

## CALIFORNIA COASTAL COMMISSION

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# Fri 9a

Staff: BP-SD  
Staff Report: 12/18/03  
Hearing Date: 1/14-16/03

## STAFF REPORT AND RECOMMENDATION ON APPEAL

LOCAL GOVERNMENT: City of Carlsbad

DECISION: Approval with Conditions

APPEAL NO.: A-6-CII-03-26

APPLICANT: Fred Kiko

PROJECT DESCRIPTION: Demolition of an existing single-family dwelling and construction of a two-story, 30-foot high, 6,358 sq.ft. single-family dwelling with basement, attached 700-sq.ft garage/storage, roof deck, swimming pool and spa. In addition, the project includes the removal of an existing unpermitted wooden bulkhead, wooden return walls, and revetment rocks and construction of a new 50 ft. long, 18 ft. high vertical seawall on two 3,500 sq. ft. oceanfront lots proposed to be merged in one 7,000 sq. ft. lot.

PROJECT LOCATION: 2649 Ocean Street, Mello II, Carlsbad (San Diego County)  
APN 155-104-04

### STAFF NOTES:

At its November 5, 2003 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 proposed development raises several issues of concern related to need for shoreline protection and the safety of a proposed swimming pool, seaward of the proposed residence. The City's LCP allows seawalls to protect existing development; however, the LCP also requires that new development be sited so as to be safe for its economic life such that shoreline protection is not necessary. A coastal engineering analysis indicates that while the proposed residence can be sited without the need for the proposed vertical seawall, future storm runup on the subject site may eventually outflank the shoreline protection on the adjoining lots resulting in potential damage to existing accessory improvements and the residential structures on those lots. Thus, the seawall is proposed not to protect the proposed residence, but to protect the adjacent shoreline

protection from flanking that may lead to structural threat. However, the Commission's staff coastal engineer has concluded that based on information presented, the shoreline protection on the adjacent lots are not currently threatened. In addition, if the adjacent lots are threatened in the future, there are various alternatives, other than a seawall, that should be considered. Thus, staff is recommending that the seawall be deleted from the project as it is not necessary to protect existing threatened structures at either the subject site or the adjacent sites, and there are other alternatives available that do not involve the construction of a seawall that can be pursued to address any flanking concerns that may occur in the future.

Additionally, staff is recommending that conditions be imposed to ensure that no bluff or shoreline protective device(s) will ever be constructed to protect the new development authorized by this permit (although a protective device may be necessary to address impacts on the immediately adjacent properties) and that all proposed accessory improvements (i.e., decks, walls, planters etc.) should be designed to be removed or relocated at such time that they are in danger from erosion. Based on the information submitted, staff has determined that the proposed swimming pool to be constructed seaward of the proposed residence would be subject to threat from wave run up in the future and as such, recommends that the pool be deleted from the proposal.

With these and the attached conditions that are typical of the Commission's approval of shorefronting development, the project can be found consistent with the certified LCP and Chapter 3 policies of the Coastal Act.

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**SUBSTANTIVE FILE DOCUMENTS:** Certified City of Carlsbad Local Coastal Program (LCP)/Mello II Segment; Carlsbad Coastal Development Permits CDP #96-19, CDP #97-36, CDP #99-53; Coastal Commission Coastal Development Permits 6-86-585, 6-92-107 & A-6-CII-01-20; Skelly Engineering, "Supplemental Information, Appeal #A-6-CII-03-026 (Kiko)", July 10, 2003 (letter to the California Coastal Commission); Skelly Engineering, "Response to California Coastal Commission Request for Additional Information, 2649 Ocean Street, Carlsbad," April 29, 2003 (letter to the California Coastal Commission); Skelly Engineering, "Response to California Coastal Commission Appeal Notice, 2649 Ocean Street, Carlsbad," March 14, 2003 (letter to the California Coastal Commission); Skelly Engineering, "Wave Action & Coastal Hazard Study, 2649 Ocean Street Carlsbad," May 24, 2002 (letter report to Mr. Fredrick Kiko; SANDAG 2002, "State of the Coast Report Spring 2002, Beach and Lagoon Mouth Monitoring Program" 44 pgs + Appendices; US Army Corps Of Engineers, 1991, "State of the Coast San Diego Region, CCSTWS-Main Report"; Wiegel, R., January 2002, "Seawalls, Seacliffs, Beachrock: What Beach Effects? Part I, Part 2, & Part 3"; Shore & Beach, Vol. 70, Nos. 1, 2, & 3; Hany Elwany, Ph.D., Coastal Environments, September 29, 2003. Letter Report to Mr. David Skelly "Independent Peer Review of the Coastal Engineering Reports for the Kiko Project, 2649 Ocean Street, Carlsbad, California."; Dall & Associates, December 8, 2003 "Finite Kiko Project Description, Coastal Commission De Novo Review of CDP A-6-CII-03-026"; Geotechnical Exploration, Inc., March 17, 2003 "Letter report to Frederick and Jessica Kiko, Bluff Edge Determination.";

Geotechnical Exploration, Inc., June 25, 2003 "Bluff edge determination, proposed Kiko residence, 2649 Ocean Street, Carlsbad; Geotechnical Exploration, Inc., July 31, 2002. "Bluff edge determination, proposed Kiko residence, 2649 Ocean Street, Carlsbad; Geotechnical Exploration, Inc., August 29, 2003. "Bluff edge determination, response to Coastal Commission request for additional data,"; Geotechnical Exploration, Inc., December 2, 2003 Letter Report to Frederick and Jessie Kiko, and to Dr. Roy J. Shlemon, "Geotechnical Exploration, Inc. Response and Actions Taken Based on Peer Review Briefing," 7 pp., one exhibit (Skelly Engineering, July 10, 2003 letter report), plus Appendices "A," 10 pp., "B," 9 pp., "C," annotated 10/28/(19)54 oblique aerial photograph, "D," US C&GS Topographical Map, "Northward from San Marcos Valley [to South Oceanside]," 1887, (188)8, "E," annotated NOAA/NOS-US Army Corps of Engineers/LAD Cooperative Shoreline Movement Study (map), Imperial Beach-San Pedro, CA, and "F," 5 pp. Geotechnical Exploration, Inc., December 2, 2003. Letter Report to Frederick and Jessie Kiko. "Typographical Revision of 25 June 2003" letter report, "Bluff Edge Determination, Proposed Kiko Residence, 2649 Ocean Street, Carlsbad, California," 8 pp. plus four attachments, Appendix "A," Carbon 14 Dating Results, "B," oblique aerial photographs, 1928, 1949, 1957, 1960, and "C," Stereo Pair Aerial Photographs, 1932 and 1946. Kelley & Associates, Environmental Sciences, Inc., June, 2003. "Report on Carlsbad soil-landform investigation, Kiko property, 2649 Ocean Street, Carlsbad, California. California Coastal Commission Appeal No. A-Cii-03-026 (Kiko), 9 pp. Kelley & Associates, Environmental Sciences, Inc., July, 2003, "Supplement to report on Carlsbad soil-landform investigation, Kiko property, 2649 Ocean Street, 5 pp. appendices. Kelley & Associates, Environmental Sciences, Inc., "Response to Peer Review by Roy J. Shlemon, Ph.D., December 8, 2003." 4 pp. Roy J. Shlemon & Associates, Inc., November 26, 2003. "Peer Review, Geotechnical and Geomorphic Investigations, 2649 Ocean Street, Carlsbad, California," 13 pp. plus Appendix "A," 2 pp. Skelly Engineering, March 14, 2003. Letter to California Coastal Commission, "Response to California Coastal Commission Request for Additional Information, 2649 Ocean Street, Carlsbad," Skelly Engineering, April 29, 2003. Letter Report to Frederick Kiko, "Response to California Coastal Commission Appeal Notice," 2649 Ocean Street, Carlsbad, 2 pp., Skelly Engineering, May 24, 2003. Letter Report, "Wave Action & Coastal Hazard Study, 2649 Ocean Street, Carlsbad." 7 pp., Skelly Engineering, July 10, 2003. Letter Report to Lee McEachern and Bill Ponder, California Coastal Commission, "Supplemental Information Appeal #A-6-CII-03-026 (Kiko)," 4 pp. plus one exhibit (annotated Map 12a, California Department of Boating and Waterways, 1994 Shoreline Erosion Assessment and Atlas of the San Diego Region, Vol. II, Buena Vista Lagoon-South Carlsbad, Mile 21.0-24.0). Skelly Engineering, September 10, 2003. "Appeal #A-6-CII-03-016 (Kiko), Additional Supplemental Information," 14 pp. and Exhibits 1 (Declaration of Cindy Blair and Phil Palisoul, with site plan), 2 (Ocean Street Condominiums, 2653-55 Ocean Street, Carlsbad, CA, "Retaining Wall and Stairway Site Plan & Elevations," by C. J. Randle, PE, rev. 8/26/98), 3 (oblique photograph looking N toward bulkhead and slope of Kiko property, 4 (revised seawall plans [superseded by December, 2003 finite project seawall plan in Wolf-Design.)

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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-CII-03-26 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 Local Coastal Program and with the public access and recreation policies 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 THE ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall submit to the Executive Director for review and written approval, final site, building and elevation plans for the permitted development that have been approved by the City of Carlsbad. Said plans shall be in substantial conformance with the plans submitted by the applicant dated received December 9, 2003 by Kalber Architecture, but shall be revised as follows:

- a. Elimination of the proposed seawall, the backfill behind the seawall and the swimming pool.

