CALIFORNIA COASTAL COMMISSION

SAN DIEGO AREA 7575 METROPOLITAN DRIVE, SUITE 103 SAN DIEGO, CA 92108-4421 (619) 767-2370



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Staff: Gary Cannon-SD Staff Report: January 26, 2007 Hearing Date: February 14-16, 2007

STAFF REPORT AND RECOMMENDATION ON APPEAL

LOCAL GOVERNMENT: City of Encinitas

DECISION: Approval with Conditions

APPEAL NO.: A-6-ENC-06-101

APPLICANTS: Salvatore Albani

PROJECT DESCRIPTION: Demolish an existing single-family residence and construct an approximately 3,962 sq. ft. two-story single-family residence with pool on an approximately 10,000 sq. ft. blufftop lot.

PROJECT LOCATION: 629 Fourth St., Encinitas, San Diego County. APN No. 258-151-23

STAFF NOTES:

At its October 11, 2006 hearing, the Commission found Substantial Issue exists with respect to the grounds on which the appeal was filed. This report represents the de novo staff recommendation.

Summary of Staff's Preliminary Recommendation:

Staff recommends the Commission approve the de novo permit with several special conditions. The primary issue raised by the subject development relates to the appropriate siting of the home and pool such they will be safe from threat in the future. The project involves construction of a single-family home set back approximately 46 ft. from the edge of the bluff that will incorporate the use of a row of shear pin/pier caissons imbedded approximately 40 ft. in depth beneath the western side of the residence. The use of the deepened caisson foundation will assure stability for the residence such that the proposed residence will not require shoreline protection over its lifetime.

Since the Commission's action in finding Substantial Issue, the applicant revised his application request to include the use of caisson/pier foundation. Without the use of deepened foundations, a setback of approximately 64 ft. from the edge of the bluff would be necessary to assure no shoreline protective devices would be needed over the lifetime of the residence. In addition, the application has been revised to include a pool that is proposed to be located along the western side of the home but landward 40 ft. from the edge of the bluff. With the proposed caisson foundation, both the proposed residence and

the pool will not require shoreline protection over their lifetime. The Commission's staff geologist and coastal engineer have reviewed the project and concur. Other conditions include requirements that the applicant waive all future rights to shoreline protection for the residence and pool, assume all risks associated with development, prohibit the use of permanent irrigation devices, requires that the pool be of double-walled construction and contain automatic leak-detection and shutoff devices, require the applicant to apply for a coastal development permit for all future development on the site, and require that the bluff face portion of the property be conserved in open space.

Standard of Review: Certified City of Encinitas LCP and Chapter 3 Policies of the Coastal Act relating to public access and recreation.

Substantive File Documents: Certified City of Encinitas Local Coastal Program; Appeal Applications by Commissioners Patrick Kruer and Steve Padilla dated 8/25/06; City of Encinitas Case #05-068/DR/CDP; "Report of Preliminary Geotechnical Investigation" by Christian Wheeler Engineering dated 6/14/04; "Response to Initial Review of Application for a Design Review and Coastal Development Permit" by Christian Wheeler dated 1/30/06; Shear Pins Recommendation to Stabilize Existing Coastal Bluff, Proposed Single-Family Residence, 629 4th St." by Christian Wheeler Engineering dated November 8, 2006.

I. PRELIMINARY STAFF RECOMMENDATION:

The staff recommends the Commission adopt the following resolution:

MOTION: I move that the Commission approve Coastal

Development Permit No. A-6-ENC-06-101 pursuant to

the staff recommendation.

STAFF RECOMMENDATION OF APPROVAL:

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

RESOLUTION TO APPROVE THE PERMIT:

The Commission hereby approves 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 the certified LCP and the public access policies of Chapter 3 of the Coastal Act. Approval of the permit complies 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.

See attached page.

III. Special Conditions.

The permit is subject to the following conditions:

- 1. Revised Final Plans. PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall submit to the Executive Director for review and written approval, final site, building, landscaping, drainage and foundation plans that have been approved by the City of Solana Beach and that substantially conform with the plans by "Architectsmagnus" dated 1/16/07, but shall be revised to include the following:
 - a. The residence and shear pin foundations shall not be constructed closer than 46 feet from the edge of the bluff that is shown on the above-cited plans dated 1/16/07.
 - b. Engineering plans and supporting calculations for a foundation system that will assure structural stability of the residence, over 75 years, for the following conditions:
 - 1. The foundation shall assure structural stability and allow ongoing shoreline erosion (18 feet of erosion is anticipated over the next 75 years, based on historic long-term average, annual erosion rate), bluff retreat and possibly bluff collapse to continue unimpeded by the foundation system.
 - 2. The foundation shall provide stability for current and foreseeable loads, including seismic loads, for current site conditions and for the most exposed conditions that could result from erosion, slides, and other changes to the geologic conditions of the site.
 - 3. The plans shall note the most extreme erosion and bluff retreat situation for which the foundation can assure stability.
 - 4. The foundation shall provide stability against impulse loads that could result from a bluff collapse.
 - 5. Other information that demonstrates the residence will not require either shore protection or bluff retention for stability over the full life of the structure.
 - c. Any existing permanent irrigation system located on the bluff top site shall be

removed or capped and no new permanent irrigation system may be installed.

