

**CALIFORNIA COASTAL COMMISSION**

South Coast Area Office  
200 Oceangate, Suite 1000  
Long Beach, CA 90802-4302  
(562) 590-5071

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Commission Action:

**STAFF REPORT: PERMIT AMENDMENT****AMENDMENT**

**APPLICATION NUMBER:** 5-99-332-A1  
An amendment to Coastal Development Permit P-80-7431

**APPLICANT:** Ms. Shirley Frahm

**AGENT:** Mr. George Piggott, Attorney at Law

**PROJECT LOCATION:** 33 Bay Drive, Laguna Beach (Three Arch Bay), Orange County

**DESCRIPTION OF PROJECT PREVIOUSLY APPROVED:** Construction of a 4,671 square foot, 4-level single family dwelling with 3-bedrooms, 3 decks and an attached 2-car garage, cantilevered out over a steep coastal bluff on a 5,192 square foot R-1 ocean front lot in the locked gate community of Three Arch Bay.

**DESCRIPTION OF AMENDMENT:** Foundation design change, landslide remediation, and foundation stabilization including 3,840 cubic yards of grading. Change the cantilevered footing on the seaward side of the residence to two piers; permanently authorize the emergency installation of tie back anchors on the two foundation piers; install soil nails and a shotcrete wall on the exposed bluff face underneath the existing residence; permanently authorize the emergency installation of 5 caissons approximately 25 feet seaward of and parallel to the seaward face of the existing residence; install 11 caissons along the northwest property line (adjacent to 35 Bay Drive); install a buttress fill and toe erosion protection wall; and install non-erosive drainage devices.

**SUMMARY OF STAFF RECOMMENDATION:**

The subject application is to authorize the after-the-fact change of the approved foundation system from a cantilevered spread footing to caissons; to permanently authorize the emergency installation of foundation stabilization measures, and to authorize the installation of additional foundation and landslide stabilization measures. The major issues of the staff report relate to the installation of protective works on a coastal bluff and proposed encroachments into an offered access easement. Staff recommends that the Commission **APPROVE** the proposed amendment subject to several conditions. The adopted special conditions concern: 1) an assumption-of-risk deed restriction, including requirements that no seawalls shall be built on the site and that the applicant shall be solely responsible for removal of debris resulting from hazards on the property, 2) conformance with geotechnical recommendations of the applicant's geotechnical consultants, including that deviations to the plans require a permit amendment, 3) identification of construction responsibilities, 4)

requirement to submit revised landscape plans showing the use of drought-tolerant native vegetation to reduce the amount of water added to groundwater levels on-site to minimize slope instability, 5) requirement to identify debris disposal site, 6) notification regarding public rights that may exist on the property, 7) notification that all prior conditions of P-80-7431 not modified by this amendment remain in effect.

**LOCAL APPROVALS RECEIVED:** City of Laguna Beach approval-in-concept dated August 10, 1999.

**SUBSTANTIVE FILE DOCUMENTS:** Coastal development permit files P-80-7431 (Kinard); 5-97-371 (Conrad); 5-93-254-G (Arnold); 5-88-177(Arnold); 5-99-231 (Smith); *Geotechnical Evaluation of Landsliding and Foundation Distress, 33 Bay Drive – Three Arch Bay, Laguna Beach, California*, prepared by Ninyo & Moore of Irvine, California, dated June 3, 1999 (Project No. 201351-01); *Emergency Repair of Landsliding and Foundation Distress, 33 Bay Drive – Three Arch Bay, Laguna Beach, California*, prepared by Ninyo & Moore of Irvine, California, dated August 9, 1999 (Project No. 201351-01); *Alternative Repair Considerations, 33 Bay Drive – Three Arch Bay, Laguna Beach, California*, prepared by Ninyo & Moore of Irvine, California, dated October 1, 1999 (Project No. 201351-01); *Recommendations for Soil Nailing, 33 Bay Drive – Three Arch Bay, Laguna Beach, California*, prepared by Ninyo & Moore of Irvine, California, dated November 8, 1999 (Project No. 201351-01); *Response to California Coastal Commission, 33 Bay Drive – Three Arch Bay, Laguna Beach, California*, prepared by Ninyo & Moore of Irvine, California, dated December 1, 1999; *Structural Calculations, Frahm Residence, Project No. 98024*, prepared by Joseph-Werdowatz & Associates of San Diego, California, dated June 3, 1999; Letter regarding location of mean high tide line with respect to the toe of the bluff prepared by PBS & J of Irvine, California, dated October 1, 1999; *Coastal Engineering Assessment, Proposed Grading Improvements, 33 Bay Drive, Laguna Beach, California, for Shirley Frahm*, prepared by Noble Consultants, Inc. of Irvine, California, dated September 1, 1999; *Response to Question by California Coastal Commission Staff, Proposed Grading Improvements, 33 Bay Drive, Laguna Beach, California, for Shirley Frahm*, prepared by Noble Consultants, Inc. of Irvine, California, dated October 1, 1999; *Coastal Engineering Assessment, Coastal Development Permit Application 5-97-371, Shoring Wall and Bluff Repair at 23-31 Bay Drive, Laguna Beach, California*, prepared by Noble Consultants, Inc. of Irvine, California, dated April 2, 1998; *Necessity of Shoreline Protective Device, Coastal Development Permit Application 5-97-371, Shoring Wall and Bluff Repair at 23-31 Bay Drive, Laguna Beach, California*, prepared by Noble Consultants, Inc. of Irvine, California, dated May 12, 1998;

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#### PROCEDURAL NOTE

##### A. Coastal Development Permit Amendments

The Commission's regulations provide for referral of permit amendment requests to the Commission if:

- 1) The Executive Director determines that the proposed amendment is a material change,
- 2) Objection is made to the Executive Director's determination of immateriality, or
- 3) The proposed amendment affects conditions required for the purpose of protecting a coastal resource or coastal access.

If the applicant or objector so requests, the Commission shall make an independent determination as to whether the proposed amendment is material. 14 Cal. Admin. Code 13166.

The subject application is being forwarded to the Commission because the Executive Director has determined that the proposed amendment is a material change and affects conditions required for the purposes of protecting coastal resources or coastal access.

**B. Standard of Review**

The City of Laguna Beach has a certified local coastal program ("LCP"). However, the proposed project is located within Three Arch Bay, one of several locked gate communities in Laguna Beach where certification has been deferred. Therefore, the standard of review is the Chapter 3 policies of the Coastal Act.

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**STAFF RECOMMENDATION:**

Staff recommends that the Commission APPROVE the amendment application with special conditions.

**MOTION**

*I move that the Commission approve CDP Amendment #5-99-332-A1 pursuant to the staff recommendation.*

Staff recommends a YES vote. Passage of this motion will result in adoption of the following resolution and findings. The motion passes only by affirmative vote of a majority of the Commissioners present.

**RESOLUTION**

**I. APPROVAL WITH CONDITIONS**

The Commission hereby APPROVES the amendment to Coastal Development Permit P-80-7431, subject to the conditions below, for the proposed development on the grounds that the development, located between the nearest public roadway and the shoreline, would be in conformity with the provisions of Chapter 3 of the California Coastal Act of

1976, including the public access and recreation policies of Chapter 3, would 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, and would not have any significant adverse impacts 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 this permit is reported to the Commission. 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 in the application for permit, subject to any special conditions 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 project during its development, 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, WAIVER OF LIABILITY INDEMNIFICATION AGREEMENT, AND LANDOWNER OBLIGATIONS AND RESPONSIBILITIES

PRIOR TO THE ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant as landowner shall execute and record a deed restriction, in a form and content acceptable to the Executive Director, which shall provide that:

- A. The landowner understands that the site may be subject to extraordinary geologic and erosion hazard and the landowner assumes the risk from such hazards;
- B. The landowner unconditionally waives any claims of liability against the California Coastal Commission, its successors in interest, advisors, officers, agents, and employees for any damage from such natural hazards arising out of any work performed in connection with the permitted project;
- C. The landowner agrees to indemnify and hold harmless the California Coastal Commission, its successors in interest, advisors, officers, agents, and employees against any and all claims, demands, damages, costs, and expenses of liability (including without limitation attorneys' fees and costs of suit) arising out of the design, construction, operation, maintenance, existence or failure of the permitted project, including without limitation any and all claims made by any individual or entity or arising out of any work performed in connection with the permitted project;
- D. The landowner agrees that any adverse impacts to property caused by the permitted project shall be fully the responsibility of the applicant;
- E. The landowner shall not construct any bluff or shoreline protective devices to protect the subject development or other improvements in the event that these structures are subject to damage, or other natural hazards in the future, and shall waive all rights to construct such devices that may exist under Section 30235 of the Coastal Act;
- F. The landowner shall remove the proposed development when bluff retreat reaches the point where the structure is threatened. In the event that portions of the development fall to the beach before they can be removed from the bluff top or bluff face, the landowner shall remove all recoverable debris associated with these structures from the beach and ocean and lawfully dispose of the material in an approved disposal site. The landowner shall bear all costs associated with such removal;
- G. That any changes to the proposed project or other development as defined in Coastal Act Section 30106 shall require an amendment to this permit or an additional coastal development permit from the California Coastal Commission or its successor agency.

The document 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. CONFORMANCE OF DESIGN AND CONSTRUCTION PLANS TO GEOTECHNICAL REPORT GEOLOGIC HAZARD**

- A. All final design and construction plans, including foundations, grading and drainage plans, shall be consistent with all recommendations contained in the following Engineering Geologic Reports: *Geotechnical Evaluation of Landsliding and Foundation Distress, 33 Bay Drive – Three Arch Bay, Laguna Beach, California*, prepared by Ninyo & Moore of Irvine, California, dated June 3, 1999 (Project No. 201351-01); *Emergency Repair of Landsliding and Foundation Distress, 33 Bay Drive – Three Arch Bay, Laguna Beach, California*, prepared by Ninyo & Moore of Irvine, California, dated August 9, 1999 (Project No. 201351-01); *Alternative Repair Considerations, 33 Bay Drive – Three Arch Bay, Laguna Beach, California*, prepared by Ninyo & Moore of Irvine, California, dated October 1, 1999 (Project No. 201351-01); *Recommendations for Soil Nailing, 33 Bay Drive – Three Arch Bay, Laguna Beach, California*, prepared by Ninyo & Moore of Irvine, California, dated November 8, 1999 (Project No. 201351-01); *Response to California Coastal Commission, 33 Bay Drive – Three Arch Bay, Laguna Beach, California*, prepared by Ninyo & Moore of Irvine, California, dated December 1, 1999; *Structural Calculations, Frahm Residence, Project No. 98024*, prepared by Joseph-Werdowatz & Associates of San Diego, California, dated June 3, 1999.
- B. **PRIOR TO THE ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT**, the applicant shall submit, for the Executive Director's review and approval, evidence that an appropriate licensed professional has reviewed and approved all final design and construction plans and certified that each of those final plans is consistent with all of the recommendations specified in the above-referenced geologic evaluations approved by the California Coastal Commission for the project site.
- C. The permittee shall undertake development in accordance with the approved final plans. Any proposed changes to the approved final plans shall be reported to the Executive Director. No changes to the approved final plans shall occur without a Commission amendment to this coastal development permit unless the Executive Director determines that no amendment is required.

**3. CONSTRUCTION RESPONSIBILITIES AND DEBRIS REMOVAL**

The permittee shall comply with the following construction-related requirements:

- (a) No construction materials, debris, or waste shall be placed or stored where it may be subject to wave erosion and dispersion;
- (b) Any and all debris resulting from construction activities shall be removed from the beach immediately;
- (c) No machinery shall be allowed at any time on the beach or intertidal zone;
- (d) Sand from the beach, cobbles, or shoreline rocks shall not be used for construction material;

- (e) Staging and storage of construction machinery and storage of debris shall not take place on the beach.
- (f) Any accidental spills of construction equipment fluids shall be immediately contained on-site and disposed of in an environmentally safe manner as soon as possible.