- b. Any proposed accessory improvements (i.e., decks, patios, walls, etc.) located seaward of the residence in the geologic setback area on the site shall be detailed and drawn to scale on the final approved site plan. Such improvements shall be at grade or capable of being removed without significant landform alteration.

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. Assumption of Risk, Waiver of Liability and Indemnity. By acceptance of this permit, the applicant acknowledges and agrees; (i) that the site may be subject to hazards from wave runup, erosion and flooding; (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.

3. Other Special Conditions of the Carlsbad Regular Coastal Permit. Except as provided by this coastal development permit, this permit has no effect on conditions imposed by the City of Carlsbad pursuant to an authority other than the Coastal Act.

4. 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 applicant has executed and recorded against the parcel(s) 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 the 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.

5. Future Development. This permit is only for the development described in coastal development permit No. A-6-CII-03-26. 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-CII-03-26 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. Construction Schedule/Staging Areas/Access Corridors. PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall submit to the Executive Director for review and written approval, detailed plans identifying the location of access corridors to the construction sites and staging areas, and a final construction schedule. Access shall only be via the identified access corridors. Said plans shall include the following criteria specified via written notes on the plan:

- a. Use of sandy beach and public parking areas outside the actual construction site, including on-street parking, for the interim storage of materials and equipment is prohibited.
- b. No work shall occur on the beach during the summer peak months (start of Memorial Day weekend through Labor day) of any year.
- c. Equipment used on the beach shall be removed from the beach at the end of each workday.

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

7. Drainage Plan. PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall submit for the review and written approval of the Executive Director, a final drainage and runoff control plan, with supporting calculations, that has been approved by the City of Carlsbad. This plan shall include the following requirements:

- (a) Drainage from all roofs, parking areas, driveway area, and other impervious surfaces on the building pad shall be directed to toward the street to the maximum extent possible and through vegetative or other media filter devices effective at removing and/or mitigating contaminants such as petroleum hydrocarbons, heavy metals, and other particulates.
- (b) Any runoff directed to the beach shall be directed in a non-erosive manner and through landscaping or another filtering medium as stated above, prior to discharge

onto the beach. No energy dissipating structures shall be permitted on the beach seaward of the toe of bluff.

The permittee shall undertake development in accordance with the drainage 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 required.

8. Revised Landscaping Plan. PRIOR TO THE ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall submit for the review and written approval of the Executive Director, a final landscaping plan approved by the City of Carlsbad. Said plan shall include the following:

- a. Drought tolerant and native plant materials are required. No invasive species are permitted. All proposed landscaping and any improvements in the side yard setbacks shall be maintained at a height of three feet or lower to preserve views from the street toward the ocean; also, any gates or fencing across the side yard setback areas shall be see through/open.
- b. A planting schedule that indicates that the planting plan shall be implemented within 60 days of completion of residential construction.
- c. A written commitment by the applicant that all required plantings shall be maintained in good growing conditions, and whenever necessary, shall be replaced with new plant materials to ensure continued compliance with applicable landscape screening requirements.
- d. Five years from the date of issuance of the coastal development permit, the applicant shall submit for review and written approval of the Executive Director, a landscape monitoring report, prepared by a licensed Landscape Architect or qualified Resource Specialist, that certifies whether the on-site landscaping is in conformance with the landscape plan approved pursuant to this Special Condition. The monitoring report shall include photographic documentation of plant species and plant coverage.

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

The permittee shall undertake development in accordance with the approved landscape plans. Any proposed changes to the approved landscape 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.

9. Waiving the Rights to Future Shoreline Protection. By acceptance of this Permit, the applicant agrees, on behalf of himself and all successors and assigns, that no bluff or shoreline protective device(s) shall ever be constructed to protect the development approved pursuant to Coastal Development Permit No. A-6-CII-03-26 in the event that the development is threatened with damage or destruction from waves, erosion, storm conditions, bluff retreat, landslides, 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.

10. Protection of Accessory Improvements. In the event that erosion or bluff failure threatens the accessory improvements (i.e., decks, retaining walls, patios, etc.), they shall be removed. The decks, retaining walls and patios are authorized to remain in place only until they are threatened by erosion or bluff failure. The approval of this permit shall not be construed as creating a right to shoreline protection under the City's LCP. Prior to removal of any threatened accessory improvements, the permittee shall obtain a coastal development permit for such removal unless the Executive Director determines that no permit is required.

11. Disposal of Export Material/Construction Debris. PRIOR TO THE ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall identify the location for the disposal of export material and construction debris. If the site is located within the coastal zone, a separate coastal development permit or permit amendment shall first be obtained from the California Coastal Commission or its successors in interest.

12. As-Built Plans. Within 60 days following completion of the project, the permittee shall submit as-built plans approved by the City of Carlsbad to be reviewed and approved in writing by the Executive Director documenting that the stringline provisions have been met and the residence and accessory structures have been constructed consistent with the Executive Director approved construction plans.

13. Condition Compliance. WITHIN SIXTY (60) DAYS OF COMMISSION ACTION OF THIS COASTAL DEVELOPMENT PERMIT APPLICATION, or within such additional time as the Executive Director may grant for good cause, the applicants shall satisfy all requirements specified in the conditions hereto that the applicants are required to satisfy prior to issuance of this permit. Failure to comply with this requirement may result in the institution of enforcement action under the provisions of Chapter 9 of the Coastal Act.



#### IV. Findings and Declarations.

The Commission finds and declares as follows:

1. Project Description/Permit History. The proposal includes demolition of an existing single-family dwelling and construction of a two-story, with basement, 30-foot high, 6,358 sq.ft. single-family dwelling and attached 700-sq.ft garage/storage on an oceanfronting and blufftop site within the Mello II segment of the Carlsbad Local Coastal Program. Also proposed is a swimming pool and spa and sun deck. In addition, the project includes the removal of an existing unpermitted wooden bulkhead, wooden return walls, and revetment rocks and construction of a new 50 ft. long, 18 ft. high vertical seawall on two 3,500 sq. ft. oceanfront lots proposed to be merged in one 7,000 sq. ft. lot (Exhibit 2). The basement level will not be visible from the street but will be open from the west (seaward) side of the structure. Approximately 1,278 cubic yards of cut grading is proposed to prepare the site for the improvements.

The site is located on the west side of Ocean Street, just north of Beech Street in the City of Carlsbad (Exhibit 1). The site consists of two narrow rectangular lots, each 3,500 square feet, proposed to be merged into one 7,000 sq. ft. lot. The site slopes downward from east to west (towards the beach, Exhibit 3). The eastern portion of the site, along Ocean Street, generally contains slopes of 0-25% for approximately the first 70 feet. From that point westward the site drops more steeply toward the beach. The site is currently developed with a single-family residence and the western slope contains mainly ice plant and other non-native plant species. There is no significant native vegetation on the site. An existing unpermitted wooden bulkhead (previously described as a "sandbox") is located on the western property line approximately 6-10 ft. seaward of the toe of the bluff (Exhibit 3). Based on a review of Commission records and historical aerial photographs, staff notes that the wooden bulkhead and rock was constructed after the effective date of the Coastal Act between 1978 and 1983 and without the required coastal development permit. Potential prescriptive rights to public access may exist in the area under and inland of the bulkhead.

The applicant proposes to dispose of the wooden bulkhead offsite and outside the coastal zone. Special Condition #11 memorializes this proposal. The deck-terrace is proposed to extend no farther seaward than the nearest respective terrace-patio corners of the adjoining properties; see-through side yard gates are proposed along the Ocean Street frontage.

A vertical seawall is located on the adjacent lot to the south; a rock revetment is located on the adjacent lot to the north. The westerly edge of the seawall is proposed to be located at the top of the coastal bluff along 39 feet of its length; 11 feet of its length curves seaward toward the southwest approximately 10 ft. to join the nearest edge of the existing vertical seawall on the adjacent property to the south. A 90-degree corner is proposed where the seawall meets the adjoining vertical seawall. Return walls, 10 and 15 feet in length, are proposed along the southerly and northerly property lines to further

protect against potential flanking erosion. The applicant is also proposing a lateral access dedication seaward of the seawall, maintenance and monitoring of the seawall, deposition of 81 cubic yards of suitable material on the beach and a beach sand mitigation fee of \$1,545.00 to mitigate the loss of the relatively small quantity of beach quality sand due to the proposed seawall over its 75-year economic life. Further details of the applicant's proposal are attached as Exhibit #5.

The site is zoned R-3 and is within the Beach Area Overlay Zone. It has a LCP designation of RH (Residential – High Density). Surrounding properties to the north and south are also zoned R-3 and also have a LCP designation of RH. The properties to the east of Ocean Street are zoned R-3 with a LCP designation of RMH (Residential – Medium to High density). Surrounding properties are developed with a variety of residential uses which include single- and multi-family structures.

The City approved a Coastal Development Permit (CDP), Special Use Permit (SUP) and Variance (V). A 20-foot front yard setback is required in the R-3 zone but a zero foot front yard setback was approved. Special Condition #3 advises that this permit has no effect on conditions imposed by the City of Carlsbad pursuant to an authority other than the Coastal Act. Other projects on the west side of Ocean Street have been approved with front yards reduced to zero feet because of the site topography.

