seawall are mitigated to the maximum extent feasible, the applicant has proposed to offer a dedication for a lateral public access easement along the beach. Special Condition 2 has been included to implement the applicant's proposal of an offer to dedicate a new lateral public access easement. Therefore, as conditioned, the project will minimize the adverse impacts resulting from construction of the new revetment and is consistent with the applicable Coastal Act sections and with past Commission action. Public access is discussed in more detail below.

(2) End Effects

End scour effects involve the changes to the beach profile adjacent to the shoreline protection device at either end. One of the more common end effects comes from the way reflection of waves off of the shoreline protection device in such a way that they add to the wave energy which is impacting the unprotected coastal areas on either end. Coastal engineers have compared the end effects impacts between revetments and bulkheads. In the case of a revetment, the many angles and small surfaces of the revetment material reflect wave energy in a number of directions, effectively absorbing much of the incoming wave rather than reflecting it. Because of the way revetments modify incoming wave energy, there is often less problem with end effects or

overtopping than that which occurs with a vertical bulkhead. However, revetments, especially those located in more seaward locations will result in end scour. In fact, as noted above, the revetment on the adjoining property has resulted in accelerated erosion to the bluff on the subject site. The existing revetment is located far out onto the beach, is grouted between the rocks, and is constructed at an angle oblique to the shoreline. The grouting reduces the amount of energy that can be absorbed by the revetment, increasing the amount that is reflected from the structure. Additionally, the location and angle of the revetment will direct much of the reflected wave energy onto the toe of the bluff on the proposed project site. The resulting erosion of the bluff on the proposed project site is a clear example of impacts from end effects.

In addition, the Commission notes that the literature on coastal engineering repeatedly warns that unprotected properties adjacent to any shoreline protective device may experience increased erosion. Field observations have validated this concern. Although it is difficult to quantify the exact loss of material due to end effects, Gerald G. Kuhn of the Scripps Institute of Oceanography concludes in a paper entitled, "Coastal Erosion along Oceanside Littoral Cell, San Diego County, California," (1981) that erosion on properties adjacent to a rock seawall is intensified when wave runup is high.

An extensive literature search on the interaction of seawalls and beaches was performed by Nicholas Kraus in which he found that seawalls have the same effects on narrow beaches or beaches eroded by storm activity as Dr. Kuhn observed in relation to rock seawalls. Dr Kraus' research indicated that the form of the erosional response to storms that occurs on beaches without seawalls that are adjacent to beaches with seawalls is manifested as more localized toe scour and end effects of flanking and impoundment at the seawall.[8] Dr. Kraus' concluded that seawalls were a likely cause of retained sediment, increased local erosion and increased end erosion. Dr. Kraus states:

> At the present time, three mechanisms can be firmly identified by which seawalls may contribute to erosion at the coast. The most obvious is retention of sediment behind the wall which would otherwise be released to the littoral system. The second mechanism, which would increase local erosion on downdrift beaches, is for the updrift side of the wall to act as a groin and impound sand. This effect appears to be primarily theoretical rather than actualized in the field, as a wall would probably fail if isolated in the surf zone. The third method is flanking, i.e., increased local erosion at the ends of walls. (underline added for emphasis)

In addition, the results of other researchers investigating the length of shoreline affected by heightened erosion adjacent to seawalls concluded that:

> ...erosion at the ends of seawalls increases as the structure length increases. It was observed in both the experimental results and the field data of Walton and Sensabaugh (1978) that the depth of excess erosion is approximately 10% of the seawall length. The

[8] "Effects of Seawalls on the Beach", published in the Journal of Coastal Research, Special Issue #4, 1988.

> laboratory data also revealed that the along-coast length of excess erosion at each end of the structure is approximately 70% of the structure length.[9]

A more comprehensive study was performed over several years by Gary Griggs which concluded that beach profiles at the end of a seawall are further landward than natural profiles.[10] This effect appears to extend for a distance of about 6/10 the length of the seawall and represents both a spatial and temporal loss of beach directly attributable to seawall construction.

The applicant's coastal engineer has stated that the proposed revetment will have no end scour impacts on adjacent properties. The report states that:

> The construction of a revetment, concave to the north...will reflect no wave forces onto adjacent properties. The geometry of the proposed revetment will not allow it. The reflection of wave action or forces work on the principal of "the angle of incidence equals the angle of reflection". Simply stated, this means that at whatever angle the wave approaches the structure, it will be reflected off that structure at the same angle. Because the proposed revetment is oriented parallel to the bluff by the time it reaches its westerly terminus, it cannot reflect wave action onto adjacent property any more than the existing bluff does at this time.

The Commission notes that end effect erosion may be further minimized by locating a proposed shoreline protection device as landward as possible to reduce the frequency with which the seawall is subject to wave action. In the case of the proposed project, and as noted previously, the proposed revetment will be located at the toe of the bluff, as far landward as feasible. Additionally, in response to the Commission Engineer's recommendations, the applicant has redesigned the proposed revetment such that it has a concave shape and directed in a south-southwest direction. As designed, wave energy will be reflected back south to the ocean and is much less likely to be directed to the toe of the bluff on the upcoast property. As such, the proposed revetment is designed to minimize erosional end effects.

(3) Retention of Potential Beach Material

A shoreline protective device's retention of potential beach material impacts shoreline processes simply by depriving beaches of nutrients that would normally be fed into the littoral cell and deposited on beaches through the actions of normal shoreline processes. A revetment functions to keep upland sediments from being carried to the beach by wave action and bluff retreat. One of the main sources of sediment for beaches are the bluffs themselves, as well as the material that has eroded from inland sources and is carried to the beach by coastal streams. The protective device may be

---

[9] "Laboratory and Field Investigations of the Impact of Shoreline Stabilization Structures on Adjacent Properties" by W.G. McDougal, MA Sturtevant, and P.D. Komar in Coastal Sediments '87.

[10] "The Interaction of Seawalls and Beaches: Seven Years of Field Monitoring, Monterey Bay, California" by G. Griggs, J. Tait, and W. Corona, in Shore and Beach, Vol. 62, No. 3, July 1994.

linked to increased loss of material in front of the wall. The net effect is documented in "Responding to Changes in Sea Level, Engineering Implications" which provides:

> A common result of sea wall and bulkhead placement along the open coastline is the loss of beach fronting the structure. This phenomenon, however, is not well understood. It appears that during a storm the volume of sand eroded at the base of a sea wall is nearly equivalent to the volume of upland erosion prevented by the sea wall. Thus the offshore profile has a certain "demand" for sand and this is "satisfied" by erosion of the upland on a natural beach or as close as possible to the natural area of erosion on an armored shoreline...[11]

As explained, the revetment will protect the applicant's property from continued loss of sediment through erosion and bluff retreat. However, the result of this protection, particularly on a narrow beach, is a loss of sediment on the sandy beach area that fronts the seawall. Furthermore, as explained previously, this loss of sediment from the active beach leads to a lower beach profile, seaward of the protective device, where the seawall will have greater exposure to wave attack.

In past permit actions, the Commission has required a lateral public access easement for new shoreline protection devices to mitigate adverse impacts to beach sand supply and public access. In the case of this project, to mitigate any possible adverse effects upon public access along the beach, the applicant proposes to dedicate a new public lateral access easement along the beach. Special Condition 2 has been included to implement the applicant's offer to dedicate a new lateral public access easement. Therefore, as conditioned, the project will minimize the adverse impacts resulting from construction of the revetment and is consistent with the applicable Coastal Act sections and with past Commission action.

e. Conclusion

Coastal Act Sections 30235, 30253 and 30250(a) set forth the Commission's mandate relative to permitting shoreline protective devices and beachfront development. In order for the Commission to permit the proposed project, which includes a 110 ft. long rock revetment at the base of a bluff, it must find the project consistent with the Chapter 3 policies of the Coastal Act.

Section 30235 of the Coastal Act, cited above, states that shoreline protective devices such as revetments and other construction that would alter natural shoreline processes shall be permitted when those structures are necessary to serve coastal –dependent uses or to protect existing structures or to protect public beaches in danger from erosion and when they are designed to eliminate or mitigate adverse impacts on local shoreline sand supply. The applicant's consultants have identified accelerated erosion taking place at the base of the bluff on the subject site. This erosion is attributed to the effect of wave energy being concentrated and intensified between the revetment on the

[11] "Responding to Changes in Sea Level: Engineering Implications," National Academy of Sciences, National Academy Press, Washington, D.C., 1987 (at page 74).

downcoast property and natural rock outcrops in the intertidal zone. The subject property experienced significant erosion of the toe of the bluff in the El Nino storms in 1998. The applicant's consultants have determined that continued wave erosion would result not only in further damage to the existing road, but would also lead to increased slope instability and loss of support for the existing residence. As such, the Commission finds that the proposed revetment is necessary to protect existing development from wave erosion.

Section 30253 of the Coastal Act, (also cited above) mandates that new development neither create nor contribute significantly to erosion, or contribute to destruction of the site or surrounding area or in any way require the construction of protective devices that would substantially alter natural landforms along bluffs or cliffs. In past permit actions, the Commission has required that new shoreline protection devices be located as landward as possible to reduce adverse impacts to sand supply and public access resulting from the development. In the case of this project, the applicant has demonstrated that the proposed revetment will be located at the base of the bluff, as landward as is feasible. It will tie into the return wall of the revetment on the downcoast property. The proposed revetment will end at the rock outcrop in the bluff on the upcoast property. As such, the proposed revetment will be located as far landward as possible. Additionally, in response to the Commission Engineer's recommendations, the applicant has redesigned the proposed revetment such that it has a concave shape and directed in a south-southwest direction. As designed, wave energy will be reflected back south to the ocean and is much less likely to be directed to the toe of the bluff on the upcoast property. Therefore, impacts from the revetment would be minimized.

Further, in past permit actions, the Commission has also required a lateral public access easement for new shoreline protection devices to mitigate adverse impacts to beach sand supply and public access. In the case of this project to mitigate any possible adverse impacts to public access along the beach, the applicant has proposed to dedicate a new public lateral access easement along the beach. Special Condition 2 has been included to implement to applicant's offer to dedicate a new lateral public access easement.