#### 4. REVISED PLANS

- A. **PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT**, the applicant shall submit revised plans to the Executive Director for review and approval. The revised plans shall show the following changes to the project:
  - 1. LANDSCAPING
    - (a) Plantings shall be of native, drought tolerant plants;
    - (b) No permanent irrigation system shall be allowed on the property, including both the front and backyard areas. Only temporary irrigation to help establish the landscaping shall be allowed. The period of temporary irrigation shall be specified (e.g. number of months); and
    - (c) The plantings established shall provide 90% cover in 90 days;
    - (d) All required plantings will be maintained in good growing conditions through-out the life of the project, and whenever necessary, shall be replaced with new plant materials to ensure continued compliance with the landscape plan;
    - (e) The landscaping plan shall show all the existing vegetation which is proposed to remain in place and any existing irrigation system. Any existing irrigation system will be disconnected and capped off;
    - (f) The plans shall be prepared by a licensed landscape architect.
- B. The revised plans shall, prior to submittal to the Executive Director, be reviewed and certified by a qualified professional to ensure that they are consistent with the Commission's approval and with the recommendations of *Geotechnical Evaluation of Landsliding and Foundation Distress, 33 Bay Drive - Three Arch Bay, Laguna Beach, California*, prepared by Ninyo & Moore of Irvine, California, dated June 3, 1999 (Project No. 201351-01).
- C. The permittee shall undertake development in accordance with the approved final plans. Any proposed changes to the approved final plans shall be reported to the Executive Director. No changes to the approved final plans shall occur without a Commission amendment to this coastal development permit unless the Executive Director determines that no amendment is required.

#### 5. LOCATION OF DEBRIS DISPOSAL SITE

**PRIOR TO ISSUANCE OF A COASTAL DEVELOPMENT PERMIT**, the applicant shall identify in writing, for the review and approval of the Executive Director, the location of the disposal site of the demolition and construction debris resulting from the proposed project. Disposal shall occur at the approved disposal site. If the

disposal site is located in the coastal zone, a coastal development permit or an amendment to this permit shall be required before disposal can take place.

**6. PUBLIC RIGHTS**

The Coastal Commission's approval of this permit shall not constitute a waiver of any public rights that may exist on the property. The permittee shall not use this permit as evidence of a waiver of any public rights that may exist on the property.

**7. PRIOR CONDITIONS**

Unless specifically altered by this amendment, all regular and special conditions attached to coastal development permit P-80-7431 remain in effect.

**IV. FINDINGS AND DECLARATIONS**

**A. DETAILED PROJECT DESCRIPTION AND LOCATION**

The applicant is proposing to protect an existing single family residence from a landslide hazard at 33 Bay Drive, Laguna Beach, California. The subject site is located at the top and on the face of a coastal bluff within the private locked-gate community of Three Arch Bay in the City of Laguna Beach (Exhibit 1).

The existing residence is located upon a roughly rectangular lot measuring 40 feet wide. The length of the lot varies because the lot extends from Bay Drive to the mean high tide line. Therefore, the seaward limit of the lot varies with changes to the mean high tide line. Given these variable factors, the length of the lot is approximately 240 feet (i.e. the distance from Bay Drive to the mean high tide line). Based upon information submitted by the applicant, the toe of the bluff is approximately 40 feet horizontally from the mean high tide line. The lot descends from an elevation of approximately 99 feet (MSL) to the beach at approximately 8 feet (MSL). The slope of the bluff varies from 1(v):1(h) near the top of the slope to gently sloping at the base of the bluff. The Three Arch Bay homeowners association has a private easement which extends from the toe of the bluff to the mean high tide line. No development will occur within this private easement. In addition, there is an existing public access easement which has been offered for dedication which extends over the width of the lot from a point between 139 to 143 feet from Bay Drive to the mean high tide line. A portion of the proposed development will occur within this offered easement.

The applicant is proposing the following: change, after-the-fact, the foundation design of a previously approved single family residence to include piers instead of a cantilevered spread footing; permanently authorize the emergency installation of tie backs, which extend into the bluff face, to the piers which replaced the cantilevered spread footing; install soil nails and a shotcrete wall on the exposed bluff face underneath the existing residence; permanently authorize the emergency installation of that portion the shoring system consisting of 5 caissons approximately 25 feet seaward of and parallel to the seaward face of the existing residence and to add to the shoring system 11 caissons along the northwest property line (adjacent to 35 Bay Drive); excavate and re-compact a portion of the landslide



debris to create a buttress fill; and install a subsurface toe erosion protection wall to retain the buttress fill; and install a subsurface drainage system to direct water entering the bluff to percolation devices at the base of the bluff (Exhibit 2).

#### **1. Foundation Design Change**

The residence approved under Coastal Development Permit P-80-7431 included a cantilevered spread footing designed to support the seaward side of the structure. As constructed, the cantilevered spread footing was replaced by two 4-foot diameter concrete piers. These piers are located at the two seawardmost corners of the residence.

#### **2. Pier Tie Backs**

The proposed foundation piers were installed at the time the residence was constructed. Landslide activity at the site since construction of the residence and the foundation piers has resulted in displacement of the piers and disconnection of the piers from the remainder of the residence. In order to provide long term stabilization of the piers, the applicant is proposing to leave in place the pier tie backs installed under Emergency Coastal Development Permit 5-99-332-G (Exhibit 3). The tie backs are 6 inches in diameter and approximately 35 feet long. Inclined drilled holes were made into the bluff face at 30 degrees below horizontal. The tie backs were attached to the piers and then placed into the drilled holes. The holes were then backfilled with concrete grout.

#### **3. Soil Nails and Shotcrete Wall**

During installation of the tie backs, the applicant discovered that the bedrock into which the tie backs were installed is more severely fractured than anticipated. In order to hold together the fractured material, the applicant is proposing to install soil nails. The soil nails will be installed on the portion of the bluff face which is underneath the existing residence. The applicant is also proposing to place a shotcrete wall over the bluff face underneath the residence.

#### **4. Shoring Wall**

Part of the proposal includes the construction of a shoring wall to stabilize the existing single family residence. The shoring wall is intended both to provide temporary shoring while the existing bluff material is excavated and the buttress fill installed, as well as serving as part of the permanent overall shoring system. The shoring wall would be "T" shaped, with the top of the "T" adjacent to and parallel with the property line between 33 Bay Drive and 35 Bay Drive, with the bottom of the "T" running the width of the property (Exhibit 2).

The proposed shoring wall would be comprised of sixteen (16) thirty six inch (36") diameter concrete with reinforced steel cage caissons spaced at four foot (4') intervals along the length of the wall with lagging between the caissons. The proposed caissons are to be founded ten feet (10') or more into bedrock. Upon completion of grading and the installation of the buttress fill, the caissons will not protrude above grade.

## **5. Butress Fill**

Once the proposed shoring wall is completed, a portion of the existing landslide material is proposed to be overexcavated and recompactd (1,550 cubic yards of cut and 2,290 cubic yards of fill for 3840 cubic yards of total grading) for the construction of a buttress fill. Approximately 100 cubic yards of the 1,550 cubic yards of cut contain vegetation and debris and will be exported and disposed and approximately 740 cubic yards of fill will be imported to the site. Approximately 74 truck loads will be required to deliver the imported material. The proposed buttress fill would constitute the primary method of shoring the existing residence.

The seaward boundary of the proposed buttress fill occurs at the current interface between the beach/sand and the existing toe of the landslide debris. The landslide debris on-site would be excavated down below the identified clay seam/failure plane in the San Onofre Breccia (bedrock) identified by the consulting geologist. The proposed buttress fill includes a twenty foot (20') wide key way cut into the bedrock near the landward edge of the buttress fill. The proposed buttress fill would be stabilized by the construction of the soil key way.

## **6. Toe Protection Wall for the Buttress Fill**

The applicant is also proposing a buried wall near the toe of the buttress fill to protect the toe of the buttress fill from eroding. The toe protection wall would protect the soil key way described above which stabilizes the buttress fill. The proposed toe protection wall would be located roughly along the existing 21 foot contour line (a.k.a. proposed 28 foot contour line) (in plan view). The proposed toe protection wall is to be founded in bedrock below the failure plane and would extend up to 13 feet above sea level, so it would be buried about 15 feet below the surface of the buttress fill.

## **7. Drainage System**

The proposed drainage system would be comprised of a mira-drain barrier, located at the base of the landward side of the shear key. The drain system is designed to channel groundwater to the beach via non-erosive drain lines. Where the proposed drain lines meet the beach, percolation pits are proposed to be installed to promote seepage of the ground water into the ground rather than having the water run across the sand to the ocean causing beach erosion. There are no proposed changes to the drainage of the residential structure, which drains to the street.

# **B. HISTORY OF LANDSLIDE ACTIVITY/DEVELOPMENT ON THE SUBJECT SITE**

The subject site and the surrounding lots have had a history of landslide activity in the past. The existing residence, constructed in 1982 under Coastal Development Permit P-80-7431, replaced a residence that was severely damaged by landslide activity.

## **1. Coastal Development Permit P-80-7431**

On January 12, 1981, the South Coast Regional Commission granted to John Kinard Coastal Development Permit P-80-7431 for the construction of a 4,671 square foot, 4-level

single family dwelling with an attached 2-car garage, cantilevered out over a steep coastal bluff (Exhibit 4). The major issues raised in the staff report were geologic stability, visual and scenic impacts, and public access. Based on geologic information submitted with the application, the proposed residence was to be constructed near but not upon a fault and landslide scarp. The applicant's geologist concluded the site was safe for construction so long as no construction occurred upon the landslide scarp and fault. However, due to the close proximity of the development to geologic hazards the Commission imposed Special Condition 1 which required the applicant to execute and record an assumption-of-risk deed restriction which stated the site is subject to extraordinary hazards from erosion damage and landslide, which waived any claim of liability on the part of the Commission or any other public agency for any damage from such hazards, and which notified the applicant that they may be ineligible for public disaster funds or loans for repair, replacement or rehabilitation of the property in the event of erosion damage and landslide. As proposed, the residence was found not to be in conformance with the visual protection policies of the Coastal Act because the residence was not visually compatible with the character of the existing residences and the beach. Therefore, the Commission imposed Special Condition 2 which required the applicant to submit revised plans which conformed the proposed house to a stringline drawn between residences located at 35 Bay Drive and 21 Bay Drive. Finally, the Commission imposed Special condition 3 which required the applicant to execute and record an irrevocable offer to dedicate an easement for public access and passive recreational use along the shoreline on all lands seaward of the toe of the bluff to the mean high tide line. The offer is irrevocable for a period of 21 years from the date of recordation and will expire in the year 2002.

The proposed amendment does not modify any conditions of approval under Coastal Development Permit P-80-7431. Therefore, the Commission imposes Special Condition 7, which notifies the applicant that all prior conditions of P-80-7431 remain in effect.

## **2. Emergency Coastal Development Permit 5-99-332-G**

On September 3, 1999, the Executive Director issued Emergency Coastal Development Permit 5-99-332-G for the installation of tie back anchors on the two caissons located on the seaward side of the existing residence and the installation of 5 caissons approximately 26 feet seaward of and parallel to the seaward face of the existing residence. This work will be permanently authorized under this amendment.

## **3. Landslide Activity**

Geologic reports submitted by the applicant with this application, as well as geologic reports previously submitted on the subject site and surrounding sites provide some history of slope instability and landslide on the subject site.

