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STAFF REPORT: REGULAR CALENDAR

APPLICATION NUMBER:	5-02-379
APPLICANT:	Clyde Brunner and Damon Kuntz
PROJECT LOCATION:	1519 Buena Vista, San Clemente, Orange County
PROJECT DESCRIPTION:	Request for partially after-the-fact approval for replacement of a rear yard concrete patio and guardrail, construction of concrete planters and installation of a new back yard drainage system on a bluff top lot.
LOCAL APPROVALS:	City of San Clemente Approval-in-Concept dated September 24, 2002.

SUMMARY OF STAFF RECOMMENDATION:

Staff recommends the Commission <u>APPROVE</u> the proposed development subject to eight (8) special conditions. The subject site is a coastal bluff top lot located between the first public road and the sea in the City of San Clemente. The proposed project involves new development within the typically imposed 10-foot hardscape setback area. The primary issue addressed in the staff report is assurance that the proposed development is appropriately set back from the bluff edge to be consistent with the geologic hazard and visual resource policies of the Coastal Act.

Special Condition 1 requires the submittal of revised project plans showing removal of all development within 10 feet of the bluff edge in order to demonstrate conformance with the 10-foot bluff edge setback for hardscape improvements. Special Condition 2 requires submittal of a final grading and drainage plan showing all runoff being directed away from the bluff. Special Condition 3 requires submittal of a final landscaping plan depicting native, drought tolerant vegetation along the seaward portion of the property. Special Condition 4 requires that the applicant assume the risks of development. Special Condition 5 prohibits the construction of any future protective devices to protect the development approved by this permit. Special Condition 6 requires proposals for future improvements be submitted to the Commission for a new permit or permit amendment. Special Condition 7 requires recordation of a deed restriction against the property, referencing all of the Special Conditions contained in this staff report. Special Condition 8 requires timely compliance with the conditions of approval.

At the time of this staff report, the applicant is in disagreement with the staff recommendation.





SUBSTANTIVE FILE DOCUMENTS:

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City of San Clemente Certified Land Use Plan (LUP); *Geotechnical Opinion Regarding Potential Adverse Effects of Bluff Erosion on* Existing Residential Property at 1519 Buena Vista, San Clemente, CA (JN 03G3169) prepared by Peter and Associates dated May 21, 2003, as updated July 16, 2003.

Coastal Development Permits: 5-01-420 (Khaloghli); 5-01-179 (Buena Vista)—application withdrawn; 5-00-424 (Spriggs); 5-00-081 (Cramer); 5-00-034 (McKinley-Bass); 5-99-351 (McMurray); 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); 5-98-210 (Nelson); 5-98-178 (McMullen); 5-98-082 (Westberg); 5-98-064 (Barnes); 5-98-020 (Conrad); 5-97-371 (Conrad); 5-97-270 (Noah); 5-97-269 (Noah); 5-97-256 (Noah); 5-97-185 (Schaeffer); 5-97-107 (Spruill); 5-95-121 (Watson); 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); P-3967 (Cypress West).

LIST OF EXHIBITS:

- 1. Vicinity Map
- 2. Assessor's Parcel Map
- 3. Coastal Access Points Map
- 4. Project Plans
- 5. Site Photographs
- 6. Letter from Prior Owner's Daughter dated July 15, 2003
- Letter from Geotechnical Consultant dated April 24, 2001
- 8. Letter from Geotechnical Consultant dated May 21, 2003
- 9. Letter from Geotechnical Consultant dated July 16, 2003

STAFF RECOMMENDATION:

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

MOTION:

I move that the Commission approve CDP No. 5-02-379 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 Commissioners present.

RESOLUTION:

I. APPROVAL WITH CONDITIONS:

The Commission hereby **<u>APPROVES</u>** a coastal development permit for the proposed development and adopts the findings set forth below on grounds that the development as conditioned will be in conformity with the policies of Chapter 3 of the Coastal Act and 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. Approval of the permit complies

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with the California Environmental Quality Act because either 1) feasible mitigation measures and/or alternatives have been incorporated to substantially lessen any significant adverse effects of the development on the environment, or 2) there are no further feasible mitigation measures or alternatives that would substantially lessen any significant adverse impacts of the development on the environment.

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.
- 2. <u>Expiration.</u> 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>Interpretation.</u> Any questions of intent or interpretation of any condition will be resolved by the Executive Director or the Commission.
- 4. <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.
- 5. <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. <u>Submittal of Revised Plans</u>

A. **PRIOR TO THE ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT**, the applicants shall submit, for the Executive Director's review and approval, two (2) full size sets of revised project plans that demonstrate conformance with the following bluff top setback:

All hardscape/ancillary development (i.e. any portion of the concrete deck, guard rail or planters) located less than 10 feet from the designated "bluff edge," as generally depicted on Sheet 1 of Exhibit 4 attached to the staff report for Coastal Development Permit No. 5-02-379, shall be deleted.

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.

2. Submittal of Final Drainage and Runoff Control Plan

A. **PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT**, the applicants shall submit, for review and approval of the Executive Director, a drainage and runoff control plan. The drainage and runoff control plan shall

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show that all roof drainage, including roof gutters, collection drains, and subdrain systems for all landscape and hardscape improvements for the residence and all yard areas, shall be collected on site for discharge to the street through piping or by some other non erosive manner without allowing water to sheet flow over the bluff edge.

- B. The permittee shall undertake development in accordance with the approved final plan. Any proposed changes to the approved final plan shall be reported to the Executive Director. No changes to the approved final plan shall occur without a Commission amendment to this coastal development permit unless the Executive Director determines that no amendment is required.
- C. The applicant shall maintain the functionality of the approved drainage and runoff control system to assure that water is collected and discharged to the street.

3. Submittal of Final Landscaping and Irrigation Plan

- A. **PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT**, the applicants shall submit a landscaping and irrigation plan, prepared by a licensed landscape architect or a qualified resource specialist, for review and approval by the Executive Director. The plan shall incorporate the following criteria:
 - 1. All areas on the subject site disturbed by construction activity shall be planted and maintained for erosion control purposes within sixty (60) days of receipt of the certificate of occupancy for the residence. To minimize the need for irrigation and to screen and soften the visual impact of development, all landscaping shall consist primarily of native, drought resistant plants. Invasive, non-indigenous plant species that tend to supplant native species shall not be used. Seaward of the residence, only native, drought resistant plants shall be used and no permanent irrigation shall be installed. The plans shall specify the erosion control measures to be implemented and the materials necessary to accomplish short-term stabilization, as needed on the site.
 - 2. All areas of the subject site disturbed by construction activity shall be stabilized with planting at the completion of construction of the development approved under this permit. Planting should be of primarily native plant species indigenous to this bluff area of Orange County using accepted planting procedures, consistent with fire safety requirements. Such planting shall be adequate to provide 90 percent coverage within two years, and this requirement shall apply to all disturbed soils.
 - 3. Plantings will be maintained in good growing condition throughout the life of the project and, whenever necessary, shall be replaced with new plant materials to ensure continued compliance with applicable landscape requirements.
- 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 final plans 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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4. Assumption of Risk, Waiver of Liability and Indemnity

By acceptance of this permit, the applicants acknowledge and agree (i) that the site may be subject to hazards from geologic instability; (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.