Section 30250(a) of the Coastal Act states, in part, that new development not adversely affect, either individually or cumulatively, coastal resources. As discussed above, the proposed project, as conditioned, will minimize adverse impacts resulting from the construction of the proposed revetment by ensuring that the structure is located as landward as possible and by including an offer to dedicate lateral public access in the project description. As described below, the Commission has required the applicant to revise the plans to limit the width of the paved driveway to a maximum of 15 feet in order to limit development on the bluff face. Further, a bluff revegetation plan has been required to minimize impacts to sensitive resources and visual resources as well as to add slope stability. These conditions will serve to minimize impacts to coastal resources. Therefore, the Commission finds that the proposed project, as conditioned, is consistent with Sections 30235, 30250, and 30253 of the Coastal Act.

D. Hazards and Geologic Stability

Coastal Act Section 30253 states that:

> New development shall:
>
> (1) Minimize risks to life and property in areas of high geologic, flood, and fire hazard.
> (2) Assure stability and structural integrity and neither create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding area or in any way require the construction of protective devices that would substantially alter natural landforms along bluffs and cliffs.

Section 30253 of the Coastal Act mandates that new development provide for geologic stability and integrity and minimize risks to life and property in areas of high geologic, flood, and fire hazard. In addition to section 30253 of the Coastal Act, the certified Malibu/Santa Monica Mountains LUP contains several policies and standards regarding hazards and geologic stability. For example, Policy 147 suggests that development be evaluated for impacts on and from geologic hazards. Policy 153 suggests that no development should be sited less than 10 ft. landward of the mean high tide line. These policies have been certified as consistent with the Coastal Act and used as guidance by the Commission in numerous past permit actions in evaluating a project's consistency with section 30253 of the Coastal Act.

Storm, Wave and Flood Hazard

The Malibu coast has been subject to substantial damage as a result of storm and flood occurrences, geological failures and firestorms. The proposed project site is subject to flooding and/or wave damage from storm waves and storm surge conditions. Past occurrences have resulted in public costs (through low-interest loans for home repairs and/or rebuilding after disasters) in the millions of dollars in the Malibu area alone.

Along the Malibu coast, significant damage has also occurred to coastal areas from high waves, storm surge and high tides. In the winter of 1977-78, storms triggered numerous mudslides and landslides and caused significant damage along the coast. The "El Nino" storms in 1982-83 caused additional damage to the Malibu coast, when high tides over 7 feet combined with surf between 6 and 15 feet. These storms caused over $12 million in damage. The El Nino storms of 1987-88, 1991-92, and 1997-1998 did not cause the far-reaching devastation of the 1982-83 storms; however, they too were very damaging in localized areas and could have been significantly worse except that the peak storm surge coincided with a low tide rather than a high tide.

The applicant proposes to construct a rock revetment across the width of the project site. The proposed revetment would be located at the toe of a coastal bluff. The revetment would be approximately 110 feet in length, 30 feet wide, and 14 feet high.

The revetment would tie-in to the return wall of an existing revetment on the downcoast end of the property. On the upcoast side of the property, the revetment would be joined to a bedrock area of bluff. The proposed revetment will be subject to wave attack, flooding, and erosion hazards that in the past have caused significant damage to development along the California coast, including the Malibu coastal zone and the beach area nearby the subject property. The Coastal Act recognizes that new development, such as the construction of the proposed revetment on a beach and coastal bluff, will involve the taking of some risk. Coastal Act policies require the Commission to establish the appropriate degree of risk acceptable for the proposed development and to determine who should assume the risk. When development in areas of identified hazards is proposed, the Commission considers the hazard associated with the project site and the potential cost to the public, as well as the individual's right to use his property. In addition, the previously referenced Wave Uprush Study performed by the applicant's consulting coastal engineer states affirms that there will always be certain risks associated with living on the beach.

Therefore, the Commission finds that due to the unforeseen possibility of wave attack, erosion, landsliding, and flooding, the applicant shall assume these risks as a condition of approval and agree to indemnify the Commission for any damages imposed on it due to approval of this permit. Because this risk of harm cannot be completely eliminated, Special Condition 1 requires the applicant to waive any claim of liability against the Commission for damage to life or property which may occur as a result of the permitted development. The applicant's assumption of risk, when executed and recorded on the property deed, will also show that the applicant is aware of and appreciated the nature of the hazards which exist on the site, and which may adversely affect the stability or safety of the proposed development.

In addition, Section 30253 of the Coastal Act requires that new development minimize risk to life and property in areas of high geologic, flood and fire hazard, and assure stability and structural integrity. Beachfront development raises issues relative to a site's geologic stability. As noted previously, the Malibu shoreline has experienced coastal damage regularly from geologic instability induced by winter rains and heavy surf conditions.

In addition to the wave uprush studies prepared for the proposed project site, as discussed above, the applicant has submitted the following geologic investigation reports for the site: Geologic Memoranda, dated 6/17/98, 2/19/98, 12/26/97, 2/7/94; Response to Geology and Geotechnical Engineering Review Sheet, dated 10/15/98; Engineering Geologic Report for Proposed Single Family Residence, dated 1/3/91, all prepared by Donald B. Kowalewsky. These reports address the need for the proposed revetment, road improvements, and retaining walls to stabilize the bluff and provide stability for the existing residence.

As discussed above, the applicant applied for the construction of a rock revetment in 1993 (5-93-092). The applicant's consultants identified the presence of erosion at the base of the bluff and the applicant applied for the revetment to protect an unpermitted

beach cabana and the existing roadway. At that time, the Commission found that the erosion at the toe of the bluff was minor and that alternatives, such as regrading or filling the toe to repair the existing road, existed to the construction of a shoreline protective device. Finally, after the El Nino storms in 1998, the base of the bluff experienced significant erosion, necessitating the construction of the proposed revetment and road buttressing. Staff site visits to the site after these storms confirmed that significant erosion of the bluff has taken place. The applicant's consultants determined that waves undercut the base of the bluff, decreasing overall slope stability. The construction of a rock revetment was recommended to minimize erosion at the toe of the bluff.

In addition to the construction of the revetment across the project site, the applicant's consultants made recommendations to increase the stability of the bluff. These include the buttressing of the slope at the base including the use of imported fill, paving the existing road to prevent water infiltration and to act as a drainage swale, to repair the existing catch basin and pipe that provides drainage for the bluff top areas of the site, and the construction of retaining walls beneath a steep portion the slope and beneath the existing residence. The applicant has proposed all of these improvements as well as the retention of stairs along a portion of the existing roadway. These concrete stairs were originally constructed, without permits, to provide pedestrian access down the steep road. At this time, the applicant states that the stairs serve as a curb to direct drainage along the road rather than over the steep slopes. These stairs are located directly adjacent to the edge of the existing roadway and would help to keep runoff draining along the road rather than over the edge of the steep slope.

It should be noted that coastal bluffs are typically unstable, erosional features. By their very nature, bluffs can be expected to erode over time. The Commission has consistently recognized this fact and required new development to minimize impacts to coastal resources by locating structures well back from the edge of the bluff. In this case, there is existing development both on the bluff face (road) and near or over the bluff edge (residence). It is the location of these existing structures which causes them to be endangered by bluff instability and necessitates the construction of shoreline protective device, grading and other improvements to improve slope stability.

As part of the project, the applicant has proposed to repair the existing driveway on the bluff face, to widen and realign it to an alignment that the applicant asserts originally existed, and to pave the road. As discussed above, there is evidence that this driveway existed in a graded and paved condition prior to Proposition 20. Since that time, the driveway has eroded, been buried by material eroded from slopes above, the lower portion was destroyed by wave action, and the driveway has been altered by the applicant without coastal development permits. At present, a driveway does remain on the site which is approximately 15-20 feet wide, comprised primarily of dirt with some pavement areas, with concrete stairs along one side of approximately ½ of the length. The existing road is shown by a dotted line on Exhibit 3. The realignment/widening of the road proposed by the applicant would result in an increase to the width of approximately 20-25 feet. The two curve areas would be increased up to a maximum of

30 feet (upper curve) and 40 feet (lower curve) wide. The proposed realigned driveway is shown by solid double lines on Exhibit 3.

Staff recognizes that there is evidence of continuing use of this driveway since before Proposition 20. However, there is some uncertainty with regard to the alignment of this road over time. No engineered plans of the original construction appear to exist. Comparison of various photographs and sketches of the road are inconclusive as to the actual width or alignment of the road. Certainly, the driveway width has changed over time due both to erosion as well as modifications made by the applicant. In any case, this driveway does not serve any existing, approved development. The applicant uses this driveway for private access to the beach below. Deletion of the widened driveway areas from the plans and limitation of driveway pavement to a maximum width of 15 feet would provide continuing access while limiting development on the bluff face. All areas on the bluff face outside of the driveway will be revegetated with appropriate bluff species in order to minimize further erosion, as required by Special Condition 7. The Commission finds it necessary to require the applicant to submit revised plans which show that the width of the driveway has been limited to a maximum of 15 feet. This is set forth in Special Condition 6. As so conditioned, the proposed project will limit development on the bluff face in order to minimize the amount of impervious surface, erosion, and runoff.

The Coastal Act does provide for the construction of shoreline protective devices and other improvements, such as those proposed, to protect existing development. The applicant has submitted evidence, in the form of investigations conducted by coastal engineers and an engineering geologist, that a shoreline protective device and other improvements are needed to prevent further erosion of the bluff, and to protect existing development from damage. The applicant's consultants contend that if a shoreline protective device is not constructed on the subject site, the bluff would continue to erode, further damaging the existing roadway, further destabilizing the bluff slopes, and causing support for the existing residence to be lost.

Additionally, observation by staff since at least 1990 indicates that much more extreme erosion has taken place at the toe of the bluff on the project site after the El Nino storms of 1998. As detailed above, the Commission has considered various applications for development on the proposed project site. The past condition of the bluff did not indicate significant erosion of the base of the bluff necessitating the construction of shoreline protective devices. However, the increased erosion after 1998 is readily apparent.

Further, as discussed above, after the proposed project was continued from the July 1999 hearing, the Commission Engineer Lesley Ewing visited the project site with the applicant and the applicant's geologic consultant to assess the threat to development on the site and the proposed stabilization. She concluded that continued erosion of the toe of the bluff will threaten the residence. She states that the residence will probably be threatened in the next 5 to 10 years. However, one large storm could change the situation significantly and mild weather for the next ten years could postpone the need

for protection. Eventually, the bluff will retreat landward such that a much larger revetment and or bluff retaining wall will be required to protect the existing development.