Landslide activity on the subject site and in the immediate vicinity typically occurred during years when rainfall was unusually heavy. A clay seam/failure plane underlying the site is lubricated by excessive rainfall which causes the land above the seam to slide. Landslide activity has reportedly occurred at the subject site and on properties north and south of the subject site in 1952, 1973, 1978, 1979, 1991, and 1998.

A home was built in the 1930's which straddled the subject site and the adjacent site at 31 Bay Drive. This residence was severely damaged by landslide activity in the late 1970's and was subsequently removed. The existing residence, which was constructed in 1982 upon the lot at 33 Bay Drive, replaced the structure damaged in the 1970's. The foundation of the existing residence was designed based upon soil engineering and engineering geology reports prepared at that time by E.J. Miller, Incorporated and Fred Pratley. These studies reported that the inland portion of the subject site was relatively stable and could adequately support the foundation of the existing residence.

Landslide activity in the early 1990's prompted the Three Arch Bay Association (a homeowners group for the private community) to install caissons, tiebacks, and a shotcrete wall along Bay Drive on the properties south of the subject site (23 through 31 Bay Drive). Monitoring showed these areas remained unstable despite these stabilization measures. Therefore, a shoring system similar to the design proposed under this application consisting of a shoring wall with a buttress fill, toe erosion protection wall, and drainage system was installed across the sites at 23 through 31 Bay Drive under Coastal Development Permit 5-97-371 (Conrad).

In 1998, the landslide at the subject site reactivated resulting in ground subsidence of up to 6 feet below the existing residence. Investigations in response to the slide showed that the foundation of the residence had been damaged and that the site was unstable. The Executive Director issued Emergency Coastal Development Permit 5-99-332-G to provide temporary stabilization. This amendment permanently authorized the emergency work and provides a long term stabilization system for the site.

### **C. GEOLOGIC HAZARDS**

Section 30253 of the Coastal Act states, in relevant part:

*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.*

The proposed project involves the stabilization of a landslide on a residential blufftop lot. The subject site is currently occupied by an existing single family residence constructed in 1982. At least one other home was constructed on the site prior to the existing home. The prior residence was severely damaged by landslide activity and removed in the 1970's.

#### **1. Stabilization of Site**

The applicant's geotechnical report indicates that the subject site has slid several times in the past; in 1952, the late 1970's/early 1980's, and the late 1980's/early 1990's. The report indicates that the slides coincided with periods of heavy rainfall.

Most recently, in March 1998, the existing landslide on the lower portion of the property reactivated. Investigations in response to the landslide revealed that the caisson on the southwestern (seaward) corner of the residence has sheared from the structure and displaced laterally approximately 2.5 inches. The calculated factor of safety of the residence under static conditions is 1.0 and the calculated pseudo-static factor of safety is less than 1.0. The geologist has stated that the foundation support of the structure is at risk under existing conditions and that future slide movement could result in additional distress.

The primary goal of the proposed shoring system is to provide support for the existing single family residence at 33 Bay Drive. Through cut and fill grading, and soil compaction, the proposed buttress fill will recreate the slope in approximately the same landform as existing conditions (Exhibit 2, page 2). Due to the landslide, the subject site has lost support.

According to the applicant's geologist, the proposed bluff repair needs to be carried out in a manner which meets a minimum factor of safety of 1.5. The geotechnical consultant has determined that the proposed project is feasible from a geotechnical standpoint and is able to achieve a minimum factor of safety of 1.5. The proposed project is beneficial since it reduces slide potential and stabilizes the subject site as well as Bay Drive.

The applicant's geologist indicates that other alternatives to the slope repair have been considered including the use of tie-back anchors, rakers and caissons as well as combinations of these various systems. The geologist has stated that tie back anchors, rakers and caissons rely upon the strength characteristics of the natural materials into which the structures are embedded. Geologic activity including fracturing and faulting and other unknowns render reliance upon these natural materials problematic. Therefore, while tie back anchors, shoring caissons and rakers can provide short term temporary support during construction, long term reliance upon such structures and the natural materials into which they are embedded would not be prudent. Instead, the proposed shoring design relies upon an engineered gravity buttress fill for long term stability. The mass of the proposed buttress fill provides the primary support for the shoring system.

In addition, soil amendment technology (i.e., cement grouting) was considered for the portion of the soils between the toe of the bluff/slide debris area and the caissons parallel to Bay Drive. Using this alternative the landslide deposits would be strengthened in place by mixing the soil with cement grout. The geologist has indicated that this method would result in a factor of safety of 1.3 rather than the 1.5 required by the geologist to consider the site safe.

Through the alternatives analysis, the geologist became aware of an opportunity to move the proposed buttress fill toe protection wall to a more landward location than originally proposed. The revised design would maintain the minimum 1.5 factor of safety. Therefore, the applicant submitted revised plans with the more landward toe protection wall design.

The proposed shoring system alternative was also selected in part because it is similar to the design of the shoring system used on the properties south of the subject site at 23

through 31 Bay Drive approved under Coastal Development Permit 5-97-371 (Conrad). The proposed system is designed to tie into the adjacent shoring design.

The proposed project is an acceptable method to achieve long-term stability of the site. Water entering the slope will be collected through an on-site drainage system to minimize off-site adverse impacts from erosion and would discharge in a manner that minimizes beach erosion. The reconstructed bluff would mimic the post-slide bluff profile and tie in to the slope profile of the adjacent properties in a manner that does not result in significant differences at the interface between the subject site and adjacent properties. The geotechnical consultant has indicated that the proposed project would not result in adverse impacts to adjacent off-site properties and the minimum factor of safety of 1.5 would be met.

Further, the proposed project would provide a level of stability not achieved before on the subject site, and would minimize further occurrences of landslides on the site. This is because the proposed project: 1) is a comprehensive slope stability project, 2) would remove the major identified slide plane by excavating below the identified clay seam/failure plane, 3) provides drainage controls which address the issue of reducing groundwater on the site that contributes to landslides, and 4) provides toe protection which would stabilize the slope.

The geotechnical reports indicate that the proposed development is feasible from a geotechnical standpoint. The geotechnical reports contain recommendations that, if incorporated into the proposed project design, would assure stability and structural integrity. The recommendations include: 1) removal of the active landslide debris and reconstruction as compacted fill, 2) installation of drainage systems (as proposed), 3) construction of the slope at a 2:1 (horizontal to vertical) ratio to assure gross and surficial stability, 4) construction of a buttress keyway at the toe of the identified slide plane, and 5) installation of a toe protection wall seaward of the buttress key.

Section 30253 of the Coastal Act requires that new development minimize risks to life and property in areas of high geologic hazard. The applicant's geotechnical reports indicate that the subject site has slid several times in the past. To minimize risks to life and property, the applicant's geologist has stated that the project must achieve a minimum factor of safety of 1.5. The proposed shoring design, according to information submitted by the applicant, will achieve a 1.5 factor of safety. Therefore, subject to the conditions below, the Commission finds that the project is consistent with Section 30253 because the project minimizes risks to life and property.

(a) Conformance with Geotechnical Recommendations

Recommendations regarding the design and installation of the tie back system, pile system, shear key buttress system, drainage system, buried toe protection wall, and soil nailing have been provided in several reports and letters submitted by the applicant, including: *Geotechnical Evaluation of Landsliding and Foundation Distress, 33 Bay Drive - Three Arch Bay, Laguna Beach, California*, prepared by Ninyo & Moore of Irvine, California, dated June 3, 1999 (Project No. 201351-01); *Emergency Repair of Landsliding and Foundation Distress, 33 Bay Drive - Three Arch Bay, Laguna Beach, California*, prepared by Ninyo & Moore of Irvine, California, dated August 9, 1999 (Project No. 201351-01); *Alternative*

*Repair Considerations, 33 Bay Drive – Three Arch Bay, Laguna Beach, California*, prepared by Ninyo & Moore of Irvine, California, dated October 1, 1999 (Project No. 201351-01); *Recommendations for Soil Nailing, 33 Bay Drive – Three Arch Bay, Laguna Beach, California*, prepared by Ninyo & Moore of Irvine, California, dated November 8, 1999 (Project No. 201351-01); *Response to California Coastal Commission, 33 Bay Drive – Three Arch Bay, Laguna Beach, California*, prepared by Ninyo & Moore of Irvine, California, dated December 1, 1999; *Structural Calculations, Frahm Residence, Project No. 98024*, prepared by Joseph-Werdowatz & Associates of San Diego, California, dated June 3, 1999. Adherence to the recommendations contained in these reports is necessary to ensure that the proposed foundation distress and landslide remediation 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.

Therefore, as a condition of approval, the Commission finds that it is necessary to impose Special Condition 2, which requires the applicant to submit final revised plans, subject to the review and approval of the Executive Director, which include signed statements of the appropriately licensed professional certifying that the final revised plans incorporate the geotechnical recommendations.

(b) Assumption-of-Risk Deed Restriction

Since landsliding has occurred several times on the subject site, the Commission finds that, as a condition of approval, the applicant and all landowners of the subject site must record an assumption-of-risk deed restriction to inform the applicant and all current and future owners of the subject site that the site is subject to hazards from landslides and coastal erosion/wave attack.

The proposed stabilization project involves interrupting a clay seam/failure plane that was a chief cause of previous landslides and construction of a toe protection wall that would support the proposed buttress fill, which in turn supports the shoring wall, which in turn protects existing structures such as the existing residence and Bay Drive. The applicant's geotechnical and coastal engineering consultants assert that the proposed stabilization project is designed in a geotechnically safe manner.

However, geotechnical evaluations do not guarantee that future bluff retreat or further landslides will not affect the stability of the proposed stabilization project. There is always some risk of an unforeseen natural disaster, such as an unexpected landslide due to an unknown failure plane, erosion of the bluff seaward of the toe protection wall due to unusually large waves, among other hazards, that would result in complete or partial destruction of the proposed stabilization project.

In case such an unexpected event occurs on the subject property, the Commission attaches Special Condition 1, which requires recordation of a deed restriction whereby the landowner assumes the risks of extraordinary erosion and geologic hazards of the property and accepts sole responsibility for the removal of any structural debris resulting from landslides, slope failures, or erosion on the site.

The Commission further finds that Special Condition 1 must be attached because recordation of the deed restriction will provide notice of potential hazards of the property and help eliminate false expectations on the part of potential buyers of the property, lending institutions, and insurance agencies that the property is safe for an indefinite period of time and for further development indefinitely in the future.

In addition, even though there is a potential for future geologic hazard, no one can predict when or if there might be bluff failure that would affect the proposed development since such failure appears to be episodic in nature. The Commission thus attaches Special Condition No. 1, which also requires recordation of a deed restriction whereby the landowner assumes the risks of extraordinary erosion and geologic hazards of the property and waives any claim of liability on the part of the Commission or its officers, agents, and employees for any damage due to these natural hazards; in addition, the landowner accepts sole responsibility for the removal of any structural debris resulting from landslides, slope failures, or erosion on the site.

(c) No future seawalls allowed (Section 30253)

Section 30253 of the Coastal Act requires that new development shall not require construction of protective devices that would substantially alter natural landforms along bluffs and cliffs. The proposed development could not be approved as being consistent with Section 30253 of the Coastal Act if projected bluff retreat would affect the proposed development and necessitate construction of a protective device. In addition, the Commission interprets Section 30235 of the Coastal Act to require the Commission to approve shoreline protection for residential development only for existing principal structures. The construction of a shoreline protective device to protect new development would not be required by Section 30235 of the Coastal Act. In addition, the construction of a protective device to protect new development would conflict with Section 30251 of the Coastal Act which states that permitted development shall minimize the alteration of natural land forms, including coastal bluffs which would be subject to increased erosion from such a device.