The standard of review is consistency with the certified City of Carlsbad Local Coastal Program, Mello II segment and the public access policies of the Coastal Act.

2. Stringline. The proposed project is a single family dwelling on a oceanfronting site comprised of two lots. The certified LCP prohibits new development along the ocean from extending further seaward than a "stringline" drawn between adjacent sites. The goal of limiting new development from extending beyond the stringline is to restrict encroachment onto the shoreline and to preserve public views along the shoreline. Policy 7-12 of the Mello II LUP states:

#### Seaward of Ocean Street

New development on the seaward side of Ocean Street shall observe at a minimum, an ocean setback based on a "stringline" method of measurement. No enclosed portions of a structure shall be permitted further seaward than allowed by a line drawn between the adjacent structure to the north and south; no decks or other appurtenances shall be permitted further seaward than those allowed by a line drawn between those on the adjacent structures to the north and south. The policy shall be used on single family, "infill" parcels, and a greater ocean setback may be required for geologic reasons.

Additionally, in its approval of the project, the City cited the project's conformance with the blufftop development provisions of the Coastal Shoreline Development Overlay. The overlay is intended to provide land use regulations along the Carlsbad shoreline including beaches, bluffs and the land area immediately landward thereof. The purpose of the

overlay zone is to ensure that the public's interest in maintaining the shoreline as a unique recreational and scenic resource is adequately protected. The overlay also ensures public safety and public access will be assured and promotes avoidance of the adverse geologic and economic effects of bluff erosion. Section 21.204.050 of the Coastal Shoreline Development Overlay zone provides:

Uses permitted by the underlying zone map may be permitted on non-beach areas subject to granting of a coastal development permit for coastal shoreline development issued pursuant to the procedures of Chapter 21.201 of this title, unless specifically prohibited by policies or other applicable ordinances in the approved Carlsbad local coastal program. "Non beach areas" are defined as areas at elevations of ten feet or more above mean sea level (North American Datum, 1929). Permitted uses are subject to the following criteria:

A. Grading and Excavation. Grading and excavation shall be the minimum necessary to complete the proposed development consistent with the provisions of this zone and the following requirements:

- 1) ...Building sites shall be graded to direct surface water away from the top of the bluff, or, alternatively, drainage shall be handled in a manner satisfactory to the City which will prevent damage to the bluff by surface and percolating water..
- 2) No excavation, grading or deposit of natural materials shall be permitted on the beach or the face of the bluff except to the extent necessary to accomplish construction pursuant to this section....

B. New development fronting the ocean shall observe at a minimum, an ocean setback based on a "stringline" method of measurement. No enclosed portions of a structure shall be permitted further seaward than allowed by a line drawn between the adjacent structure to the north and south; no decks or other appurtenances shall be permitted further seaward than those allowed by a line drawn between those on the adjacent structures to the north and south. A greater ocean setback may be required for geologic reasons and if specified in the Local Coastal Program.

As noted, the project area is developed with a variety of residential uses on bluff top lots which include both single- and multi-family developments. The project site is along a coastal bluff with the street elevation of approximately +40-ft. Mean Sea Level (MSL) and the toe of the bluff elevation at approximately +12-ft. MSL. The Commission has interpreted the above cited stringline provisions of the LCP to require that the "stringline" be measured from the nearest point of adjacent structures immediately to the north and south of the proposed development (ref. CDP Nos. 6-90-25/Kunkel; 6-90-299/Rowe; 6-92-107/Phillips and 6-95-144/Bownes). Compliance with the stringline assures that new development will be sited consistent with existing similar development and not adversely impact public views or encroach on public use areas.

The nature and pattern of development in the area has been permitted through application of the stringline policies, some pre-coastal development, development approved by the Commission and, since 1997 when effective certification of the Carlsbad LCP occurred, development approved by the City. The Commission has found seawalls are not an accessory structure to be used for purposes of determining stringline and that the purpose of the stringline policies is to avoid need for seawalls and associated beach encroachment. As proposed, the extent of development seaward of the residence and supported by the new seawall is more extensive than that typically permitted through historic application of the stringline policies.

As redesigned and proposed, the siting of the home and accessory development seaward of the home, with the exception of the seawall, complies with the stringline policy because the structures extend no further seaward than those same kinds of structures on the adjoining lots. For example, as noted, the proposed deck-terrace is in line with the nearest respective terrace-patio corners of the adjoining properties.

Regarding the proposed grading of the site, the LCP requires grading and excavation to be the minimum necessary to complete the proposed development. Although the development involves construction of a home and a number of accessory improvements seaward of the home which result in approximately 1,268 cubic yards of grading, the proposal is similar to the pattern of development in the surrounding area that includes similar improvements (decks, patios, walls) on the slopes seaward of the homes. In several City and Commission permit actions in the project area (Blair/Palisoul, Sea Bisquit, CDP #6-86-585 (Grosse), CDP #6-92-107 (Phillips)), grading of the sites' slopes was approved to accommodate accessory development. With the exception of the swimming pool, the Commission can support the proposed improvements because they are consistent with the stringline and the prevailing pattern. However, as discussed in the succeeding section below, the Commission is requiring the pool to be deleted because it cannot be safely sited at its proposed location without the need for a seawall. Additionally, the proposed swimming pool will require substantial grading and landform alteration for its construction and potential removal, if threatened, which is inconsistent with Section 21.204.050 of the certified LCP.

The subject site is located in the Coastal Resource Protection Overlay Zone, which includes all Mello II properties and requires that for steep slope areas not containing endangered plant/animal species and/or coastal sage scrub or chaparral plant communities, development of slopes 25% or greater may be permitted subject to specific findings. Although grading is proposed on slopes steeper than 25%, no sensitive vegetation is present on the site. Therefore, the proposed project complies with all applicable requirements of the Coastal Resource Protection Overlay Zone and the above-cited LCP provisions.

As conditioned, the project is consistent with the prevailing pattern development, ocean (stringline) setbacks and proposed grading will not adversely affect coastal resources;

therefore, the Commission finds the proposed project is consistent with the cited provisions of the Mello II LCP.

3. Shoreline Development/Hazards. The Mello II LUP contains policies that address coastal erosion. Policy 4-1 provides:

(a) Development Along Shoreline

For all new development along the shoreline, including additions to existing development, a site specific geologic investigation and analysis similar to that required by the Coastal Commission's Geologic Stability and Bluff Top Guidelines shall be required; for permitted development, this report must demonstrate bluff stability for 75 years, or the expected lifetime of the structure, whichever is greater. Additionally, permitted development shall incorporate, where feasible, subdrainage systems to remove groundwater from the bluffs, and shall use drought-resistant vegetation in landscaping, as well as adhering to the standards of erosion control contained in the Carlsbad Master Drainage Plan. A waiver of public liability shall be required for any permitted development for which an assurance of structural stability cannot be provided.

Policy 4- b of the Coastal Shoreline Development Overlay provides:

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... (emphasis added)

Additionally, Section 21.204.110 of the Coastal Shoreline Development Overlay zone requires that new development must be sited appropriately with respect to hazards.

Geotechnical reports shall be submitted to the planning director as part of an application for plan approval... The document should be based on an onsite inspection in addition to a review of the general character of the area and it shall contain a certification that the development as proposed will have no adverse effect on the stability of the bluff and will not endanger life or property, and professional opinions stating the following:

1. The area covered in the report is sufficient to demonstrate the geotechnical hazards of the site consistent with the geologic, seismic, hydrologic and soil conditions at the site;
2. The extent of potential damage that might be incurred by the development during all foreseeable normal and unusual conditions, including ground saturation and shaking caused by the maximum credible earthquake...

[...]

14. The effect the project could have on the stability of the bluff.

15. Mitigating measures and alternative solutions for any potential impact.

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 lifespan of the project. The report shall use a currently acceptable engineering stability analysis method, shall describe the degree of uncertainty of analytical results due to assumptions and unknowns, and at a minimum, shall cover an area from the toe of the bluff inland to a line described on the bluff top by the intersection of a plane inclined at a twenty-degree angle from horizontal passing through the toe of the bluff or fifty feet inland from the bluff edge, whichever is greater. The degree of analysis required shall be appropriate to the degree of potential risk presented by the site and the proposed project. If the report does not conclude that the project can be designed and the site be found to be geologically stable, no coastal shoreline development permit shall be issued.

Shoreline protective structures, consisting of rock revetments, vertical seawalls, and an occasional wooden bulkhead/wall, as at the site, are located continuously along this segment of the Carlsbad shoreline. However, the legality of the majority of the existing shoreline protection has not been verified. Rock revetments are located along eight homes and the Army-Navy School to the north (upcoast) from the iceplant-covered wooden bulkhead at the Kiko property. There is a continuous sequence of vertical seawalls and rock revetments along eighteen homes and lodging facilities to the south (downcoast) of the Kiko property. With the exception of the seawall immediately adjacent to the south, the alignment of the existing vertical shoreline protection further south is for the most part inland of the proposed alignment and at the toe of the bluff.

Currently, the beach in front of the subject site is wider than it has been in the past and it was recently widened with sand from a regional sand replenishment project. The site's existing timber bulkhead with return walls is located between a downcoast vertical seawall and an upcoast rock revetment. According to the applicant, the bulkhead was reportedly constructed in response to emergency conditions associated with 1978 storms, but was apparently not engineered or constructed to meet current standards for shoreline protective structures relating to storm wave design height, runup and maximum wave loading (to avoid overtopping), foundation depth, return walls, construction materials, and seismic loading. The applicant contends the proposed vertical seawall is a "replacement shoreline protective structure". However, Commission staff note the existing wooden bulkhead on the beach fronting this site is unpermitted and, therefore, should not be used as justification for a "replacement" structure.