Based on the consultant's analysis and staff's observations of the wave erosion that has taken place at the base of the bluff, the Commission concludes that that it is necessary to protect the toe of the bluff from further erosion in order to prevent further damage to the existing structures on the site and to avoid the necessity to construct larger protective structures later.

As set forth in Section 30253 of the Coastal Act, new development shall assure structural integrity and neither create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding area. The applicant's geologist states that: "I concur that a rock revetment will be beneficial and if properly designed and constructed will not adversely affect adjacent properties". Additionally, the geologist has determined that the proposed buttress fill and retaining walls will increase the slope stability of the bluff. The retaining walls proposed for the area below the existing residence are proposed to be supported on caissons in order to provide adequate support for the residence, which is constructed on conventional foundations. The retaining wall proposed further down the slope would be constructed on conventional footings. The proposed paving of the road and the drainage repairs would minimize infiltration of water and erosion from runoff sheetflowing down the bluff face. The engineering geologist has made specific recommendations relating to the construction of the proposed improvements and has concluded the site will be stable if these recommendations are incorporated into the project.

The Commission finds that the development is consistent with Section 30253 of the Coastal Act so long as the geotechnical consultant's and the coastal and structural engineering consultant's recommendations are incorporated into project plans. Therefore, Special Condition 3 requires the applicant to submit final project plans and designs that have been certified in writing by the geologic, geotechnical and coastal engineering consultants as conforming to their recommendations.

In the July 1999 hearing, the Commission raised the question of whether the applicant was applying for the construction of a revetment and driveway improvements in order to stabilize and provide access to the bluff face/beach parcels for future development plans. Although there have been past permit applications (discussed in Section B above) for development on several of these bluff/beach parcels, the applicant has not indicated any plans to develop any of these parcels at this time.

It is clear that the conditions on the site have changed significantly since the time that development of residences and septic systems was proposed for these lower lots. For instance, in 1991, the applicant's geologic consultant concluded that development of a single family residence with septic system on the bluff face would be feasible and that it would be safe from landslide, settlement, or slippage. In 1993, the Commission concluded (in Permit Denial 5-93-092) that there was no evidence of significant erosion at the base of the bluff and that the construction of a revetment at that point was not

warranted to protect the driveway. At that time, the Commission found that the erosion at the toe of the bluff was minor and that alternatives, such as regrading or filling the toe to repair the existing road, existed to the construction of a shoreline protective device.

By contrast, after the El Nino storms in 1998, the base of the bluff experienced significant erosion, necessitating the construction of the proposed revetment and road buttressing. Staff site visits to the site after these storms confirmed that significant erosion of the bluff has taken place. The applicant's consultants determined that waves undercut the base of the bluff, decreasing overall slope stability. It was also at this time that the applicant's geologic consultant identified that the erosion at the toe of the bluff not only threatened the existing driveway, but actually could cause the loss of support for the house above. The applicant's geologist has therefore recommended not only the construction of the proposed revetment to protect the toe of the bluff, but also the construction of two parallel retaining walls supported on caissons located directly below the existing residence in order to provide a factor-of-safety of 1.5 for the slope supporting the home.

Notwithstanding that construction of the revetment and retaining walls would improve the geologic stability of the bluff slopes on the project site, overall stability would not be increased above a factor-of safety of 1.5. For instance, the Response to Geology and Geotechnical Engineering Review Sheet, dated 10/15/98, prepared by Donald Kowalewsky, states that:

> 3. Appendix B provides stability analyses along two cross-sections for both existing slopes and areas of proposed grading and retaining walls. Along cross-section A-A' the proposed rock revetment and stabilization fill will exceed a minimum safety factor of 1.5. An existing steep slope between the upper and lower access road (above the area of the proposed revetment and stability fill) has a safety factor of 1.0. In order to improved stability of that portion of the slope, massive grading would be required. It is our understanding that no work is proposed for that portion of the slope other than removing loose earth debris from the slope face.

Therefore, the Commission finds that although the proposed project will increase the geologic stability of the project site, there remain areas of the bluff face which are only marginally stable. Any further development of this area beyond what is approved in this permit would lead to increased instability. Particularly any grading of the bluff or introduction of water through permanent irrigation or septic effluent would contribute to slope failure, threatening the existing road and residence. As such, the Commission finds it necessary to require the applicant to record a deed restriction across the bluff face portion of the proposed project site that designates this area as a geologic hazard restricted use area and restricts the development allowed within this area to only those improvements approved herein. These improvements include only the proposed rock revetment, remedial driveway grading, drainage structures, road paving, retaining walls and bluff revegetation. Only as so conditioned would the proposed project assure structural stability, minimize risks to life and property from geologic hazard, and insure that development would not require the construction of additional protective devices that would further alter natural landforms along this bluff.

As discussed below, a bluff revegetation plan has been required to minimize impacts to sensitive resources and visual resources as well as to add slope stability. By removing exotic invasive vegetation and revegetating all disturbed areas with native, drought resistant species endemic to bluffs and monitoring its success, stability of the bluff will be enhanced.

The proposed development, with its excavation and construction staging on the sandy beach and the possible generation of debris and or presence of equipment and materials that could be subject to tidal action could pose hazards to beachgoers or swimmers if construction site materials were discharged into the marine environment or left inappropriately/unsafely exposed on the project site. In addition, such discharge to the marine environment could result in disturbance through increased turbidity caused by erosion and siltation of coastal waters. To ensure that effects to the marine environment are minimized and that the construction phase of the proposed project poses no hazards, Special Condition 4, Construction Responsibilities and Debris Removal requires the applicant to ensure that stockpiling of dirt or materials shall not occur on the beach, that no machinery will be allowed in the intertidal zone at any time, and that all debris resulting from the construction period is promptly removed from the beach and seawall area.

The Commission notes that the proposed project is designed to minimize risks to life and property and assure stability and structural integrity. Therefore, the Commission finds that as conditioned to assume the liability of development, provide evidence of the consultant's review and approval of the final plans, to require proper treatment of construction materials and appropriate disposal of debris, to reduce the width of the graded and paved area of the bluff, to revegetate the bluff, and to record a geologic hazard restricted use area deed restriction across the bluff face are of the site, the proposed development is consistent with Section 30253 of the Coastal Act.

E. Public Access.

The Coastal Act mandates the provision of maximum public access and recreational opportunities along the coast. The Coastal Act contains several policies which address the issues of public access and recreation along the coast.

Section **30210** of the Coastal Act states that:

> In carrying out the requirement of Section 4 of Article X of the California Constitution, maximum access, which shall be conspicuously posted, and recreational opportunities shall be provided for all the people consistent with public safety needs and the need to protect public rights, rights of private property owners, and natural resource areas from overuse.

Section **30211** of the Coastal Act states that:

> Development shall not interfere with the public's right of access to the sea where acquired through use or legislative authorization, including, but not limited to, the use of dry sand and rocky coastal beaches to the first line of terrestrial vegetation.

Section **30212(a)** of the Coastal Act provides that in new shoreline development projects, access to the shoreline and along the coast shall be provided except in specified circumstances, where:

(1) it is inconsistent with public safety, military security needs, or the protection of fragile coastal resources.

(2) adequate access exists nearby, or,

(3) agriculture would be adversely affected. Dedicated access shall not be required to be opened to public use until a public agency or private association agrees to accept responsibility for maintenance and liability of the accessway.

Section **30220** of the Coastal Act states:

> Coastal areas suited for water-oriented recreational activities that cannot readily be provided at inland water areas shall be protected for such use.

Coastal Act Sections 30210 and 30211 mandate that maximum public access and recreational opportunities be provided and that development not interfere with the public's right to access the coast. Likewise, section 30212 of the Coastal Act requires that adequate public access to the sea be provided to allow use of dry sand and rocky coastal beaches.

The major access issue in this permit application is the occupation of sandy beach area by a structure and potential effects on shoreline sand supply and public access in contradiction of Coastal Act policies 30211 and 30221. As proposed the revetment would be located at the base of a coastal bluff. The project site is located between two public beaches. There are at this time, no developed, open vertical public accessways in the vicinity of the proposed project site. All projects requiring a coastal development permit must be reviewed for compliance with the public access and recreation provisions of Chapter 3 of the Coastal Act. Based on the access, recreation and development sections of the Coastal Act, the Commission has required public access to and along the shoreline in new development projects and has required design changes in other projects to reduce interference with access to and along the shoreline.

As noted above, interference by a revetment has a number of effects on the dynamic shoreline system and the public's beach ownership interests. First, changes in the shoreline profile, particularly changes in the slope of the profile which results from reduced beach berm width, alter the usable area under public ownership. A beach that

rests either temporarily or permanently at a steeper angle than under natural conditions will have less horizontal distance between the mean low water and mean high water lines. This reduces the actual area in which the public can pass on their own property. The second effect on access is through a progressive loss of sand as shore material is not available to nourish the bar. The lack of an effective bar can allow such high wave energy on the shoreline that materials may be lost far offshore where it is no longer available to nourish the beach. The effect of this on the public is again a loss of area between the mean high water line and the actual water. Third, shoreline protective devices such as revetments and bulkheads cumulatively affect public access by causing accelerated and increased erosion on adjacent public beaches. This effect may not become clear until such devices are constructed individually along a shoreline and they eventually affect the profile of a public beach. Fourth, if not sited landward in a location that insures that the seawall is only acted upon during severe storm events, beach scour during the winter season will be accelerated because there is less beach area to dissipate the wave' energy. Finally, revetments and bulkheads interfere directly with public access by their occupation of beach area that will not only be unavailable during high tide and severe storm events but also potentially throughout the winter season.

Due to the aforementioned adverse impacts of shoreline protective structures on public access, the proposes shoreline protection device must be judged against the public access and recreation policies of the State Constitution, Sections 30210, 30220, and 30211 of the Coastal Act. Along the California coast, the line between land and ocean is complex and constantly moving.