The proposed vertical toe protection wall would be located seaward of the existing home. As discussed above, the vertical toe protection wall would provide some measure of protection for the existing home and proposed buttress fill. Also, the applicant's coastal engineer indicates that seacliff erosion on the site appears to be low, and that the proposed home would likely be "... well over 100 years away from seacliff retreat encroachment." (Noble Consultants April 2, 1998 letter to Jim Conrad, Page 3) The applicant submitted an updated coastal engineering assessment which referenced the Noble Consultants letter dated April 2, 1998 and which stated the findings of their analyses related to the properties at 23 through 31 Bay Drive fully apply to the conditions at the subject site. Thus, based upon the coastal engineers statement, no additional toe protection walls should be necessary.

The applicant is proposing landslide stabilization measures which they assert are located at the most landward alignment possible and which achieves a minimum factor of safety of 1.5. Based upon a geologic investigation and coastal engineering assessment, the applicant maintains that the subject site is safe for development and will not require a seawall. If not for the information provided by the applicant that the site is safe for



development and will not require a seawall, the Commission could not conclude that the proposed development will not in any way "require the construction of protective devices that would substantially alter natural landforms along bluffs and cliffs."

However, the record of coastal development permit applications and Commission actions has shown that geologic conditions change over time and that predictions regarding site stability based upon the geologic sciences are inexact. For example, emergency Coastal Development Permit 5-93-254-G (Arnold) was for bluff top protective works in San Clemente. In this case, development previously approved by the Commission under Coastal Development Permit 5-88-177 (Arnold) required protection from bluff top erosion, despite geotechnical information submitted with the application for 5-88-177 (Arnold) which suggested that no such protection would be required if the development conformed to a 25 foot bluff top set back.

The subject site also provides an example that geologic studies do not always disclose all geologic hazards. The existing residence was constructed under Coastal Development Permit P-80-7431. The geologic report submitted with the application concluded that while there were hazards on site, the soils and bedrock into which the residence was to be founded was stable. Therefore, the site could be safely developed. However, subsequent landslide activity showed the area where the residence was constructed was not stable. As a result there was damage to the foundation of the residence.

The geologic information submitted with this application for amendment also acknowledges that certain hazardous conditions may exist which have not been disclosed by the geologic investigation. The Limitations section of the applicants geologic report dated June 3, 1999 states:

*The field evaluation, laboratory testing, and geotechnical analysis presented in this geotechnical report have been conducted in general accordance with current practice and the standard of care exercised by geotechnical consultants performing similar tasks in this area. No other warranty, expressed or implied, is made regarding the conclusions, recommendations, and opinions presented in this report. Variations may exist and conditions not observed or described in this report may be encountered during construction.*

The report goes on to state:

*Conditions associated with the site geology and/or previous construction activities may exist on site which are unknown and which could impact the future performance of the site.*

The applicant has stated that the project has been designed with a minimum factor of safety of 1.5 and designed to rely upon the engineered buttress fill for primary long term stabilization of the site, rather than relying upon the strength characteristics of the geologic structures underlying the site. In this way, the project is designed to avoid problems associated with unknown geologic conditions.

The Commission must rely upon, and hold the applicant to their information which states that the site is safe for development without the need for construction of the kinds of

protective devices inconsistent with Sections 30251 and 30253 of the Coastal Act. Therefore, the Commission imposes Special Condition 1 which requires the applicant to record a deed restriction against the property placing the applicant and their successors in interest on notice that no protective devices shall be permitted to protect the proposed development and that the applicant waives, on behalf of itself and all successors and assigns, any rights to construct protective devices that may exist under Public Resources Code Section 30235. This condition is similar to that imposed by the Commission in Coastal Development Permit 5-99-231 (Smith) and 5-97-371 (Conrad).

(d) Landscaping

Erosion and landslide activity at the site have been attributed to the presence of ground water. The installation of lawns, in-ground irrigation systems, inadequate drainage, and watering in general are common factors precipitating accelerated bluff erosion, landsliding and sloughing, necessitating protective devices. The geologic report submitted with this application includes recommendations for landscaping but unlike other engineering specifications, these recommendations are typically not reviewed and implemented by the consulting geologist/engineer. For instance, Ninyo and Moore recommend:

*Slopes and other exposed ground surfaces should be planted with drought tolerant, native vegetation. Landscape irrigation should be kept to a level just sufficient to maintain plant vigor. Overwatering should not be permitted.*

Native, drought-tolerant plants common to coastal bluffs serve the following functions: require watering originally (1-3 years) but not after they become established, drought-tolerant plants have deep root systems which tend to stabilize soils, are spreading plants and tend to minimize the erosive impact of rain, and provide habitat for native animals. The applicant has submitted a landscape plan which includes a permanent irrigation system and non native plant species. Since landslide activity at the site has historically been caused by the presence of water in the slope, and since the use of native, drought tolerant plant species minimizes the amount of water required for irrigation, the Commission imposes Special Condition 4. Special Condition 4 requires the applicant to submit a revised landscaping plan consisting of native, drought-tolerant plants, the elimination of in-ground or permanent irrigation systems on the entire site; the use of plantings which provide 90% cover in 90 days; requires the applicant to maintain plantings in good growing condition through out the life of the project, and the preparation of the revised plan by a licensed landscape architect. The final revised landscape plan shall be subject to the review and approval of the Executive Director. The Commission finds these measures will reduce impacts related to the presence of water on the site and the adverse effect of erosion on the buttress fill.

(e) Conclusion (Geologic Hazards – Shoring System)

Therefore, as conditioned for: 1) recordation of an assumption-of-risk deed restriction, including requirements that no seawalls shall be built on the site and that the applicant shall be solely responsible for removal of debris resulting from hazards on the property, 2) the incorporation of geotechnical recommendations of the applicant's geologist, and 3) the submission of revised landscape plans, the Commission finds that the proposed shoring system is consistent with Section 30253 of the Coastal Act.

**D. SHORELINE PROTECTIVE DEVICES**

Section 30235 of the Coastal Act states, in relevant part:

*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.*

Section 30253 of the Coastal Act states, in relevant part:

*New development shall:*

*(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.*

The subject site includes bluff top, bluff face, and sandy beach. The proposed development will occur upon the bluff face adjacent to the sandy beach. The subject beach is a deep pocket beach approximately 1,400 feet long flanked by headlands that project seaward from either end of the crescent shaped beach by about 800 feet. The subject coastal development permit amendment is for a bluff repair/stabilization project that involves construction of both a shoring wall and a buried buttress fill toe protection wall near the seaward toe of the repaired slope. The firm of Noble Consultants prepared a coastal engineering assessment contained within the following letters and reports: *Coastal Engineering Assessment, Proposed Grading Improvements, 33 Bay Drive, Laguna Beach, California, for Shirley Frahm*, prepared by Noble Consultants, Inc. of Irvine, California, dated September 1, 1999; *Response to Question by California Coastal Commission Staff, Proposed Grading Improvements, 33 Bay Drive, Laguna Beach, California, for Shirley Frahm*, prepared by Noble Consultants, Inc. of Irvine, California, dated October 1, 1999; *Coastal Engineering Assessment, Coastal Development Permit Application 5-97-371, Shoring Wall and Bluff Repair at 23-31 Bay Drive, Laguna Beach, California*, prepared by Noble Consultants, Inc. of Irvine, California, dated April 2, 1998; *Necessity of Shoreline Protective Device, Coastal Development Permit Application 5-97-371, Shoring Wall and Bluff Repair at 23-31 Bay Drive, Laguna Beach, California*, prepared by Noble Consultants, Inc. of Irvine, California, dated May 12, 1998. These letters and reports provide evaluations of the subject site and local and subregional shoreline processes of the Laguna Beach Mini Cells littoral system. The littoral system consists of the bluffs, rocky shoreline, and cove beaches that start at the north at the Corona del Mar bluffs (just south of the Newport Harbor entrance) to Dana Point Harbor at the south adjacent to the Dana Point Headlands promontory.

**1. Construction Which Alters Natural Shoreline Processes (Section 30235)**

The proposed project involves the construction of a buried vertical wall and a shoring wall that would reduce or limit bluff retreat, thus reducing the amount of bluff material for

natural beach replenishment. Bluff retreat is caused in part by wave attack at the toe of a coastal bluff, which leads to bluff erosion. Bluff retreat and erosion are natural shoreline processes.

A coastal engineering assessment of the proposed bluff repair acknowledges that the proposed buried vertical wall and larger shoring wall adjacent to Bay Drive would deprive the littoral cell of upper terrace deposit sediments that would otherwise enter the littoral system through seaciff retreat and slope sloughing processes. Therefore, the proposed project involves construction which alters natural shoreline processes. Thus, the Commission must approve the proposed shoring wall and vertical wall only if they are: 1) required to protect existing structures, and 2) designed to mitigate adverse impacts on shoreline sand supply.

## **2. Protection of Existing Structures (Section 30235)**

As described above, the proposed shoring wall and toe protection would alter natural shoreline processes. The proposed toe protection wall, which the applicant's coastal engineer recommends be located approximately 25-30 feet landward of the existing slope/sand boundary line, would retain the primary buttress fill in the event that soils seaward of the proposed toe wall were eroded by any wave attack which might occur during rare, extreme storm events. The proposed keyway would stabilize the proposed buttress fill, which in turn provides the primary shoring support for the existing residence and the Bay Drive roadway. Therefore, it is important to ensure that the proposed keyway buttress fill is retained and not eroded.

In addition, the proposed toe protection wall is situated at the existing 21 foot contour line (a.k.a. proposed 28 foot contour line) (in plan view) and is buried. Until such time as the beach and slope seaward of the proposed toe protection wall completely erode away, causing the proposed toe protection wall to be exposed to wave action, the toe protection wall would serve primarily as a retaining wall for the proposed buttress fill rather than a seawall. The applicant's geologist has indicated that the toe protection wall would allow for the construction of a larger buttress fill than could be constructed without some sort of wall near the toe. The applicant's geologist further indicated that the larger the buttress fill, the greater the support for existing structures such as the existing residence and Bay Drive roadway. Thus, the toe protection wall allows for the construction of a larger buttress fill to provide additional support for existing structures.

The proposed shoring wall would provide temporary support during construction of the proposed buttress fill, as well as providing permanent support for the existing residence and Bay Drive once the buttress fill is constructed. Therefore, the Commission finds that the proposed buried toe protection wall and shoring wall are needed to protect existing structures.

## **3. Adverse Impacts on Shoreline Sand Supply (Section 30235)**

Even if the shoreline protective device is necessary to protect existing structures, Section 30235 provides for the construction of a structure which alters natural shoreline processes only when the structure is designed to minimize adverse impacts to shoreline sand supply. The coastal engineering assessment indicates that seaciff erosion in the area is episodic

and occurs sporadically rather than continuously, during times of heavy storm events coupled with high tides. The assessment notes that the presence of dense vegetation at the toe of the bluffs in Three Arch Bay implies that wave activity which would wash away the vegetation doesn't often reach the bluff toe, thus implying that bluff erosion from wave activity is low.

On an average annual basis, the assessment estimates the rate of seacliff retreat in the area to be approximately 0.1 to 0.2 feet per year. The assessment concludes that the estimated annual average volume contributed to the sediment supply of the cove beach from seacliff retreat in Three Arch Bay is less than two hundred (200) cubic yards per year. Based upon the total sediment contributed by the bluffs in Three Arch Bay and the 40 foot frontage of the subject site, the subject site contributes 6 of the 200 cubic yards of sediment delivered to the littoral system by the bluffs in Three Arch Bay. Thus, the bluffs in Three Arch Bay do not contribute a large amount of sand to the local cove beach.