The proposed residence would be located approximately 70 feet landward of the existing toe of the bluff with accessory improvements proposed between the home and the proposed seawall (Exhibit #2). Although the applicant's coastal engineering study

indicates the home itself will be safe from wave erosion without the need for a seawall, the study indicates the existing bulkhead is in disrepair and eventually will fail, resulting in the site and adjacent properties experiencing erosion from wave action. The study recommends the replacement of the bulkhead with the proposed vertical seawall to insure against damage from any future shoreline erosion to the adjacent properties resulting from flanking of the existing shore protection.

The applicant is proposing removal of the existing unpermitted wooden bulkhead in conjunction with reconstruction of a new seawall, however, neither the existing unpermitted wall nor the new proposed wall are necessary pursuant to Section 30235 and applicable LCP policies. The applicant is proposing to remove the unpermitted wall; however, in the event that the wall is not removed, this permit in no ways authorizes its retention in any way.

The Commission has typically found in Section 30235 of the Coastal Act (and as mirrored above in the Carlsbad LCP in Policy 4- b and Section 21.204.110) that while shoreline protection can be approved to protect existing development, new development should not be dependent on a seawall. Both the Commission and the applicant agree that, in this case, the new home can be sited without the need for a seawall. The Commission has interpreted the above sections taken together to mean that while shoreline protective devices are permissible to protect existing primary structures like an existing home, new development must be sited so as to not require construction of a shoreline protective device. The Commission has found that shoreline protective devices may have an adverse effect on the shoreline sand supply and the stability of the bluff system and are only appropriate when protecting existing structures when such property is threatened by erosion and wave attack. Additionally, in the following "Public Access" section of this report, the Commission finds that the existing unpermitted bulkhead has adverse impacts to public access both on-site and off-site that require its removal.

The applicant's coastal engineer has found that storm conditions similar to those in 1982-83 or 1997-98 would overtop the wooden wall, likely result in its failure, and result in shoreline retreat back to the toe of the coastal bluff. According to the applicant's coastal engineer, failure of the wooden wall would expose the adjacent retaining wall (not an engineered seawall return wall) along the adjacent downcoast property to undercutting and failure, which in turn would threaten the seawall itself with flanking and potential destruction. Similarly, failure of the wooden wall would expose the adjacent rock revetment along the adjacent upcoast property to undercutting, settlement, and structural failure. According to the applicant's coastal engineer, although the revetment is an engineered structure with a stable foundation, this does not assure protection for the upcoast revetment against flanking erosion or settlement associated with major storm-high tide events.

In response to concerns raised by Commission staff, the applicant analyzed the need for the seawall to address the concern that the adjacent properties will be subject to threat from erosion due to flanking of the protection that exists on those sites. The analyses found that the "no project", "upgrading the existing wooden bulkhead" and "Long-term



beach nourishment and maintenance of the existing wooden bulkhead” alternatives were not viable and instead proposes a preferred alternative which is the proposed vertical seawall. Upon review of all the information, the Commission’s coastal engineer and geologist concur that the proposed home is sited such that it will be safe for its 75-year economic life without shoreline protection or the existing unpermitted bulkhead. However, no information has been provided that documents any immediate threat to the adjoining seawall or revetment seawall without the proposed seawall or the existing unpermitted seawall. Furthermore, if the adjoining seawall structures are threatened in the future, there are alternatives other than the proposed seawall that could protect the adjacent structures from flanking. For example, end walls or return walls could be constructed on the adjoining sites to protect existing development on those sites, the existing bulkhead could be rebuilt or relocated further inland, small erosion pockets inland of the revetment could be filled, etc. (See Memorandum attached as Exhibit #9).

The proposal also includes the construction of a pool excavated into the slope seaward of the home (the bottom elevation of the pool is +18 MSL which is the same elevation as the top of the proposed seawall). While the proposed residence is safe from wave uprush, according to the Commission’s coastal engineer, if the new proposed seawall is deleted from the proposed project, the proposed pool may be damaged by wave uprush and erosion at some point in the future; however, possibly not for decades. While the threat may not occur for many years, the Commission is concerned that if the pool is threatened in the future, a seawall or some other form of shoreline protection would be proposed to protect it. The LCP allows accessory structures seaward of homes on coastal bluff sites only when they do not require landform alteration and significant grading. In this case the excavation of the pool requires significant grading because of its size and depth. Unlike other typical accessory improvements, which if threatened can be easily removed, the proposed swimming pool is permanently excavated into the slope seaward of the home. Removal in the future would require substantial alteration and potential impacts to the slope, inconsistent with LCP policies. For this reason, many certified LCPs have the same setback requirements for principle residential structures applicable to swimming pools. Swimming pools are not typically treated as the type of accessory improvement that can be easily removed as an alternative to protection. Although the Carlsbad LCP does not make that specific distinction, the Commission finds a swimming pool on the portion of the bluff seaward of the residence is inconsistent with the policies which call for minimal grading on non-beach areas and which require that new development should be sited so as not to require shoreline protection. In this particular case, based on the analysis provided by the applicant’s consultants, the proposed swimming pool will be subject to threat in the future and as such, the Commission is requiring that the swimming pool be deleted from the project.

Special Condition #1 requires final plans documenting the removal of the seawall and the swimming pool from the proposed project. In addition, although the applicant asserts that the proposed development can be constructed safely despite ongoing erosion and wave runup, the bluffs along the Carlsbad shoreline are known to be hazardous and unpredictable. Given that the applicant has chosen to construct a residence despite these risks, the applicant must assume the risks. Accordingly, Special Condition #2 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. Special Condition #4 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 addition, since the applicant has assured the Commission that the proposed residence can be constructed without requiring shoreline protection in the future, Special Condition #9 requires the applicant to waive all rights and claims that may exist under the City's LCP to obtain a permit to build a protective device to protect the development authorized in this permit. Based on the analysis provided by the applicant's consultants (and accepted by the Commission's staff coastal engineer and geologist), the proposed home will be safe for 75-100 years with out the need for protection. Since the LCP requires new development to be sited such that it is safe for at least 75 years and only allows shoreline protection to protect existing development, only with this waiver can the project be found to be consistent with the cited provisions of the LCP. The Commission notes that the accessory improvements on the subject site are considered ephemeral because in and of themselves they are not assured protection by the LCP. Special Condition #10 advises the applicant that the proposed accessory improvements seaward of the home (i.e., decks, walls, planters etc.) are permitted to remain in place until threatened by erosion of bluff failure. Once threatened, they are required to be removed.

Based on the above, the Commission finds the required findings are made to ensure the proposed development is appropriately sited so as to be safe from coastal erosion without requiring future additional shoreline protection. As conditioned, the proposed seawall and swimming pool are deleted, the applicant assumes the risk of developing in a hazardous location, and that the applicant recognizes that a seawall is not permitted to protect the new home or its associated improvements; thus, the Commission finds the proposed project conforms to the above provisions of the certified Carlsbad LCP.

4. Public Access. The public access and recreation policies of the Coastal Act are applicable because the proposed development is located between the sea and the first public road. Section 30604(c) requires that a specific access finding be made in the case of proposed development that is so located. Many policies of the Coastal Act address the provision, protection and enhancement of public access to and along the shoreline, in particular, Sections 30210, 30211, 30212 and 30223. These policies address maintaining the public's ability to reach and enjoy the water, preventing overcrowding by providing adequate recreational area, and protecting suitable upland recreational sites.

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.

### Section 30211

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

Section 21.204.070(A)1) of the Coastal Shoreline Development Overlay states:

If the certified local coastal program or the permit process produces evidence of historic public use on a development site located in the coastal zone, development shall be required to meet all of the following requirements:

#### A. Siting and Design of Development.

1. Development shall be sited and designed in a manner which does not interfere or diminish the potential public rights based on historic public use. Mechanisms for guaranteeing the continued public use of the site shall be required in accordance with Section 21.204.080; or
2. Development may be sited in the area of potential historic public use provided that an area of equivalent public access has been provided in the immediate vicinity of the development site which will accommodate the same type and intensity of use as previously may have existed on the development site. An equivalent access area shall provide access of comparable site, and type of use. Mechanisms for guaranteeing the continued public use of the area shall be required in accordance with Section 21.204.080.

Vertical access is available approximately 400-feet north of the site and lateral access is currently available seaward of the unpermitted bulkhead on the sandy beach to the west of the site. Section 21.204.070(A)1) of the Coastal Shoreline Development Overlay requires that "Development shall be sited and designed in a manner which does not interfere or diminish the potential public rights based on historic public use...." The LCP requires that a seawall's effect on public access be evaluated. As indicated in the preceding section, the Commission finds it is feasible to construct the project without the need for a seawall; thus, no adverse impacts to public access are anticipated from the proposed development, as conditioned.