- d. All runoff from the site shall be collected and directed away from the bluff edge towards the street.
- e. All landscaping planted on the site shall consist of native, drought-tolerant plants. (No plant species listed as problematic and/or invasive by the California Native Plant Society, the California Invasive Plant Council, or as may be identified from time to time by the State of California shall be employed or allowed to naturalize or persist on the site. No plant species listed as 'noxious weed' by the State of California or the U.S. Federal Government shall be utilized).
- f. Existing and any proposed accessory improvements (i.e., patios, walls, windscreens, etc.) located in the geologic setback area on the site shall be detailed and drawn to scale on the final approved site plan and shall include measurements of the distance between the accessory improvements and the natural bluff edge (as defined by Section 13577 of the California Code of Regulations) taken at 3 or more locations. The locations for these measurements shall be identified through permanent markers, benchmarks, survey position, written description, or other method that enables accurate determination of the location of structures on the site. All existing and proposed accessory improvements shall be placed at grade, be capable of being removed if threatened and located no closer than 5 feet landward of the natural bluff edge.

The permittee shall undertake the development in accordance with the approved plans. Any proposed changes to the approved plans shall be reported to the Executive Director. No changes to the plans shall occur without a Coastal Commission approved amendment to this coastal development permit unless the Executive Director determines that no amendment is legally required.

2. <u>Pool Protection Plan</u>. **PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT**, the applicant shall submit, for review and approval of the Executive Director, a full size set of pool protection plans prepared by an appropriately licensed professional that incorporates mitigation of the potential for geologic instability caused by leakage from the proposed pool. The pool protection plan shall incorporate and identify on the plans the follow measures, at a minimum:

- 1) installation of a pool leak detection system such as, but not limited to, leak detection system/moisture sensor with alarm and/or a separate water meter for the pool which is separate from the water meter for the house to allow for the monitoring of water usage for the pool, and
- 2) use of materials and pool design features, such as but not limited to double linings, plastic linings or specially treated cement, to be used to waterproof the undersides of the pool to prevent leakage, along with information regarding the past and/or anticipated success of these materials in preventing leakage; and where feasible

3) installation of a sub drain or other equivalent drainage system under the pool that conveys any water leakage to an appropriate drainage outlet.

The permittee shall undertake the development in accordance with the approved plans. Any proposed changes to the approved plans shall be reported to the Executive Director. No changes to the plans shall occur without a Coastal Commission approved amendment to this coastal development permit unless the Executive Director determines that no amendment is legally required.

3. No Future Bluff or Shoreline Protective Device

- A(1) By acceptance of this Permit, the applicant agrees, on behalf of himself and all successors and assigns, that no shoreline protective device(s) shall ever be constructed to protect the development approved pursuant to Coastal Development Permit No. A-6-ENC-06-101 including, but not limited to, the residence, pool, foundation, decks in the event that the development is threatened with damage or destruction from waves, erosion, storm conditions, or other natural hazards in the future. By acceptance of this Permit, the applicant hereby waives, on behalf of himself and all successors and assigns, any rights to construct such devices that may exist under Public Resources Code Section 30235.
- A(2) By acceptance of this Permit, the applicant further agrees, on behalf of himself and all successors and assigns, that the landowner shall remove the development authorized by this Permit, if any government agency has ordered that the structures are not to be occupied due to any of the hazards identified above. In the event that portions of the development fall to the beach before they are removed, the landowner shall remove all recoverable debris associated with the development from the beach and ocean and lawfully dispose of the material in an approved disposal site. Such removal shall require a coastal development permit.
- 4. Assumption of Risk, Waiver of Liability and Indemnity Agreement. By acceptance of this permit, the applicant acknowledges and agrees (i) that the site may be subject to hazards from bluff collapse and erosion; (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. <u>Future Development</u>. This permit is only for the development described in coastal development permit No. <u>A-6-ENC-06-101</u> Pursuant to Title 14 California Code of Regulations Section 13250(b)(6), the exemptions otherwise provided in Public Resources Code Section 30610(a) shall not apply. Accordingly, any future

improvements to the proposed single family residence, including but not limited to repair and maintenance identified as requiring a permit in Public Resources Code section 30610(d) and Title 14 California Code of Regulations section 13252(a)-(b), shall require an amendment to permit No. A-6-ENC-06-101 from the California Coastal Commission or shall require an additional coastal development permit from the California Coastal Commission or from the applicable certified local government.