5. No Future Protective Device

- A. By acceptance of this permit, the applicants agree, on behalf of themselves and all successors and assigns, that no protective device(s) shall ever be constructed to protect the development approved pursuant to 5-02-379 including, but not limited to, the concrete deck and planters, and any other future improvements in the event that the development is threatened with damage or destruction from bluff retreat, landslides, or other natural hazards in the future. By acceptance of this permit, the applicants hereby waive, on behalf of themselves and all successors and assigns, any rights to construct such devices that may exist under Public Resources Code Section 30235.
- B. By acceptance of this permit, the applicants further agree, on behalf of themselves and all successors and assigns, that the permittee and/or landowner shall remove the development authorized by this permit, including the concrete deck and planters, if any government agency has ordered that the areas are not to be occupied due to any of the hazards identified above. In the event that portions of the development fall to the bluff and/or beach before they are removed, the landowner shall remove all recoverable debris associated with the development from the bluff and/or beach and lawfully dispose of the material in an approved disposal site. Such removal shall require a coastal development permit.

6. <u>Future Development</u>

This permit is only for the development described in Coastal Development Permit No. 5-02-379. Pursuant to Title 14 California Code of Regulations Section 13253(b)(6) and/or 13250(b)(6), the exemptions otherwise provided in Public Resources Code Section 30610(a) and (b) shall not apply to the development governed by Coastal Development Permit No. 5-02-379. Accordingly, any future improvements to the structure authorized by this permit, 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), shall require an amendment to Permit No. 5-02-379 from the Commission or shall require an additional coastal development permit from the Commission or from the applicable certified local government

7. <u>Deed Restriction</u>

PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicants shall submit to the Executive Director for review and approval documentation

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demonstrating that the applicants have executed and recorded against the parcel governed by this permit a deed restriction, in a form and content acceptable to the Executive Director: (1) indicating that, pursuant to this permit, the California Coastal Commission has authorized development on the subject property, subject to terms and conditions that restrict the use and enjoyment of that property; and (2) imposing all Special Conditions of this permit as covenants, conditions and restrictions on the use and enjoyment of the Property. The deed restriction shall include a legal description of the entire parcel or parcels governed by this permit. The deed restriction shall also indicate that, in the event of an extinguishment or termination of the deed restriction for any reason, the terms and conditions of this permit shall continue to restrict the use and enjoyment of the subject property so long as either this permit or the development it authorizes, or any part, modification, or amendment thereof, remains in existence on or with respect to the subject property.

8. Condition Compliance

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

IV. FINDINGS AND DECLARATIONS:

The Commission hereby finds and declares:

A. PROJECT DESCRIPTION AND LOCATION

Project Location

The project site is located at 1519 Buena Vista, a coastal bluff top lot between the first public road and the sea in the City of San Clemente, Orange County (Exhibits 1 and 2). The subject site is currently developed with a five-unit apartment complex in two detached buildings (two units in one building and three units in a second building) constructed prior to passage of the Coastal Act. The seaward most building is sited 25'-40' from the bluff edge (at an angle). The site is surrounded to the north by single-family residence, to the south by a multi-family residence, to the east by the frontage street (Buena Vista) and to the west by an approximately 90 foot high coastal bluff. The bluff slope descends to the Orange County Transportation Authority (OCTA) railroad and sandy beach below (see photo).



Coastal Records Project Image 5090

The coastal bluffs in San Clemente are not subject to direct wave attack because they are separated from the beach by the 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 natural factors such as wind and rain, poorly structured bedding, soils conducive to erosion and rodent burrowing. Bluffs may also be subject to erosion from human activities, such as irrigation, improper site drainage and grading.

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The nearest vertical coastal access is available approximately 200 feet south of the subject site via a stairway at the Dije Court public access point (Exhibit 3). Lateral public access is located seaward of the railroad right-of-way at the beach below the subject site.

2. Project Description

The proposed project involves replacement of a rear yard concrete patio and guardrail, construction of concrete planters, and installation of a new back yard drainage system (Exhibit 4). Part of the requested approval would be "after-the-fact," in that some of the work has already occurred. The new concrete patio is proposed to extend to the bluff edge. The applicant has removed the previously existing concrete patio that extended to the bluff edge and has initiated construction of the new improvements, as shown in Exhibit 5. The planters, irrigation lines, drains, and rebar framing have been installed. Six drains have been installed within the planters, six drains have been installed within the deck area, and four drains have been installed to collect roof runoff. The new concrete patio has not yet been poured. Construction ceased once the applicant was informed of the need to acquire a coastal development permit for such work. No work is proposed to the existing multi-unit apartment complex as part of this project. No work is proposed to the existing, "pre-coastal" erosion control wall located near the upper portion of the bluff face, as will be discussed in Section B.

According to the applicant, the concrete deck was cracked and allowing water to seep into the bluff, contributing to erosion of the upper bluff face. Runoff was also entering the site from the property to the north, as described by the applicant. At the suggestion of their geotechnical consultant, the applicant proposes to correct the drainage problems by directing all roof and surface runoff to the frontage street. The proposal includes replacement of a 58" high wood picket fence along the bluff edge with a new 36" high glass guardrail. The project also involves landscaping and irrigation within the new planter areas. No landscape plan has been submitted.

3. Prior Commission Actions in Subject Area

Many of the residential structures in the immediate vicinity were constructed prior to passage of the Coastal Act. However, as discussed below, there have been a few coastal development permits issued for multi-unit projects on bluff top lots south (downcoast) of the project site. There has also been a recent permit issued for slope repair at 1203 Buena Vista, 350' downcoast.

1511 Buena Vista

On November 20, 1997, the Commission approved Coastal Development Permit No. 5-97-256 for construction of a 25' high, three-story, 7082 square foot, four-unit apartment building with a 1991 square foot garage at 1511 Buena Vista, three lots downcoast of the subject site. The project also included 798 cubic yards of grading and landscaping. The project conformed to the 25' setback requirement for structural development and 10' setback for hardscape. The Commission imposed special conditions regarding assumption of risk, conformance with geotechnical recommendations, submittal of revised landscaping plans to show use of native plants, removal of temporary structures in the setback area if threatened by bluff erosion and future improvements.

