CALIFORNIA COASTAL COMMISSION

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Staff: // Staff Report: //

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Hearing Date: May 9-12, 2000 Commission Action:

Item Tu 19c

STAFF REPORT: REGULAR CALENDAR

APPLICATION NUMBER:

5-99-351

RECORD PACKET COPY

APPLICANT:

Wayne T. McMurray

AGENT:

None

PROJECT LOCATION:

2012 Calle De Los Alamos, San Clemente, Orange County

PROJECT DESCRIPTION:

To permanently authorize the construction allowed under emergency permit 5-99-351-G for installation of a 33' long grade beam supported by four (4) approximately 30' deep caissons, and to allow the replacement of a previously existing retaining wall and

brick patio, repairs to an existing cantilevered deck, and revegetation of the rear slope on a coastal bluff top lot.

LOCAL APPROVALS RECEIVED: City of San Clemente approval-in-concept dated September 9, 1999; City of San Clemente Geotechnical Review dated November 18, 1999.

SUMMARY OF STAFF RECOMMENDATION:

Staff recommends the Commission <u>APPROVE</u> the proposed development with special conditions requiring recordation of deed restrictions regarding assumption-of-risk, future development, conformance with geologic recommendations, and conformance with landscape, drainage and irrigation plans.

The Commission has historically been concerned about five issues in San Clemente: beach access, blufftop development, coastal canyon development, visitor serving facilities, and beach parking.

Issues regarding blufftop development include: minimizing water percolation into the bluff, bluff erosion, requiring native, drought-tolerant landscaping, limiting in-ground irrigation, blufftop setbacks, preservation of natural landforms and view protection.

SUBSTANTIVE FILE DOCUMENTS:

City of San Clemente Certified Land Use Plan; Staff Recommendation on Major Amendment 1-95 San Clemente Land Use Plan (For Public Hearing and Possible Final Action at the Coastal Commission Hearing of October 11, 1995); Geotechnical Investigation of Distress to the Rear Yard of 2012 Calle de los Alamos, City of San Clemente, California (J.N. 247-99) prepared by Petra Geotechnical, Inc. dated August 25, 1999.



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Coastal Development Permits: 5-99-231 (Smith); 5-99-204 (Brown)—application withdrawn: 5-98-508 (Desert Cities Properties); 5-98-469 (Ferber); 5-98-300 (Loughnane); 5-98-273-G (McKinley & Bass): 5-98-178 (McMullen): 5-98-082 (Westberg): 5-98-064 (Barnes): 5-98-020 (Conrad); 5-97-371 (Conrad); 5-97-185 (Schaeffer); 5-97-107 (Spruill); 5-95-069 (Westberg); 5-94-256 (Colony Cove); 5-94-243 (Gilmour), 5-94-213; 5-94-199 (Westberg); 5-93-307 (Ackerly); 5-93-304 (Rosenstein); A5-DPT-93-275 (La Ventana); 5-93-243 (La Ventana); 5-93-143 (Mertz & Erwin); 5-93-254-G (Arnold); 5-93-181 (Driftwood Bluffs); 5-91-170 (Grace); 5-89-381 (McMurray); 5-88-177 (Arnold); 5-86-751; 5-85-527; 6-93-020; 6-98-20A; 5-85-642 (Grace); 5-85-527 (Watt); 5-85-391 (Miller); EME-79-5208 (Harvey); P3967 (Cypress West); Engineering geologic report by C. Michael Scullin of Canoga Park, California titled Engineering Geological Feasibility of Design for a Single Family Residence, Lot 35, Tract 897, 2014 Calle de Los Alamos, San Clemente, California (Project #79149) dated July 22, 1979: Draft Environmental Impact Report Elmore Ranch, 1978, Final Soil Engineering and Engineering Geologic Grading Report P3967; "Mass Movement and Seacliff Retreat along the Southern California Coast" by Antony R. Orme in Bull. Southern California Acad. Sci. 1991; "Greatly Accelerated Man-Induced Coastal Erosion and New Sources of Beach Sand, San Onofre State Park and Camp Pendleton, Northern San Diego County, California" by Gerald G. Kuhn in Shore and Beach, 1980; "High-Quality, Unbiased Data are Urgently Needed on Rates of Coastal Erosion" by Wendell Gayman.

LIST OF EXHIBITS:

- Vicinity Map
- Assessors Parcel Map
- 3. Project Plans
- 4. Copy of Emergency Permit No. 5-99-351-G
- 5. Letters from S.B. Barnes Associates
- 6. Letter from Petra Geotechnical, Inc.

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STAFF RECOMMENDATION:

Staff recommends that the Commission <u>APPROVE</u> the permit application with special conditions.

MOTION:

I move that the Commission approve CDP #5-99-351 pursuant to the staff recommendation.

Staff recommends a <u>YES</u> vote. This 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 **GRANTS** a permit, subject to the conditions below, for the proposed development on the grounds that the development will be in conformity with the provisions of Chapter 3 of the California Coastal Act of 1976, will not prejudice the ability of the local government having jurisdiction over the area to prepare a Local Coastal Program conforming to the provisions of Chapter 3 of the Coastal Act, is located between the sea and the first public road nearest the shoreline and is in conformance with the public access and public recreation policies of Chapter 3 of the Coastal Act, and will not have any significant adverse effects on the environment within the meaning of the California Environmental Quality Act.

II. STANDARD CONDITIONS:

- 1. <u>Notice of Receipt and Acknowledgment.</u> 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.
- 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. <u>Compliance.</u> 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. <u>Inspections.</u> The Commission staff shall be allowed to inspect the site and the project during its development, subject to 24-hour advance notice.
- 6. <u>Assignment.</u> 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.

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7. <u>Terms and Conditions Run with the Land.</u> 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 and Indemnity

- A. By acceptance of this permit, the applicant acknowledges and agrees (i) that the site may be subject to hazards such as bluff erosion and landslides-- specifically, the effects of expansive soils, slope creep and lateral fill extension; (ii) to assume the risks to the applicant and the property that is the subject of this permit of injury and damage from such hazards in connection with this permitted development; (iii) to unconditionally waive any claim of damage or liability against the Commission, its officers, agents, and employees for injury or damage from such hazards; and (iv) to indemnify and hold harmless the Commission, its officers, agents, and employees with respect to the Commission's approval of the project against any and all liability, claims, demands, damages, costs (including costs and fees incurred in defense of such claims), expenses, and amounts paid in settlement arising from any injury or damage due to such hazards.
- B. PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall execute and record a deed restriction, in a form and content acceptable to the Executive Director incorporating all of the above terms of this condition. The deed restriction shall include a legal description of the applicant's entire parcel. The deed restriction shall 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. Future Development Deed Restriction

- A. This permit is only for the development described in Coastal Development Permit No. 5-99-351. Pursuant to Title 14 California Code of Regulations section 13253(b)(6), the exemptions otherwise provided in Public Resources Code section 30610 (b) shall not apply to the entire parcel. Accordingly, any future improvements to the permitted structure, including but not limited to repair and maintenance identified as requiring a permit in Public Resources section 30610(d) and Title 14 California Code of Regulations sections 13252(a)-(b), which are proposed within the restricted area shall require an amendment to Permit No. 5-99-351 from the Commission or shall require an additional coastal development permit from the Commission or from the applicable certified local government.
- B. PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall execute and record a deed restriction in a form and content acceptable to the Executive Director, reflecting the above restrictions on development within the parcel. The deed restriction shall include legal descriptions of the applicant's entire parcel. The deed restriction shall run with the land, binding all successors and assigns, and shall be recorded free of prior liens that the Executive Director determines may affect the enforceability of the restriction. This deed restriction shall not be removed or changed without a Commission amendment to this coastal development permit.
- 3. Conformance of Design and Construction Plans to Geotechnical Report

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- A. All final design and construction plans, including foundations, grading and drainage plans, shall be consistent with all recommendations contained in the *Geotechnical Investigation of Distress to the Rear Yard of 2012 Calle De Los Alamos, City of San Clemente, California* (J.N. 247-99) prepared by Petra Geotechnical, Inc. dated August 25, 1999. 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 evaluation approved by the California Coastal Commission for the project site.
- B. 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.