However, the existing wooden bulkhead has significant public access impacts based on its location on the beach approximately 22-feet seaward of the toe of the coastal bluff. Although apparently on private property at this location (it is located on the western property line), this is sandy beach that has been recently nourished and has been historically used by the public for access and recreation. This bulkhead not only physically displaces available sandy beach area but would also deflect wave energy when struck by waves which promotes beach loss from scouring. Equally as important, this seawall has been used as a reference point for dictating the alignment of seawalls up and down the coast in the project area. For example, the adjoining vertical wall to the south

has an alignment that encroaches significantly more seaward on its northern end than on its southern end. It was designed to be consistent with a stringline drawn between the subject lot to the north and the existing vertical seawall on the adjoining lot to the south. However, it juts dramatically seaward in a diagonal fashion towards the subject bulkhead as a result of the bulkhead being located much further seaward than the vertical wall to the south.

Unfortunately, since the bulkhead has not been permitted, to use it as a reference point for the seawall alignment on other up- and downcoast developments has resulted in shoreline protection being sited further out on the beach than necessary. To use it as a reference point for the seawalls that are north of the site would compound and exacerbate the problem. The end result is that numerous properties up and down the coast line could have shoreline protection built much further seaward than necessary with the corresponding adverse impacts to public access. The applicant has proposed to remove the bulkhead with this application and replace it with the proposed vertical seawall. However, while removal of the bulkhead is authorized, this permit does not authorize construction of the proposed vertical seawall. Based on the preceding discussion, the Commission finds the bulkhead has significant adverse impacts to public access. Should the applicant not remove the existing wooden bulkhead as proposed, resolution will occur through a separate enforcement action by the City of Carlsbad and/or the Commission.

Special Condition #6 requires the applicant to identify any locations which will be used as staging and storage areas for materials and equipment during the construction phase of this project. Use of public parking areas and the sandy beach, including on-street parking, for the interim storage of materials and equipment shall be avoided to ensure that public access and parking will not be affected.

In summary, the existing bulkhead adversely affects the public's ability to access the shoreline on site by its location on sandy beach historically used by the public, and, off-site, by virtue of its use as a reference point for the alignment of shoreline protection in the project area. Therefore, the Commission finds the proposal to remove the wooden bulkhead is not only consistent with the above policies of the Coastal Act and Carlsbad LCP, but it is mandated by them. Thus, as conditioned to ensure the proposed project will not adversely affect the public's ability to access the shoreline, the proposed project is consistent with the above policies of the Coastal Act and Carlsbad LCP.

5. Water Quality/Drainage. The proposed development is located along the Carlsbad shoreline. Chapter 15.12, "Stormwater Management And Discharge Control", of the certified Carlsbad Zoning Ordinance requires "Best Management Practices" (BMPs) to prevent or reduce to the maximum extent practicable (MEP) the discharge of pollutants directly or indirectly into waters of the United States. The purpose of the ordinance is to reduce pollutants in storm water discharges, including those pollutants taken up by storm water as it flows over urban areas (Urban runoff) to the maximum extent practicable and to reduce pollutants in storm water discharges in order to achieve applicable water quality objectives for surface waters in San Diego County. The intent of the ordinance is to protect and enhance the water quality of watercourses and wetlands in

a manner pursuant to and consistent with the Clean Water Act and California Regional Water Control Board NPDES Permit No. CA108758, Order 90-42 and any amendment or revision.

Policy 4-6 of the Mello II LUP, "Sediment Control" Practices, provides:

Apply sediment control practices as a perimeter protection to prevent off-site drainage. Preventing sediment from leaving the site should be accomplished by such methods as diversion ditches, sediment traps, vegetative filters and sediment basins. Preventing erosion is of course the most efficient way to control sediment runoff.

Section 21.204.050 of the Coastal Shoreline Development Overlay zone provides:

1) ...Building sites shall be graded to direct surface water away from the top of the bluff, or, alternatively, drainage shall be handled in a manner satisfactory to the City which will prevent damage to the bluff by surface and percolating water..

No excavation, grading or deposit of natural materials shall be permitted on the beach or the face of the bluff except to the extent necessary to accomplish construction pursuant to this section....

In its approval, the City found that the project must utilize best management practices to eliminate or reduce surface pollutants when planning any changes to the landscaping and surface improvements. However, the City's permit does not specifically address the changes necessary to mitigate potential adverse impacts to water quality. The certified Stormwater Ordinance requires that both the quantity and quality of runoff be addressed to maintain water quality. While the City found that quantity would be addressed by collecting runoff in a proposed drainage system that uses drains, swales and an energy dissipater near the toe of the bluff, it failed to address the quality of the runoff as required in the ordinance. The Commission notes the project proposes greater amounts of impervious surfaces than the pre-existing project and for that reason quality of runoff must be addressed (i.e., increase in the discharge of pollutants).

The Mello II LCP provides that drainage should go to the street if feasible. The bulk of the drainage is being directed to Ocean Street; however, because of the sloping nature of the lot some runoff is proposed to be directed towards the beach. The certified LCP requires that best management practices be utilized to assure the quality of the water leaving the site has been addressed to the maximum extent practicable. No specific implementing water quality measures were approved. The Commission has found in previous permit decisions that directing on site runoff into landscaping/vegetation or another filtering medium (French drain) is an adequate measure to improve water quality. In this case the Commission finds a water quality plan must be submitted to ensure the required reduction in the discharge of pollutants. Special Condition #7 requires that runoff be directed towards the street to the extent feasible and that runoff that is directed towards the beach must be directed through landscaping or another filtering medium before runoff is discharged off-site. Any runoff directed to the beach shall be directed in

an non-erosive manner and through landscaping or another filtering medium as stated above, prior to discharge onto the beach. No energy dissipating structures shall be permitted on the beach seaward of the toe of bluff. Only as conditioned is the proposed project consistent with the above provisions of the certified LCP.

6. Public Views. The following policies and goals of the certified Mello II LCP address protection of public views and are applicable to the proposed development:

Policy 8-1

The Scenic Preservation Overlay Zone should be applied where necessary throughout the Carlsbad Coastal Zone to assure maintenance of existing views and panoramas. Sites considered for development should undergo individual review to determine if the proposed development will obstruct views or otherwise damage the visual beauty of the area. The Planning Commission should enforce appropriate height limitations and see-through construction, as well as minimize any alterations to topography.

In addition, Section 21.40.135 of the City's certified LCP Implementation Plan is applicable to the proposed development and states, in part:

Within the coastal zone, existing public views and panorama shall be maintained. Through the individualized review process, sites considered for development shall be conditioned so as to not obstruct or otherwise damage the visual beauty of the coastal zone. In addition to the above, height limitations and see-through construction techniques should be employed. Shoreline development shall be built in clusters to leave open areas around them to permit more frequent views of the shoreline. Vista points shall be incorporated as a part of larger projects.

Additionally, Section 21.204.100 (B & C) of the Coastal Shoreline Development Overlay Zone of the City's certified LCP is applicable and states:

- B. Appearance -- Buildings and structures will be so located on the site as to create a generally attractive appearance and be agreeably related to surrounding development and the natural environment.
- C. Ocean Views -- Buildings, structures, and landscaping will be so located as to preserve the degree feasible any ocean views as may be visible from the nearest public street.

The proposal includes construction of a two-story, 30-foot high, 6,358 sq. ft. single-family dwelling. The surrounding community is comprised of structures of similar size and scale to the proposed structure. The proposed residence meets all height and density requirements of the certified LCP and architecturally is in conformance with the development and design standards of the surrounding community. The City granted a variance from the front yard setback requirements (20 feet required, 0-foot setback approved). The setback allows more of the flat upper portion of the site to be used for

building rather than the steeper sloping portions of the lot which minimizes grading and landform alteration consistent with coastal resource preservation. The prevailing pattern of development along Ocean Avenue uses this approach and the City and Commission have approved it in many permit decisions.

Regarding the preservation of ocean views, as noted, the project, not including the seawall, is consistent with the stringline of development in the area and as such, new development will not adversely affect ocean views to and along the shoreline. The project proposes 5-foot side yard setbacks which if left unobstructed would provide view corridors from Ocean Street to the ocean. The applicant has revised the project to include open gates on the side yard areas. Special Condition #5 requires that any future improvements to the single family house authorized by this permit, including but not limited to the replacement of see-through fences with solid materials identified as requiring a permit in Public Resources section 30610(d) and Title 14 California Code of Regulations sections 13252, shall require an amendment from the Commission. The condition is being imposed because any change in the side yard, even if normally exempted from review by Section 30610, could render the project inconsistent with the LUP view policies.

The proposed landscaping plan includes several non-native and ornamental trees, shrubs and groundcover. Special Condition #8 requires a revised plan which indicates that only non-invasive and drought tolerant native plant materials can be used. Therefore, as conditioned to require that the side yards be maintained open and that the Commission review any future development proposals that could obstruct public views to the ocean, the Commission finds the project is consistent with the visual resource provisions of the certified LCP.

7. Unpermitted Development. Unpermitted development, consisting of a wooden bulkhead, has occurred on site without the required coastal development permit. The applicant has proposed to remove the unpermitted bulkhead with this application and replace it with the proposed vertical seawall. To ensure that the components of unpermitted development addressed by this application are resolved in a timely manner, Special Condition #13 requires that the applicant satisfy all conditions of this permit, which are prerequisite to the issuance of this permit within 60 days of Commission action, or within such additional time as the Executive Director may grant for good cause. However, while removal of the existing unpermitted bulkhead is authorized, this permit does not authorize construction of the proposed new vertical seawall. Further, should the applicant not remove the existing unpermitted wooden bulkhead as proposed, resolution may occur through a separate enforcement action by the City of Carlsbad. The Commission's enforcement division will also evaluate further actions to address this matter.