1509 and 1513 Buena Vista

On December 10, 1997, the Commission approved Coastal Development Permits No. 5-97-269 and No. 5-97-270. CDP No. 5-97-269 allowed the construction of a 30-ft. high, three-story, 6906 square foot four-unit apartment building with a 2079 square foot garage with nine parking spaces at 1509 Buena Vista, four lots downcoast. The project also included 752 cubic yards of grading and landscaping. CDP No. 5-97-270 allowed the construction of a 30-ft. high, threestory, 6672 square foot four unit apartment building with a 2533 square foot garage with nine

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parking spaces at 1513 Buena Vista. The project also included 807 cubic yards of grading and landscaping. The projects conformed to the 25' setback requirement and 10' hardscape setback. On both of these permits, the Commission imposed special conditions regarding assumption of risk, conformance with geotechnical recommendations, submittal of revised landscaping plans to show use of native plants, removal of temporary structures in the setback area if threatened by bluff erosion and future improvements.

1203 Buena Vista

On December 10, 2002, the Commission approved Coastal Development Permit 5-01-420 for *"water proofing the slope"* at 1203 Buena Vista. In that case, the site was previously developed with a pre-coastal residence and a concrete deck extending to the bluff edge. The project involved application of a stucco type mortar and "Theroseal" waterproofing to an existing gunite wall along the bluff face that had failed. The project also included construction of a drainage device at the base of the gunite wall.

B. GEOLOGIC HAZARD

Bluff top development poses potential adverse impacts to the geologic stability of coastal bluffs, to the preservation of coastal visual resources, and to the stability of residential structures. Bluff stability has been an issue of historic concern throughout the City of San Clemente. Coastal bluffs in 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 Commission has traditionally followed a set of setback and stringline policies 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.14 states:

Proposed development on blufftop lots shall be set back at least 25 feet from the bluff edge, or set back in accordance with a stringline drawn between the nearest corners of adjacent structures on either side of the development. This minimum setback may be altered to require greater setbacks when required or recommended as a result of a geotechnical review.

Section 30253 of the Coastal Act requires new development to minimize risks and assure geologic stability. The primary issue addressed in the following section is the appropriate siting of the proposed hardscape improvements based on geologic hazard concerns and the typically required setback from the bluff edge.

The Coastal Act does not specify a particular bluff top setback, but instead requires that development be sited so as to "assure stability and structural integrity, and neither create nor contribute significantly to erosion, geologic instability, or destruction of the site…" (Section 30253). The primary issue before the Commission is the appropriateness of approving the proposed concrete deck reconstruction based on geologic hazard concerns and the preservation of scenic resources.

The San Clemente LUP allows for application of either a minimum 25-foot setback or stringline setback when siting new structural development on blufftop lots. Although not specified in the LUP, the Commission typically imposes either a minimum 10-foot setback or stringline setback for hardscape and ancillary development, such as fences and decks. The Commission recognizes that in a developed area, where construction is generally infilling and is otherwise consistent with the Coastal Act policies, no part of the proposed new structure, including decks, should be built further seaward than a line drawn between the nearest adjacent corners of the adjacent structures (stringline setback). However, the pattern of development along this stretch of Buena Vista is characterized by decks extending to the bluff edge. Many properties have bluff protective devices beneath these decks. There is a concrete deck to the south of the subject property and a brick patio to the north. Based on the slope instability issues present along the bluffs of San Clemente, this pattern of development is inconsistent with the geologic hazard and visual protection policies of the Coastal Act. The Commission has the opportunity to establish greater setbacks as properties are redeveloped. Due to the inappropriate pattern of the existing development in this area, the Commission's stringline concept cannot be applied in establishing a setback requirement for development at the subject site. Furthermore, when selecting whether to use the stringline or a specified bluff edge setback, the Commission has applied the most restrictive setback. In this case, the 10 foot bluff edge setback would be more restrictive, and more appropriate, than the stringline (which would establish no setback from the bluff edge).

2. Bluff Stability and Erosion

In general, bluff erosion is caused by both natural and human factors.- Steep coastal bluffs erode due both to marine processes such as wave attack and subaerial processes such as landsliding, surficial slumping, gulleying and erosion by sheetwash. Factors that influence these processes include geologic structure, amount of precipitation, drainage conditions, and seismic and storm events. Anthropogenic factors that may exacerbate bluff erosion include oversteepening through grading (for example, cutting roads and railroad tracks), overirrigation, improper site drainage, use of impermeable surfaces that increase runoff, 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. Over-watering and improper irrigation often contribute to this increased water percolation. Bluff erosion becomes a problem when

structures have either been built too close to the bluff edge, or when ongoing bluff retreat causes the bluff to encroach upon existing structures.

The Commission has received many application requests to resolve geotechnical problems and protect existing structures on coastal bluffs and coastal canyons in San Clemente which were caused by inadequate drainage systems, including broken irrigation lines, overirrigation, and uncontrolled runoff on bluff slopes. In fact, many of the lots along Buena Vista have protective devices, including the subject site.

There is a plywood panel wall covering the upper portion of the bluff to prevent erosion. The wall is supported by shallow concrete caissons, and posts. According to information provided by the applicant, this wall was installed prior to passage of the Coastal Act (Exhibit 6). No work is proposed to the wall. However, the applicant wishes to retain the wall and contends that replacement of the concrete deck is necessary to protect the wall from failure.

To address the necessity of reconstructing the concrete deck, the applicant initially submitted a Site Reconnaissance-Level Geotechnical Evaluation of Stability of Bluff, Rear of Existing Residential Property, 1519 Buena Vista, San Clemente prepared by Peter and Associates dated April 24, 2001 (Exhibit 7). In response to staff requests for additional information, the applicant also provided a Geotechnical Opinion Regarding Potential Adverse Effects of Bluff Erosion on Existing Residential Property at 1519 Buena Vista, San Clemente, prepared by Peter and Associates dated May 21, 2003 (Exhibit 8) and a Geotechnical Opinion Regarding Potential Adverse Effects in Bluff Stability Due to Removal of Existing Erosion Control Wall on Face of Bluff, 1519 Buena Vista, San Clemente prepared by Peter and Associates dated July 16, 2003 (Exhibit 9).