4. Conformance with Landscape Plan

A. The applicant shall comply with the landscape plans dated February 3, 2000 and the letter dated February 11, 2000 prepared by Hofferber and Associates to reduce adverse visual and geologic impacts due to erosion and adverse impacts to environmentally sensitive habitat areas through the spread of non-native invasive plant species.

In addition, the applicant shall comply with the following provisions:

- (a) all planting shall provide 70 percent coverage within 1 year;
- (b) 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;
- (c) Landscaped areas in the rear yard not occupied by hardscape shall be planted and maintained for erosion control and visual enhancement purposes. To minimize the need for irrigation and to screen or soften the visual impact of development all landscaping shall consist of native, drought resistant plants. Invasive, non-indigenous plant species which tend to supplant native species shall not be used;
- (d) Landscaped areas in the front and side yards can include ornamental or native, drought-tolerant plants. Vegetation installed in the ground shall consist of native, drought tolerant plants. Other vegetation which is placed in above ground pots or planters or boxes may be non-invasive, non-native ornamental plants. Sod or non-native ground covers which require watering shall not be placed on the site;
- (e) No in-ground irrigation systems shall be installed on the site. Temporary above ground irrigation is allowed to establish plantings.
- B. The permittee shall undertake development in accordance with the approved plan. Any proposed changes to the approved final plan shall be reported to the Executive Director. No changes to the approved plan shall occur without a Commission amendment to this coastal development permit unless the Executive Director determines that no amendment is required.

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5. Drainage and Runoff Control Plan

A. The applicant shall comply with the drainage and runoff control measures identified in the landscape plans dated February 3, 2000 and the letter dated February 11, 2000 prepared by Hofferber and Associates to reduce adverse geologic effects of water infiltration on slope stability.

In addition, the applicant shall comply with the following provisions:

- (a) drainage shall be directed away from the bluff edge and toward drainage inlets where possible;
- (b) runoff from the all roofs, patios, driveways and other impervious surfaces and slopes on the site shall be collected and discharged to the street by pipe to avoid ponding or erosion either on or off the site.
- (c) The functionality of the approved drainage and runoff control plan shall be maintained throughout the life of the development.
- B. The permittee shall undertake development in accordance with the approved plan. Any proposed changes to the approved plan shall be reported to the Executive Director. No changes to the approved plan shall occur without a Commission amendment to this coastal development permit unless the Executive Director determines that no amendment is required.

IV. FINDINGS AND DECLARATIONS:

The Commission hereby finds and declares:

A. PROJECT DESCRIPTION AND LOCATION

1. Project Location

The project site is located at 2012 Calle De Los Alamos, City of San Clemente, County of Orange, on a coastal bluff between the first public road and the sea (Exhibits 1 and 2).

The proposed project will occur on the seaward side of an existing single family residence. The property is bordered on the northeast and southwest by existing single-family residences, on the southeast by Calle de los Alamos, and on the northwest by an approximately 20-25 foot high fill slope which descends at an approximate slope ratio of 1½:1 (horizontal to vertical) to an approximately 50-foot high descending natural slope. The bluff slope descends to the railroad and sandy beach below.

The coastal bluffs in San Clemente are not subject to direct wave attack because they are separated from the beach by the Orange County Transportation Authority (OCTA) railroad tracks and right-of-way. The railroad tracks have a rip-rap revetment which protects the tracks from erosion and wave overtopping. Though not subject to direct wave attack, the bluffs are subject to weathering caused by wind and rain.

Public beach access is available approximately 150 feet north of the site at the Lost Winds Beach Stairway, located near the intersection of Calle Lasuen and Calle de Los Alamos.

2. Project Description

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The proposed project permanently authorizes the installation of a 33' long grade beam supported by four (4) approximately 30' deep caissons along a bluff edge, and allows:

1) replacement of a concrete block retaining wall and brick patio, 2) repairs to an existing cantilevered wooden deck, and 3) revegetation of the rear slope (Exhibit 3, Project Plans).

Installation of the grade beam and caissons was approved by emergency permit 5-99-351-G on December 7, 1999 in order to provide immediate protection of an existing single-family residence located directly inland of the bluff edge (Exhibit 4, Emergency Permit). As discussed in further detail on pages 12 and 13 of the current staff report, the work performed under the emergency permit was considered the minimum amount necessary to protect the existing structure.

The new grade beam measures 33' long x 1' 6" high x 2' 9" and extends along the length of the bluff top. The caissons are 24" in diameter and have a 10' minimum depth of embedment into competent bedrock. With the current application, the applicant is proposing to complete the slope stabilization project by placing a new 2' 8" retaining wall atop the recently installed grade beam and concrete caisson system. The new retaining wall will be placed directly seaward of the existing retaining wall. The existing retaining wall will then be chipped down to beneath surface level (See Exhibit 3, page 2).

The project also involves the replacement of soil and vegetation removed during installation of the grade beam and caissons. Approximately 18" of the new retaining wall will be visible after replacement of the slope material and revegetation. Repairs will also be made to the decking of the existing cantilevered wooden deck, as holes had to be cut in the decking for installation of the caissons. In addition, the project involves the replacement of a brick patio removed during installation of the grade beam and caissons. The 18' x 12' brick patio will be re-laid over a waterproof membrane and the cantilevered deck will be reconstructed in-kind. The membrane and rear yard surface drainage will be connected to an existing drainage system that drains to the bottom of the slope. The existing system includes a 3" drain inlet in the brick patio area drains to the base of the bluff. The roof drains are connected to an adjacent underground system that drains to the street.

The purpose of the proposed project is to stabilize the rear slope to protect the existing residence. The proposed project also involves repairs to the cantilevered deck, replacement of the brick patio, and revegetation of the rear slope with native, drought-tolerant plant species. No improvements to the residence are proposed.

3. Prior Commission Actions in Subject Area / Similar Special Conditions

On July 11, 1989, the Coastal Commission approved Coastal Development Permit Waiver 5-89-381 (McMurray) for an enclosed living space addition on the inland side of the residence at the subject site.

On December 7, 1999, the Executive Director approved Emergency Permit 5-99-351-G (McMurray) for installation of a 33' long by 18" high by 2'9" wide gradebeam and four (4) 24" diameter, approximately 30' deep caissons within and along the rear yard bluff top. At that time, the existing in-ground irrigation system was shut off to ensure slope stability.

Additionally, there are several coastal development permits issued for projects on coastal bluffs in the immediate vicinity. Coastal development permits 5-85-642 (Grace) and 5-91-170 (Grace) were issued for 2022 Calle de Los Alamos, located south of the subject site. These coastal development permits were for additions to an existing, pre-Coastal Act residence, which did not result in the seaward encroachment of the existing footprint of the residence. Coastal development permits 5-94-199 (Westberg) and 5-95-069 (Westberg) for 2016 Calle de Los

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Alamos located two lots south of the subject site were also for additions to a pre-Coastal Act residence which did not result in the seaward encroachment of the existing dwelling.

Coastal development permit 5-98-082 (Westberg), also at 2016 Calle de Los Alamos, approved the repair and replacement of a rear yard patio, steps, landing, and walkway and denied the placement of a railroad tie revetment on a coastal bluff face. The rear yard patio, steps, landing, and walkway required repair due to bluff top erosion. These elements of the project were approved. However, the Commission found that the proposed railroad tie revetment resulted in a seaward encroachment that would change the established stringline in the area and result in adverse impacts upon a coastal bluff, therefore this element of the project was denied. The Commission imposed several conditions including a deed restriction informing the applicant and future owners that future protective structures may not be allowed unless there are no other feasible alternatives. In the current case [5-99-351(McMurray)], the proposed protective structure has been determined to be the most feasible alternative available, as will be discussed in the subsequent section.