The State owns tidelands, which are those lands below the Mean High Tide Line as it exists from time to time. By virtue of its admission into the Union, California became the owner of all tidelands and all lands lying beneath inland navigable waters. These lands are held in the State's sovereign capacity and are subject to the common law public trust. The public trust doctrine restricts uses of sovereign lands to public trust purposes, such as navigation, fisheries, commerce, public access, water oriented recreation, open space, and environmental protection. The public trust doctrine also severely limits the ability of the State to alienate these sovereign lands into private ownership and use free of the public trust. Consequently, the Commission must avoid decisions that improperly compromise public ownership and use of sovereign tidelands.

Where development is proposed that may impair public use and ownership of tidelands, the Commission must consider where the development will be located in relation to tidelands. The legal boundary between public tidelands and private uplands is relation to the ordinary high water mark. In California, where the shoreline has not been affected by fill or artificial accretion, the ordinary high water mark of tidelands is determined by locating the existing "mean high tide line." The mean high tide line is the intersection of the elevation of mean high tide with the shore profile. Where the shore is composed of sandy beach whose profile changes as a result of wave action, the location at which the elevation of mean high tide line intersects the shore is subject

to change. The result is that the mean high tide line (and therefore the boundary) is an "ambulatory" or moving line that moves seaward through the process known as accretion and landward through the process known as erosion.

Consequently, the position of the mean high tide line fluctuates seasonally as high wave energy (usually but not necessarily) in the winter months causes the mean high tide line to move landward through erosion, and as milder wave conditions (generally associated with the summer) cause the mean high tide line to move seaward through accretion. In addition to ordinary seasonal changes, the location of the mean high tide line is affected by long term changes such as sea level rise and diminution of sand supply.

The Commission must consider a project's direct and indirect impact on public tidelands. To protect public tidelands when beachfront development is proposed, the Commission must consider (1) whether the development or some portion of it will encroach on public tidelands (i.e., will the development be located below the mean high tide line as it may exist at some point throughout the year) and (2) if not located on tidelands, whether the development will indirectly affect tidelands by causing physical impacts to tidelands.

To avoid approving development that will encroach on public tidelands during any time of the year, the Commission, usually relying on information supplied by the State Lands Commission, will look to whether the project is located landward of the most landward known location of the mean high tide line. In this case, the State Lands Commission has reviewed the proposed revetment and presently does not assert a claim that the project intrudes onto sovereign lands (SLC letter dated February 22, 1999).

Even structures located above the mean high tide line, however, may have an impact on shoreline processes as wave energy reflected by those structures contributes to erosion and steepening of the shore profile, and ultimately to the extent and availability of tidelands. That is why the Commission also must consider whether a project will have indirect impacts on public ownership and public use of shorelands. The applicant is proposing to construct a new rock revetment at the base of the coastal bluff across the project site. As discussed above, there is substantial evidence that this project will result in some indirect impacts on tidelands because the proposed revetment is located in an area that will be subject to wave attack and wave energy, at least some times during the year. The applicant has offered a lateral public access easement, however, to mitigate any adverse effects on coastal access or recreation that the proposed revetment may have.

The Commission must also consider whether a project affects any public right to use shorelands that exit independently of the public's ownership of tidelands. In addition to a development proposal's impact on tidelands and on public rights protected by the common law public trust doctrine, the Commission must consider whether the project will affect a public right to use beachfront property, independent of who owns the underlying land on which the public use takes place. Generally, there are three

additional types of public uses identified as: (1) the public's recreational rights in navigable waters guaranteed to the public under the California Constitution and state common law, (2) any rights that the public might have acquired under the doctrine of implied dedication based on continuous public use over a five-year period; and (3) any additional rights that the public might have acquired through public purchase or offers to dedicate.

These use rights are implicated as the public walks the wet or dry sandy beach below the mean high tide plane. This area of use, in turn moves across the face of the beach as the beach changes in depth on a daily basis. The free movement of sand on the beach is an integral part of this process, and it is here that the effects of structures are of concern.

In this case, no evidence has been presented in connection with this application that the public may have acquired rights of use under the doctrine of implied dedication. Although the Commission notes that the proposed revetment is located as landward as possible in relation to the toe of the bluff, there is still evidence that the revetment will be subject to wave uprush which may result in some potential adverse individual and cumulative impacts on sand supply, beach profile, and ultimately, public access as a result of localized beach scour, retention of beach material and interruption of the alongshore and onshore sand transport process.

The beaches of Malibu are extensively used by visitors of both local and regional origin and most planning studies indicate that attendance of recreational sites will continue to increase significantly over the coming years. The public has a right to use the shoreline under the public trust doctrine, the California Constitution and California common law. The Commission must protect those public rights by assuring that any proposed shoreline development does not interfere with or will only minimally interfere with those rights. In the case of the proposed project, the potential for the permanent loss of sandy beach as a result of the change in the beach profile or steepening from potential scour effects, as well as the presence of a residential structure out over the sandy beach does exist.

In addition, in past permit actions, the Commission has also required a lateral public access easement for new shoreline protection devices to mitigate adverse impacts to beach sand supply and public access. In the case of this project, to conclude with absolute certainty what impacts the proposed development would cause on the shoreline processes and public access, a historical shoreline analysis based on site-specific studies would be necessary. Although this level of analysis has not been submitted by the applicant, the applicant has proposed to offer a dedication of a public lateral access easement along the beach to mitigate any possible adverse impacts the proposed bulkhead may have on public access. The applicants offer proposes the easement as measured from the toe of the proposed revetment to the MHTL. Because the applicant has proposed, as part of the project, an offer to dedicate a new lateral access easement along the beach across the proposed project site, it has not been necessary for Commission staff to engage in an extensive analysis of the potential

adverse effects to public access resulting from the proposed project. As such, Special Condition 2 has been included to implement the applicant's offer to dedicate a new lateral public access easement prior to the issuance of the coastal development permit.

The Commission further notes that chronic unauthorized postings of signs illegally attempting to limit, or erroneously noticing restrictions on, public access have occurred on beachfront private properties in the Malibu area. These signs have a chilling effect on the legitimate, protected access of the public to public trust lands. The Commission has determined, therefore, that to ensure that such postings are clearly understood by the applicant to be off limits until or unless a coastal development permit is obtained for such signage, it is necessary to impose Special Condition 5 to ensure that similar signs are not posted on the this property. The Commission finds that if implemented, Special Condition 5 will protect the public's right of access to the sandy beach below the MHTL.

For all of these reasons, therefore, the Commission finds that as conditioned, the proposed project is consistent with Sections 30210, 30211, 30212, and 30220, of the Coastal Act.

F. Environmentally Sensitive Habitat Areas/Visual Resources

Section **30230** of the Coastal Act states:

> Marine resources shall be maintained, enhanced, and where feasible, restored. Special protection shall be given to areas and species of special biological or economic significance. Uses of the marine environment shall be carried out in a manner that will sustain the biological productivity of coastal waters and that will maintain healthy populations of all species of marine organisms adequate for long-term commercial, recreational, scientific, and educational purposes.

Section **30231** of the Coastal Act states that:

> The biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain optimum populations of marine organisms and for the protection of human health shall be maintained and, where feasible, restored through, among other means, minimizing adverse effects of waste water discharges and entrainment, controlling runoff, preventing depletion of ground water supplies and substantial interference with surface water flow, encouraging waste water reclamation, maintaining natural vegetation buffer areas that protect riparian habitats, and minimizing alteration of natural streams.

Section **30240** of the Coastal Acts states:

> (a) Environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses dependent on those resources shall be allowed within those areas.

(b) Development in areas adjacent to environmentally sensitive habitat areas and parks and recreation areas shall be sited and designed to prevent impacts which would significantly degrade those areas, and shall be compatible with the continuance of those habitat and recreation areas.

Section **30251** of the Coastal Act states that:

The scenic and visual qualities of coastal areas shall be considered and protected as a resource of public importance. Permitted development shall be sited and designed to protect views to and along the ocean and scenic coastal areas, to minimize the alteration of natural land forms, to be visually compatible with the character of surrounding areas, and, where feasible, to restore and enhance visual quality in visually degraded areas. New development in highly scenic areas such as those designated in the California Coastline Preservation and Recreation Plan prepared by the Department of Parks and Recreation and by local government shall be subordinated to the character of its setting.

Sections 30230 and 30231 require that the biological productivity and quality of coastal waters and the marine environment be maintained and, where feasible, restored through among other means, minimizing adverse effects of waste water discharge and entrainment, controlling runoff, preventing depletion of ground water supplies and substantial interference with surface water flows, and maintaining natural buffer areas. Further, Section 30251 of the Coastal Act requires that visual qualities of coastal areas shall be considered and protected, landform alteration shall be minimized, and where feasible, degraded areas shall be enhanced and restored.

In addition, the Coastal Act defines Environmentally Sensitive Habitat Areas (ESHAs) as any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and development. In 1979, the California State Water Resources Control Board designated the intertidal and offshore areas from Mugu Lagoon to Latigo Point in Malibu, which includes the proposed project site, as an Area of Special Biological Significance (ASBS). This designation is given to areas requiring protection of species or biological communities to the extent that alteration of natural water quality is undesirable. Additionally, the Commission has, in past permit actions, consistently recognized the bluffs in western Malibu as containing natural vegetation and habitat areas that qualify as ESHA. Observation of the subject site by staff has indicated that the bluff slope ESHA has been severely degraded due to development and the presence of ornamental and invasive plant species used for landscaping. Section 30240 of the Coastal Act permits development in areas that have been designated as ESHAs only when the location of the proposed development is dependent upon those habitat resources and when such development is protected against significant reduction in value. However, as previously noted, the original development of a road down the bluff on the subject site predates Proposition 20 and the Coastal Act.

As discussed above, coastal bluffs are typically unstable, erosional features. By their very nature, bluffs can be expected to erode over time. Additionally, natural bluff areas

vegetated with native bluff species provide unique, valuable habitat areas. Further, natural bluff areas are valuable visual resources.

The Commission has consistently recognized both that bluffs may be unstable and that they are valuable habitat and visual resources. Given these facts, the Commission has required new development to minimize impacts to coastal resources by locating structures well back from the edge of the bluff. In this case, there is existing development both on the bluff face (road) and near or over the bluff edge (residence). As discussed above, the applicant has supplied evidence that the revetment located on the adjacent property has also caused a condition contributing to accelerated erosion of the base of the bluff.