The reconnaissance-level evaluation dated April 24, 2001 describes the rear yard/bluff area as consisting of terrace deposits underlain by shale bedrock of the Capistrano formation. According to the evaluation, due to the existence of the underlying competent bedrock, a catastrophic deep-seated failure of the bluff is unlikely. However, according to the consultant, erosion of the "near bluff face terrace deposits" will continue unless drainage issues are corrected. As such, the consultant provides recommendations to improve and maintain the surface drainage of the site, including repair or replacement of the concrete deck. In the geotechnical opinion letter of May 21, 2003, the consultant indicates that the concrete deck is necessary to keep water off the bluff face and prevent further undermining. As stated in the letter, "[w]ithout reconstruction of the deck and without proper improvement and maintenance of the surface drainage at the subject site, the currently undermined 6± foot wide portion of the base of the previous deck located along the top of bluff may be destroyed at any time." The consultant estimates that the rate of bluff retreat may reach a worst-case condition of 10 feet per year. Using the rate of 10 feet per year, the bluff will retreat to the rear wall of the apartment building in approximately 2 ½ to 4 years. No evidence is presented that bluff retreat of this magnitude has occurred at this or other similar nearby sites. In the experience of the Commission, such a short-term bluff retreat rate, though possible, would be highly unusual in terrace deposits underlain by competent bedrock and not subject to wave attack.

In addition to assertions that the concrete deck must be replaced, the consultant contends that there would be adverse effects if the existing "erosion control wall" located in the upper portion of the bluff face were removed. According to the July 16, 2003 geotechnical opinion letter:

1. Removing the existing caissons on the face of the bluff would create instability of the upper portion of the bluff.

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- 2. Removing the existing plywood-panel wall, which shields the upper portion of the face of the bluff, would increase the potential for erosion, which may encroach into the structure more quickly.
- 3. In general, removing the existing erosion control wall, caissons, concrete chucks and posts (rather than keeping them in place) would de-stabilize the bluff and increase the chance of bluff failure.

The Commission's staff geologist and staff engineer have conducted a limited review of the geotechnical information submitted and are familiar with this area of San Clemente, but have not inspected the subject site. Based on their review of the proposed project, they do not agree that the applicant's proposal to reconstruct the concrete deck to the edge of the bluff is the only feasible alternative to stabilize the existing erosion control wall and protect the integrity of the site. According to the Commission's technical staff, there are a variety of engineering "fixes" and drainage improvements that could provide a similar level of stability as was previously being provided by the concrete patio slab. Staff acknowledges that roof and surface runoff should be directed away from the bluff edge and recommends that drain lines or gutters be installed to collect and divert runoff toward the street. Within the seaward 10 feet of the property (i.e. 10-foot bluff edge setback area), staff recommends that native vegetation be planted to accommodate precipitation and reduce potential erosion. Staff notes that the amount of runoff along the rear yard area can be greatly reduced if irrigation is eliminated. Additionally, the seaward 10 feet could be graded to direct runoff to flow in a manner that does not threaten the existing erosion control wall. This may include the installation of a drainage system similar to that proposed for the concrete deck, with drainage collected and diverted to the street. Alternatively, or in addition, a linear drain could be installed parallel to the retaining wall, consisting of a filter fabric wrapped gravel trench that could intercept water and direct it toward the street. This would minimize the amount of water from entering the area behind the wall. In addition, various methods for anchoring the erosion control wall into the property have been identified, such as installation of walers with tie-backs, deadmen, or wingwalls. These options must be explored as alternatives to the proposed paving of the blufftop. The Commission acknowledges that alternatives involving minor grading, landscaping and drainage improvements could be authorized by the Executive Director pursuant to the subject permit. However, any alternatives that involve structural work, such as reinforcement of the existing erosion control wall, would require an amendment to this permit or a new permit.

3. Conclusions

Although the geotechnical consultant's review concludes that the proposed project is necessary, there are less environmentally damaging, feasible alternatives. The proposed concrete deck will extend to the bluff edge. The Commission has typically imposed a minimum 10-foot bluff edge setback for hardscape on new bluff top developments in San Clemente. Replacement of the deck constitutes new development. Application of the 10-foot setback from the bluff edge in this instance will provide for greater protection from potential hazards resulting from bluff failure.

While the bluff at the subject site is considered grossly stable, in years past, bluff instability and erosion have detrimentally affected nearby properties along Buena Vista due to soil saturation and high groundwater activity correlating to heavy rainfall. The problems were exacerbated by poor drainage conditions. The geotechnical consultant concludes that the subject development will not be subject to the same instability issues if the recommended design measures are adhered to.

Nonetheless, as has been noted in this staff report, bluff failures have occurred within the subject area and throughout San Clemente. Bluff failures are often unpredictable and episodic.

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Failures in the Buena Vista neighborhood have been attributed to over-watering, broken irrigation lines, broken water lines, and inadequate drainage systems. These types of failures in some instances have created the need for bluff protective devices, such as caisson and grade beam systems to protect existing structures. The proposed project involves the construction of a concrete slab area on the bluff top. If a bluff failure were to occur, the slab may crack and fall, posing a threat to the safety of those below. Geotechnical evaluations and professional recommendations are not infallible. As such, while the site is considered stable at this time, the proposed development must be adequately set back from the designated bluff edge to assure stability over the life of the structure. The preferred means of minimizing potential hazards on bluff top lots is through adequate setbacks, rather than engineering mechanisms and protective devices.

To meet the requirements of the Coastal Act, development along bluffs and cliffs must be sited and designed to assure stability and structural integrity for their expected economic lifespans while minimizing alteration of natural landforms. The Commission typically requires that structures be setback at least 25 feet from the bluff edge and hardscape features (including decks and patios) be setback at least 10 feet from the bluff edge to minimize the potential that the development will contribute to slope instability. Bluff and cliff developments (including related storm runoff, foot traffic, site preparation, construction activity, irrigation, waste water disposal and other activities and facilities accompanying such development) must not be allowed to create or contribute significantly to problems of erosion or geologic instability on the site or on surrounding geologically hazardous areas which would then require stabilization measures such as caissons, pilings or bluff re-structuring.

Section 30253 of the Coastal Act states that new development shall minimize risks to life and property in areas of high geologic, flood, and fire hazard, and 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, as currently sited, is located too close to the bluff edge and therefore does not minimize risk to life and property. The Commission finds the proposed development is inconsistent with Section 30253 of the Coastal Act. As such, the project plans must be revised to delete development from within the 10-foot bluff setback area. Revised drainage and landscaping plans must also be submitted.