Coastal development permit 5-85-391 (Miller) was for a new single family residence on a vacant lot at 2014 Calle de Los Alamos, one lot south of the subject site. In this case, the proposed development was approved as it conformed with a stringline which provided at least an 18 foot setback from the bluff edge. It should be noted that the edge of the bluff is roughly linear at this location, whereas the bluff edge is not linear at the subject site. The applicant submitted geotechnical information prepared by C. Michael Scullin of Canoga Park, California titled Engineering Geological Feasibility of Design for a Single Family Residence, Lot 35, Tract 897, 2014 Calle de Los Alamos, San Clemente, California (Project #79149) dated July 22, 1979. The geotechnical report identifies unfavorable engineering geologic conditions including surficial slumping with slabing and failure along joint and shear planes along the lower areas of the bluff slope, as well as seepage percolating out of the terrace deposits along the bluff. The geotechnical report concludes that such slumping will continue. Therefore, a caisson foundation deepened between 23 feet and 32 feet below grade was recommended. The geotechnical report also recommended minimizing or eliminating all infiltration of surface water into the subsurface and conducting all such surface water to the street.

Emergency Coastal Development Permit EME-79-5208 (Harvey) was issued for emergency remedial measures to stabilize bluff top areas at 2008 Calle de Los Alamos, located north of the subject site. In this case, caissons and grade beams were required to elevate and stabilize sliding portions of the existing single family residence. In addition, patio areas were removed and replaced.

As described previously, geotechnical information submitted for coastal development permits on Calle de Los Alamos have previously identified adverse geologic conditions along the bluffs in the subject area. In addition, emergency protective works have been required at nearby sites and the subject site. Other repairs and protective works have been required due to bluff erosion just south of the site. The information provided in these permit actions and applications suggests that development in the vicinity of the subject site is threatened by damage due to erosion of the bluffs.

There are other examples nearby where protective works have also been required to protect bluff top development. For example, emergency Coastal Development Permit 5-93-254-G was for bluff top protective works at 3820 Vista Blanca. In this case, development previously approved by the Commission under Coastal Development Permit 5-88-177 required protection from bluff top erosion, despite geotechnical information submitted with the application for 5-88-177 which suggested that no such protection would be required if the development conformed to a 25 foot bluff top set back. Accordingly, there is evidence that the geologic hazards of bluff top sites may escape disclosure even when a geologic investigation is performed. More recently, the Executive Director issued emergency Coastal Development

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Permit 5-98-273-G (McKinley & Bass) for the construction of a retaining wall on Paseo de Cristobal which was required to protect a residence on a coastal bluff. The Commission has notified owners and future occupants of such sites through the placement of deed restrictions regarding assumption-of-risk and limitations on future bluff top protective works. Examples of permits with such conditions include Coastal Development Permit 5-98-082 (Westberg) on Calle de Los Alamos and 5-94-243 (Gilmour), 5-98-300 (Loughnane), and 5-98-508 (Klien) on Vista Blanca.

The special conditions of this staff report (5-99-351) are similar to the special conditions required of CDPs 5-94-243, 5-97-371, 5-98-082, 5-98-300, 5-98-508, 5-99-231 in that they require the applicant to conform to geologic recommendations, assume the risk associated with the proposed development, and comply with landscaping, irrigation and drainage plans.

B. BLUFFTOP STABILITY

Blufftop development poses potential adverse impacts to the geologic stability of coastal bluffs, to the preservation of coastal visual resources, and to the stability of existing residential structures, both the applicant's and adjoining structures. Coastal bluffs in the City of San Clemente are composed of fractured bedding which is subject to block toppling and unconsolidated surface soils which are subject to sloughing, creep, and landsliding. The setback and stringline policies of the Commission were instituted as a means of limiting the encroachment of development seaward to the bluff edges on unstable bluffs and preventing the need for construction of revetments and other engineered structures to protect development on coastal bluffs, as per Section 30253 of the Coastal Act.

1. Coastal Act and City of San Clemente Certified Land Use Plan (LUP) Policies

Section 30253 of the Coastal Act states:

New development shall:

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

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...

The City of San Clemente Certified LUP contains policies limiting new development on coastal bluff faces to public staircases and policies establishing stringlines for purposes of limiting the seaward encroachment of development onto eroding coastal bluffs. Although the standard of review for projects in San Clemente is the Coastal Act, the policies of the Certified LUP are used as guidance. These policies include the following:

Policy VII.13:

Development shall be concentrated on level areas (except on ridgelines and hilltops)

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and hillside roads shall be designed to follow natural contours. Grading, cutting, or filling that will alter landforms (e.g.; bluffs, cliffs, ravines) shall be discouraged except for compelling reasons of public safety. Any landform alteration proposed for reasons of public safety shall be minimized to the maximum extent feasible.

2. Bluff Stability and Erosion

This section includes a general discussion of the causes of bluff erosion in the Southern California region, particularly San Clemente, and specific bluff erosion at the project site. While the applicant is proposing to protect an existing structure and is not proposing any new residential development, the following discussion identifies the problems associated with poorly sited development in the subject area.

a. Generalized Findings on Bluff Erosion

In general, bluff erosion is caused by environmental factors and impacts caused by man. Environmental factors include seismicity, wave attack, drying and wetting of soils, wind erosion, salt spray erosion, rodent burrowing, percolation of rain water, poorly structured bedding, and soils conducive to erosion. Factors attributed to man include bluff over-steepening from cutting roads and railroad tracks, irrigation, over-watering, building too close to the bluff edge, improper site drainage, use of impermeable surfaces to increase runoff, use of water-dependent vegetation, pedestrian or vehicular movement across the bluff top and toe, and breaks in water or sewage lines. In addition to runoff percolating at the bluff top site, increased residential development inland also leads to increased water percolation through the bluff.

There are numerous articles about seacliff retreat and bluff erosion in coastal literature. Much of this literature pertains to bluffs subject to wave attack and to large-scale landsliding. Anthony R. Orme wrote a paper entitled "Mass Movement and Seacliff Retreat along the Southern California Coast" published in the Bulletin of the Southern Academy of Science in 1991. He states that there are other factors in bluff erosion besides wave attack, including weathering of coastal cliffs by salt spray evaporation. The coastal bluffs at the project location are subject to wind-borne salt spray from the ocean.

In conclusion, Orme states:

Seacliff retreat is a natural process which, if unheeded, threatens human life and livelihood, and which can be aggravated by human activity. It will continue to occur and therefore responsible coastal management must require that human activity be set back an appropriate distance from cliff tops and diverted from unstable and potentially unstable terrain.

According to Orme, a major source of bluff instability in the Los Angeles area was the construction of the Pacific Coast Highway and the railroad. Like Los Angeles, the coastal bluffs in the City of San Clemente were disrupted by the construction of the Pacific Coast Highway and the railroad. Wherever the railroad tracks removed the toe of a coastal bluff, that coastal bluff became unstable. The bluffs at the subject site are separated from the ocean by the railroad. However, the railroad construction activity happened early in the century and although the coastal bluffs in San Clemente were impacted by the railroad construction, they are still natural coastal bluff landforms up to 100 feet high. These coastal bluffs would be eroding with or without the railroad construction.

There are two recent, major coastal bluff stabilization projects in the City of San Clemente (La Ventana and Colony Cove) where residences on coastal bluffs have either been destroyed or endangered by bluff failure [CDPs 5-93-243 (San Clemente), A5-DPT-93-275 (Dana Point)]. Other residences on coastal bluffs in San Clemente have received permits to install caissons or other foundation protection measures, including CDPs 5-93-181 (Driftwood Bluffs), 5-93-307

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(Ackerly), and 5-93-143 (Mertz & Erwin), because existing structures were threatened by bluff erosion.

In addition, landsliding of coastal bluffs below La Ventana Street in the City of Dana Point resulted in the destruction of five homes. Landsliding of the bluffs below Colony Cove resulted in the undermining of terrace walls and patio structures. Drainage is discussed on page 9 of the La Ventana geotechnical report. The primary cause of the La Ventana Landslide was water infiltration into the bluff along a deep-seated slope failure line. The report states that water seepage onto the bluff face was longstanding and that landscaping on the rear yards of some bluff top homes may have contributed to the accumulation of water in the slopes.

The Commission has received many application requests to resolve geotechnical problems and protect existing structures on coastal bluffs and coastal canyons in San Clemente (CDPs 5-93-181 (Driftwood Bluffs) and 5-93-143 (Mertz & Erwin) among others) which were caused by inadequate drainage systems, i.e., broken irrigation lines, over-watering, directing uncontrolled runoff to the bluff slopes, and differential settling due to improperly compacted fill.