In addition to the bluffs in Three Arch Bay not contributing the sand supply of the local beach itself, the bluffs only nominally contribute to the larger subregional sand supply. The assessment indicates that the major source of sand in the area is the approximately twelve thousand (12,000) cubic yards of sediment which comes down nearby Aliso Creek every year. In addition, the assessment concludes that alongshore transport of sand in the Laguna Beach Mini Cells littoral system for the most part bypasses the subject beach. The shoreline processes of the subject beach are more dominated by cross shore sand exchanges. In essence, the sand supply of the subject beach is relatively stable. The sand moves offshore and then back onshore in response to sea conditions which change with the seasons, rather than moving upcoast or downcoast to a new location, never to return. Thus, permanent loss of sand from the subject beach to the offshore littoral drift which would contribute to subregional sand supply is minimal.

Further, the proposed toe protection wall is situated at the existing 21 foot topographic contour line (a.k.a. proposed 28 foot contour line) and is buried. Until such time as the beach and slope seaward of the proposed toe protection wall completely erode away so that the wall is directly exposed to wave attack, the proposed toe protection wall would not affect the process of slope material being added to the beach sand supply. The rate of erosion due to wave attack at the toe of the slope at the subject site is fairly low, according to the coastal engineering assessment (further described below). The assessment also concludes that the forty (40) foot stretch of bluff would likely impact less than 0.2 percent of the overall alongshore subregional sand transport volume. It is not likely, therefore, that the proposed toe protection wall would be exposed during the lifetimes of the proposed homes, based on the low historical erosion rates identified in the coastal engineering assessment. The wall would be exposed much quicker, however, if erosion rates accelerated due to abnormally high waves resulting from unusually strong storm events.

Since the subject beach and sand supply are somewhat static and isolated from the larger subregional system, the limitation on bluff retreat would not have a significant impact on the sand supply of either the local cove beach nor on the larger subregional system. Therefore, the specific nature of the subject beach and the local and subregional shoreline processes are such that the reduction in on-site bluff material for natural sand replenishment, which is minimal, that would result from the proposed project, does not

constitute an adverse impact on local shoreline sand supply. Therefore, the Commission finds that the proposed project will not result in adverse impacts upon shoreline sand supply.

#### **4. No future seawalls allowed**

The proposed vertical toe protection wall would be located seaward of the existing home. As discussed above, the vertical toe protection wall would provide some measure of protection for the existing home and proposed buttress fill. Also, the applicant's coastal engineer indicates that seacliff erosion on the site appears to be low, and that the proposed home would likely be "... well over 100 years away from seacliff retreat encroachment." (Noble Consultants April 2, 1998 letter to Jim Conrad, Page 3) The applicant submitted an updated coastal engineering assessment which referenced the Noble Consultants letter dated April 2, 1998 and which stated the findings of their analyses related to the properties at 23 through 31 Bay Drive fully apply to the conditions at the subject site. Thus, based upon the coastal engineers statement, no additional toe protection walls should be necessary. Therefore, the Commission imposes Special Condition 1 which requires the applicant to record a deed restriction against the property placing the applicant and their successors in interest on notice that no protective devices shall be permitted to protect the proposed development and that the applicant waives, on behalf of itself and all successors and assigns, any rights to construct protective devices that may exist under Public Resources Code Section 30235.

#### **5. Conclusion (Shoreline protective devices)**

The Commission finds that the proposed project involves construction that would alter natural shoreline process. However, the Commission finds that: 1) the proposed project is necessary to protect existing structures (the existing residence and Bay Drive roadway); 2) the proposed project will not result in adverse impacts to natural shoreline sand supply; and 3) no additional toe protection in the form of a seawall would be necessary. Thus, the Commission finds that the proposed project, as conditioned, is consistent with Sections 30235 and 30253 of the Coastal Act.

### **E. MARINE RESOURCES/WATER QUALITY**

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 would sustain the biological productivity of coastal waters and that would 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:

*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.*

The proposed project includes the construction of a drainage system which would collect runoff from the bluff face and groundwater. Drainage from the residence would not be affected because this drainage discharges to the street. The proposed drains would direct the collected water to the beach through two outlets. Where the proposed drain lines meet the beach, percolation/energy dissipaters are proposed to be installed to promote seepage of the groundwater into the ground rather than having the water run across the sand to the ocean causing beach erosion. The proposed drainage system would collect water which already seeps onto the beach from the subject site and inland areas. The California Regional Water Quality Control Board, San Diego Region ("RWQCB"), sent the applicant a letter indicating that they have no objection to the construction of the proposed drainage system (Exhibit 5).

The applicant has indicated that no construction equipment or supplies would be placed upon the sandy beach. The applicant has indicated that construction on the adjacent sites (23 through 31 Bay Drive) provides an area for temporary storage of equipment and materials to be used in the construction of the proposed shoring wall. The adjacent landowner has provided authorization for access through their property to implement the proposed project. The applicant has indicated that contractors would be briefed as to minimizing the occurrence of and containing spills of petroleum and other toxic fluids. A health risk to marine life and swimmers would be created if toxic substances were to get on the beach and leak into the ocean. In addition, staging or storing construction equipment and material on the beach would take up beach area needed for grunion spawning, thus resulting in adverse impacts on the grunion.

In addition, the California Department of Fish and Game reviewed the proposed project and determined that the proposed project would have no adverse impact upon marine resources or their habitats (Exhibit 6).

In order to ensure that adverse impacts to marine resources and water quality are minimized, the Commission finds that it is necessary to require Special Condition 3 which prohibits the staging or storing of construction equipment or materials on the beach and to minimize and control spillage of toxic substances. Further, the Commission finds that the construction debris must be disposed of outside the coastal zone, or at an approved site in the coastal zone, to minimize adverse impacts on marine resources. Therefore, the Commission imposes Special Condition 5. As conditioned, the proposed project is consistent with Sections 30230 and 30231 of the Coastal Act.

#### **F. PUBLIC ACCESS**

Section 30212 of the Coastal Act states, in relevant part:

*(a) Public access from the nearest public roadway to the shoreline and along the coast shall be provided in new development projects except where:*

*(2) adequate access exists nearby . . .*

#### **1. Existing Access OTD's and Easements**

The subject site is a beachfront site located between the nearest public roadway and the shoreline in the private community of Three Arch Bay. There is one access easement recorded on the subject property for the residents of Three Arch Bay and one public access easement offered for dedication which has not yet been accepted. The first easement, recorded in favor of the residents of the private Three Arch Bay community is for access and recreation purposes solely for residents. This easement occurs over the width of the lot from the toe of the bluff to the mean high tide line. The applicant has stated that the easement is ambulatory, moving in response to the location of the toe of the bluff and the location of mean high tide. Since the proposed development is occurring landward of the toe of the bluff, no development is occurring within this private access easement.

In addition, there is an easement which has been offered for dedication for public access and passive recreational use along the shoreline (a.k.a. access OTD). This access OTD was recorded in compliance with the conditions of approval for Coastal Development Permit P-80-7431 which approved the construction of a single family dwelling on the subject site. The access OTD extends over all lands on the subject lot seaward of the toe of the bluff (as determined by the Executive Director) to the mean high tide line. The map recorded with the offer identifies the toe of the bluff as a line having a bearing and a distance of South 44.00 East 42.57 feet (Exhibit 2, page 3). Due to landslide activity at the site, the present location of the toe of the bluff occurs at a more seaward location than that described in the access OTD. The offer of dedication is irrevocable for a period of 21 years from the date of recordation. The irrevocable offer will expire in the year 2002 if the offer is not accepted prior to its expiration date. As of the date of this staff report, the offer has not been accepted.

A portion of the proposed development will occur within the area offered for dedication as a public access easement. Specifically, 4 caissons, the proposed toe protection wall, and a portion of the buttress fill are planned for construction in the offered easement. The applicant has submitted an alternatives analysis which states that there are no feasible alternatives which result in a minimum factor of safety of 1.5 and which result in a lesser or no encroachment into the offered easement. According to the applicant, any alternative which results in less than a 1.5 factor of safety is not considered safe.

In addition, landslide and erosion at the site has caused the deposition of unstable soils within the offered easement. According to the applicant, these unstable soils are not safe to traverse. In the event the access easement was accepted and opened to the public, the unstable soils would be hazardous and would need to be avoided. As part of construction of the proposed buttress fill, the unstable soils will be excavated and recompacted in the same location and in approximately the same landform. The applicant has submitted information which states that upon completion of construction of the slope stability measures, a person would be able to safely traverse the buttress fill without detriment to the stability of the buttress fill. In addition, the proposed caissons and toe protection wall will not extend above grade. Therefore, the proposed slope stability measures will not



impede the public's ability to use the easement. If the easement was accepted and opened to the public, the proposed development will improve the public's ability to use the easement by stabilizing unstable soils which have been deposited there by natural activity. The Commission finds that approval of stabilization measures within the offered easement is consistent with the previously imposed public access requirement. Therefore, the approved project is consistent with the access provisions of the Coastal Act.

## 2. Sovereign Lands

The beach is a cove beach separated from public beaches by rocky headlands. Thus, the beach is not readily accessible from nearby public beaches. A letter submitted by the applicant prepared by PBS & J of Irvine, California, dated October 1, 1999, states that the mean high tide line is approximately 40 feet horizontally (seaward) from the toe of the bluff. The proposed development does not extend beyond the toe of the bluff. The California State Lands Commission ("CSLC") has acknowledged the presence of the above mentioned private recreation easement and public access OTD on the beach. Based upon the information provided by the applicant, the proposed project would not extend seaward of the mean high tide line onto sovereign land.

In addition, the CSLC has written the applicant regarding the issue of encroachment of the proposed development onto state lands (Exhibit 7). The CSLC is not asserting any claim at this time that the proposed development intrudes onto state lands. However, the CSLC indicates that the decision not to assert a claim at this time does not prejudice any future assertion of state ownership or public rights. The Commission imposes Special Condition 6, which states that approval of the proposed project does not constitute a waiver of any public rights that may exist on the property.

The subject site is in a private community. The proposed development would not result in direct adverse impacts, either individually or cumulatively, on physical vertical or lateral public access, or on sovereign lands seaward of the mean high tide line. Vertical public access and public recreation opportunities are provided at nearby Salt Creek County Beach Park a mile to the southeast. Therefore, the Commission finds that no additional public access, beyond that previously offered, is necessary as part of the proposed development. Thus, the Commission finds that the proposed development is consistent with the access policies of the Coastal Act.

## G. VISUAL QUALITY

Section 30251 of the Coastal Act states:

*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 subordinate to the character of its setting.*

The proposed project is to repair a landslide. The proposed slope repair involves the installation of a soil nailing and a shotcrete wall, a shoring wall, buttress fill, and buttress toe protection wall. The shoring wall and toe protection walls will not extend above ground. In addition, while the buttress fill will be an "above ground" feature, it is designed to mimic existing landforms on site and adjacent to the site. The proposed shotcrete wall to be installed as part of the proposed soil nailing will be a visible feature. However, the wall will be constructed upon the face of the bluff which is underneath the existing residence and behind the caissons on the seaward side of the residence.

The proposed project is located in a private community. Therefore, the proposed project would not block any public views to the shoreline. Public views along the coast from public trust land seaward of the mean high tide line would be similar to the views which currently exist since the bluffs are altered and developed with homes which step down the bluff face. Further, since the private beach is flanked on either side by rocky headlands which extend several hundred feet into the ocean, it would be difficult for the public to access the part of the beach seaward of the mean high tide line in order to view the bluffs. Even if the public were to be able to view the private bluffs (e.g., from a boat offshore), the proposed development would be consistent with the character of the existing adjacent development at 23 through 31 Bay Drive which includes development that steps down the hillside.

Thus, the Commission finds that the proposed project is consistent with Section 30251 of the Coastal Act.