Applicants proposing new development on bluff top lots in San Clemente are required to submit landscaping and irrigation plans, consisting primarily of native plants, for the review and approval of the Executive Director, in order to be found in conformance with Section 30253 of the Coastal Act. Review of landscaping plans is necessary to assure that appropriate plant species are selected and limited watering methods are applied. Appropriate vegetation can help to stabilize slopes. Native, drought-tolerant plants common to coastal bluffs do not require watering after they become established, 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. Landscaping on bluff top lots that involves in-ground irrigation may lead to overwatering or sprinkler line breaks that can contribute to slope instability. Therefore, review and approval of final landscaping and irrigation plans is necessary prior to the issuance of a coastal development permit.

The applicant must also submit revised drainage and runoff control plans to demonstrate that the runoff from both the paved area and unpaved area (within the 10-foot bluff edge setback area) is directed in a non-erosive manner to the street.

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4. Special Conditions

Development on a coastal bluff is inherently hazardous. Consequently, the Commission requires applicants proposing development on bluff top lots to comply with certain special conditions to bring the project into compliance with the resource protection policies of the Coastal Act. In this case, the special conditions require submittal of revised plans deleting that portion of the proposed development located less than 10 ft. from the top of the bluff edge to ensure that the concrete patio will conform with the bluff edge setback; the applicant to assume the risks of developing in risk-prone area; a prohibition of future bluff protective devices; requirement that future development comes back to the Commission; submittal of final drainage, runoff, and landscaping plans; and recordation of a deed restriction to run with the property.

Special Condition No. 1 requires the applicant to submit revised project plans that demonstrate conformance with the 10-foot bluff edge setback for hardscape. As proposed, the hardscape improvements encroach into the required setback. To ensure that the proposed project is not subject to hazards resulting from site instability and/or bluff failure over the life of the development, the improvements must be sited further inland, at least 10 feet from the bluff edge.

Special Condition No. 2 requires the applicant to submit a final drainage and run-off control plan for the review and approval of the Executive Director. In keeping with the geotechnical recommendations of the applicant's consultant and the Commission's technical staff, this condition requires that the drainage system reduce water infiltration into the subgrade soils and direct surface waters away from the bluff. In addition, the condition requires that all rooftop drainage be taken to the street to minimize infiltration.

Special Condition No. 3 requires that the applicant submit a final landscaping plan, for the review and approval of the Executive Director, which consists primarily of native, drought-tolerant plants and prohibits in-ground irrigation. This special condition 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, non-invasive ornamental plants are allowed in the front and side yards only if they are kept in containers. Rear yard, bluff top plantings must consist entirely of native, drought-tolerant plants. This 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.

In recent actions on unstable bluffs [5-00-034 (McKinley-Bass), 5-98-469 (Ferber)], the Commission has required that no in-ground irrigation systems be installed on bluff top lots. This special condition conforms to 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.

Special Condition No. 4 requires the applicant to assume the risk of development. Although adherence to the required bluff top setback will minimize the risk of damage from erosion, the risk is not eliminated entirely. Therefore, the standard waiver of liability condition has been attached through this condition. By this means, the applicant is notified that the development is being undertaken 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.

Special Condition No. 5 of the permit informs the applicant that no bluff protective devices shall be permitted to protect the improvements approved by this permit if threatened by bluff failure. The development could not be approved if it included provision for a bluff protective device.

Instead, the Commission would require the applicant to set the development further landward or remove the hardscape improvements entirely.

Special Condition No. 6 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 development on coastal bluffs which may affect the stability of the bluffs and residential structures or may require future bluff protective structures, require a coastal development permit.

Special Condition No. 7 requires the applicant to record a deed restriction against the property, referencing all of the Special Conditions contained in this staff report. This condition puts future owners on notice of the restrictions placed on the use and enjoyment of the property, as well as of the risks of the development and/or hazards to which the site is subject. The condition also informs owners of the Commission's immunity from liability.

Section 30253 of the Coastal Act states that new development shall minimize risks to life and property in areas of high geologic, flood, and fire hazard, and 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. Only as conditioned for inland relocation of the hardscape improvements; assumption of risk; no future bluff top protective devices; future improvements come back to the Commission; submittal of a final runoff control plan; submittal of a final landscaping plan and recordation of a deed restriction, 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, in relevant part:

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 project is located on a bluff top lot north of the Municipal Pier and south of North Beach. The site is located inland of the OCTA railroad tracks and is highly visible from the beach below. Because the site is visible from a public vantage point, it is particularly important that adverse visual impacts caused by the project are minimized. Consequently, it is necessary to ensure that the development will be sited and designed to protect views to and along the beach area and to minimize the alteration of existing landforms.

As proposed, the hardscape features encroach into the required bluff edge setback area. The project is therefore more visible from the public beach than if sited further inland. As stated previously, if a bluff failure were to occur, the hardscape may crack and fall to the bluff face. Not only would this create a hazardous condition, but it would also present an adverse visual impact. Therefore, although the site is considered stable at this time, the development must be appropriately sited and designed to prevent such an occurrence in the future.

The Commission has typically required hardscape features to be sited at least 10 feet from the bluff edge. A greater setback will reduce the visibility of the development from the shoreline below and will allow for additional screening of the structure with vegetation. Consequently, to ensure that the development is appropriately sited, the Commission imposes Special Condition 1, which requires the applicant to submit revised plans showing the deck set back at least 10

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feet from the bluff edge. Only as conditioned for relocation of the proposed deck does the Commission finds the proposed project consistent with the visual resource protection policies of Section 30251 of the Coastal Act.

D. PUBLIC ACCESS

Section 30604(c) of the Coastal Act requires that every coastal development permit issued for any development between the nearest public road and the sea include a specific finding that the development is in conformance with the public access and recreation policies of Chapter 3 of the Coastal Act. The proposed development is located between the sea and the first public road.

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.

Sections 30210, 30211 and 30212 of the Coastal Act require that new development provide maximum public access and recreation, not interfere with the public's right of acquired access, and provide public access from the nearest public roadway to the shoreline and along the coast except under certain circumstances.

The nearest public access to the coast exists at the Dije Court accessway, approximately 200 feet south of the subject property (Exhibit 3). The proposed development, which consists of rear yard hardscape improvements, will not create new adverse impacts on coastal access and recreation. Therefore, the Commission finds that the proposed development does not pose significant adverse impacts to existing public access and recreation; there is adequate public access in the vicinity and the project is therefore consistent with Section 30212 of the Coastal Act.

E. UNPERMITTED DEVELOPMENT

Development has occurred on site without the required coastal development permit, including demolition of an existing concrete deck, installation of a rebar framing system for a new concrete deck, construction of concrete planters, and establishment of new drainage and irrigation systems on a bluff top lot. Consequently, the work that was undertaken constitutes development that requires a coastal development permit. The applicant is requesting after-the-fact approval for the above referenced unpermitted development.