An emergency permit was issued in 1990 for massive grading of unstable bluffs at the Marblehead site. Landsliding in 1990 had caused repeated closures of the Pacific Coast Highway at the base of the bluffs. Unlike the La Ventana and Colony Cove sites, there was no development on the Marblehead bluffs. The Marblehead Bluffs erosion problem was created in part by the construction of the railroad and the Pacific Coast Highway which resulted in oversteepening of the bluffs. The Marblehead geological report by Zeiser Kling Consultants, Inc., discusses the process of bluff retreat:

The oversteepened bluffs fail due to erosion, such as wave action along the base of the bluff, and due to other environmental factors such as water saturation during periods of abundant rainfall. Fallen debris accumulates at the foot of the slopes where it forms an unstable talus pile. Secondary failures occur as the talus erodes. As more failures occur, the bluff retreats landward. In its mature state, the landform no longer has the appearance of a bluff. The talus pile grows into a large "apron" that buries the bluffs, but continues to fail intermittently as it seeks its angle of repose. The landform may become temporarily stable when the talus apron is large enough to cover the bluff face, protecting the otherwise steep slopes from exposure and possibly buttressing the base of the slopes.

The bluffs at the project site on Calle de Los Alamos do not have adequate space at the toe of the slope to allow for talus deposition because of the close proximity of the railroad tracks, which must be periodically cleared of debris to ensure the safe passage of trains. This process has been going on since the construction of the railroad in the early part of the century, long before houses were contemplated at this site.

The Marblehead and other geotechnical reports state that the process of coastal bluff erosion can be slowed by landscaping, setting buildings back from the blufftop and constructing impact barriers at the base of the bluff, or by grading and terracing the slope.

The Colony Cove, La Ventana, and Marblehead bluff stabilization projects are located several miles from the project site. However, there are bluff stability problems along the entire stretch of San Clemente coastal bluffs, as evidenced by applications for foundation support systems for residences on coastal bluffs and by foundation support systems built previous to the Coastal Act. Much of the development on coastal bluffs prior to the Coastal Act was constructed close to the bluff top edge and later required support systems for failing patios, decks and other improvements.

In addition to documentation of the instability of coastal bluffs in San Clemente, Gerald G. Kuhn published an article entitled "Greatly Accelerated Man-Induced Coastal Erosion and New

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Sources of Beach Sand, San Onofre State Park and Camp Pendleton, Northern San Diego County, California" in which it is noted that 80% of the cliffs between the San Onofre Nuclear Power Plan and Target Canyon have experienced landslides. Camp Pendleton is located approximately two miles south of the project site.

b. Site Specific Geotechnical Data

The site is developed with a single-family residence located directly adjacent to a bluff edge. The rear yard portion of the property has been showing increasing signs of distress over recent months. The applicant has submitted a geotechnical report entitled *Geotechnical Investigation of Distress to the Rear Yard of 2012 Calle de los Alamos, City of San Clemente, California* (J.N. 247-99) prepared by Petra Geotechnical, Inc. dated August 25, 1999. The geotechnical report concludes that the subject site is adversely affected by slope creep and recommends stabilization measures to mitigate future distress to site improvements, including the existing residence, cantilevered deck and rear yard brick patio. The geotechnical report states the following:

"the primary contributory factors to the observed distress to the rear yard portion of the subject site are due to the following processes: slope creep, lateral fill extension and differential fill settlement in conjunction with locally poor drainage conditions."

According to the report, the subject site consists of artificial fill to a depth of approximately 20 ½ feet. Bedrock materials of the Capistrano Formation were observed to underlie the artificial materials on site. The report discusses the expansive nature of the fill soil and describes the tendency of the material to expand and heave. As stated on page 7 of the geotechnical report, "this heave causes an upward and lateral movement of hardscaped areas or, if the movement is restricted, causes distress and fracturing to hardscape features constructed in these areas." In the case of the McMurray property, the heaving movement caused distress to the existing retaining wall, which provides protection for the existing residence.

In addition to the initial report submitted by Petra Geotechnical, supplemental letters were received from Petra Geotechnical and S.B. Barnes Associates Engineering, which provided further factual detail to allow the emergency permit to be issued prior to the rainy season for protection of the residence (Exhibits 5 and 6). They both indicated that blufftop distress would be exacerbated by lateral migration of subsurface water and recommended immediate installation of the slope stabilization project. In a letter from Robert Spraklin of S.B. Barnes Associates, he states:

"The existing wall has fractured as indicated on the drawings and the southerly portion has deflected outward approximately three inches at its center. Rupture of this wall will expose the caissons supporting the residence. These caissons were not designed to be free standing not resist any kind of lateral loading as might occur in retaining the earth beneath the residence. Their exposure would seriously jeopardize the integrity of the building foundation system.

You should make every effort to install the caissons and grade beam before the winter rains."

The residence, constructed prior to the Coastal Act, is supported by a system of grade beams and caissons, which are believed to "extend through the unsuitable fill material into competent bearing native soils." However, there is no evidence that the caissons supporting the residence are embedded in bedrock. Therefore, if the original retaining wall were to fail and the foundation system exposed, the consultants contend that the existing residence would be threatened. While temporary winterization measures were taken (i.e. plastic sheets covering

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the slope), the consulting geologist indicated that migration of subsurface water from adjacent properties would continue, thereby endangering the residence.

The Commission's technical staff reviewed the permit file at that time and concurred with the consultants' recommendations. Therefore, the immediate installation of caissons and grade beam was deemed necessary to protect the existing residence. The emergency permit was issued December 7, 1999, allowing the installation of an approximately 33' long grade beam supported by four (4) 30' deep caissons. The emergency permit included a caveat that the existing irrigation system be shut off at the time of issuance. (Drainage will be discussed in the subsequent section.) Construction of the work covered by the emergency permit was completed in early January.

c. Alternatives and Recommended Conditions

The applicants are proposing to complete a bluff stabilization project approved in part by Emergency Permit No. 5-99-351-G. As discussed previously, the first part of the project allowed the installation of a 33' long grade beam supported by four (4) approximately 30' deep caissons. This work was carried out in late December 1999/early January 2000. At this time, the applicant proposes to place a new concrete block retaining wall atop the grade beam and caisson system (directly seaward of the previously existing retaining wall) and reconstruct the previously existing slope. The proposed project also involves repairs to an existing cantilevered deck, replacement of a brick patio and revegetation of the rear slope to pre-existing conditions. The applicants are not proposing any improvements to the existing residence.

Alternatives

The applicant considered several alternatives to stabilize the rear slope of the subject property. These included the installation of soldier piles; removal and replacement of the existing retaining wall; and as a last resort "do nothing" and make repairs as necessary. The applicant indicated that access for the equipment to drive soldier piles is extremely limited and only two local drillers were determined to have suitable equipment. However, it was determined that these drillers could not operate on the subject slope. The "do nothing" alternative was dismissed in an effort to protect the existing residence. After considering the options, the applicant chose to pursue the installation of a grade beam and caisson system with replacement of the retaining wall.

Recommended Conditions

The geotechnical report concludes, "the rear yard area of the subject site is located adjacent to a steeply descending fill-over-natural slope that consists of fill and bedrock materials that are slightly plastic and slightly expansive. Due to their inherent composition and the proximity of the adjacent descending slope, these materials invariably exhibit the potential to undergo a significant amount of long-term volume changes such as settlement, heave, and lateral movement. The recommendations provided in the Petra Geotechnical Report are "intended to reduce the potential for distress of structures resulting from the effects of expansive soils, slope creep and lateral fill extension." However, the report also warns that even with implementation of these recommendations, a certain amount of cracking and or/horizontal and vertical movements is unavoidable and can be anticipated during the life of the proposed development.

As discussed previously, the information submitted by the geotechnical and structural engineering consultants indicates that the proposed project will stabilize the existing slope to protect the existing structure. However, in order to assure that the slope stabilization project is carried out in a manner consistent with Section 30253 and 30235 of the Coastal Act, the proposed development may only be approved subject to several special conditions.