The Coastal Act does provide for the construction of shoreline protective devices and other improvements, such as those proposed, to protect existing development. In this case, the applicant's consultants have determined that continued wave erosion would result not only in further damage to the existing road, but would also lead to increased slope instability and loss of support for the existing residence. As such, the Commission finds that the proposed revetment, and the other proposed improvements are necessary to protect existing development from wave erosion and slope instability.

Nonetheless, the Commission finds that it is important to restrict any new development on the bluff face to only that which is located in areas previously developed or that which is absolutely necessary to protect the existing structures. In this case, the proposed buttress fill at the toe of the bluff is necessary to rebuild the area eroded storm waves. Staff recognizes that there is evidence of continuing use of the driveway across the bluff since before Proposition 20. However, there is some uncertainty with regard to the alignment of this road over time. No engineered plans of the original construction appear to exist. Comparison of various photographs and sketches of the road are inconclusive as to the actual width or alignment of the road. Certainly, the driveway width has changed over time due both to erosion as well as modifications made by the applicant. In any case, this driveway does not serve any existing, approved development. The applicant uses this driveway for private access to the beach below. Deletion of the widened driveway areas from the plans and limitation of driveway pavement to a maximum width of 15 feet would provide continuing access while limiting development on the bluff face. All areas on the bluff face outside of the driveway will be revegetated with appropriate bluff species in order to minimize further erosion, as required by Special Condition 7. The Commission finds it necessary to require the applicant to submit revised plans which show that the width of the driveway has been limited to a maximum of 15 feet. This is set forth in Special Condition 6. As so conditioned, the proposed project will limit development on the bluff face in order to minimize the amount of impervious surface, erosion, and runoff.

Past development on the bluff face to construct the road (predating Proposition 20) resulted in extreme disturbance of the natural bluff habitat as well as contributed to an increase in erosion through the concentration of runoff and removal of natural vegetation. In addition, non-native, invasive vegetation such as myoporum has been

introduced to the disturbed bluff areas. The unpermitted construction of stairs, grading for the buttress fill, as well as the proposed development of retaining walls will result in addition disturbance. Further, the fill that the applicant brought to the site to construct the buttress fill was dumped down the steepest slope on the bluff face, further adding to the disturbed nature of this slopes. Given the existing level of development on this bluff face as well as the improvements necessary to protect the existing structures, it is unlikely that the remaining open bluff face areas could be restored to a condition where they would be considered fully functioning habitat. On the other hand, these areas could be revegetated with native bluff plant species for the purposes of stabilizing disturbed soils, visual enhancement, and use as habitat for a more limited range of plants, animals, and insects.

In order to ensure that the buttress fill area is revegetated and the disturbed natural slope area have non-native, invasive vegetation removed and are revegetated with native bluff species, the Commission finds it necessary to require the applicant to submit a bluff revegetation plan as detailed in Special Condition 7. This condition requires the applicant to prepare and implement a plan for revegetating all bluff areas with native drought resistant plants endemic to coastal bluffs. Furthermore, the applicant is required to monitor the success of the revegetation and supplement the plantings if it should prove necessary.

As discussed above, the Commission finds that the proposed development, though located on a sensitive bluff, is necessary to protect existing development. In order to minimize the area of the bluff that is disturbed, revised plans are required to limit the width of the road to 15 feet maximum. Further, a bluff revegetation plan is required to be developed and implemented to remove non-native invasive plants and to plant all disturbed areas with native bluff species. The Commission finds that only as so conditioned is the proposed project consistent with Sections 30230, 30231, 30240 and 30251 of the Coastal Act.

G. Violations

Various developments have been carried out on the subject site without the required coastal development permits. The applicant requests after-the-fact approval of the construction of a rock revetment across the three beachfront parcels to protect an existing road and residence. The applicant's consultants contend that the revetment is necessary to protect the toe of the bluff from wave erosion because further erosion could destabilize the bluff as well as the existing residence above. The applicant also requests after-the-fact approval of remedial grading (40 cu. yds. cut and 170 cu. yds. fill) to regrade the toe of the bluff and buttress the damaged roadway. The fill was imported to the site and dumped down the bluff face from the road above. The applicant further requests after-the-fact approval of the construction of stairs along the roadway. These stairs were constructed from concrete over four years ago. The applicant has proposed to retain the above mentioned development as part of this permit application.

As described above, construction of the proposed revetment and the buttress fill were already begun by the applicant before a stop-work notice was issued by the City of Malibu. At this time, this work has not been completed pending the issuance of permits. In order to ensure that the unpermitted aspects of the portion of the project are resolved in a timely manner, Special Condition 9 requires that the applicant satisfy all conditions of this permit which are prerequisite to the issuance of this permit within 90 days of Commission action. All of the elements approved in this project are related to improving slope stability on the proposed project site. It is important that these elements be completed within the same time frame to assure that slope stability is improved. Therefore, Special Condition 10 requires the applicant to implement the approved plans within 60 days of the issuance of the coastal development permit.

Consideration of this application by the Commission has been based solely upon the Chapter 3 policies of the Coastal Act. Review of this permit does not constitute a waiver of any legal action with regard to the alleged violation nor does it constitute an admission as to the legality of any development undertaken on the subject site without a coastal permit. Finally, the Commission notes that the subject permit action does not address all unpermitted development on the site. There is development such as additions to the residence and a lot line adjustment which are the subject of a pending application (4-95-105) as described above.

H. Local Coastal Program

Section **30604** of the Coastal Act states that:

> a) Prior to certification of the local coastal program, a coastal development permit shall be issued if the issuing agency, or the commission on appeal, finds that the proposed development is in conformity with the provisions of Chapter 3 (commencing with Section 30200) of this division and that the permitted development will not prejudice the ability of the local government to prepare a local program that is in conformity with the provisions of Chapter 3 (commencing with Section 30200).

Section 30604(a) of the Coastal Act provides that the Commission shall issue a Coastal Permit only if the project will not prejudice the ability of the local government having jurisdiction to prepare a Local Coastal Program which conforms with the Chapter 3 policies of the Coastal Act. The preceding sections provide findings that the proposed project will be in conformity with the provisions of Chapter 3 if certain conditions are incorporated into the project and accepted by the applicant. As conditioned, the proposed development will not create adverse impacts and is found to be consistent with the applicable policies contained in Chapter 3. Therefore, the Commission finds that approval of the proposed development, as conditioned, will not prejudice the City's ability to prepare a Local Coastal Program for Malibu which is also consistent with the policies of Chapter 3 of the Coastal Act as required by Section 30604(a).

I. CEQA

Section 13096(a) of the Commission's administrative regulations requires Commission approval of a Coastal Development Permit application to be supported by a finding showing the application, as conditioned by any conditions of approval, to be consistent with any applicable requirements of the California Environmental Quality Act (CEQA). Section 21080.5(d)(2)(A) of CEQA prohibits a proposed development from being approved if there are feasible alternatives or feasible mitigation measures available which would substantially lessen any significant adverse effect which the activity may have on the environment.

The Commission finds that, the proposed project, as conditioned will not have significant adverse effects on the environment, within the meaning of the California Environmental Quality Act of 1970. Therefore, the proposed project, as conditioned, has been adequately mitigated and is determined to be consistent with CEQA and the policies of the Coastal Act.