To ensure that the unpermitted development component of this application is resolved in a timely manner, Special Condition 8 requires that the applicant satisfy all conditions of this permit which are prerequisite to the issuance of this permit within 90 days of Commission action. The Executive Director may grant additional time for good cause. Although construction has taken place prior to submission of this permit application, consideration of the permit 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 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.

F. 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 Implementation Plan portion of the Local Coastal Program. The suggested modifications expired on October 10, 1998. The City re-submitted on June 3, 1999, but withdrew the submittal on October 5, 2000. Therefore, the Commission retains permit issuance authority in San Clemente.

As discussed herein, the proposed development is inconsistent with the Chapter 3 policies of the Coastal Act. Therefore, approval of the proposed development, as submitted, will 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). However, as conditioned, the project is consistent with the certified Land Use Plan and the Chapter 3 policies of the Coastal Act and will not prejudice the City's ability to prepare a certified Local Coastal Program that is consistent with the Coastal Act.

G. 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 hazard and scenic resource policies of the Coastal Act. Mitigation measures, in the form of special conditions, require 1) submittal of revised project plans showing removal of all development within 10 feet of the bluff edge in order to demonstrate conformance with the 10foot bluff edge setback for hardscape improvements; 2) submittal of a final grading and drainage plan showing all runoff being directed away from the bluff; 3) submittal of a final landscaping plan depicting native, drought tolerant vegetation along the seaward portion of the property; 4) assumption of the risk of development; 5) prohibition of the construction of any future protective devices to protect the development approved by this permit; 6) future improvements be submitted to the Commission for a new permit or permit amendment; 7) recordation of a deed restriction against the property, referencing all of the Special Conditions contained in this staff report; and 8) timely compliance with the conditions of approval. As conditioned, there are no feasible alternatives or feasible mitigation measures available which would substantially lessen any significant adverse effect that the activity may have on the environment. Therefore, the Commission finds that the proposed project can be found consistent with the requirements of the Coastal Act to conform to CEQA.

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1519 BUENA VIS SAN CLEMENTE, CA 92672-4946









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FROM : ROSE OFFICE الالت وتنابه Jul 16 03 09:45p

P.2

July 15, 2003

Darlene Denton-Johnson 13715 Southwest Golden Mantle Road Crocked River Ranch, OR 97760

Damon Kuntz and Clyde Brunner 221 South Ole Vista San Clements, CA 92672

Re: 1519 Buene Viste, San Clemente, CA

To Whom It May Concern:

My father, Kelley P. Denton purchased the property at 1519 Buene Vista. San Clemente, in 1973. My father lived within the residence the remainder of his life,

When he purchased the property in 1973, the rear yard concrete deck and the wood wall were already there. Through the years that we owned the property, 1973 to 2001, the deck and the wall had somewhat deteriorated, but they still existed and were functional.

If you have any further questions, please address them to me at my residence as

Sincerely,

Johnson enton) Darlens Denton-Johnson



Peter and Associates

Engineers, Geologists, Surveyors, Inc. Civil, Municipal, Mining Geological, Foundations 1519 Calle Valle • San Clemente. CA 92672 (949) 492-3735 • Fax (949) 492-1891 Toll Free: (888) 590-3735 E-mail: PeterAssoc@AOL.com

April 24, 2001 Mr. Damon Kuntz 221 South Ola Vista, Suite 203 San Clemente, CA 92672

CALIFORNIA COASTAL COMMISSION

NOV 7 2 2002

South Conter Region

SUBJECT: Site-Reconnaissance-Level Geotechnical Evaluation of Stability of Bluff, Rear of Existing Residential Property, 1519 Buena Vista, San Clemente, California JN 01G1126

Dear Mr. Kuntz:

In accordance with your request and authorization, Mr. Lan Pham, a registered civil and geotechnical engineer with our firm, performed a site reconnaissance of the rear bluff at the existing residential property located at 1519 Buena Vista, San Clemente, California on April 10, 2001. A brief review of previous geologic data of nearby properties was also performed. No subsurface exploration or laboratory testing was performed, nor was the levelness of the rear yard concrete slabs checked since these items were not included in our scope of work.

This letter report summarizes our findings and provides our conclusions and recommendations.

- 1. The rear yard/bluff area is underlain by terrace deposits, which are subject to erosion. Beneath the terrace deposits is competent Capistrano Formation siltstone bedrock having favorable into-slope bedding attitudes.
- 2. It is our professional opinion that due to the existence of the underlying competent bedrock a catastrophic deep-seated failure of the bluff is unlikely; however, erosion of the near bluff face terrace deposits (which is currently substantial) will continue to occur.
- 3. It is further our opinion the primary cause of the bluff erosion is due to surface water entering the underlying terrace deposits through cracks/separations of the exterior concrete slabs and planting areas, as well as coming from the northerly neighboring property, as reported by the property manager, Mr. Lee Maxwell.
- 4. Without proper improvement and maintenance of the surface water, additional bluff erosion will occur. Per Mr. Lee Maxwell, we understand a french drain has been installed near and along the northerly property line to catch and drain water coming from the northerly neighboring property. It appears the french drain was not properly designed and constructed;

COASTAL COMMISSION 3/3

therefore, additional cracking of the slab area covering the french drain trench near the bluff has occurred.

Extending the outlet pipe [to the bottom of the bluff] of the french drain, which currently discharges directly on the bluff face, should be considered to reduce the potential for severe bluff erosion.

5. The northerly neighboring property owner(s) should be contacted regarding improvement and maintenance of the surface drainage on their property [such as removal and reconstruction of the slabs along the property line, re-surfacing planting areas, and installation of additional drain pipes and <u>sufficient</u> inlet grates] to ensure surface water from that property flows away from the property line and into a drainpipe system for outletting.

Proper drainage outlet pipes should be provided and maintained. The existing outlet pipe on the northerly neighboring property, which discharges directly onto the bluff face, should be corrected to reduce the potential for severe erosion due to impact of water flow.

Surface drainage of the rear yard of the northerly neighboring property should also be checked, improved, and maintained as needed to ensure surface water flows away from the bluff.

The reason for the above recommendations for the improvement and maintenance of the surface drainage of the northerly neighboring property stems from the fact water from that property has more or less contributed to the erosion of the bluff portion (and distress to the concrete slabs) of the *subject* property adjacent to the northerly neighboring property, and will continue to do so if surface drainage is not improved.