Assumption-of-Risk Deed Restriction

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Special Condition 1 is an assumption of risk condition. Although the proposed project will be constructed with geotechnical approval, risk from development on a coastal bluff is not eliminated entirely. While the project is deemed entirely adequate at this time to protect the existing structure, future protection and repair may be required as subsurface conditions continue to change. Therefore, the standard waiver of liability condition has been attached through Special Condition 1. By this means, the applicant is notified that the residence is being built in an area that is potentially subject to bluff erosion that can damage the applicant's property. The applicant is also notified that the Commission is not liable for such damage as a result of approving the permit for development. Finally, recordation of the condition ensures that future owners of the property will be informed of the risks and the Commission's immunity for liability.

Future Development Deed Restriction

Special Condition 2 is a future development deed restriction which states that any future improvements or additions on the property, including hardscape improvements, grading, landscaping, vegetation removal and structural improvements, require a coastal development permit from the Commission or its successor agency. This condition ensures that the property owner and any successors in interest are notified that development on coastal bluffs requires a coastal development permit. The condition also ensures that the Commission will have an opportunity to review any proposed development, such as slope stabilization for conformance with the Coastal Act.

Conformance with Geotechnical Recommendations

The Geotechnical Investigation submitted by the applicant indicates that the proposed slope stability project is required to protect the existing residence. The report includes certain recommendations to increase the degree of stability of the structure and patio. The recommendations included in the Geotechnical Investigation address the following: Existing Top-of-Slope Retaining Wall with Grade Beam and Caisson System; the Proposed Retaining Wall, Lateral Earth Pressures (as they relate to backfill); Drainage and Moisture-Proofing; Wall Backfill; Plan Review and Field Observation, Existing Patio Area, and Drainage. According to the consulting geologist, "these recommendations, when implemented properly during site improvements, should significantly reduce potential for future distress to structures located within the rear portion of the property."

In order to assure that risks are minimized, the geotechnical consultant's recommendations must be incorporated into the design of the project. As a condition of approval (Special Condition No. 3), the applicant shall submit, for the review and approval of the Executive Director, slope stabilization plans signed by the geotechnical consultant indicating that the recommendations contained in the Geotechnical Investigation have been incorporated into the design of the proposed project.

Therefore, as conditioned, the Commission finds that the proposed project is consistent with Section 30253 of the Coastal Act which requires that geologic risks be minimized and that geologic stability be assured.

Conformance with Landscaping Plan

As was stated in the section on generalized bluff erosion, there is ample evidence in the City of San Clemente that the bluffs are adversely impacted by human development. Specifically, 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. Local examples where adverse geologic impacts related to landscaping, drainage, and irrigation include damage experienced at 2016 Calle de Los Alamos. The geologic report submitted with this application (5-99-351) includes recommendations for landscaping, drainage and irrigation, but unlike other engineering specifications, these recommendations are typically not reviewed and implemented by the consulting geologist/engineer. For instance, Petra recommends:

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- The evaluation and improvement of surface drainage where possible;
- Improving current drainage conditions within the rear yard;
- Monitoring and adjustment of landscape irrigation according to seasonal conditions;
- Inspection of subdrain systems to make sure they are clear of debris, vegetation and other materials.

For developments on blufftop lots in San Clemente, the Commission has typically imposed a special condition to require landscaping plans that include native and drought tolerant plants to minimize the introduction of water into the ground. Applicants are required to submit such plans for the review and approval of the Executive Director in order to be found in conformance with Section 30253 of the Coastal Act. In this instance, the applicant has already submitted a landscape plan prepared by Hofferber and Associates dated February 3, 2000 and reviewed by Petra Geotechnical, Inc. on February 14, 2000.

The recommendations of Petra include planting deep-rooted woody plant material on the slope; requiring installation of the above-ground temporary drip system by a qualified contractor; avoiding over-watering and over-drying; and adjusting the water needs based on seasonal climatic changes. A more detailed project description letter was then prepared by Trent Hofferber, licensed landscape architect, incorporating the recommendations of the geotechnical consultant into the final plans.

To ensure conformance with the plan prepared by Hofferber and Associates, the Commission imposes Special Condition 4, which requires the applicant to comply with the specific provisions of the landscaping plan. The landscaping plan consists primarily of native, drought-tolerant plants and no in-ground irrigation systems. Special Condition 4 requires that areas not occupied by hardscape be planted primarily with native, drought tolerant plants indigenous to the area. The condition distinguishes between the types of plants allowed in the rear, side and front yards. Non-native ornamental plants are allowed in the front and side yards only if they are kept in containers. Rear yard, bluff top plantings consist entirely of native, drought-tolerant plants. 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 condition allows for the placement of non-drought-tolerant, water-dependent plants in containers, i.e., boxes and planters, along the side and front yards. Bluff-top plants shall consist entirely of native, drought-tolerant plants.

Conformance with Drainage Plan and Runoff Control Plan

The Commission also requires the applicant to comply with specific drainage and run-off control provisions included in the landscaping plan. To ensure compliance with these measures, the Commission imposes Special Condition 5. In keeping with the geotechnical recommendations, this plan includes provisions that all run-off be taken to the street and that irrigation be minimized. As such, the roof drainage will discharge directly from roof gutters into a pipe system to the street. Additionally, the plan requires surface water to be directed toward drain inlets and does not allow it to percolate into the ground, as groundwater has been determined to contribute to slope instability at the subject site. In recent actions on unstable bluffs (Ferber 5-98-469), the Commission has required that no in-ground irrigation systems be installed on bluff-top lots. This special condition conforms with the previous actions of the Commission regarding in-ground irrigation systems. The condition does acknowledge that temporary above ground watering is allowed for plant establishment and growth.

d. Conclusion

5-99-351 (McMurray) Page 16 of 18

Only as conditioned for assumption-of-risk deed restriction; future improvements deed restriction; and conformance with geotechnical recommendations, landscaping, drainage and irrigation requirements, does the Commission find the proposed development in conformance with Section 30253 of the Coastal Act.

C. SCENIC RESOURCES

Section 30251 of the Coastal Act pertains to visual resources. It 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...

The proposed project is located on a blufftop lot above a public beach accessible via San Clemente State Beach and the Lost Winds Beach Stairway. The certified LUP states that San Clemente State Beach is "one of the most heavily utilized facilities in the State Parks system, generating two million visitors annually. The facilities at San Clemente State Beach include 210 parking spaces, 157 camping sites, 72 hookups for campers, bathrooms and showers. In addition, the LUP notes that a 7.5 acre lot to the south of the State Beach which was given to the State Parks as a condition of a subdivision permit is rugged canyon terrain and will be kept in its natural state.

•The project is located adjacent to San Clemente State Beach, a highly scenic popular beach area. Consequently, it is necessary to ensure that the development will be sited to protect views to and along the beach area and minimize the alteration of landforms.

In order to ensure that the visual appearance of the bluff is protected, the applicant is being conditioned to comply a future development deed restriction and landscape condition. The future development deed restriction ensures that improvements are not made at the blufftop which could affect the visual appearance of the coastal bluff or affect the stability of the bluff. The landscape condition requires that the applicant install native, drought-tolerant plants along the bluff-top and rear yard and that only temporary irrigation to establish the plants is permitted. These native plants will be compatible with the native plants already in existence on bluff faces in San Clemente. In addition, the vegetation will screen the 18" of new retaining wall visible after project completion. The new retaining wall will simply replace the existing wall; therefore, no new visual effects will result from the proposed project.

Therefore, the Commission finds that, as conditioned for the landscaping condition and future development deed restriction, the project is consistent with the visual resource protection policies of Section 30251 of the Coastal Act.

D. PUBLIC ACCESS AND RECREATION

Section 30212(a)(2) of the Coastal Act states:

- (a) Public access from the nearest public roadway to the shoreline and along the coast shall be provided in new development projects except where:
 - (I) it is inconsistent with public safety, military security needs, or the protection of fragile coastal resources,
 - (2) adequate access exists nearby, or,

5-99-351 (McMurray) Page 17 of 18

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

Section 30604(C) of the Coastal Act requires that permit applications between the nearest public road and the shoreline of any body of water within the coastal zone shall include a public access and recreation finding. The proposed development is located between the sea and the first public road. Vertical public beach access is available approximately 150 feet north of the site at the Lost Winds Beach Stairway, located near the intersection of Calle Lasuen and Calle de Los Alamos. Lateral access to the Pacific Ocean and sandy beach is immediately adjacent to the proposed development via San Clemente State Beach. Situated at the toe of the coastal bluff is the railroad right-of-way. The project site does not provide access to the ocean.