6. <u>As-Built Plans</u>. Within 60 days following completion of the project, the permittee shall submit as-built plans approved by the City of Encinitas to be reviewed and approved in writing by the Executive Director documenting that the residence, its caisson foundation and pool were constructed consistent with the Executive Director approved construction plans.

7. Open Space Restriction.

No development, as defined in section 30106 of the Coastal Act shall occur on the bluff face seaward of the bluff edge as described and depicted in an Exhibit attached to the Notice of Intent to Issue Permit (NOI) that the Executive Director issues for this permit.

- A. PRIOR TO ISSUANCE BY THE EXECUTIVE DIRECTOR OF THE NOI FOR THIS PERMIT, the applicant shall submit for the review and approval of the Executive Director, and upon such approval, for attachment as an Exhibit to the NOI, a formal legal description and graphic depiction of the portion of the subject property affected by this condition, as generally described above and shown on Exhibit #4 attached to this staff report.
- 8. Deed Restriction. PRIOR TO ISSUANCE OF THE COASTAL
 DEVELOPMENT PERMIT, the applicant shall submit to the Executive Director for review and approval, documentation demonstrating that the landowner has executed and recorded 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 (hereinafter referred to as the "Standard and Special Conditions"); and (2) imposing all Standard and 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 applicant's entire parcel or parcels. 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.

IV. Findings and Declarations.:

The Commission finds and declares as follows:

1. Project Description/History. The applicant is proposing to the demolish an existing single-family residence and detached garage, and construct an approximately 3,962 sq. ft. two-story single-family residence that includes an approximately 366 sq. ft. attached garage and pool on an approximately 10,000 sq. ft. bluff top lot. The existing residence is located at approximately 25 ft. from the bluff edge at its closest point and the new residence is proposed to be setback to approximately 46 ft. from the bluff edge and includes a pool that is proposed seaward of the home and setback approximately 40 ft. from the bluff edge. The residence and pool will be supported by a deepened foundation system installed beneath the residence at approximately 46 ft. from the bluff edge which will consist of a row of 24 inch diameter concrete caissons imbedded approximately 40 ft. below the residence. In addition, a second floor deck will be cantilevered approximately 9 ft., 2 in. seaward into the proposed 46 ft. residential setback area. At grade improvements approved within the 40 ft. geologic setback area includes landscaping, drainage pipes, catch basin, decomposed granite walkway, and a six-foot gate.

The subject site is located on the west side of an unimproved section of Fourth St., approximately one lot south of E St. and approximately two blocks south of the Moonlight Beach Park in the City of Encinitas.

The existing single-family residence was constructed prior to enactment of the Coastal Act. In 1990, the subject approximately 10,000 sq. ft. lot was merged with two adjacent lots, a portion of a vacation of E Street and a portion of a fourth lot in order to create an approximately 25,832 sq. ft. lot. However, no coastal development permit was ever issued for the street vacation or the lot mergers and, therefore the merged lot is unpermitted. The applicant has not requested an after-the-fact coastal development permit for the lot mergers or street vacation as part of the subject application request. Resolution of the unpermitted development will be addressed through a separate enforcement action. All of the development proposed in this application is located entirely on the pre-merger 10,000 sq. ft. lot.

2. <u>Geologic Stability</u>. Section 30.34.020(D) of the City's certified Implementation Plan states, in part:

APPLICATION SUBMITTAL REQUIREMENTS. Each application to the City for a permit or development approval for property under the Coastal Bluff Overlay Zone shall be accompanied by a soils report, and either a geotechnical review or geotechnical report as specified in paragraph C "Development Processing and Approval" above. Each review/report shall be prepared by a certified engineering geologist who has been pre-qualified as knowledgeable in City standards, coastal engineering and engineering geology. The review/report shall certify that the development proposed will have no adverse affect on the stability of the bluff, will not endanger life or property, and that any proposed structure or facility is expected to be reasonably safe from failure and erosion over its lifetime without having to

propose any shore or bluff stabilization to protect the structure in the future. Each review/report shall consider, describe and analyze the following: (Ord. 95-04)