6. Wooden panels were installed to cover the eroded face of the bluff right beneath the overhanging portion of the concrete slab above the top of the rear bluff. Some caissons (shallow?) were observed beneath the wooden panels.

Some extra cement/concrete poured onto the bluff area below the wooden panels.

The eroded bluff portion (located beneath the concrete slab) behind [covered by] the wooden panels can be sprayed with concrete like a shotcrete wall to reduce the potential for additional erosion.

7. The long-term and positive approach to stop the potential erosion of the bluff is installation of a row of deep caissons to be sufficiently embedded into the underlying competent bedrock. This method is costly and approval from the Coastal Commission may be required.

8. Proper improvement and maintenance of the surface drainage of the site will substantially reduce bluff erosion.

The lowest cost is to seal/repair all cracks/separations. Installation of additional drain pipes and sufficient inlet grates is probably needed to facilitate the drainage.

Ponding of water must not be allowed anywhere at the site.

Proper drainage outlet(s) should be provided.

As another option, cracked slabs can be removed and replaced with new properly designed slabs having better drainage patterns.

- 9. If the surface drainage of the northerly neighboring property is not improved, the existing french drain should be removed and properly re-constructed.
- 10. Root systems help to reduce the potential for erosion. Additional plants, trees, groundcover plants should be planted on the bluff face, especially on bare areas.

CLOSURE

The above conclusions and recommendations are based on information as interpreted from our site reconnaissance, data provided by the property manager, Mr. Lee Maxwell, and brief review of limited previous geologic data. It is not anticipated, but our conclusions and recommendations may be changed/modified if additional information (which may be obtained from subsurface exploration and laboratory testing) significantly differs from our findings and interpretations.

Detailed remedial measures and repair methods can be provided upon request and the authorization for additional budget.

If you have any questions or require clarification, please contact our office. This opportunity to be of service is sincerely appreciated.

Very truly yours,

Lan N. Pham, Director Geotechnical Engineering RGE 686, Exp. 3/03



eter and Associates

Engineers, Geologists, Surveyors, Inc. Civil, Municipal, Mining Geological, Foundations 1519 Calle Valle • San Clemente, CA 92672 (949) 492-3735 • Fax (949) 492-1891 Toll Free: (888) 590-3735 E-mail: PeterAssoc@AOL.com

May 21, 2003

Mr. Clyde Brunner NIGUEL HOME CENTER, INC. 24921 Dana Point Harbor Drive, #B230 Dana Point, CA 92629

SUBJECT: Geotechnical Opinion Regarding Potential Adverse Effects of Bluff Erosion on Existing Residential Property at 1519 Buena Vista, San Clemente, California JN 03G3169

Dear Mr. Brunner:

In accordance with your request and authorization, and per the requirement of the Coastal Commission, this letter report has been prepared.

A telephone conversation with Ann Blemker of the Coastal Commission was held to verify the issues of concern. A site reconnaissance was conducted to evaluate the surficial site conditions. Previous reports related to bluff erosion available in our in-house files were also reviewed.

Following is a summary of our findings, conclusions, and recommendations.

- 1. Substantial erosion has occurred along the bluff face at the subject site. The bluff portion beneath the tree at the southerly corner has eroded beneath the concrete slab at this corner. The tree roots help hold the earth materials, but this corner has been substantially undermined.
- 2. Similarly, the earth materials behind the plywood panels covering the upper portion of the bluff have eroded away. The plywood panels have been pushed out at many locations due to the eroded soils. The lateral distance of the undermined portions beneath the deck measure approximately 6-ft., or more.
- 3. Very long and very deep cracks (about 2-in. wide) were observed on a relatively narrow flat area of the bluff below the plywood panels (upon which we could walk). These chunks of earth materials can erode away at any time when water enters the 2-in. wide cracks.
- 4. Large vertical cracks were observed on the wall portion near the top of the bluff along the northerly property line.

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- 5. Substantial water ponding was noted along the flat land along the toe of the bluff adjacent to the railroad track.
- 6. Due to the existence of the previous deck, no data related to the previous rate of bluff retreat for the assumed case of no deck at the property is available.
- 7. The bluff retreats generalized by Leighton and Associates, Inc. (1981) for the Colony Cove bluff portion along El Camino Real in San Clemente, California, a site in the vicinity, based on the review of aerial photographs, were less than 10-ft. for the period from 1938 to 1965 (27 years), about 10-ft. for the period from 1965 to 1977 (12 years), and also about 10-ft. for the three ["wet winter"] year period of 1977 to 1980.

Leighton and Associates, Inc. concluded that repeated wet winters could cause continued rapid bluff retreat of up to 10-ft./year. (The Colony Cove bluff portion was then covered with artificial rock panels over tie-backs.)

8. In addition, a previous study by Zeiser Geotechnical, Inc., as documented in their "Dana Point General Plan Coastal Erosion Technical Report" dated July 11, 1990, indicated that the largest coastal changes attributed to individual storm periods include 150-ft. of blufftop/bluff face erosion and retreat along Niguel Shores during the 1938 to 1941 storm period, 100 feet of landslide-related retreat along the western promontory of Dana Point headlands during the 1884 to 1891 storm period, 75-ft. of retreat along the south-facing segment of the headlands during the same period, 100-ft. of local blockfall landslide retreat in this same south-facing headlands zone during the 1938 to 1941 storm period, approximately 200-ft. of retreat of the former rock headland located at the position of the eastern Dana Harbor breakwater during the 1884 to 1891 and 1938 to 1941 storm periods, localized 30 to 50-ft. of blufftop retreat in the Capistrano Bluffs/Doheny Palisades area during the 1884-1891 and 1938-1941 storm periods, and 50 to 60-ft. of beach retreat during the storms and perigean spring tides of 1939-1962, 1974 and 1983 in the Capistrano Beach and southern Niguel Shores (Dana Strand Beach) areas.

It is noted that detailed geologic evaluation was not performed, but the above-mentioned sites are in the same geologic region with the subject site.

9. Bluff retreat/erosion is the result of a multitude of factors, natural and man-made, and therefore, it is very hard to estimate the rate of the bluff retreat.

Following are some factors, agents, and processes affecting the rate of bluff retreat.

- Slope steepness and configuration.
- Slope height.
- Type of earth units (clay, silt, sand, etc.) and their layered sequence.
- Expansivity (shrink/swell).
- Groundwater sources (irrigation and rainfall).
- Groundwater outflow (seeps or springs).
- Groundwater migration (location of impermeable strata).
- Earth unit water infiltration characteristics (permeability).
- Jointing patterns (pattern of major fractures in the rock); their orientation.