A public access dedication can be required pursuant to Section 30212 only if it can be shown that the development either individually or cumulatively directly impacts physical public access, impacts historic public use, or impacts or precludes use of Public Trust Lands. In this situation, the development is located between the sea and the first public road, however, it does not impact access either directly or indirectly to the ocean. The project site will remain a single-family residential use and will not result in an intensification of use. The development will not create adverse impacts, either individually or cumulatively, on public access and will not block public access from the first public road to the shore. Therefore, the Commission finds that the proposed development is consistent with Section 30212 of the Coastal Act.

E. LOCAL COASTAL PROGRAM

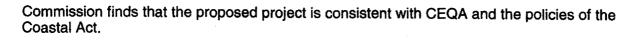
Section 30604(a) of the Coastal Act provides that the Commission shall issue a coastal permit only if the project will not prejudice the ability of the local government having jurisdiction to prepare a Local Coastal Program which conforms with Chapter 3 policies of the Coastal Act. The Commission certified the Land Use Plan for the City of San Clemente on May 11, 1988, and certified an amendment approved in October 1995. On April 10, 1998, the Commission certified with suggested modifications the IP portion of the Local Coastal Program. The suggested modifications expired on October 10, 1998. As conditioned, the proposed development is consistent with the policies contained in the certified Land Use Plan regarding public access. Therefore, approval of the proposed development will not prejudice the City's ability to prepare a Local Coastal Program for San Clemente that is consistent with the Chapter 3 policies of the Coastal Act as required by Section 30604(a).

F. CONSISTENCY WITH THE CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA).

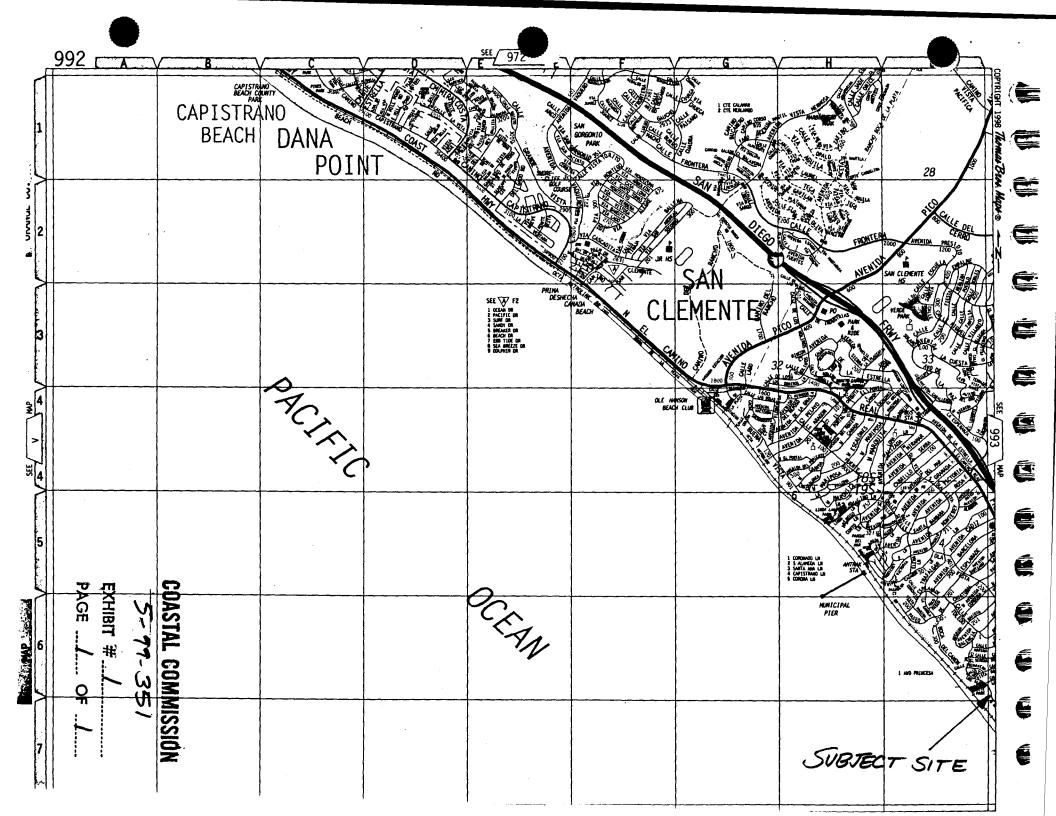
Section 13096 of Title 14 of the California Code of Regulations requires Commission approval of coastal development permits to be supported by a finding showing the permit, as conditioned by any conditions of approval, to be consistent with any applicable requirements of the California Environmental Quality Act (CEQA). Section 21080.5(d)(2)(A) of CEQA prohibits a proposed development from being approved if there are feasible alternatives or feasible mitigation measures available which would substantially lessen any significant adverse effect which the activity may have on the environment.

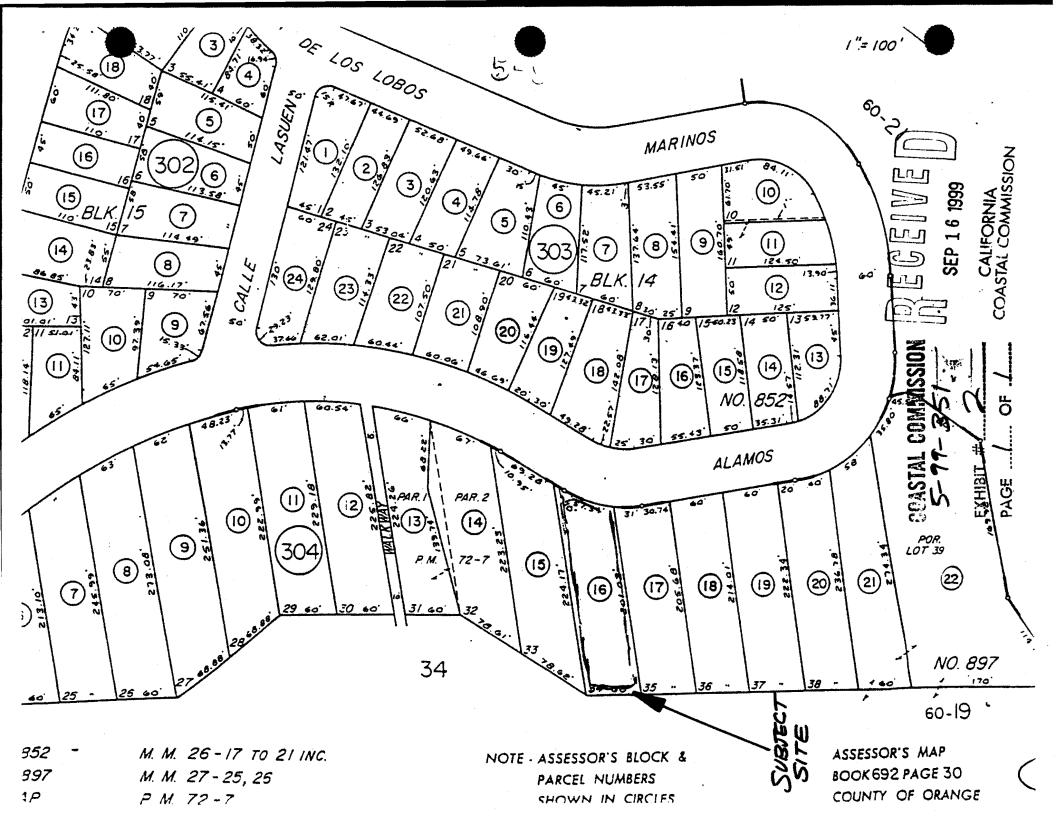
The proposed project has been conditioned in order to be found consistent with the geologic hazards and visual resource protection policies of the Coastal Act. Mitigation measures include special conditions requiring conformance with deed restrictions regarding future development and assumption-of-risk, conformance with geotechnical recommendations, and requirements regarding drainage, irrigation, and landscaping will minimize all adverse effects. The proposed development, as conditioned, is consistent with the Chapter 3 policies of the Coastal Act. There are no feasible alternatives or mitigation measures available which will lessen any significant adverse effect the activity would have on the environment. Therefore, the