- 1. Cliff geometry and site topography, extending the surveying work beyond the site as needed to depict unusual geomorphic conditions that might affect the site;
- 2. Historic, current and foreseeable-cliffs erosion, including investigation or recorded land surveys and tax assessment records in addition to land use of historic maps and photographs where available and possible changes in shore configuration and sand transport;
- 3. Geologic conditions, including soil, sediment and rock types and characteristics in addition to structural features, such as bedding, joints and faults;
- 4. Evidence of past or potential landslide conditions, the implications of such conditions for the proposed development, and the potential effects of the development on landslide activity;
- 5. Impact of construction activity on the stability of the site and adjacent area;
- 6. Ground and surface water conditions and variations, including hydrologic changes caused by the development e.g., introduction of irrigation water to the ground water system; alterations in surface drainage);
- 7. Potential erodibility of site and mitigating measures to be used to ensure minimized erosion problems during and after construction (i.e., landscaping and drainage design);
- 8. Effects of marine erosion on seacliffs and estimated rate of erosion at the base of the bluff fronting the subject site based on current and historical data; (Ord. 95-04)
- 9. Potential effects of seismic forces resulting from a maximum credible earthquake;
- 10. Any other factors that might affect slope stability;
- 11. Mitigation measures and alternative solutions for any potential impacts.

The report shall also express a professional opinion as to whether the project can be designed or located so that it will neither be subject to nor contribute to significant geologic instability throughout the life span of the project. The report shall use a current acceptable engineering stability analysis method and shall also describe the degree of uncertainty of analytical results due to assumptions and unknowns. The degree of analysis required shall be appropriate to the degree of potential risk presented by the site and the proposed project.

In addition to the above, each geotechnical report shall include identification of the daylight line behind the top of the bluff established by a bluff slope failure plane analysis. This slope failure analysis shall be performed according to geotechnical engineering standards, and shall:

- Cover all types of slope failure.
- Demonstrate a safety factor against slope failure of 1.5.
- Address a time period of analysis of 75 years.
- [...] (Underlined emphasis added)

In addition, Public Safety (PS) Policy 1.3 of the City's LUP requires that:

The City will rely on the Coastal Bluff and Hillside/Inland Bluff Overlay Zones to prevent future development or redevelopment that will represent a hazard to its owner or occupants, and which may require structural measures to prevent destructive erosion or collapse.

In addition, PS Policy 1.6 of the LUP requires that:

The City shall provide for the reduction of unnatural causes of bluff erosion, as detailed in the Zoning Code, by:

 $[\ldots]$

- f. Requiring new structures and improvements to existing structures to be set back 25 feet from the inland blufftop edge, and 40 feet from coastal blufftop edge with exceptions to allow a minimum coastal blufftop setback of no less than 25 feet. For all development proposed on coastal blufftops, a site-specific geotechnical report shall be required. The report shall indicate that the coastal setback will not result in risk of foundation damage resulting from bluff erosion or retreat to the principal structure within its economic life and with other engineering evidence to justify the coastal blufftop setback. . . . (Underlined emphasis added)
- g. Permanently conserving the bluff face within an open space easement or other suitable instrument.

The proposed residence will be located within the City's Coastal Bluff Overlay Zone and will be sited approximately 46 ft. from the edge of an approximately 90 ft.-high coastal bluff subject to marine erosion. Coastal bluffs in this area are subject to a variety of erosive forces and conditions (e.g., wave action, reduction in beach width, block failures and landslides). As a result, the bluffs and blufftop lots in the Encinitas area are

considered a hazard area. Furthermore, in 1986 the Division of Mines and Geology mapped the entire Encinitas shoreline as an area susceptible to landslides, i.e., mapped as either "Generally Susceptible" or "Most Susceptible Areas" for landslide susceptibility (ref. Open File Report, "Landslide Hazards in the Encinitas Quadrangle, San Diego County, California", dated 1986). The Encinitas shoreline has been the subject of numerous Executive Director approved emergency permits for seawall and upper bluff protection devices (ref. Emergency Permit Nos. 6-00-171-G/Brown, Sonnie, 6-01-041/Sorich, 6-01-42-G/Brown, Sonnie; 6-01-62-G/Sorich; 6-03-48/Sorich, Gault and 6-05-30/Okun). In May of 2006, the Executive Director issued an emergency permit to construct an approximately 50 ft.-long, 53 ft. deep upper bluff piered wall seaward of a home threatened by bluff collapse approximately 7 lots north of the subject site (Ref. 6-06-41-G/Geierman). In addition, documentation has been presented in past Commission actions concerning the unstable nature of the bluffs throughout Encinitas (ref. 6-85-396/Swift, 6-89-136-G/Adams, 6-89-297-G/Englekirk, 6-92-82/Victor, 6-93-36-G/Clayton, 6-93-131/Richards, et al, 6-93-136/Favero, 6-95-66/Hann, 6-98-39/ Denver/Canter, 6-98-131/Gozzo, Sawtelle and Fischer, 6-99-9/Ash, Bourgualt, Mahoney, 6-99-35-G/MacCormick, 6-99-75-G/Funke, Kimball, 6-99-131-G/Funke, Kimball, 6-99-41/Bradley, 6-00-009/Ash, Bourgault, Mahoney, 6-00-171-G/Brown, Sonnie, 6-01-005-G/Okun, 6-01-040-G/Okun, 6-01-041-G/Sorich, 6-01-42-G/Brown, Sonnie, 6-01-62-G/Sorich and 6-03-48/Sorich, Gault and 6-05-30/Okun).