- Weather (intensity of storms and their frequency).
- Man-made impacts (wells, drains, buildings, roadways, walkways, etc.).
- Vegetation (root systems, cover characteristics, water-loving or naturalized or landscaped).
- Dynamic response due to vibration, particularly seismic shaking.
- Direction of exposure to sun and wind.
- Geologic bedding (inclination from horizontal of layered earth units).
- Character and profile of the bluff top.
- Earth unit susceptibility to erosion.
- Events of action that change or alter the conditions at the bottom of the bluff.
- Rock or soil density and hardness.
- Rodent burrowing activities.

The combined effects of the above items results in a sequence of bluff retreat similar to that illustrated in the attached figure (Sequence of Bluff Retreat). These sequenced drawings progress from an actively receding bluff to a theoretically stable bluff.

10. It is our professional opinion that without the deck, the bluff erosion probably would have encroached much further into the rear yard flat area of the subject property (much more than 6-ft., as currently observed beneath the deck along the top of the bluff).

- 11. As illustrated in the attached "Sequences In Bluff Retreat", to reach the temporary stable bluff condition with an approximate 1:1 gradient=slope ratio along the toe portion of the bluff (Detail #6), the existing house may be destroyed. [The railroad track located near the toe of the bluff would also be adversely affected.]
- 12. Without reconstruction of the deck and without proper improvement and maintenance of the surface drainage at the subject site, the currently undermined $6\pm$ ft. wide portion of the base of the previous deck located along the top of the bluff may be destroyed at any time. [Again, the railroad track located below the bluff may also be adversely affected due to the potential descent of the deck portion and eroded soils.]
- 13. The rate of additional bluff retreat at the subject site is unknown. However, for a worst case condition, it may reach 10-ft./year, as previously estimated by Leighton and Associates, Inc.

The lateral distance from the top of the bluff to the rear wall of the existing residential structure varies from about 25-ft. to 40-ft. (See attached Site Plan.) Therefore, if using the rate of 10-ft. per year, the bluff erosion may reach the rear wall of the existing residential structure in about $2\frac{1}{2}$ years to 4 years.

14. Therefore, we strongly recommend the deck be re-constructed as soon as practical, and surface drainage at the site be properly improved and maintained for the entire life of the existing house.

EX. 8 3/7

CLOSURE

The following are attached and complete our report.

- References
- Figure 1 Sequences in Bluff Retreat
- Figure 2 Site Plan

If you have any questions or require clarification, please contact this office. This opportunity to be of service is sincerely appreciated.

Very truly yours,

Lan N. Pham, Dir. Geotechnical Engineering RGE 686, Exp. 3/31/07



EX. 8

REFERENCES

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- 2. CDMG, Department of Conservation, The Resources Agency, 1968, Special Report 98, National Slope Stability As Related To Geology, San Clemente Area, Orange and San Diego Counties, California", by Robert P. Blanc and George B. Cleveland, dated 1968.
- 3. CDMG, California Department of Conservation, 1988, Special Publication 99, "Planning Scenario for a Major Earthquake on the Newport-Inglewood Fault Zone", dated 1988.
- Geofirm, 1993, "Geotechnical Review of Sea Cliff Erosion, 109 South La Senda, Three Arch Bay, Laguna Beach, California", Project No. 70301-00, Report No. 3-1224, dated April 29, 1993.
- Leighton and Associates, Inc., 1981, "Geotechnical Report of Stabilization Alternatives for the Colony Cove Bluffs, El Camino Real, San Clemente, California", Project No. 4800407-01, dated March 12, 1981, (prepared for the city of San Clemente).
- Leighton and Associates, Inc., 1994, "Supplemental Geotechnical Investigation for Landslide Remediation and Slope Reconstruction, Pacific Coast Highway (From Camino Capistrano to 750 Feet North), City of Dana Point, California", Project No. 1930733-01, dated April 4, 1994 (prepared for City of Dana Point).
- 7. Peter and Associates, Inc., 2001, "Site-Reconnaissance-Level Geotechnical Evaluation of Stability of Bluff, Rear of Existing Residential Property, 1519 Buena Vista, San Clemente, California", JN 01G1126, dated April 24, 2001 (prepared for Mr. Dumon Duntz).
- 8. R & M Consultants, Inc., 1982, Engineering Geology Study of the Capistrano Beach Area, County of Orange, dated May 24, 1982 (prepared for EMA Planning Division, Environmental Management Agency, County of Orange).
- 9. Zeiser Geotechnical, Inc., 1990, "City of Dana Point General Plan, Coastal Erosion Technical Report", PN 89312-2, dated July 11, 1990.

EX. 8 5/7





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APPROXIMATELY TOP OF BLUFF

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SITE PLAN

EX. 8 7/7

FIGURE 2

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Peter and Associates

Engineers, Geologists, Surveyors, Inc. Civil, Municipal, Mining Geological, Foundations 1519 Calle Valle • San Clemente, CA 92672 (949) 492-3735 • Fax (949) 492-1891 Toll Free: (888) 590-3735 E-mail: PeterAssoc@AOL.com

July 16, 2003

Mr. Clyde Brunner NIGUEL HOME CENTER, INC. 24921 Dana Point Harbor Drive, #B230 Dana Point, CA 92629

SUBJECT: Geotechnical Opinion Regarding Potential Adverse Effects on Bluff Stability Due to Removal of Existing Erosion Control Wall on Face of the Bluff, 1519 Buena Vista, San Clemente, California

JN 03G3169-005

Reference: Peter and Associates, Inc., 2003, "Geotechnical Opinion Regarding Potential Adverse Effects of Bluff Erosion on Existing Residential Property at 1519 Buena Vista, San Clemente, California", JN 03G3169, dated 5/21/03.

Dear Mr. Brunner:

In accordance with your request and authorization, and per the requirement of the Coastal Commission, this letter report has been prepared to provide our professional opinion regarding the potential adverse effects on the bluff if the existing erosion control wall located on the upper portion of the bluff face were to be removed.

- 1. Removing the existing caissons on the face of the bluff would create instability of the upper portion of the bluff.
- 2. Removing the existing plywood-panel wall, which shields the upper portion of the face of the bluff, would increase the potential for erosion, which may encroach into the structure more quickly.
- 3. In general, removing the existing erosion control wall, caissons, concrete chunks, and posts (rather than keeping them in place) would de-stabilize the bluff and increase the chance of bluff failure.

If you have any questions or require clarification, please contact this office. This opportunity to be of service is sincerely appreciated.

Very truly yours,

Lan N. Pham, Director

Geotechnical Engineering RGE 686, Exp. 3/31/07

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