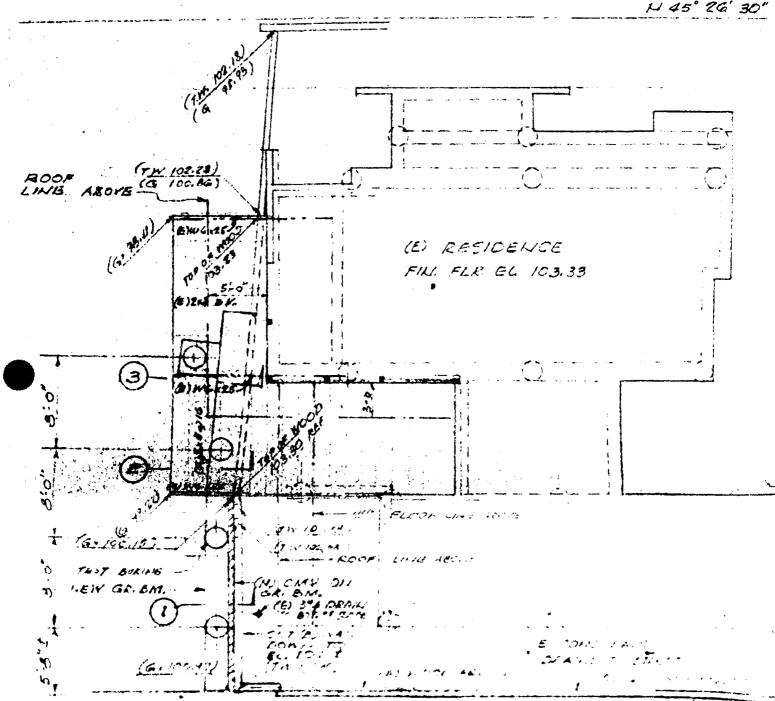
5-99-351 (McMurray) Page 18 of 18



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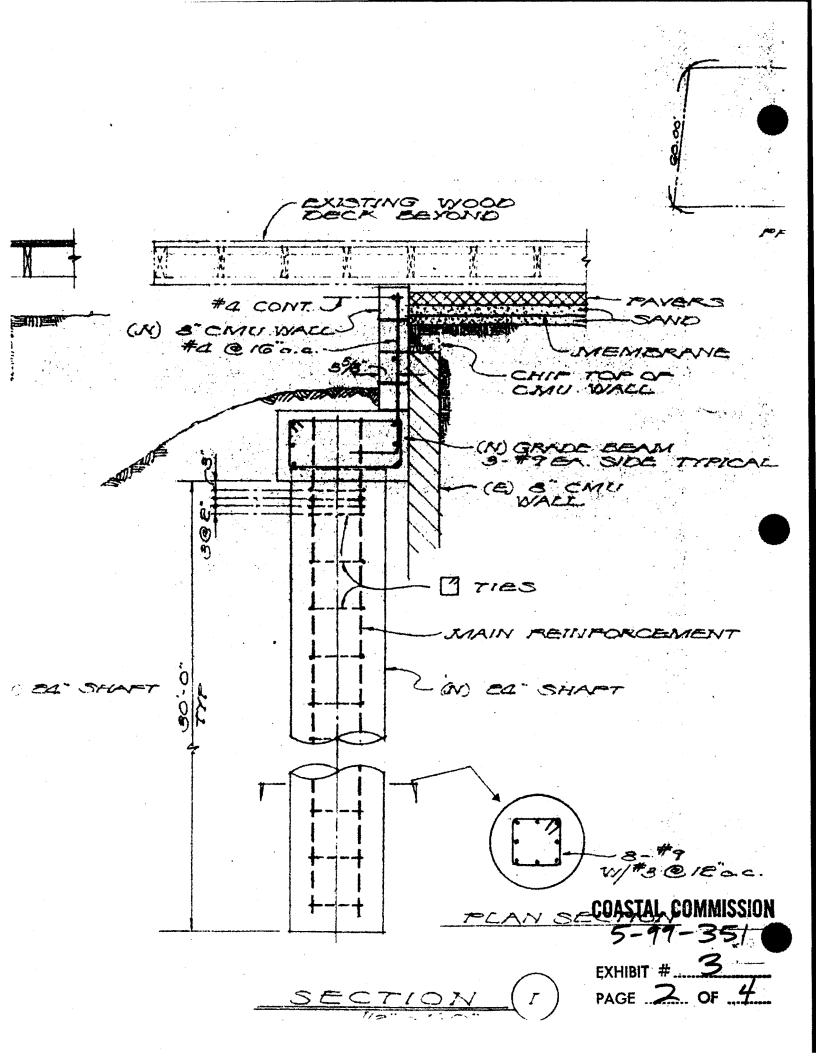




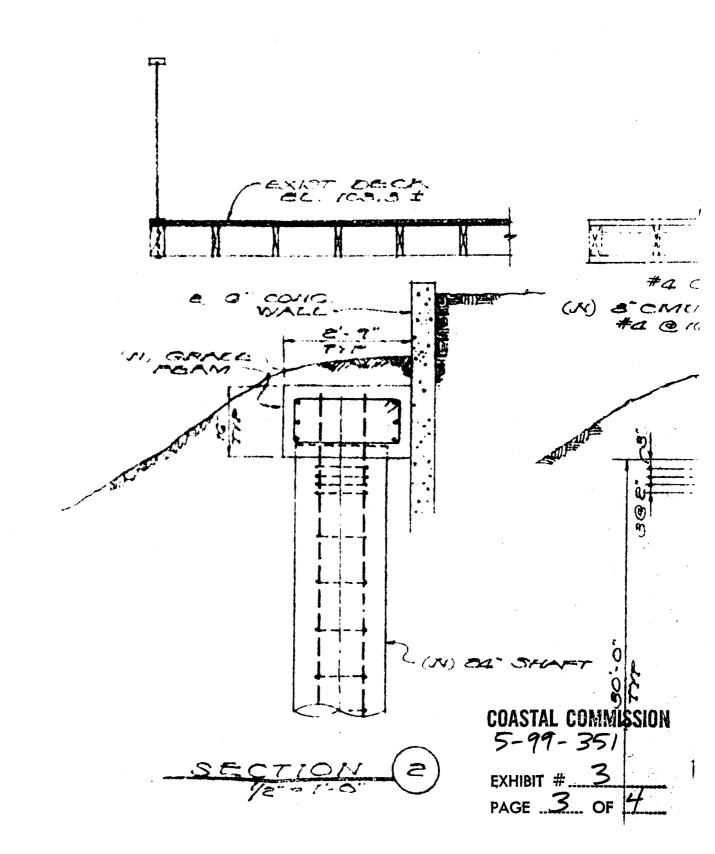


COASTAL COMMISSION 5-97-351

EXHIBIT #..