#### **H. UNPERMITTED DEVELOPMENT**

Without benefit of a coastal development permit amendment, the prior landowner and applicant for Coastal Development Permit P-80-7431 changed the foundation design of the residence. Specifically, the approved foundation design included a cantilevered spread footing to support the seaward side of the single family residence. The applicant for P-80-7431 replaced the cantilevered spread footing with two 4 foot diameter caissons, one on each corner of the seaward side of the structure. Therefore, in order to remedy the unpermitted development, the present landowner and applicant have included the changed foundation design in this proposed permit amendment. Approval of this amendment will result in approval of the changed foundation design. Although development may have taken place without benefit of a coastal development permit, consideration of the permit amendment application by the Commission has been based solely on the consistency of the proposed development with the policies of Chapter 3 of the Coastal Act.

Approval of this permit amendment does not constitute a waiver of any legal action with regard to the alleged unpermitted development, nor does it constitute admission as to the legality of any development undertaken on the subject site without a coastal development permit. The Commission may take action at a future date with respect to the unpermitted development and/or restoration of the site.

## **I. LOCAL COASTAL PROGRAM**

The City of Laguna Beach local coastal program ("LCP") is effectively certified. However, several locked-gate beachfront communities are deferred, including Three Arch Bay. The subject site is located in Three Arch Bay. Therefore, the standard of review for the proposed project is conformity with the Chapter 3 policies of the Coastal Act and not the certified LCP. Section 30604(a) provides that a coastal development permit should not be approved for development which would prejudice the ability of the local government to prepare an LCP consistent with the Chapter 3 policies.

The proposed project is consistent with the certified LCP, which may be used for guidance in non-certified areas. Land Use Plan Policy 10-C provides, in part, that projects located in geological hazards areas are required to be designed to avoid the hazards where feasible. The proposed project would interrupt the clay seam/failure plane which has been identified as a major cause of landslide activity on the site.

Further, the proposed project, as conditioned, has been found to be consistent with the geologic hazards policies of Chapter 3 of the Coastal Act. Therefore, the Commission finds that the proposed project would not prejudice the ability of the City of Laguna Beach to prepare an LCP for the Three Arch Bay community, the location of the subject site, that is consistent with the Chapter 3 policies of the Coastal Act.

## **J. CALIFORNIA ENVIRONMENTAL QUALITY ACT**

Section 13096 of Title 14 of the California Code of Regulations requires Commission approval of Coastal Development Permits to be supported by a finding showing the permit, as conditioned, 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 applicant considered other geotechnical alternatives including combinations of tie-back anchors, rakers, and caissons as well as chemical grouting. The primary goal of the proposed project is to recreate the slope in approximately the same landform that previously existed prior to the landslide and to stabilize the residence and the road (Bay Drive) at the top of the bluff. Due to the landslide, the subject site and Bay Drive have lost lateral structural support. While the rejected alternatives may provide site stability, they do not all provide for the minimum factor of safety required by the engineer to consider the site safe.

The proposed project is an acceptable method to achieve long-term stability of the site and the adjacent road. The proposed project would have no adverse impacts on the stability of adjacent properties. Further, the proposed development is located in an urban area. Development exists on the subject site. All infrastructure necessary to serve the site exist in the area.

The proposed project has been conditioned in order to be found consistent with the development policies regarding hazards, shoreline protection devices, and marine resources

of Chapter Three of the Coastal Act. To assure structural stability and to minimize risks to life and property from geologic hazards, feasible mitigation measures requiring: 1) an assumption-of-risk deed restriction, 2) conformance with geotechnical recommendations, 3) landscaping requirements for native plants and no permanent irrigation, 4) prohibiting the staging and storing of construction equipment and materials on the beach, and 5) identifying the disposal site; would minimize all significant adverse environmental effects.

As conditioned, there are no feasible alternatives or feasible mitigation measures available which would substantially lessen any significant adverse effect which the activity may have on the environment. Therefore, the Commission finds that the proposed project, as conditioned, can be found consistent with the requirements of the Coastal Act to conform to CEQA.

SOUTH LAGUNA

PACIFIC OCEAN

THREE ARCH BAY

SITE

MONARCH BAY COMMUNITY STREETS  
ALSO KNOWN AS MONARCH BAY DR

- 1 OAKER CATHEDRAL CT
- 2 CORONATION DR
- 3 OAKER AVE CT
- 4 LOUIS XIV CT
- 5 KING JOHN LN
- 6 KING WILLIAM LN
- 7 KING FREDERICK LN
- 8 KING CHARLES I LN
- 9 KING CHARLES II LN
- 10 KING CHARLES III LN
- 11 KING CHARLES IV LN
- 12 BEACH CLUB DR
- 13 SUN BREAKERS DR
- 14 SUN ONLY DR

SEE ▽ H3

- 1 BAYVIEW PL
- 2 TANNY PORT
- 3 PLACID HAMOR
- 4 ROCKPORT
- 5 HYDROLINE CT
- 6 SANDSTONE CT
- 7 HINDY WATER CT
- 8 STONECREST
- 9 CRUSCHER
- 10 WINDMILL PT

SEE ▽ J5

- 1 SAND CASTLE CT
- 2 SPIN DRIFT CT
- 3 SANDFLOWER CT
- 4 RISING FINE CT
- 5 SEABINE WY
- 6 SEA HIDE WY
- 7 SANDFISH WY
- 8 SANDFISH WY

SEE ▽ G1

- 1 NEW CHURCH
- 2 PICKNEY CLURE

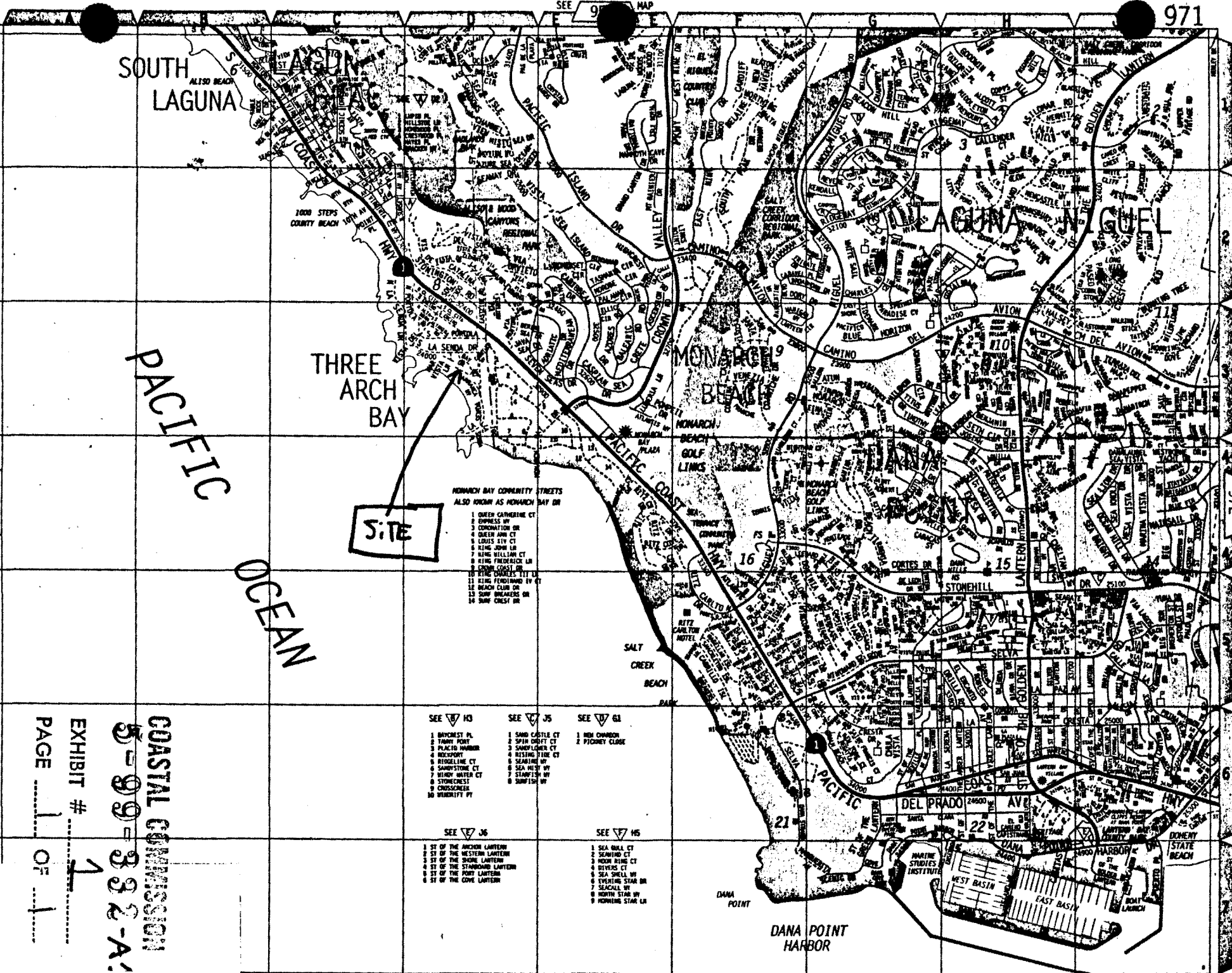
SEE ▽ J6

- 1 ST OF THE ANCHOR LANTERN
- 2 ST OF THE WESTERN LANTERN
- 3 ST OF THE SHORE LANTERN
- 4 ST OF THE STARDOM LANTERN
- 5 ST OF THE PORT LANTERN
- 6 ST OF THE COVE LANTERN

SEE ▽ H5

- 1 SEA HILL CT
- 2 SEAWIND CT
- 3 MOON RING CT
- 4 WINDERS CT
- 5 SEA SHELL WY
- 6 EVENING STAR DR
- 7 SEACALL WY
- 8 NORTH STAR WY
- 9 MORNING STAR LN