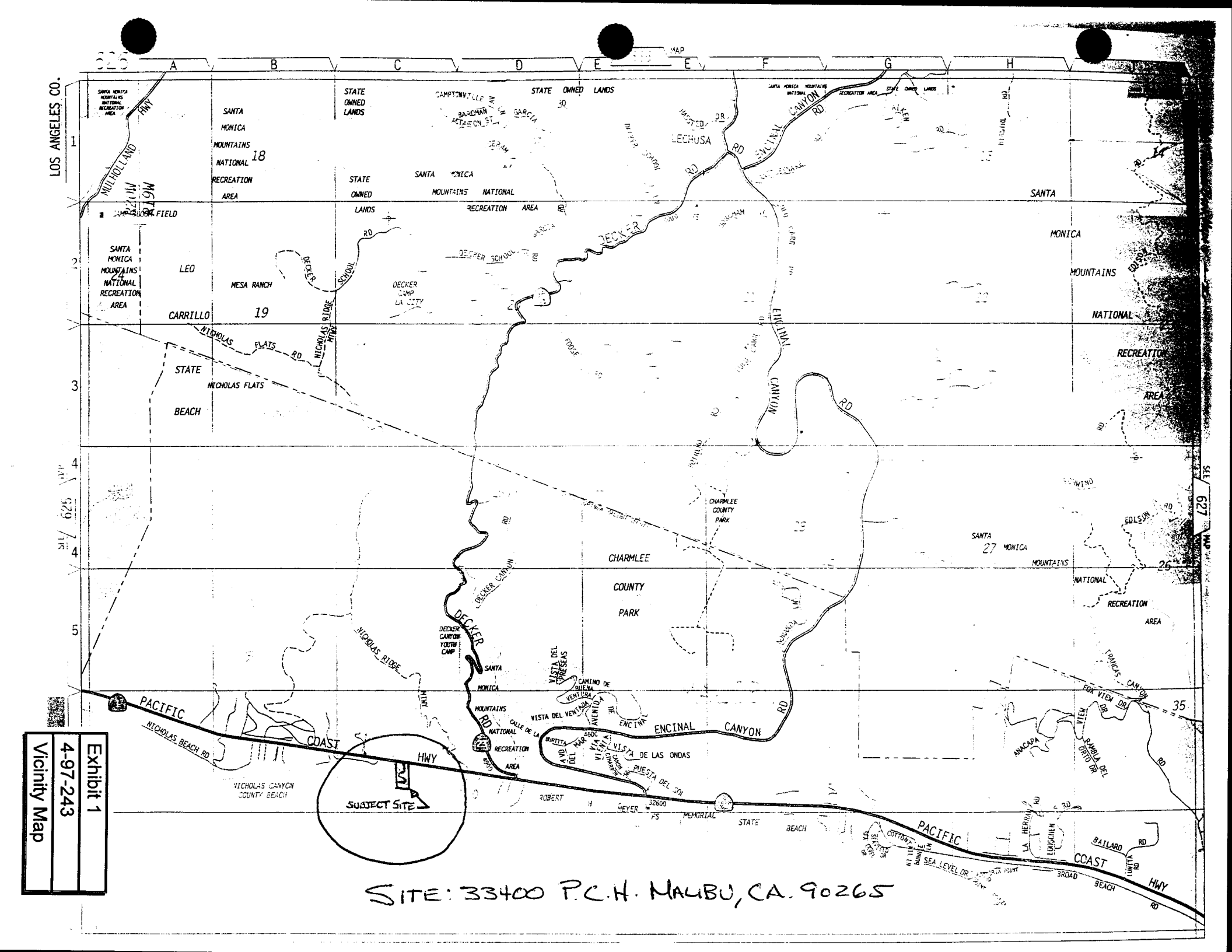


Exhibit 1
4-97-243
Vicinity Map

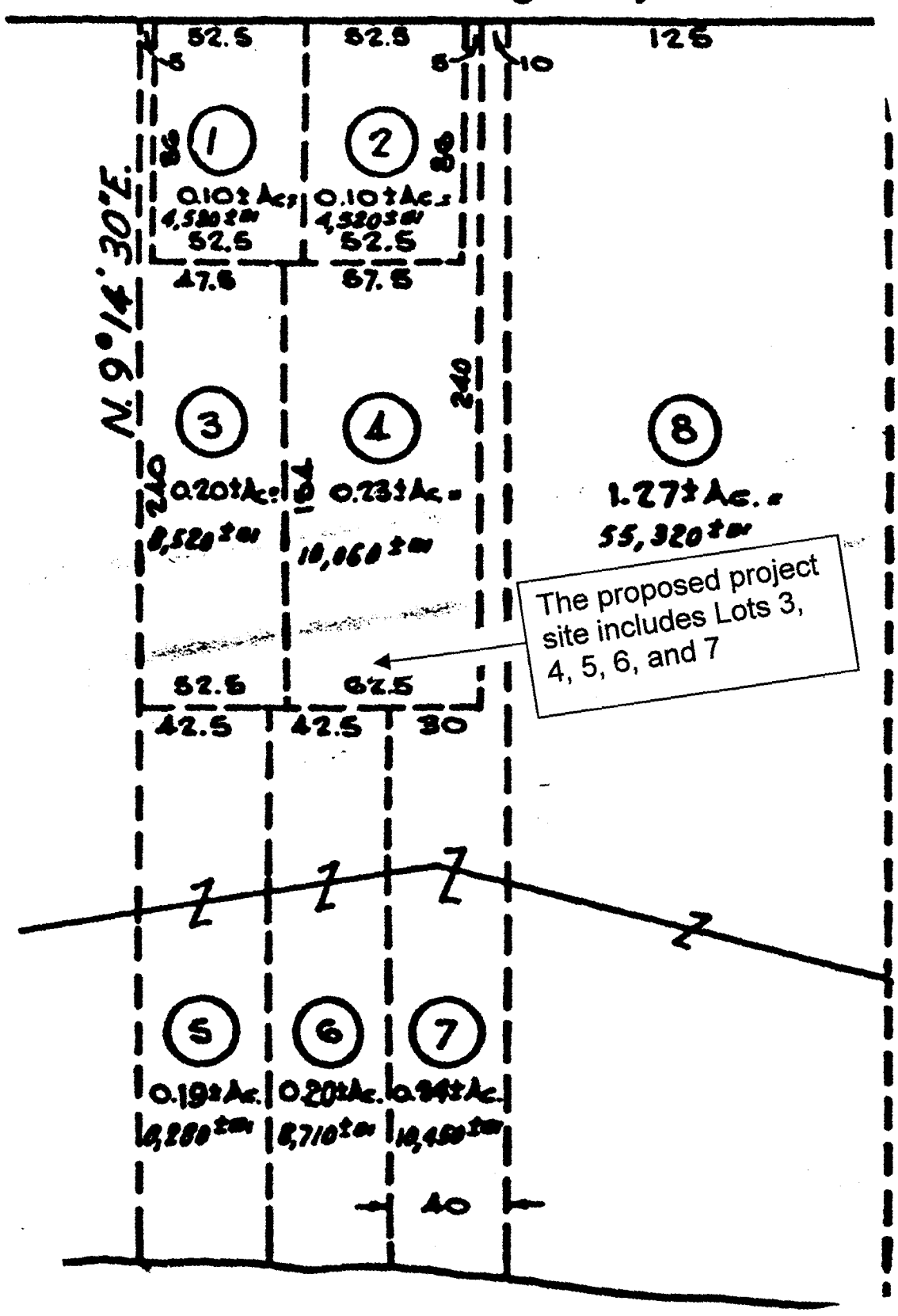


Exhibit 2
4-97-243
Parcel Map

BASIS OF BEARINGS:

THE BEARING OF S 80°45'30" E ON THE CENTER LINE OF PACIFIC COAST HIGHWAY AS DESCRIBED IN A DEED RECORDED IN BOOK 15228, PAGE 342 OF OFFICIAL RECORDS OF LOS ANGELES WAS USED AS THE BASIS OF BEARINGS FOR THIS MAP.

BENCHMARK:

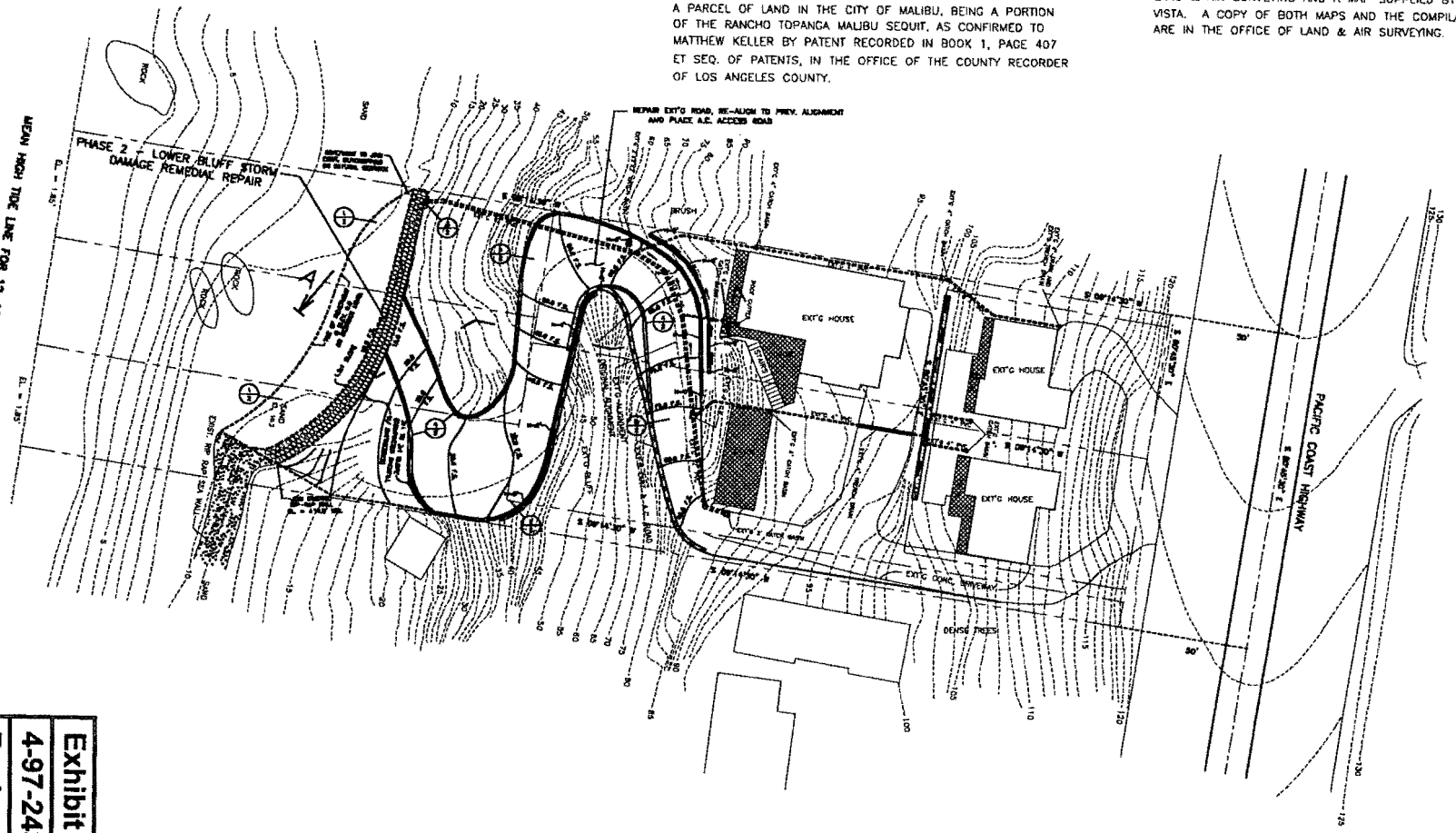
L.A.C.E. B.M. #DY-9087
EL=113.402 (1990 ADJ.)

LEGAL DESCRIPTION

A PARCEL OF LAND IN THE CITY OF MALIBU, BEING A PORTION OF THE RANCHO TOPANGA MALIBU SEQUIT, AS CONFIRMED TO MATTHEW KELLER BY PATENT RECORDED IN BOOK 1, PAGE 407 ET SEQ. OF PATENTS, IN THE OFFICE OF THE COUNTY RECORDER OF LOS ANGELES COUNTY.

SURVEYORS NOTES:

1. MEAN HIGH TIDE ELEVATION USED FOR THIS MAP IS 1.85'.
2. THIS MAP IS A COMPILATION OF A MAP PREPARED BY LAND & AIR SURVEYING AND A MAP SUPPLIED BY MALIBU VISTA. A COPY OF BOTH MAPS AND THE COMPILATION ARE IN THE OFFICE OF LAND & AIR SURVEYING.