Section 30.34.020(D) of the City's certified IP and Public Safety Policy 1.6 of the LUP require that an applicant provide extensive geotechnical information documenting that any new development on the coastal bluff top will be safe over its lifetime from the threat of erosion so as to not require shoreline protection. Initially the applicant proposed a standard slab foundation for the residence. However, after review of the applicant's initial geotechnical report that included a slope stability analysis and an estimation of long-term erosion (Ref. "Report of Preliminary Geotechnical Evaluation" by Christian Wheeler Engineering dated 6/14/04), the Commission's technical services division concluded that the proposed residence sited at 46 ft. from the bluff edge with a standard slab foundation would not be safe from the threat of erosion over its estimated 75 year lifetime.

As cited above, Section 30.34.020(D) requires that many factors be analyzed within the geotechnical report for new development on the blufftop including an estimate of the long-term erosion rate at the site. The geotechnical report prepared by the applicant has identified a site-specific estimate of the long-term erosion rate and found it to be approximately 0.24 ft. per year. This translates into an estimated 18 ft. of erosion over 75 years. The Commission's staff geologist has reviewed the applicant's site-specific estimation of long-term erosion at the subject site and concurs with its estimation.

However, in order to find the appropriate geologic setback for the bluff top home, the Certified LCP requires not only that a long-term erosion rate be adequately identified but also that the geotechnical report demonstrate an adequate factor of safety against slope failure (i.e., landsliding), of 1.5 will be maintained over 75 years. The applicant's geotechnical report of 6/14/04 identifies that the 1.5 factor of safety under present

conditions is located at approximately 46 ft. from the bluff edge. However, in order to find the appropriate geologic setback, the above-cited LCP provisions require not only that an adequate factor of safety against landsliding be shown under present conditions, but also that it addresses stability over 75 years (See Section 30.34.020(D) above). Therefore, in estimating an appropriate setback for new blufftop development, it is necessary to first estimate the configuration of the bluff 75 years from now. The simplest way to accomplish this is to assume that the bluff will have the same topographic configuration as at present, but the entire bluff will have migrated landward due to coastal bluff retreat. Applying the site-specific historical long-term average bluff retreatrate of 0.24 ft/yr, this would mean that the bluff would be 18 ft. landward of its current location. Next, it must be demonstrated that the site will have a factor of safety against landsliding of 1.5 or greater given the 18 ft. of estimated erosion. For instance, in this case, if the location of the 1.5 factor of safety for current conditions of 46 ft. (as identified by the applicant's geotechnical report under current conditions) were added to the estimated bluff erosion over 75 years, the Commission's staff geologist would recommend a geologic setback for a residence constructed on traditional slab foundation of approximately 64 ft. from the edge of the bluff.

In response to the concerns raised by the Commission's staff geologist, the applicant has revised his project to incorporate the use of a deepened foundation utilizing a row of 40 ft. long, 24 inch diameter concrete caissons ("shear pins") to be imbedded no further than 6 ft. apart beneath the western side of the proposed residence. The applicant has also submitted an updated geotechnical report which documents that the home sited at 46 ft. from the bluff edge using the proposed deepened foundation will be safe from erosion and will not require shoreline protection over its lifetime (Ref. "Shear Pins Recommendation to Stabilize Existing Coastal Bluff", by Christian Wheeler Engineering dated 11/8/06). The applicant's geotechnical reports demonstrate that after 18 feet of bluff retreat the site will have a 1.5 factor of safety at a point 46 feet from the current bluff edge (28 feet from the bluff edge 75 years in the future) if these "shear pins" (caissons) are installed to the specifications found in the geotechnical reports. The Commission's geologist and coastal engineer have reviewed the applicant's foundation proposal and updated geotechnical report and concur with its assessment. In addition, the applicant has documented that with only approximately 18 ft. of erosion occurring over the next 75 years, neither the residence nor the proposed foundation system will be exposed or undercut by erosion since they will be sited at 46 ft. from the bluff edge. Therefore, at 46 ft. from the bluff edge, the proposed residence will not be threatened by erosion or landslide over its lifetime and, thus, will not require shoreline protection over its lifetime consistent with the requirements of Section 30.34.020(D) and P.S. Policy 1.6 of the LCP.