COASTAL COMMISSION  
5-99-332-A  
EXHIBIT # 1  
PAGE 1 OF 1

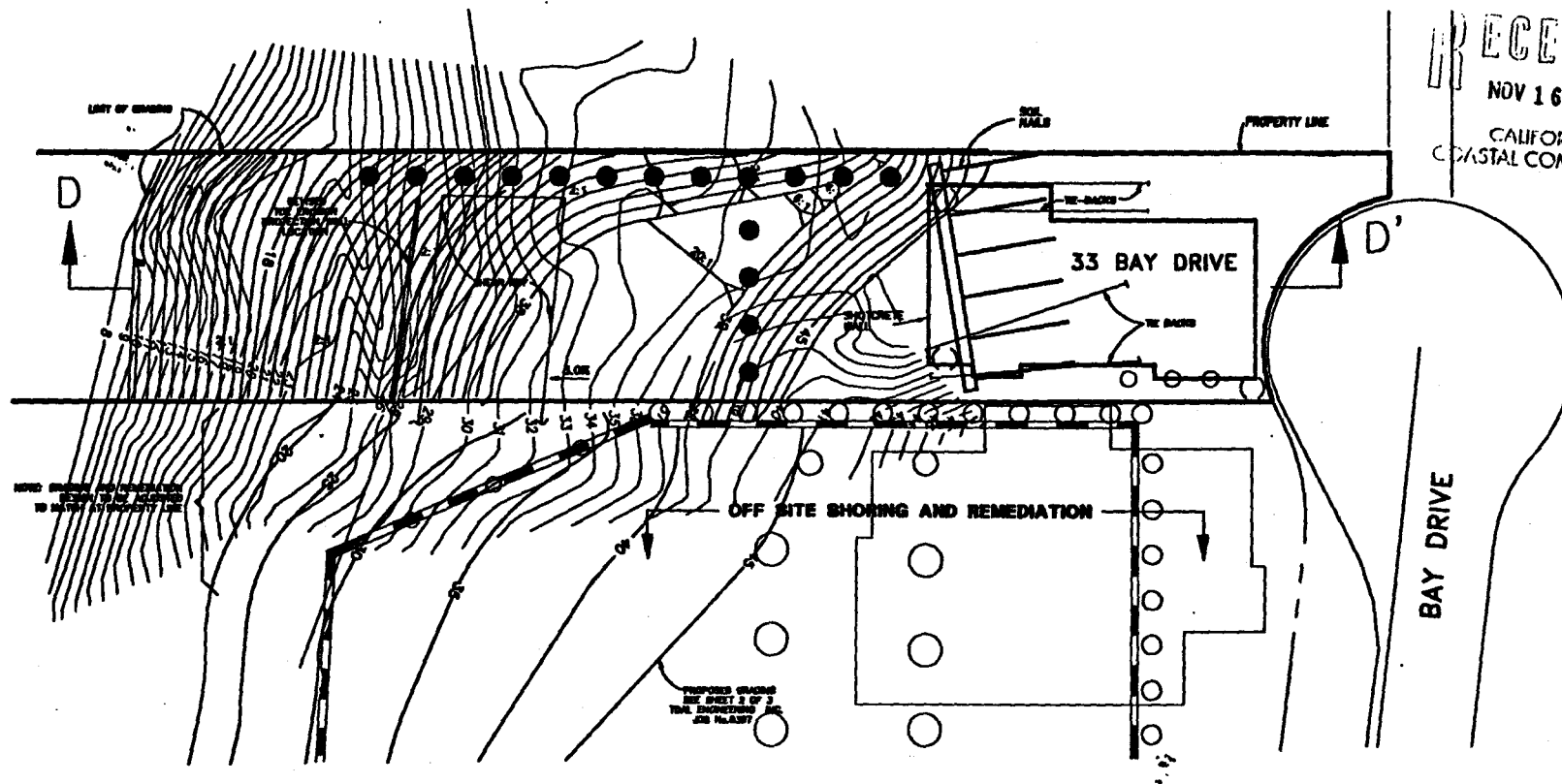


ORANGE CO



SEE 972 MAP

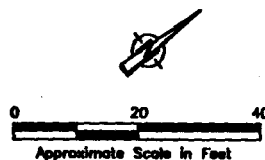
SEE 971 MAP

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 CALIFORNIA  
 COASTAL COMMISSION



**LEGEND**

-  Approximate location of proposed CIDH shoring pile
-  Approximate location of cross section, see Figure 2



SHORING/REMEDATION PLAN		
33 BAY DRIVE THREE ARCH BAY LAGUNA BEACH, CALIFORNIA		
PROJECT NO.	DATE	FIGURE
201351-01	11/99	1

REFERENCE: PRELIMINARY GRADING PLAN PREPARED BY PBS&J, UNDATED.

NOTE: ALL DIMENSIONS AND LOCATIONS ARE APPROXIMATE.

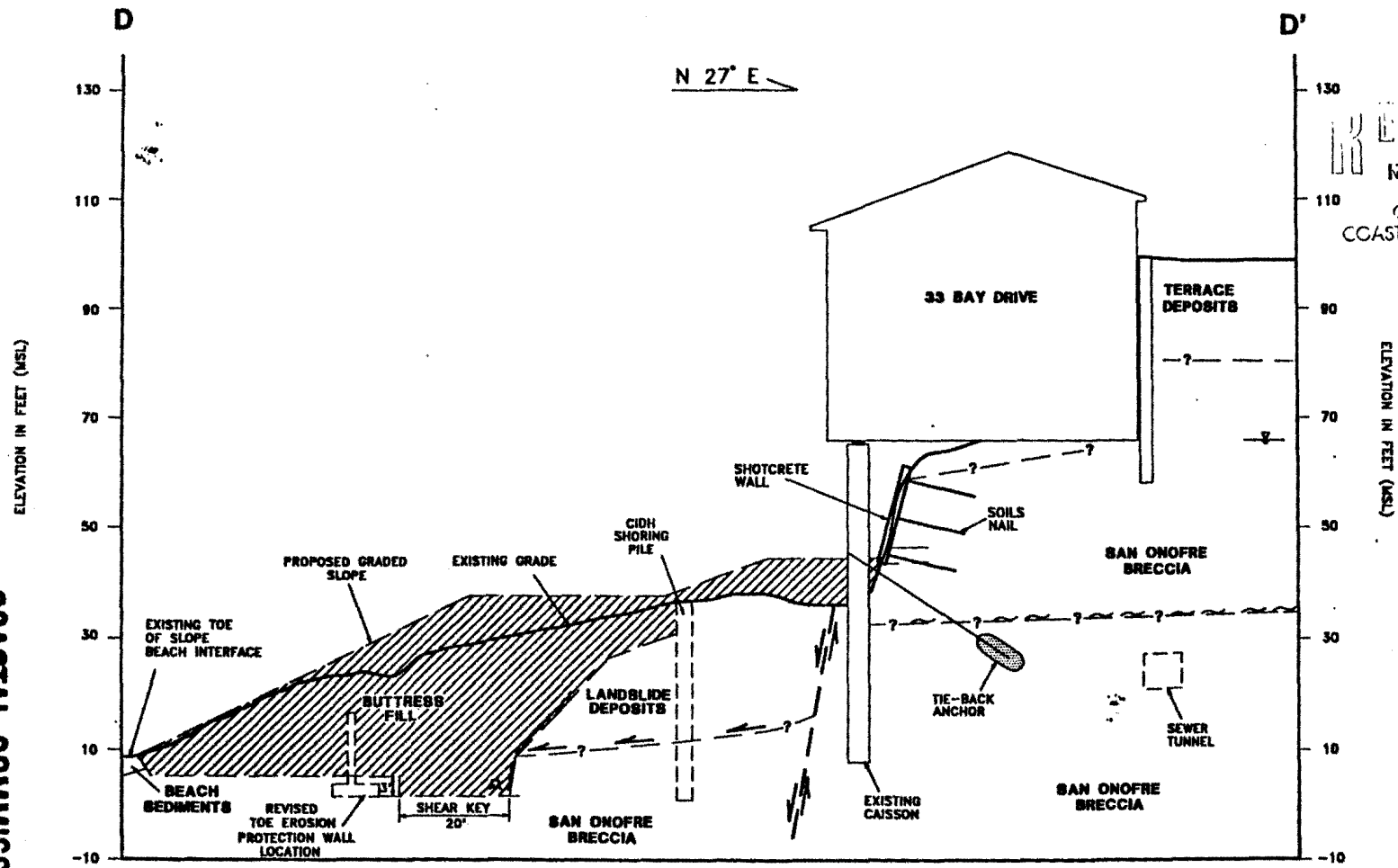
COASTAL COMMISSION

5-99-332-A1

EXHIBIT # 7

PAGE 1 OF 3

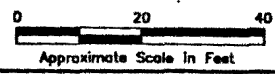
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COASTAL COMMISSION  
 5-99-332-A1

PAGE 2 OF 3  
 EXHIBIT # 2

NOTE: SEE FIGURE 4 FOR LEGEND



NOTE: ALL DIMENSIONS AND LOCATIONS ARE APPROXIMATE.



SHORING/REMEDIATION CROSS SECTION		
33 BAY DRIVE THREE ARCH BAY LAGUNA BEACH, CALIFORNIA		
PROJECT NO.	DATE	FIGURE
201351-01	11/99	2





**CALIFORNIA COASTAL COMMISSION**

South Coast Area Office  
200 Oceangate, Suite 1000  
Long Beach, CA 90802-4302  
(562) 590-5071

**EMERGENCY PERMIT**

**DATE:** September 3, 1999  
**EMERGENCY PERMIT:** 5-99-332-G  
**APPLICANT:** Ms. Shirley Frahm  
**LOCATION:** 33 Bay Drive, Laguna Beach, Orange County

**EMERGENCY WORK PROPOSED:** Installation of tie-back anchors on two existing caissons located at the seaward most side of the existing single family residence and the installation of 5 cast-in-place shoring caissons approximately 26 feet seaward of and parallel to the seaward face of the existing single family residence.

This letter constitutes approval of the emergency work you or your representative has requested to be done at the location listed above. I understand from your information that an unexpected occurrence in the form of movement of a landslide requires immediate action to prevent or mitigate loss or damage to life, health, property or essential public services. 14 Cal. Admin. Code Section 13009. The Executive Director hereby finds that:

- (a) An emergency exists which requires action more quickly than permitted by the procedures for administrative or ordinary permits and the development can and will be completed within 30 days unless otherwise specified by the terms of the permit;
- (b) Public comment on the proposed emergency action has been reviewed if time allows; and
- (c) As conditioned the work proposed would be consistent with the requirements of the California Coastal Act of 1976.

The work is hereby approved, subject to the attached conditions.

Very Truly Yours,

Peter M. Douglas  
Executive Director

*Teresa Henry*  
By: Teresa Henry

Title: District Manager

**COASTAL COMMISSION**

5-99-332-A

EXHIBIT # 3

PAGE 1 OF 2

**CONDITIONS OF APPROVAL:**

1. The enclosed form must be signed by the permittee and returned to our office within 15 days.
2. 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.
3. The work authorized by this permit must be completed within 30 days of the date of this permit.
4. Within 60 days of the date of this permit, the permittee shall apply for a regular Coastal Development Permit to have the emergency work be considered permanent. If no such application is received, the emergency work shall be removed in its entirety within 150 days of the date of this permit unless waived by the Director.
5. In exercising this permit the permittee agrees to hold the California Coastal Commission harmless from any liabilities for damage to public or private properties or personal injury that may result from the project.
6. This permit does not obviate the need to obtain necessary authorizations and/or permits from other agencies.
7. The applicant shall monitor on-site ground movement which may cause distress on-site or on immediately adjacent off-site properties. The applicant shall install tiltmeters to monitor ground movement. The tiltmeters shall be installed on-site upon the two existing caissons located at the seaward side of the existing single family residence. Should the tiltmeters indicate that severe ground movement is imminent which would jeopardize the stability and structural integrity of the subject site, Bay Drive and the adjacent properties, the applicant shall immediately notify the neighbors at the adjacent properties, the Three Arch Bay Homeowner's Association or the operator of Bay Drive, and the Executive Director of the situation. An application for coastal development permit shall be submitted for any emergency remedial measures which may be necessary.

**For Emergency Shoreline Protection Projects:**

8. If rock is used to construct the shoreline protective device, only clean, large rock shall be used. No fill materials or construction spoils shall be used. Applicant shall promptly remove without the aid of heavy machinery any rock that becomes dislodged and deposited on the beach.

Condition number four (4) indicates that the emergency work is considered to be temporary work done in an emergency situation. If the property owner wishes to have the emergency work become a permanent development, a Coastal Development Permit must be obtained. A regular permit would be subject to all of the provisions of the California Coastal Act and may be conditioned accordingly. These conditions may include provisions for public access (such as an offer to dedicate an easement) and/or a requirement that a deed restriction be placed on the property assuming liability for damages incurred from storm waves.

If you have any questions about the provisions of this emergency permit, please call the Commission office in Long Beach (562) 590-5071.

Enclosures: Acceptance Form  
Coastal Permit Application Form

cc: Local Planning Department

**COASTAL COMMISSION**

5-99-332-A1

EXHIBIT # 3

PAGE 2 OF 2

CALIFORNIA COASTAL COMMISSION  
SOUTH COAST REGIONAL COMMISSION

666 E OCEAN BOULEVARD, SUITE 3107

D 801 1450

HUNTING BEACH, CALIFORNIA 92651

(714) 846-0648

## COASTAL DEVELOPMENT PERMIT

Permit Type: ☐ Administrative ☒ Standard ☐ Emergency

Application Number: P-80-7431

Name of Applicant: John M. Kinard

2450 Mission Street, San Marino, CA 91108

Development Location: 33 Bay Drive

South Laguna, CA

Development Description: Construction of a 4671 sq. ft., 4-level single family dwelling with 3-bedrooms, 3 decks and attached 2-car garage, cantilevered out over a steep coastal bluff on a 5192 sq. ft. R-1 ocean front lot in the locked gate community of Three Arch Bay. Project is between the first public road and the sea. 32.5' AFG, 14.5'CFR.