EY REMEDIAL BLUFF RESTORATION PLAN AND IS INTENDED TO RE-ALIGN THE BEACH SINAL ALIGNMENT, AND REPLACE THE DAMAGED ASPHALT CONCRETE PAVEMENT. MAGE STRUCTURES SHALL BE VERIFIED DURING CONSTRUCTION AND

LL BE MOVED AND ADJUSTED AS NECESSARY TO ACHIEVE ADEQUATE DRAINAGE ID REPLACED AS NECESSARY.
ED IMPROVEMENTS ARE APPROXIMATE ONLY, AND SHOULD BE VERIFIED DURING CONSTRUCTION.
HALL BE FILED WITH THE CITY OF MALIBU, AT THE COMPLETION OF THE REMEDIAL REPAIR.
SHALL BE RESPONSIBLE FOR VERIFYING THE SITE CONDITIONS AND EXISTING FACILITIES.
REVIEWED BY RJR ENGINEERING PRIOR TO CONSTRUCTION.
SHALL REVIEW AND APPROVE ALL IMPROVEMENTS DURING AND AT THE COMPLETION OF THE . REPORT SHALL BE FILED WITH THE CITY GEOLOGIST.
EXT'G & PROPOSED SLOPES SHOULD BE ADDRESSED BY THE PROJECT GEOLOGIST.

GRAPHIC SCALE

0 1" 2" 3" 4"
0 10 20 40 60 80

1" = 20'

PHASE 1: EMERGENCY BLUFF RESTORATION & PAVEMENT PLAN

REVISIONS	BY

GRADING AND DRAINAGE PLAN

ADDRESS: 33400 PACIFIC COAST HIGHWAY MALIBU, CALIFORNIA 90265
OWNER: MR. MATT HIGGINS

VPL ENGINEERING, INC.
7625 HAYVENHURST AVE. #16, VAN NUYS, CA 91406
(818) 786-5972

DRAWN: T.T.
CHECKED: V.G.
DATE: 11/10/99
SCALE:
JOB NO.
SHEET 1 OF 2 SHEETS

Exhibit 3
4-97-243
Revised Grading Plan

VPL ENGINEERING, INC.
7625 HAVVENHURST AVE. #16, VAN NUYS, CA 91406
(818) 786 - 5072

GRADING AND DRAINAGE PLAN
ADDRESS: 33400 PACIFIC COAST HIGHWAY
MALIBU, CALIFORNIA 90265
OWNER: MR. MATT HIGGINS

SECTION

EARTHWORK QUANTITIES
CUT 40 C.Y.
FILL 310 C.Y.
IMPORT 170 C.Y.
QUANTITIES SHOWN ARE FOR PLAN CHECK PURPOSES AND ARE NOT TO BE USED FOR BID PURPOSES.

UNAUTHORIZED CHANGES & USES

THE CONTRACTOR SHALL NOTIFY UNDERGROUND SERVICE ALERT AT (800) 422-4133, FOURTY EIGHT (48) HOURS PRIOR TO ANY ON-SITE WORK.

GENERAL NOTES

Exhibit 4
4-97-243
Revised Cross Section

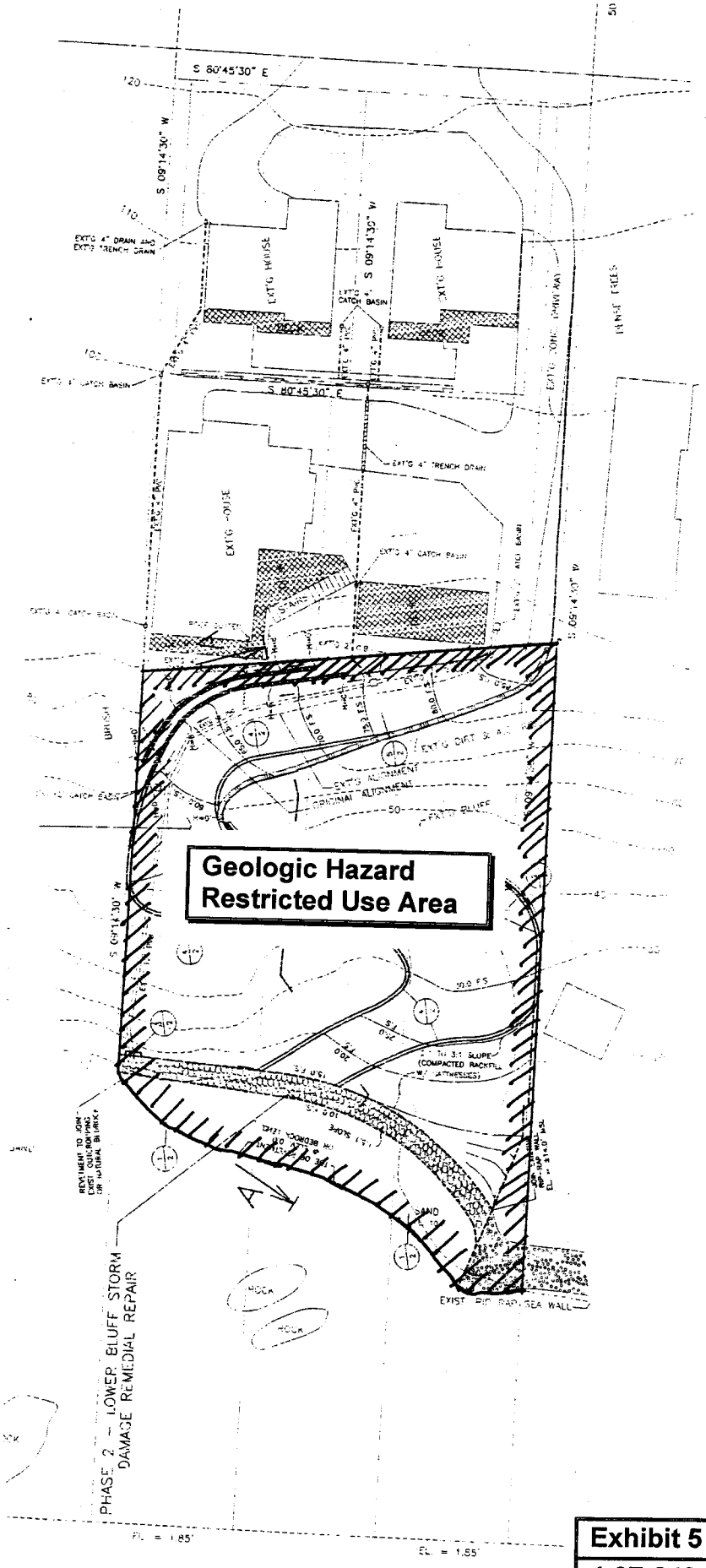


Exhibit 5
4-97-243
Geologic Hazard Restricted Use Area

APPLICATION FOR GRADING PERMIT 1

COUNTY OF LOS ANGELES
Department of County Engineer
Building and Safety Division
JOHN A. LAMBIE, COUNTY ENGINEER
CASSATT D. GRIFFIN, SUPT OF BUILDING

SITE ADDRESS 33400 PACIFIC CST HWY.
LOCALITY MALIBU
NEAREST CROSS ST. DECKER CYN - RD.

DISTRICT NO	MAP NO	STATE HWY.	NO
9-2	4524	YES	

USE ZONE	SPECIAL CONDITIONS
M3	

SET BACK	YARD	HWY.	STREET NAME	EXIST. WIDTH
FRONT P.L.		50'	Pacific Cst Hy	100'
SIDE P.L.				

SURETY $ BOND | BOND NO.
SURETY COMPANY
DATE FILED | REC'D. BY
CASH DEPOSIT $ 155.00 REC'D. BY [signature] DATE FILED 9/1/61

10-18-61
GRD PREP OK [signature]
10-25-61
Rowy OK TO PAVE [signature]

FOR APPLICANT TO FILL IN

SITE ADDRESS 33400 PACIFIC CST. HWY.
LOT NUMBERS POR LOT 19 PF534 BLOCK
TRACT NUMBER
OWNER JEAN HOWE
MAIL ADDRESS 10360 CLYBOURNE AV
CITY SUNLAND TEL. NO. [illegible]-1550
ENGINEER | STATE REG. NO.
ADDRESS
SUPV'G. GRAD'G. ENGINEER | STATE REG. NO.
ADDRESS
GRADING CONTRACTOR OWNER | TEL. NO.
ADDRESS

DESCRIPTION OF WORK

GRADE & PAVE ROAD TO BEACH FOR ACCESS TO FUTURE RESIDENCE & GST HOUSE

CHECK IF SUPERVISED GRADING ☐
SIGNATURE OF APPLICANT [signature]
ADDRESS
NO. OF CUBIC YDS. HANDLED:

P.C. FEE $ 6.60
FEE $ 33.00

I HEREBY ACKNOWLEDGE THAT I HAVE READ THIS APPLICATION AND STATE THAT THE ABOVE IS CORRECT AND AGREE TO COMPLY WITH ALL COUNTY ORDINANCES AND STATE LAWS REGULATING EXCAVATING AND GRADING.

SIGNATURE OF PERMITTEE
ADDRESS

WORK TO BE COMPLETED WITHIN ____ DAYS

	DATE	INSPECTORS SIGNATURE
FINAL CONTOUR MAP FILED		
FINAL CERTIF. OF ENG'R REC'D.	11/15/61	[signature]
WORK COMPLETED		DISTRICT ENGINEER
SURETY BOND RELEASED	12/27/61	Bond

CLYDE N. DIRLAM, PRINCIPAL STRUCTURAL ENGINEER

P.C. CHECK VALIDATION CK M.O. CASH | PERMIT VALIDATION CK M.O. CASH

155.00 ... 33.00

Exhibit 6
4-97-243
Grading Permit-Road

CALIFORNIA COASTAL COMMISSION
SOUTH COAST REGIONAL COMMISSION
666 E. OCEAN BOULEVARD, SUITE 3107
P.O. BOX 1450
LONG BEACH, CALIFORNIA 90801
(213) 590-5071 (714) 846-0648

December 1, 1980

Torrance
City Council Chambers
3031 Torrance Boulevard
Torrance, California

ADMINISTRATIVE AGENDA

To be reported at the December 1, 1980 hearing.

(1) A-80-7340 VT — Addition of a carport, bedroom and second story deck to an existing SFD. Property does not have ocean frontage. ($12,000), at 33408 Pacific Coast Hwy., in Malibu, by Neland Sprik and Matthew Higgins.