As previously described, the applicant is also proposing the construction of a pool along the western side of the residence. The pool is proposed to be located at 40 ft. from the edge of the bluff at its closest point and will be approximately 6 ft. in width, 6 ft. in depth and approximately 38 ft. in length. The concrete pool is proposed to be tied into the row of caissons foundation system for the residence that lies at 46 ft. from the bluff edge such that its support will come from a cantilevered design. The Commission's staff geologist

and coastal engineer have reviewed the proposed design and concur that the proposed caisson foundation system will support both the pool and residence and provide the necessary 1.5 factor of safety against sliding over 75 years as required for new development on the blufftop. It also might be important to recognize that, based on the geotechnical reports prepared by the applicant and concurred with by the Commission's technical services staff, locating the residence at 40 ft. from the edge of the bluff using a somewhat more robust deepened foundation system would also have been consistent with the geologic setback requirements of the LCP. However, in this case, the applicant chose to locate the residence at 46 ft. from the bluff edge and to construct a pool at 40 ft. from the bluff edge.

Although the pool has been designed to be safe from potential landslide through the use of the deepened foundation system and at 40 ft. from the bluff edge is unlikely to be threatened by bluff erosion which is estimated at 18 ft. over 75 years, any pool has a potential of leaking which could adversely affect bluff stability. Therefore, Special Condition #2 has been attached which requires a number of protective measures be implemented into to the pool design to assure the pool will not leak or cause damage to the bluff. These include requirements for leak/moisture detection system, use of materials and design that waterproof the undersides of the pool to prevent leakage and installation of a sub drain or other drainage system under the pool that would convey any water leakage to an appropriate drainage outlet. With this condition, the Commission can be assured that no adverse geologic impact will likely occur from the pool's construction.

Since the applicant has only submitted conceptual plans for the proposed residence, pool and caisson foundation system, Special Condition #1 requires the submission of final plans along with supporting calculations that document the final foundation plan will result in a 1.5 factor against sliding for the residence and pool over its estimated 75 year lifetime.

In addition, to assure that the proposed residence, pool and foundation system is ultimately constructed as proposed, Special Condition #6 requires the submission of asbuilt residence, pool and foundation plans that have been reviewed and approved by the City of Encinitas.

Because erosion and landslides are caused by a variety of factors including over-watering on the blufftop and inappropriate drainage, Special Condition #1d and e require the applicant to not have permanent irrigation devices on top of the bluff and that all drainage be directed toward the street.

To assure that future improvements to the residence do not occur without review by the Commission, Special Condition #5 requires that all future modifications including those that otherwise may be exempt from the need of a coastal permit must be reviewed and approved by the Commission as an amendment to the subject permit or as a new coastal development permit.

In addition, although the applicant asserts that the proposed development can be constructed safely despite ongoing erosion and the potential of landslide, the bluffs along the Encinitas shoreline are known to be hazardous and unpredictable. Given that the applicant has chosen to construct a residential addition despite these risks, the applicant must assume the risks. Accordingly, Special Condition #4 requires the applicant to acknowledge the risks and indemnify the Commission against claims for damages that may occur as a result of its approval of this permit. In addition, the Commission's staff geologist and coastal engineer have reviewed the submitted geotechnical reports and concur that the proposed development can be constructed without the need for shoreline protection in the future and that the site is reasonably safe from the risks of geologic collapse. However, there is a risk that the anticipated future changes to storm waves, erosion and sea level could be larger than what has been used in the siting and design of the proposed residence. As such, Special Condition #3 requires that the applicant agree to waive his rights to construct shoreline protection under 30235 of the Coastal Act. Only with this waiver can the project be found to be consistent with Section 30.34.020(D) which prohibits new development from requiring future shoreline protection.

P.S Policy 1.6 requires that the bluffs be protected against unnatural causes of bluff failures by conserving them within an open space easement or other device so as to prohibit future development. Therefore, Special Condition #7 requires the applicant to record an open space restriction over face of the bluff that prohibits future development. In this way, existing and any future property owner(s) will be made aware of the prohibition against the placement or erection of any structure on the bluff face. Finally, Special Condition #8 requires the applicant to record a deed restriction imposing the conditions of this permit as covenants, conditions and restrictions on the use and enjoyment of the property.

In summary, the proposed development has been sited and designed to be safe over its lifetime so as to not require shoreline protective devices. With conditions to assure that no future shoreline devices will be constructed and that provide protection against adverse impacts to geologic stability, the proposed development is consistent with Section 30.34.020(D) and P.S. Policy 1.6 of the Certified LCP.