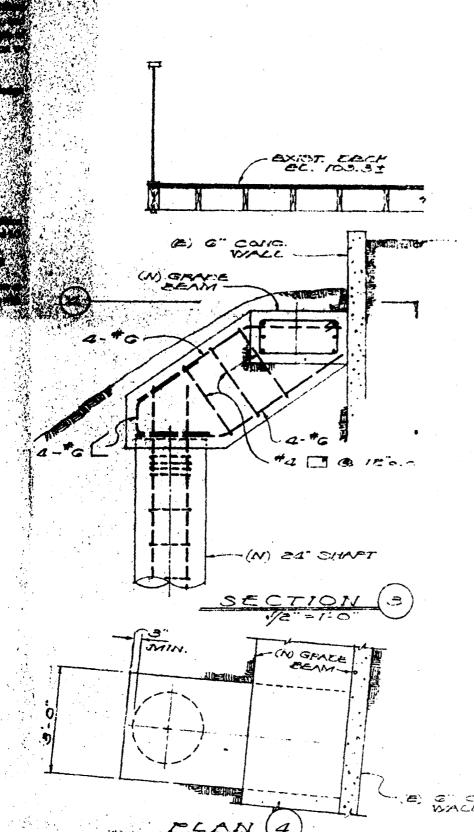


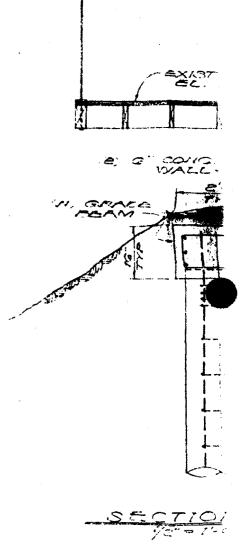
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COASTAL COMMISSION 5-77-351

EXHIBIT # 3

CALIFORNIA COASTAL COMMISSION

South Coast Area Office 200 Oceangate, Suite 1000 lang Beach, CA 90802-4302 (2) 590-5071



EMERGENCY PERMIT

DATE:

DECEMBER 7, 1999

EMERGENCY PERMIT:

5-99-351-G

APPLICANT:

Wayne McMurray

LOCATION:

2012 Calle de los Alamos, San Clemente (Orange County)

EMERGENCY WORK PROPOSED:

Installation of a 33' long by 18" high by 2'9" wide gradebeam and four (4) 24" diameter, approximately 30' deep caissons within and along the rear yard bluff top. The existing in-ground irrigation system has been shut off to ensure slope stability.

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 a retaining wall failure resulting from ongoing slope creep of fill soils 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

By: Stress StenliggASTAL COMMISSION

Title: District Manager

PAGE / OF 3

Emergency Permit 5-99-351-G Page 2 of 2

CONDITIONS OF APPROVAL:

- 1. The enclosed form must be signed by the permittee and returned to our office within 15 days.
- 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. Construction of a proposed retaining wall, revegetation of the slope and replacement of the rear patio are not included in the Emergency Permit.
- 8. All necessary best management practices to control runoff and erosion during construction shall be implemented.
- 9. At the time of application submittal for the follow-up permit, the permitee shall provide the following:
 - (a) Landscaping plan prepared by a licensed landscape architect.
 - (b) Drainage plan prepared by an appropriately licensed professional.
 - (c) An evaluation of the impacts of on-site irrigation on slope stability prepared by an appropriately licensed professional.

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 a requirement that a deed restriction be placed on the property assuming liability for damages incurred.

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

Enclosure: Acc

Acceptance Form

cc:

City of San Clemente Planning Department

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COASTAL COMMISSION 5-77-351

EXHIBIT # 4
PAGE 2 OF 3

CALIFORNIA COASTAL COMMISSION

South Coast Area Office 200 Oceangate, 10th Floor Long Beach, CA 90802-4302 (562) 590-5071





Emergency Permit No. 5-99.351-G

CALIFORNIA COASTAL COMMISSION

<u>Instructions</u>: After reading the attached Emergency Permit, please sign this form and return within 15 working days from the Permit's date.

I hereby understand all of the conditions of the emergency permit being issued to me and agree to abide by them. I understand that the emergency work is temporary and a regular Coastal Permit is necessary to make it a permanent installation.

Signature of property owner or authorized representative.

WHINE T. MCMUERAY

Name

ADIZ CAPLE DE LDS ALAMOS

Address AGRES, A 97677

Date of Signing

F3: 4/88

COASTAL COMMISSION 5-97-35/

EXHIBIT # 4
PAGE 3 OF 3

S. B. BARNES ASSOCIATES

CONSULTING STRUCTURAL ENGINEERS
2236 BEVERLY BOULEVARD
LOS ANGELES, CALIFORNIA 90057-2292
(213) 382-2365

ROBERT W. SPRACKLEN ALBIN W. JOHNSON

CLARKSON W. PINKHAM PRESIDENT

November 8, 1999

RECEIVED
South Coast Region

NOV 2 4 1999

Wayne T. McMurray 2012 Calle de los Alamos San Clemente, CA 92672

CALIFORNIA COASTAL COMMISSION

Dear Mr. McMurray:

I wish to amplify the concerns expressed in my letter of September 10, regarding the stability of the bluff at your residence on Calle de los Alamos, San Clemente.

The existing wall has fractured as indicated on the drawings and the southerly portion has deflected outward approximately three inches at its center. Rupture of this wall will expose the caissons supporting the residence. These caissons were not designed to be free standing nor resist any kind of lateral loading as might occur in retaining the earth beneath the residence. Their exposure would seriously jeopardize the integrity of the building foundation system.

You should make every effort to install the caissons and grade beam before the winter rains...

Very truly yours,

S. B. BARNES ASSOCIATES CONSULTING STRUCTURAL ENGINEERS

Robert W. Sprachlen

Structural Engineer No. 1003

State of California

RWS:nas

COASTAL COMMISSION 5-79-35/

EXHIBIT # 5

S. B. BARNES ASSOCIATES

CONSULTING STRUCTURAL ENGINEERS
2236 BEVERLY BOULEVARD
LOS ANGELES, CALIFORNIA 90057-2292
[213] 382-2385

CLARKSON W. PINKHAM PRESIDENT ROBERT W. SPRACKLE ALBIN W. JOHNSON

September 10, 1999

Wayne T. McMurray 2012 Calle de los Alamos San Clemente, CA 92672

Dear Mr. McMurray:

Copies of the drawings and calculations for the proposed remedial work to the bluff at 2012 Calle de los Alamos, San Clemente, California are ready for submittal to public agencies.

Distress has occurred at the top of the slope at the southwest corner of the yard area of your property, and remedial construction is recommended. We have considered a number of alternatives and it appears that the best solution is a caisson and grade beam system as detailed on the drawings. This system will result in minimum visual impact as all of the structural work will be below grade except for the top of the new wall which will replace the old. This system considers the restricted access, the existing structure and results in minimum disturbance of the slope.'

Some movement has occurred since the first of the year, therefore it is imperative that at a minimum the caissons and grade beam with adequate temporary drainage be in place before the coming rainy season.

TOMAN CALLED

Very truly yours,

S. B. BARNES ASSOCIATES
CONSULTING STRUCTURAL ENGINEERS

Robert W. Spracklen

Structural Engineer No. 1003

State of California

RWS:nas

COASTAL COMMISSION 5-77-35/

EXHIBIT # 5

PAGE 2 OF 2





November 23, 1999 J.N. 247-99

MR. WAYNE T. McMURRAY 2012 Calle De Los Alamos San Clemente, CA 92672

Subject: Construction of Caissons for Top-of-Slope Retaining Wall, 2012

Calle De Los Alamos, City of San Clemente, California.

Reference: Geotechnical Investigation of Distress to the Rear Yard of 2012 Calle De

Los Alamos. City of San Clemente, California; report by Petra

Geotechnical. Inc., dated August 25, 1999.

Dear Mr. McMurray:

Based on our geotechnical investigation of distress to the rear yard of the subject site, it is the opinion of this firm that construction of the caissons for the proposed top-ofslope retaining wall should proceed as soon as possible. The rainy season has already begun and any additional water introduced to the slope area will only exacerbate the existing slope creep condition. Although temporary winterization procedures (i.e., plastic sheets covering the slope) will help prevent water infiltration within the subject property, it will not prevent the lateral migration of subsurface water from adjacent properties. Therefore, to prevent any further distress to the top of slope structures, it is the opinion of this firm that construction of the caissons for the new top of slope retaining walls should be expedited.

Should you have any questions, please feel free to call.

Respectfully submitted.

ZantRhut

PETRA GEOTECHNICAL, INC.

Darrel Roberts

Associate Geologist

CEG 1972

PETRA GEOTECENICAL INC.

3185 - A Arway Avenue DR/met Costa Mesa, CA 92626 Tel: 0149 549-6923 CC: 1999/2001247 998.1 TR Fux: (714) 549-1438 petraem@om.net

COASTAL GOMMISSION 5-99-351 EXHIBIT # 6 PAGE __/__ OF __/___