(2) A-80-7341 VT — Addition of a carport, bedroom and second story deck to an existing SFD. Property does not have ocean frontage. ($12,000), at 33410 Pacific Coast Hwy., in Malibu, by Neland Sprik and Kelly Higgins.

(3) A-80-7342 VT — Addition of a carport, master bedroom, recreation room, and decks to an existing SFD. Property does not have ocean frontage. ($18,000), at 33412 Pacific Coast Hwy., in Malibu, by Neland Sprik and Matthew Higgins.

(4) A-80-7361 VT — Minor additions to an existing beach fronting residence, including the construction of seaward extending trellised patio sun screens, and trellised fences screening existing decks. Project also includes the construction of a guest parking space on the landward side of Malibu Cove Colony Road. Approval of permit will rectify alleged violation. ($3,200), adjacent to MHT, at 27124 Malibu Cove Colony Road, in Malibu, by Mr. & Mrs. S.P. Garvey.

Approved 3-9-81

Condition:
Prior to issuance of permit, the Executive Director shall certify in writing that the following condition has been satisfied. The applicant shall execute and record a document, in a form and content approved in writing by the Executive Director of the Commission irrevocably offering to dedicate to a public agency or a private association approved by the Executive Director, and easement for public access and passive recreational use along the shoreline.
Such easement shall be a 25 foot wide strip of beach as measured inland from the water line (document shall state that the daily high water line is understood by both parties to be ambulatory from day to day, as will the 25 ft. wide strip of dry, sandy beach). In no case shall said access be closer than 10 ft. from the approved development.
Such easement shall be recorded free of prior liens except for tax liens and free of prior encumbrances which the Executive Director determines may affect the interest being conveyed.
The offer shall run with the land in favor of the People of the State of California binding successors and assigns

(continued)

Exhibit 7
4-97-243
Hearing Transcript (3 pages)

South Coast Region, California Coastal Commission
December 1, 1980
Administrative, Single-Family & Amendment Calendars

* * * * *

[Roll Call]

CHAIR GALLANTER: We have slightly modified the order of the agenda, but not much, and the Administrative Calendar and the Single Family remain the first items of business.

So, we will go through that in our usual procedure, which is that the Commission will go through page by page on the Administrative and Single Family agendas. We will then ask whatever questions we have. We will then go to the public and call them off one number at a time. If you agree with whatever it says on the agenda, you don't have to say anything at all. If you have some problem with the conditions, or lack of conditions, or if you have an objection to the item, you should then come to the podium and address us very, very briefly. We will not hold a public hearing on any of those issues today.

If there is sufficient question that we need to spend more time, and more detailed analysis on a particular permit, we will set it for a public hearing at a later time. It takes four Commissioners -- they keep changing the procedures on me -- it takes four Commissioners to move an

PRISCILLA PIKE
Court Reporting Services
39672 WHISPERING WAY
OAKHURST, CA 93644
mtnpris@sierratel.com
TELEPHONE
(559) 683-8230

item to public hearing.

So, with that, Commissioners, we will start with the Administrative agenda.

Are there any questions on page one?

[Pause in Proceedings]

All right, for those who may need to know this -- digressing for a moment -- Commissioner Reeda called. He is ill and will not be here today.

Questions on -- yeah, I had a question on page 1, since nobody else seems to. On the first three items, which seem to be adjacent, are those existing structures? things that we had permits for? that we granted permits for? or are they pre-Prop. 20? And, if they were, the question is were there any conditions attached to the original permits.

COASTAL STAFF ANALYST: These are ones that were on violation for a long time, but the court did not order them removed. And, so although they were put on after the *Coastal Act* was in effect, no permit was ever received for them.

CHAIR GALLANTER: And, so no conditions were ever --

UNIDENTIFIED SPEAKER: They are all paid.

CHAIR GALLANTER: All right.

COASTAL STAFF ANALYST: It has been a couple of years.

39672 WHISPERING WAY
OAKHURST, CA 93644

PRISCILLA PIKE
Court Reporting Services
mtnpris@sierratel.com

TELEPHONE
(559) 683-8230

STATE OF CALIFORNIA — EDMUND G. BROWN JR., Governor

CALIFORNIA COASTAL COMMISSION
SOUTH COAST REGIONAL COMMISSION
666 E. OCEAN BOULEVARD, SUITE 3107
P.O. BOX 1450
LONG BEACH, CALIFORNIA 90801
(213) 590-5071 (714) 846-0648

COASTAL DEVELOPMENT ADMINISTRATIVE PERMIT

FILE COPY

Application Number: A-80-7342

Name of Applicant: Neland Sprik, 8655 E. Florence Avenue, Downey CA 90240

Matthew Higgins P.O. Box 4115, Malibu, CA 90265

Development Location: 33412 Pacific Caost Hwy.

Malibu, CA

Development Description: Addition of a carport, master bedroom, recreation room, and decks to an existing SFD. Property does not have ocean frontage.

I. The Executive Director of the South Coast Regional Commission hereby grants, subject to condition(s), a permit for the proposed development, on the grounds that the development as conditioned will be in conformity with the provisions of Chapter 3 of the California Coastal Act of 1976, will not prejudice the ability of the local government having jurisdiction over the area to prepare a Local Coastal Plan conforming to the provisions of Chapter 3 of the Coastal Act, and will not have any significant adverse impacts on the environment within the meaning of the California Environmental Quality Act.

II. Conditions: none

Exhibit 8
4-97-243
Permit A-80-7342
(3 pages)

Conditions met on N/A By VR vr

II. This permit may not be assigned to another person(s) except as provided in Section 13170 of the Coastal Commission Rules and Regulations.

IV. This permit shall not become effective until:

A. Completion of the Regional Commission review of the permit pursuant to the notice of public hearing.

B. A copy of this permit has been returned to the Regional Commission, upon which copy all permitees or agent(s) authorized in the permit application have acknowledged that they have received a copy of the permit and have accepted its contents.

V. Any development performed on this permit prior to the review by the Regional Commission is at the applicant's risk and is subject to stoppage upon completion of the review pending the Regional Commission's approval and/or completion of any appeal of the Regional Commission's decision.

Work authorized by this permit must commence within two years from the date of approval. Any extension of time of said commencement date must be applied for prior to expiration of the permit.

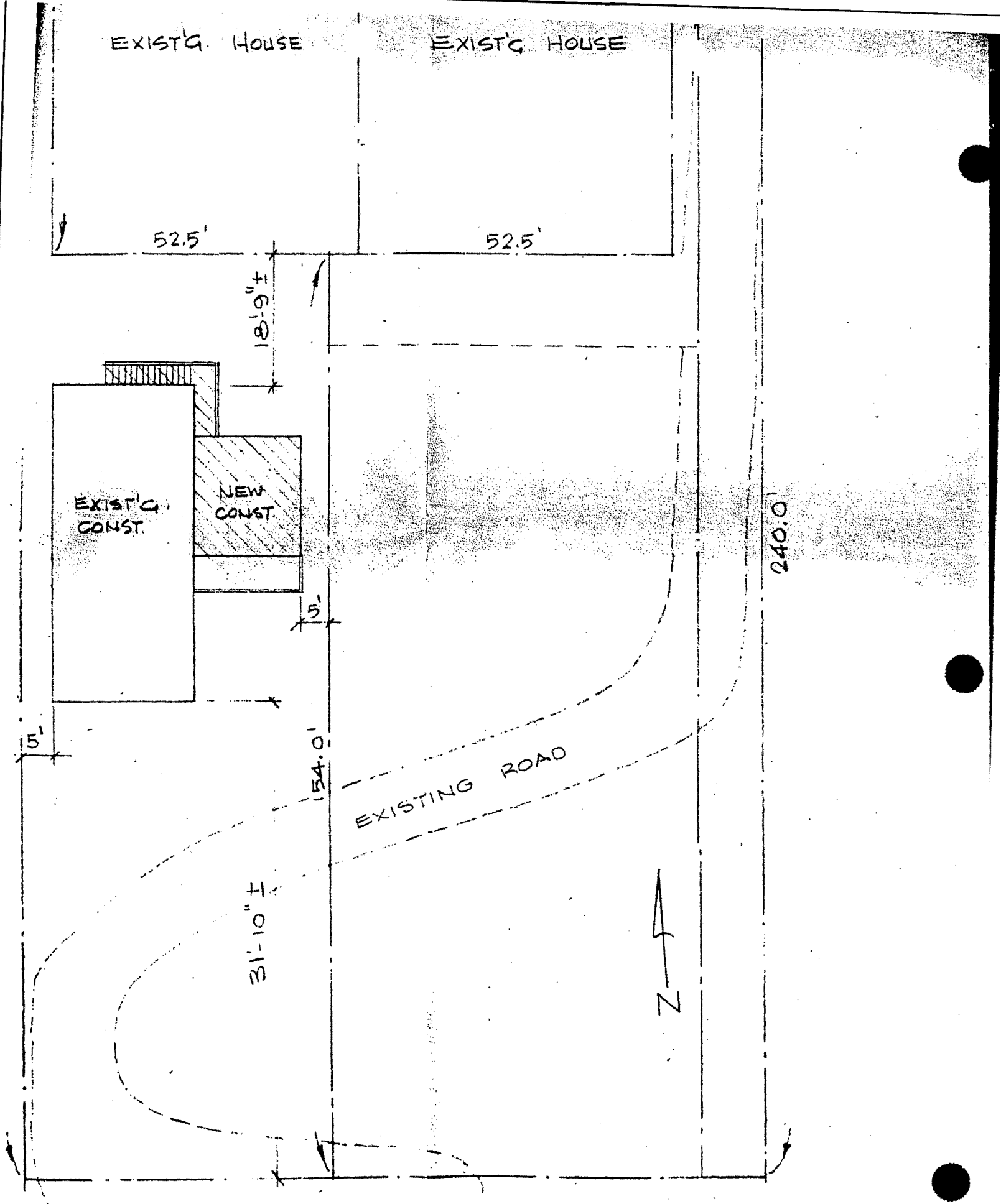
Approved on December 4, 1980.

M. J. Carpenter
Executive Director

I, _____, permittee/agent, hereby acknowledge receipt of Permit Number A-80-7342 and have accepted its contents.

(Date) (Signature)

Scheduled Hearing Date December 1, 1980



PLOT PLAN

1"=20'