3. <u>Water Quality</u>. Recognizing the value of protecting the water quality of oceans and waterways for residents and visitors alike, the City's LCP requires that preventive measures be taken to protect coastal waters from pollution. The following policies are applicable:

Resource Management Policy 2.1 of the LCP states:

In that the ocean water quality conditions are of utmost importance, the City shall aggressively pursue the elimination of all forms of potential unacceptable pollution that threatens marine and human health.

Resource Management Policy 2.3 of the LCP states in part:

To minimize harmful pollutants from entering the ocean environment from lagoons, streams, storm drains and other waterways containing potential contaminants, the City shall mandate the reduction or the elimination of contaminants entering all such waterways . . .

The proposed development will be located at the top of the bluffs overlooking the Pacific Ocean. As such, drainage and run-off from the development could potentially affect water quality of coastal waters as well as adversely affect the stability of the bluffs. To reduce the risk associated with unattended running or broken irrigation systems, Special Condition #1d restricts the property owner from installing permanent irrigation devices and requires the removal or capping of any existing permanent irrigations systems. In addition, Special Condition #1e requires that all runoff be directed away from the bluffs and toward the street. In order to protect coastal waters from the adverse effects of polluted runoff, the Commission has typically required that all runoff from impervious surfaces be directed through landscaping as filter mechanism prior to its discharge into the street. In this case, however, directing runoff into blufftop landscape areas could have an adverse effect on bluff stability by increasing the amount of ground water within the bluff material can lead to bluff failures. Therefore, in this case, reducing the potential for water to be retained on the site and directing the runoff toward the street, will be more protective of coastal resources. In addition, the requirement of Special Condition #1f that limits landscaping to native, drought-tolerant along with the restriction on irrigation will minimize the amount of polluted runoff from the property to the extent feasible. Therefore, the Commission finds the proposed project consistent with Resource Management Policies 2.1 and 2.3 of the Certified LCP.

4. <u>Public Access</u>. The project site is located on the blufftop west of Fourth Street in Encinitas which is designated as the first public roadway. As the proposed development will occur between the first public roadway and the sea, pursuant to Section 30.80.090 of the City's LCP, a public access finding must be made that such development is in conformity with the public access and public recreation policies of the Coastal Act.

Section 30210 of the Coastal Act states:

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

In addition, Section 30212 of the Act is applicable and states, in 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:
 - (l) it is inconsistent with public safety, military security needs, or the protection of fragile coastal resources,

(2) adequate access exists nearby....

Additionally, Section 30220 of the Coastal Act provides:

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

The proposed development will occur on the top of the bluff above a public beach. The beach fronting this location is used by local residents and visitors for a variety of recreational activities. As proposed, the development at the top of the bluff will not affect existing public access to the shoreline since no public access across the property to the beach currently exists because of the hazardous nature of the approximately 90 ft. high coastal bluff. In addition, public access to beach is currently available at one block north of the subject site at the D Street public access stairway. Moonlight State Beach, one of the city's primary beaches, is also located approximately \(\frac{1}{4} \) mile north of the subject site. Finally, by siting and designing the proposed development at a safe location so as to not require shoreline protection in the future and as conditioned to require the conservation of the bluff face in open space, the Commission can be assured that no future shoreline devices will be constructed at this location that might otherwise impact public access and recreation along the shoreline or affect the contribution of sand to the beach from the bluff. Therefore, as conditioned, the proposed development is consistent with the public access and recreation policies of the certified Local Coastal Program and Sections 30210, 30212 and 30220 of the Coastal Act.

5. <u>Visual Resources</u>. The City's certified Land Use Plan contains several policies relating to the requirement that new development be designed to be compatible with existing development and the visual resources of the area. Land Use (LU) Policies 6.5 and 6.6 state as follows:

The design of future development shall consider the constraints and opportunities that are provided by adjacent existing development. (LU Policy 6.5)

The construction of very large buildings shall be discouraged where such structures are incompatible with surrounding development. The building height of both residential and non-residential structures shall be compatible with surrounding development, given topographic and other considerations, and shall protect public views of regional or statewide significance. (LU Policy 6.6)

In addition, RM Policy 8.5 of the LUP states, in part, that:

The City will encourage the retention of the coastal bluffs in their natural state to minimize geologic hazards and as a scenic resource. Construction of structures for bluff protection shall only be permitted when an existing principal structure is endangered and no other means of protection of that structure is possible.