I. Whereas, at a public hearing, held on January 12, 1981

at Huntington Beach by a vote of Unanimous ~~15~~

the 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 Program 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: See attached

COASTAL COMMISSION

5-99-332-A1

EXHIBIT #

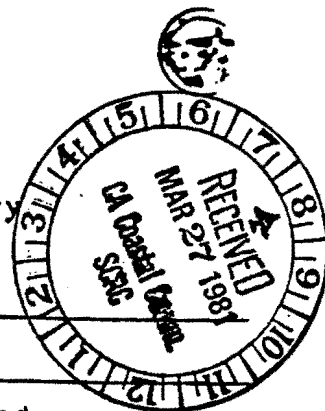
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PAGE

1

OF

3



Condition/s Met On

3/16

By

Paul Willman

PW

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

IV. This permit shall not become effective until a COPY of this permit has been returned to the Regional Commission, upon which copy all permittees 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. Work authorized by this permit must commence within two years from the date of the Regional Commission vote upon the application. Any extension of time of said commencement date must be applied for prior to expiration of the permit.

VI. Issued on behalf of the South Coast Regional Commission on

March 18, 1961.

*M. J. Carpenter*  
M. J. Carpenter  
Executive Director

I. JOHN M. KINARD, permittee/agent, hereby acknowledge receipt of Permit Number P-80-7431 and have accepted its contents.

3/25/81  
(Date)

*John M. Kinard*  
(Signature)

COASTAL COMMISSION

5-99-332-A

EXHIBIT # 4

PAGE 2 OF 3

Conditions for P-80-7431

1. Prior to issuance of permit, applicant shall submit to the Executive Director a deed restriction for recording free of prior liens, except for tax liens, that bind the applicant and any successors in interest. The form and content of the deed restriction shall be subject to the review and approval of the Executive Director. The deed restriction shall provide (a) that the applicants understand that the site was and may be subject to extraordinary hazard from erosion damage and landslide, and the applicants assume the liability from those hazards; (b) the applicants unconditionally waive any claim of liability on the part of the Commission or any other public agency for any damage from such hazards; and (c) the applicants understand construction in the face of these possible known hazards may make the ineligible for public disaster funds or loans for repair, replacement or rehabilitation of the property in the event of erosion damage and landslide.
2. Prior to issuance of the permit, applicant shall submit revised plans indicating that no part of the proposed structure shall be built out to a point seaward of an imaginary string line drawn between the adjacent corner of the nearest structure to the north and the structure on lot 25 to the south.
3. Prior to issuance of the 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 an easement for public access and passive recreational use along the shoreline. Such easement shall include all lands seaward of the toe of the bluff (as determined by the Executive Director) to the mean high tide line. The form and content of the approved document shall include a topographical map prepared by a licensed civil engineer showing the location and elevation contours of the bluff with respect to the landward property line. The map shall be suitable for recording with other necessary documents. 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 of the applicant or landowner. The offer of dedication shall be irrevocable for a period of 21 years, such period running from the date of recording.

COASTAL COMMISSION

5-99-332-A

EXHIBIT # 4

PAGE 3 OF 3



# California Regional Water Quality Control Board

## San Diego Region

Winston H. Hickox  
Secretary for  
Environmental  
Protection

Internet Address: <http://www.swrcb.ca.gov/~rwqcb9/>  
9771 Clairemont Mesa Boulevard, Suite A, San Diego, California 92124-1324  
Phone (858) 467-2952 • FAX (858) 571-6972



November 15, 1999

Ms. Shirley Frahm  
c/o Mr. George B. Piggott, Esq.  
2603 Main Street, Suite 1050  
Irvine, CA 92614-6232

Post-It® Fax Note	7671	Date	11/16/99	# of pages	1
To	George Piggott	From	Whitney Ghoram		
Co./Dept.		Co.	CRWQCB		
Phone #		Phone #	858-467-2967		
Fax #	949-261-1085	Fax #			

**RECEIVED**

PROPOSED DRAINAGE SYSTEM AT 33 BAY DRIVE, LAGUNA BEACH, South Coast Region  
CALIFORNIA

NOV 19 1999

Dear Ms. Frahm:

CALIFORNIA  
COASTAL COMMISSION

By letter dated October 14, 1999, on your behalf, Mr. George B. Piggott, Esq., submitted plans for constructing a passive drainage system on your property at 33 Bay Drive, Laguna Beach, Orange County, California. It is the Regional Board staff's understanding that the purpose of the passive drainage system is to divert groundwater around a proposed toe erosion protection wall to the adjacent beach. It is also staff's understanding that the drainage system will not result in any significant change to the current discharge of groundwater to the beach. Based upon this understanding, I have no objection to the proposed drainage system.

The October 14, 1999 letter also indicated that you are uncertain at this time whether dewatering will be necessary during construction at the subject site. Attached to this letter is a copy of the General NPDES Permit No. CA919002, Order No. 96-41, that regulates discharges of groundwater to surface waters within the San Diego Region, as well as an application form, and information sheets. In the event that you discover that dewatering will be necessary, you will need to submit an application to obtain authorization to discharge groundwater.

If you have any questions or need further information, please call Ms. Whitney Ghoram at (858)467-2967.

Sincerely,

JOHN H. ROBERTUS  
Executive Officer

Attachment: 96-41 packet

California Environmental Protection Agency

Recycled Paper



COASTAL COMMISSION

5-99-332-

EXHIBIT # 5

PAGE 1 OF 1

## DEPARTMENT OF FISH AND GAME

MARINE REGION  
411 BURGESS DRIVE  
MENLO PARK, CA 94025  
(650) 688-6340

RECEIVED  
OCT 27 1999



## Memorandum

To : Mr. Karl Schwing  
California Coastal Commission  
200 Oceangate Ave., Suite 1000  
Long Beach, California 90802

CALIFORNIA  
COASTAL COMMISSION

Date: October 22, 1999

From : Department of Fish and Game

Subject: Coastal Development Permit Application 5-99-332

Dear Mr. Schwing:

This memo is in response to a request from Mr. George B. Piggott, representing Ms. Shirley Frahm (applicant), concerning proposed project plans to remediate landslide and foundation distress at 33 Bay Drive, Laguna Beach, Orange County, California. The proposed project involves excavating and compacting existing soil, construction of a toe erosion protection wall, and construction of sixteen 36-inch diameter caissons. It is our understanding that staging and construction activities would not occur in marine waters or on the beach.

The Department of Fish and Game (Department) has determined that the proposed project, as currently described, would not have a significant impact to existing marine resources or their habitats. Therefore, the Department does not object to the issuance of a Coastal Development Permit for the proposed project.

As always, Department personnel are available to discuss our comments, concerns, and recommendations in greater detail. To arrange for a discussion, please contact Ms. Marilyn Fluharty, Environmental Specialist, California Department of Fish and Game, 4949 Viewridge Avenue, San Diego, CA 92123, telephone (858) 467-4231.

Sincerely,

Robert N. Tasto, Supervisor  
Project Review and Water Quality Program  
Marine Region

COASTAL COMMISSION  
5-99-332-A1

EXHIBIT # 6  
PAGE 1 OF 1

CALIFORNIA STATE LANDS COMMISSION  
100 Howe Avenue, Suite 100-South  
Sacramento, CA 95825-8202



**RECEIVED**  
South Coast Region  
NOV 19 1999  
CALIFORNIA  
COASTAL COMMISSION

D. THAYER, Executive Officer  
California Relay Service From TDD Phone 1-800-735-2922  
From Voice Phone 1-800-735-2922

Contact Phone: (916) 574-1892  
Contact FAX: (916) 574-1925

November 15, 1999

File Ref: SD 99-10-18.1

George B. Piggott  
Attorney at Law  
2603 Main Street, Suite 1050  
Irvine, CA 92614-6232

Dear Mr. Piggott:

**SUBJECT:** Coastal Development Project Review for Proposed Concrete Caissons, Retaining Wall, Grading and Drainage System Adjacent to 33 Bay Drive, Laguna Beach, Orange County

This is in response to your request on behalf of your clients, Shirley and Carl Frahm, for a determination by the California State Lands Commission (CSLC) whether it asserts a sovereign title interest in the property that the subject project will occupy and whether it asserts that the project will intrude into an area that is subject to the public easement in navigable waters.

The facts pertaining to your clients' project, as we understand them, are these:

Your clients propose to install 16 concrete caissons, construct a retaining wall, fill and regrade an existing slope, and install a subdrain system in the bluff at 33 Bay Drive in the community of Three Arch Bay in Laguna Beach. The work is needed to protect the bluff and the single-family residence as a result of a landslide. You have indicated that the proposed work will tie into similar work that is being performed on the immediately adjacent lots to the south. Our records indicate that by letter dated January 14, 1998, we provided our review of that project.

Some of the caissons were installed along the bluff pursuant to Emergency Permit 5-99-332G issued by the California Coastal Commission (CCC) on September 3, 1999. The remaining caissons will be located along the north side of the bluff. Based on the October 6, 1999 Grading Plans prepared by PBS&J, the caissons will be located between the 20' and 50' contour elevation. The retaining wall will be sited below grade at approximately the 30' contour elevation, with the subdrain system terminating at approximately the seven-foot contour. The plans identify an existing recreation

**COASTAL COMMISSION**  
5-99-332-A1

EXHIBIT # 7

PAGE 1 OF 2



easement. This easement was recorded in 1932 as part of the Tract Map as being an easement, "... for the use and convenience of lot owners in Tract 970 and Tract 971...between foot of slope and line of ordinary high tide".

There is also an existing Irrevocable Offer to Dedicate an easement for public access and passive recreational use along the shoreline, which was recorded February 23, 1981, Book 13957, Pgs. 641-657, Official Records of Orange County. This dedication was a condition of the CCC's issuance of CDP P-80-7431 on January 12, 1981, and states that the easement "... shall include all lands seaward of the toe of the bluff (as determined by the executive director) to the mean high tide line". The dedication was to include a topographical map prepared by a licensed civil engineer showing the location and elevation contours of the bluff with respect to the landward property line. We anticipate the effect, if any, of the landslide and the work being proposed on this offer of dedication will be addressed by the CCC in their consideration of your application for a coastal development permit.

As to that portion of the project involving the caissons and the retaining wall, it does not appear that they will occupy sovereign lands or intrude into an area that is subject to the public easement in navigable waters.

As to the proposed subdrain system, we do not at this time have sufficient information to determine whether this project will intrude upon state sovereign lands. Development of information sufficient to make such a determination would be expensive and time-consuming. We do not think such an expenditure of time, effort and money is warranted in this situation, given the limited resources of this agency and the circumstances set forth above. This conclusion is based on the location of the property, the character and history of the adjacent development, and the minimal potential benefit to the public, even if such an inquiry were to reveal the basis for the assertion of public claims and those claims were to be pursued to an ultimate resolution in the state's favor through litigation or otherwise.

Accordingly, the CSLC presently asserts no claims that the subdrain system intrudes onto sovereign lands or that it would lie in an area that is subject to the public easement in navigable waters. This conclusion is without prejudice to any future assertion of state ownership or public rights, should circumstances change, or should additional information come to our attention.

If you have any questions, please contact Jane E. Smith, Public Land Management Specialist, at (916) 574-1892.

Sincerely,

  
Robert L. Lynch, Chief

Division of Land Management

**COASTAL COMMISSION**

5-99-332

EXHIBIT # 7

PAGE 2 OF 2