Although development has taken place prior to submission of this permit application, consideration of the application by the Commission has been based solely upon the Chapter 3 policies of the Coastal Act. Approval of this permit does not constitute a waiver of any legal action with regard to any alleged violations nor does it constitute an

admission as to the legality of any development undertaken on the subject site without a coastal permit.

8. Local Coastal Planning. Pursuant to Sections 30170(f) and 30171 of the Public Resources Code, the Commission prepared and approved two portions of the Carlsbad LCP, the Mello I and II segments in 1980 and 1981. However, the City of Carlsbad found several provisions of the Mello I and Mello II segments unacceptable and, therefore, did not adopt the LCP until 1997. In the intervening period, the Coastal Act was amended to include Section 30519.1 which specifies that for projects within the jurisdiction of the Mello I and Mello II segments of the LCP, coastal development permit applications are to be reviewed for their consistency with the certified local coastal program.

The certified Carlsbad LCP Mello II segment contains in its Implementation Program, a Coastal Development (C-D) Overlay Zone, which has been discussed in this report. The purpose of the C-D zone is, among other purposes, to provide regulations for development and land uses along the coastline in order to maintain the shoreline as a unique recreational and scenic resource, affording public safety and access, and to avoid the adverse geologic and economic effects of bluff erosion.

The ordinances of the C-D Overlay contain detailed regulations regarding the construction of revetments, seawalls, cliff-retaining walls, and other similar shoreline structures. Specifically, the ordinance allow for the construction of seawalls only when they are required in order to serve coastal dependent uses or to protect existing structures or public beaches in danger from erosion. As noted, in this case, because the proposed project has been found to be feasible without the need for a seawall, the Commission finds that, as conditioned, the project is consistent with the City's C-D Overlay Zone and certified Local Coastal Program. Therefore, the Commission finds that approval of the proposed development, as conditioned, will not prejudice the ability of the City to continue implementation of its certified LCP.

9. Consistency with the California Environmental Quality Act (CEQA). Section 13096 of the Commission's administrative regulations requires Commission approval of a coastal development permit or amendment to be supported by a finding showing the permit or permit amendment, 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, as conditioned, is consistent with the visual, public access and hazard policies of the Carlsbad LCP. 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 to mitigate the identified impacts, is the

least environmentally damaging feasible alternative and is consistent with the requirements of the Coastal Act to conform to CEQA.


STANDARD CONDITIONS:

1. Notice of Receipt and Acknowledgment. The permit is not valid and development shall not commence until a copy of the permit, signed by the permittee or authorized agent, acknowledging receipt of the permit and acceptance of the terms and conditions, is returned to the Commission office.
2. Expiration. If development has not commenced, the permit will expire two years from the date on which the Commission voted on the application. Development shall be pursued in a diligent manner and completed in a reasonable period of time. Application for extension of the permit must be made prior to the expiration date.
3. Interpretation. Any questions of intent or interpretation of any condition will be resolved by the Executive Director or the Commission.
4. Assignment. The permit may be assigned to any qualified person, provided assignee files with the Commission an affidavit accepting all terms and conditions of the permit.
5. Terms and Conditions Run with the Land. These terms and conditions shall be perpetual, and it is the intention of the Commission and the permittee to bind all future owners and possessors of the subject property to the terms and conditions.

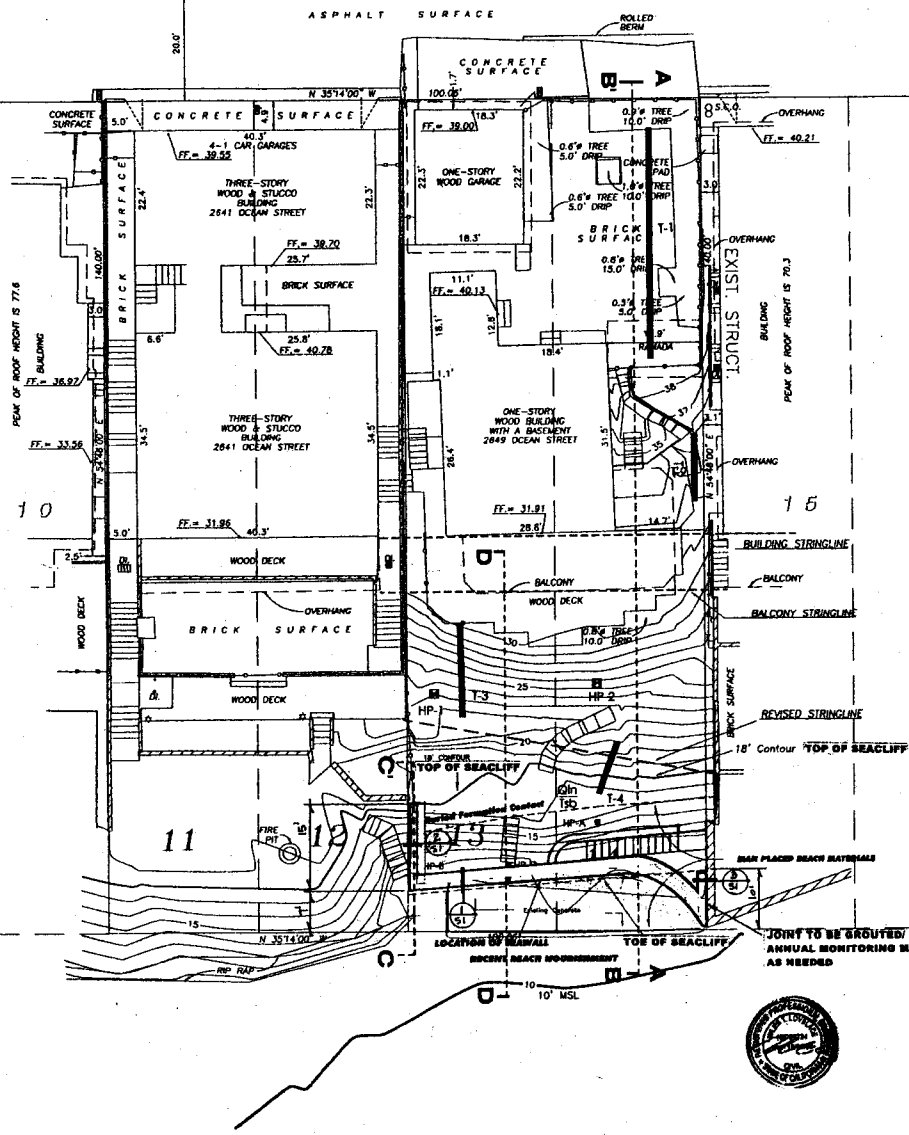




**EXHIBIT NO. 2**  
**APPLICATION NO.**  
**A-6-CII-03-026**  
**Site Plan**



OCEAN STREET



- LEGEND:**
- ⊗ INDICATES WATER METER
  - ⊕ INDICATES FIRE HYDRANT
  - ⊕ INDICATES GATE VALVE
  - INDICATES SIGN
  - ⊙ INDICATES LIGHT POLE
  - OB INDICATES GRADE BREAK
  - TOP INDICATES TOP OF SLOPE
  - TDE INDICATES TIDE OF SLOPE
  - TW INDICATES TOP OF WALL
  - FL INDICATES FLOW LINE
  - AC INDICATES ASPHALTIC CONCRETE
  - NG INDICATES NATURAL GROUND
  - S.C.O. INDICATES SEWER CLEAN OUT
  - DI INDICATES DRAIN INLET
  - INDICATES WOOD AND GLASS FENCE
  - INDICATES CHAIN LINK FENCE
  - INDICATES WOOD FENCE
  - INDICATES BLOCK OR WOOD WALL



**LEGAL DESCRIPTION:**  
 LOTS 11, 12, 13 AND 14, BLOCK A OF MAP NO. 1221  
 RECORDED IN THE CITY OF CARLSBAD, COUNTY OF SAN DIEGO,  
 STATE OF CALIFORNIA IN THE OFFICE OF THE COUNTY  
 RECORDER OF SAN DIEGO COUNTY.  
 BENCH MARK:  
 SPIKE FOUND IN POWER POLE NO. 29520  
 NORTHEAST CORNER OF DECHU STREET  
 ELEVATION= 42.95 M.S.L.