Finally, Section 30.34.020B.8 of the Implementation Program states:

The design and exterior appearance of buildings and other structures visible from public vantage points shall be compatible with the scale and character of the surrounding development and protective of the natural scenic qualities of the bluffs.

The proposed project involves the construction of an approximately 3,962 sq. ft. two-story, approximately 22 ft.-high, single-family residence with pool on an approximately 10,000 sq. ft. blufftop lot. The proposed residence will be located in an established residential neighborhood containing one to two story single-family residences. The proposed new home will not exceed the height, bulk and scale of the existing surrounding development and will be consistent with the City's development standards. In addition, public views of the shoreline or any other coastal resource will be unaffected by the proposed residence. Also, as previously cited, Special Condition #7 requires that the bluff face located within the applicant's property be subject to an open space restriction prohibiting any development from occurring on the natural bluff. As such, the visual quality of these natural bluffs will be protected. Therefore, as conditioned, the proposed residence does not adversely affect visual resources. Therefore, as conditioned, the Commission finds that the proposed development is consistent with LU Policies 6.5 and 6.6, RM Policy 8.5, and Section 30.34.020B.8 of the City's IP.

6. <u>Unpermitted Development</u>. The proposed development will occur on a site where development has occurred without a required coastal development permit. The unpermitted development involves the merger of the subject lot with 2 other adjacent lots, a portion of a street vacation and a portion of a fourth lot in order to create an approximately 25,832 sq. ft. lot. The lot merger occurred in 1990 without the required coastal development permit. It should be noted that the unpermitted lot merger has no effect on the Commission review of the proposed home. The existing 10,000 sq. ft. lot on which the proposed development is to be located is a legal lot and as noted above, the proposed home meets all the LCP required development standards.

Although the development in the form of lot mergers has taken place prior to submission of this permit application, consideration of the application by the Commission has been based solely upon the policies of the City's certified LCP and/or the public access and recreation policies of Chapter 3 of the Coastal Act. Approval of the permit does not constitute a waiver of any legal action with regard to these violations of the LCP or Coastal Act that may have occurred, nor does it constitute admission as to the legality of any development undertaken on the subject site without a coastal development permit. Resolution of this unpermitted development will occur through separate enforcement action.

7. Local Coastal Planning.

In November of 1994, the Commission approved, with suggested modifications, the City of Encinitas Local Coastal Program (LCP). Subsequently, on May 15, 1995, coastal development permit authority was transferred to the City. The project site is located

within the City's permit jurisdiction and, therefore, the standard of review is the City's LCP.

Based on specific policy and ordinance language requirements placed in the LCP by the Commission, the City of Encinitas is in the process of developing a comprehensive program addressing the shoreline erosion problem in the City. The intent of the plan is to look at the shoreline issues facing the City and to establish goals, policies, standards and strategies to comprehensively address the identified issues. To date, the City has conducted several public workshops and meetings on the comprehensive plan to identify issues and present draft plans for comment. However, at this time it is uncertain when it will be scheduled for local review by the Encinitas City Council or when the plan will come before the Commission as an LCP amendment.

In the case of the proposed project, site specific geotechnical evidence has been submitted indicating that the proposed residence and pool that incorporate a deepened foundation system consisting of 40 ft. caisson imbedded beneath the residence will not be threatened by erosion over its lifetime.

Based on the above findings, the proposed residence has been found to be consistent with the Sections 30.34.020(D) of the City's Certified IP and Public Safety Policy 1.3 and 1.6 of the LUP which prohibits development in hazardous locations that would require the construction of shoreline protective devices. Therefore, the Commission finds that approval of the proposed residence would not prejudice the ability of the City of Encinitas to continue to implement its certified LCP or to prepare a comprehensive plan addressing the City's coastline as required in the certified LCP.

8. <u>California Environmental Quality Act (CEQA) Consistency</u>. Section 13096 of the Commission's administrative regulations requires Commission approval of a Coastal Development Permit to be supported by a finding showing the permit is 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, as conditioned, is consistent with the policies of the City's LCP relating to geologic stability, water quality, public access and visual resources. In addition, as conditioned, the project is consistent with all applicable Chapter 3 policies of the Coastal Act. Mitigation measures will minimize all adverse environmental impacts. As conditioned, there are no feasible alternatives or feasible mitigation measures available which would substantially lessen any significant adverse impact which the activity may have on the environment. Therefore, the Commission finds that the proposed project, as conditioned, is the least environmentally-damaging feasible alternative and is consistent with the requirements of the City's LCP and the public access and recreation policies of the Coastal Act to conform to CEQA.

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 on which the Commission voted on the application. Development shall be pursued in a diligent manner and completed in a reasonable period of time. Application for extension of the permit must be made prior to the expiration date.
- 3. <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.