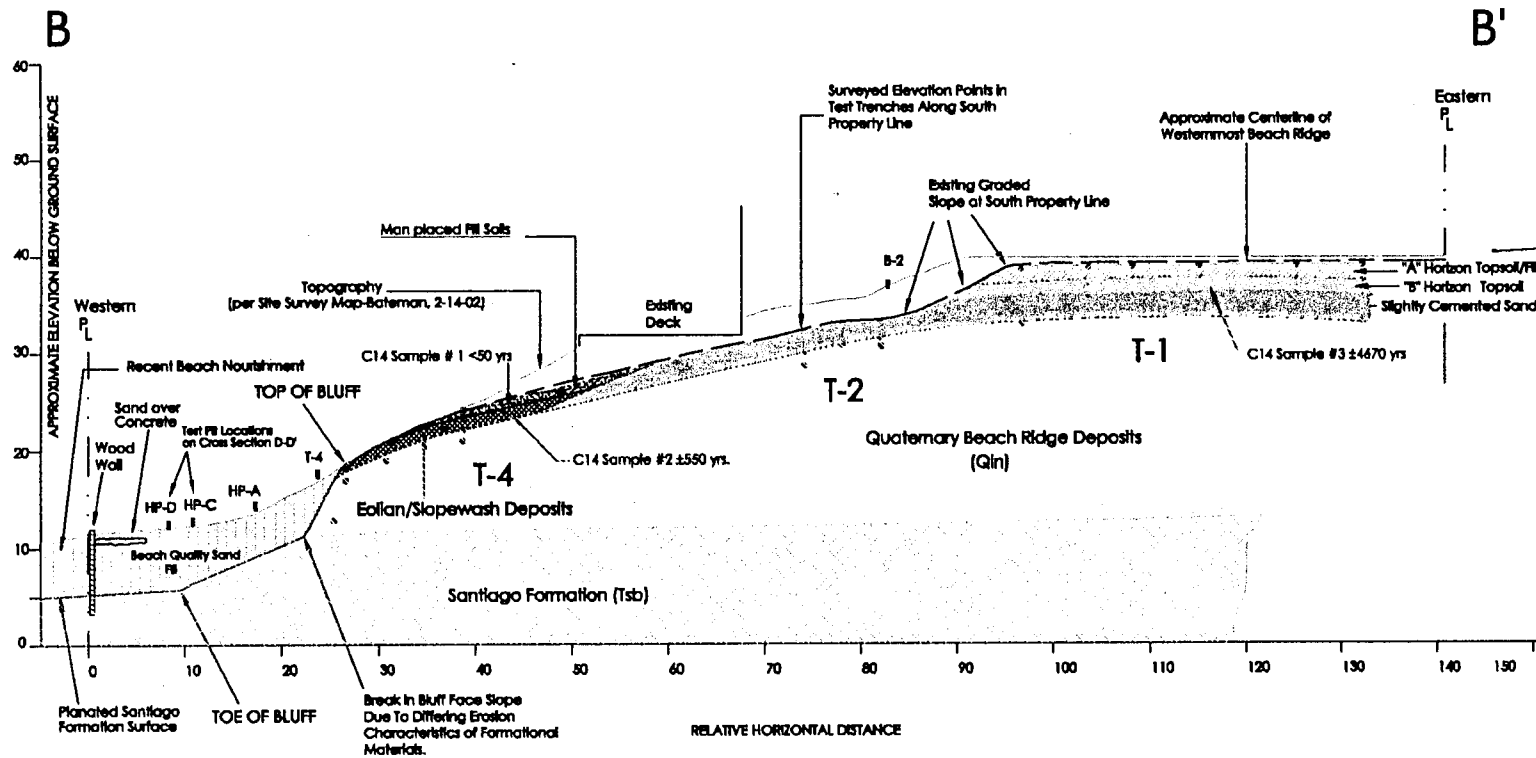
**TOPOGRAPHICAL SURVEY**  
 For the exclusive use of  
**MR. & MRS. FREDERICK KIKO**  
 3561 DONNA DRIVE  
 CARLSBAD, CALIFORNIA 92008

**San Diego Land Surveying & Engineering, Inc.**  
 9819 Chesapeake Drive, Suite 804, San Diego, California 92183-1318  
 (619) 595-8368 FAX (619) 585-4354

Date: 2-14-2002    Revised:    Revised:  
 Scale: 1"=10'    Drawn by: M.S.S.    Sheet 1 of 1 Sheet  
 Drawing: Ocean5115    A.P.N. 203-140-09 & 11

# GEOLOGIC CROSS SECTION

## Kiko Residential Site



02-8201-ss-88-NOV-20

SCALE: 1" = 20'  
Horizontal and Vertical

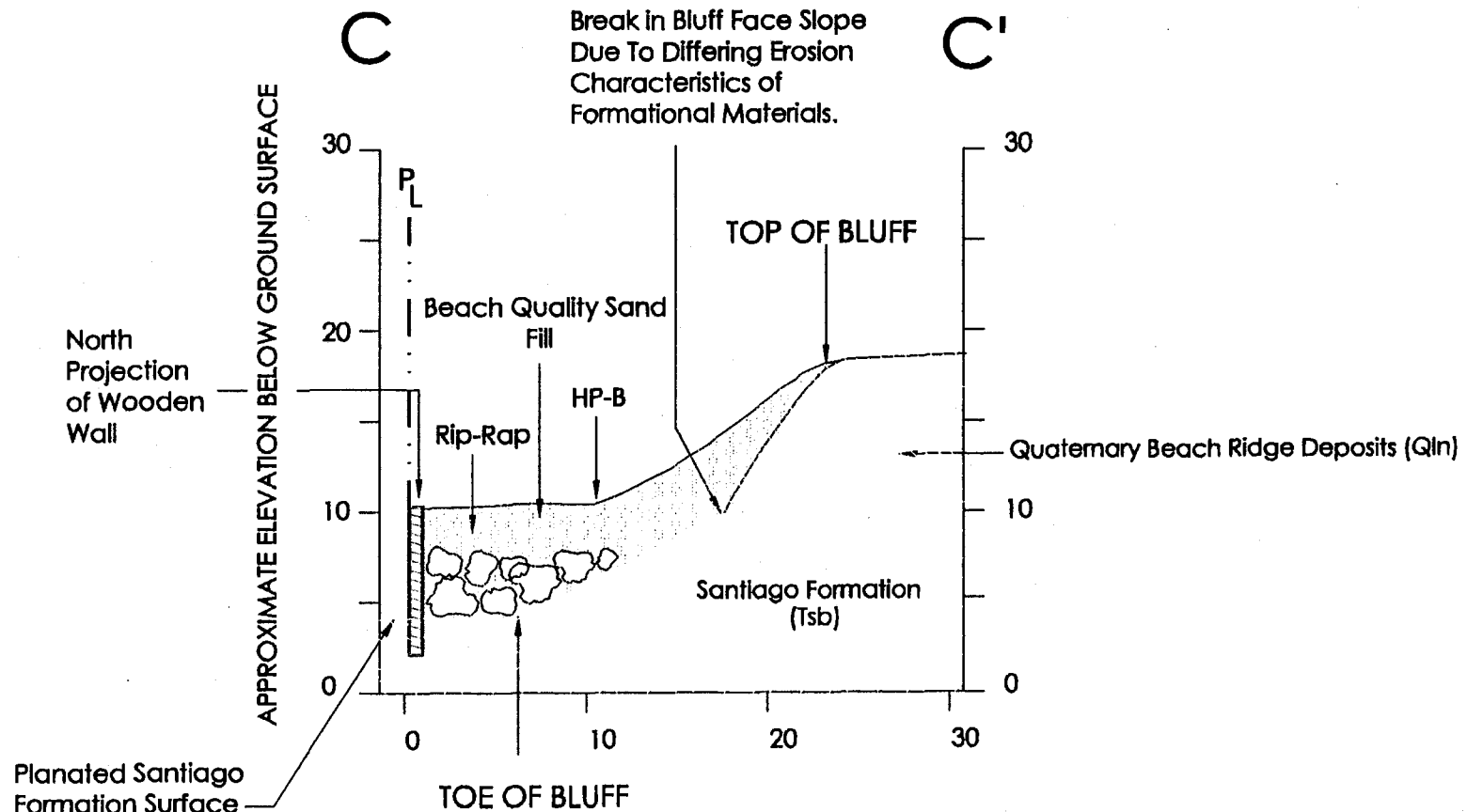
Job No. 02-8201

 **Geotechnical  
Exploration, Inc.**  
(Revised November 2003)  
June 2003

# GEOLOGIC CROSS SECTION

## Kiko Residential Site

EXHIBIT NO. 4a
APPLICATION NO. <b>A-6-CII-03-026</b>
Existing Wooden Bulkhead
California Coastal Commission



RELATIVE HORIZONTAL DISTANCE

SCALE: 1" = 10'  
Horizontal and Vertical



November 2003

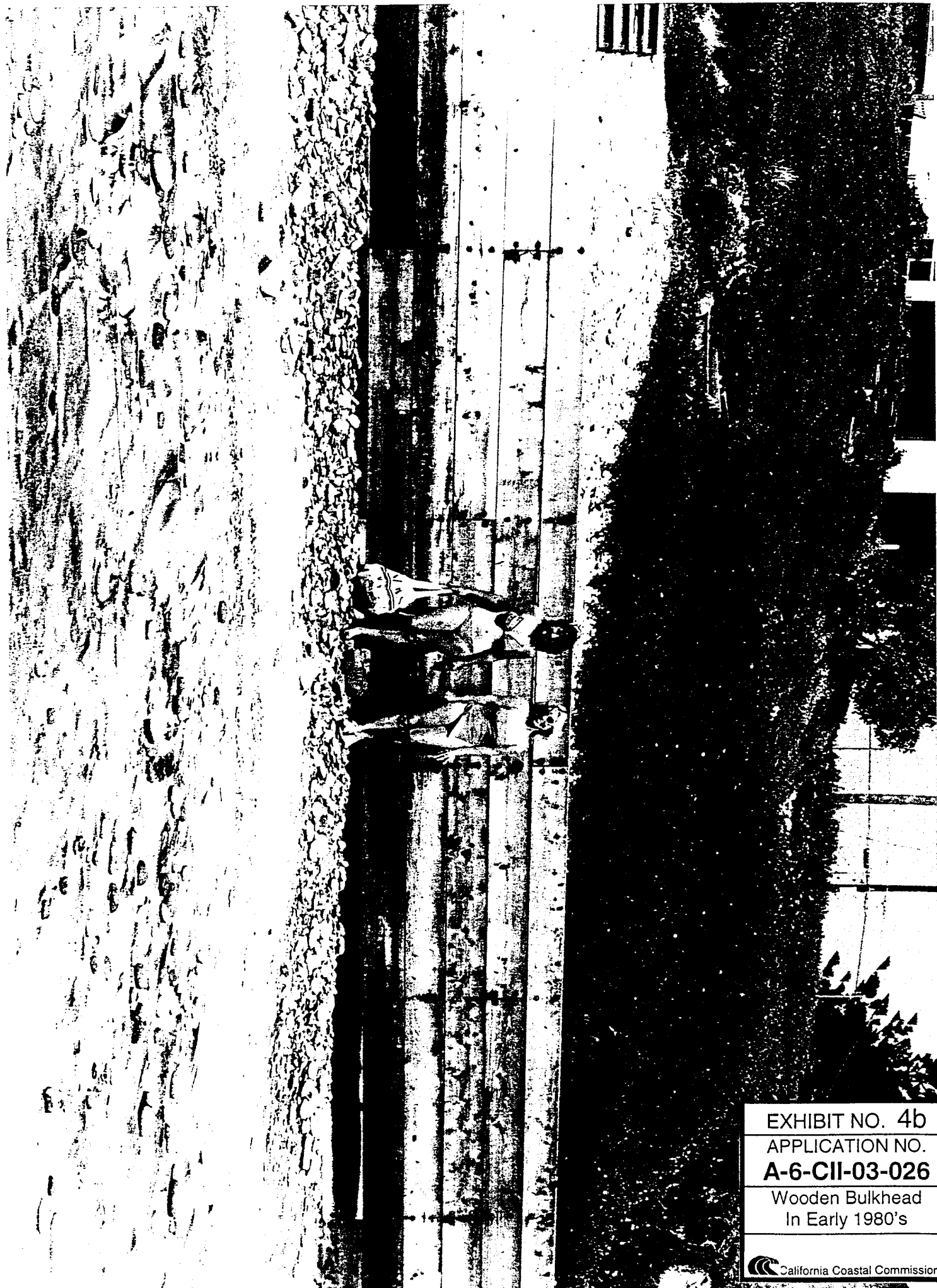


EXHIBIT NO. 4b  
APPLICATION NO.  
**A-6-CII-03-026**  
Wooden Bulkhead  
In Early 1980's

## **FINITE PROJECT DESCRIPTION**

(DECEMBER 8, 2003)

Prepared by Dall & Associates, coastal consultant to applicant.

### **INTRODUCTION**

At meetings between Coastal Commission staff and the applicant's project team in November, 2003, and in its letter of November 7, 2003, Commission staff requested and the applicant proposed a revised finite project description, to reflect additional technical information about the project site identified by the applicant's technical consultants and to address the Commission's previously stated questions of project conformity with the applicable standards of review for it (i.e., the certified City of Carlsbad LCP and Coastal Act public access and recreation policies).

Applicant's representatives have conferred with Commission staff during the preparation of the technical work on which this revised finite project description is based and appreciate Commission staff's professionalism during that process. The revised finite project description is also informed by the peer reviews performed by Roy J. Shlemon, Ph.D., Roy J. Shlemon & Associates, Inc. of the geotechnical and geomorphic investigations/reports regarding the project site by Geotechnical Exploration, Inc. ("GEI") and Kelley & Associates Environmental Sciences, Inc. ("KAES"), and by Hany Elwany, Ph.D., Coastal Environments, of the coastal engineering analyses and recommendations by Skelly Engineering. Responses to the Shlemon Peer Review have been made by GEI and KAES, with copies provided to Commission staff.

This memorandum summarizes the updated Kiko site condition information in Part 1, below, and states the revised finite project description for purpose of Commission de novo review and action in Part 2. That revised description specifically addresses the questions raised by the Commission in its substantial issue determination on appeal, as well as by Commission staff in consultative meetings with applicant's representatives. Other project components, not subject to the Commission's finding of substantial issue on appeal, remain unchanged from the City's approval action. (Cal. Pub. Res. Code Section 30625.)

A list of the technical consultant reports (including letter reports and memoranda) prepared and transmitted to Commission staff since the appeal of the City of Carlsbad's approval of the initial (local) project description is attached as Exhibit 1, hereto. Revised project plans that depict the finite location of the deck-terrace stringline and the location and design details of the proposed seawall and return walls have also recently been transmitted to Commission staff in small scale (generally, 1 inch equals 10 feet) format. Reductions of these sheets, on 8 1/2 by 11 inch paper, are attached hereto as exhibits.

## **1. SUMMARY UPDATE OF SITE CONDITION INFORMATION**

### **1.1. LOCATION OF TOP OF SEA CLIFF (COASTAL BLUFF)**

During review of the project while it was pending on appellate substantial issue determination, Commission staff questioned the mapped location of the top of the coastal bluff (sea cliff) on the Kiko property, specifically as to whether a topographical feature at approximately elevation +30 feet MSL constitutes an upper tier of a bluff face above, and to landward of, the top of the sea cliff at +18 feet MSL. Commission staff has subsequently clarified that its reference to the "+30 feet MSL" elevation was a topographical error and that "+40 feet MSL" was intended at that time. (Lee McEachern, meeting with applicant's representatives, November 12, 2003.)

The rigorous peer review by Dr. Shlemon of the geotechnical and geomorphic analyses and reports of the project site by GEI and KAES concurs and confirms that the top of sea cliff (coastal bluff) at the Kiko property is located along elevation +18 feet MSL, as mapped by GEI. (Shlemon Peer Review at 2, 13, and *infra*.) In addition, Dr. Shlemon finds and concludes that the upper break in slope at ~40-45 feet on the Kiko property is not a "top of bluff" subject to historical wave erosion. (*Id.* at 13.)

### **1.2. LOCATION OF TOE OF SEA CLIFF (COASTAL BLUFF)**

In response to Commission staff questions about location of the proposed seawall along the delineated toe of sea cliff (coastal bluff), rather than along the westerly Kiko property line or other intermediate alignments between the adjacent upcoast rock revetment and the downcoast vertical seawall, GEI has field checked and accordingly mapped the location of the toe of sea cliff at the Kiko property. (Jay Heiser and Leslie Reed, Geotechnical Exploration, Inc., "Geologic Cross Section Field Proofing," November 20, 2003, 4 pp. and geologic cross sections ["GCS"] B-B', C-C', and D-D'. Conformed copies of this report were transmitted, together with a seawall project update, by Federal Express on December 3, 2003 to Commission staff members Mark Johnson, Lesley Ewing, and Bill Ponder.)

GEI has mapped the toe of sea cliff (coastal bluff), respectively, at: 10 feet landward from the westerly Kiko property line along GCS B-B' (near the southerly property line), at 6 feet landward of the westerly property line along GCS C-C', and at 7 feet along GCS D-D'. The locations of the GCS's in plan view are shown on Sheet 1, Exhibit 2.

## **2. FINITE PROJECT DESCRIPTION**

This section contains the Finite Project Description for the six (6) project components regarding which Commission staff has previously raised questions, as applicable, as to their LCP or Coastal Act conformity:

- Deck-Terrace Stringline
- Public View Opportunities Through Sideyard Gates

- Seawall and Return Wall Design and Location
- Offer to Dedicate a Lateral Public Access Easement
- Beach Sand Impact Mitigation Fee and Nourishment
- Beach Nourishment Assessment District

## 2.1. DECK-TERRACE STRINGLINE

Commission staff previously questioned the location of the deck-terrace stringline, as it was approved by the City of Carlsbad, for the Kiko project as it extends between the northwesterly edge of the patio on the adjoining downcoast property and the southwesterly planter-terrace wall on the adjoining upcoast property.

In response, the project architect has revised Sheet A4 to correctly depict the deck-terrace stringline on the Kiko property to extend between the nearest respective terrace-patio corners of the adjoining properties.<sup>1</sup> The finite project description accordingly locates the westerly (seaward) edge of the proposed deck-terrace structure as shown on revised Sheet A4.

The City-approved stringlines for the home ("Building Stringline") and balcony ("Balcony Stringline") remain unchanged.

## 2.2. PUBLIC VIEW OPPORTUNITIES THROUGH SIDELYARD GATES

Commission staff previously stated its objective that, although long-existing wooden fencing along the Ocean Street side of the Kiko property prevents any public views from the street towards the ocean, such views along the sideyard be protected and preserved in perpetuity.

In response, the project architect has prepared a conceptual graphic that depicts the proposed southerly and northerly see-through gates along the Ocean Street frontage of the Kiko property. The purpose of these sculptured, 3 feet wide bar gates is, consistent with similar sideyard view opportunities along this street toward the ocean, to facilitate such public views. To that end, 85% of the area of the gate will be constructed out of copper or stainless steel bars and horticultural vegetation along the northerly and southerly sideyard will be selected and maintained to be low growing (36 inches or less in height), to maintain these coastal view opportunities.

## 2.3. SEAWALL AND RETURN WALL DESIGN AND LOCATION

### 2.3.1. Summary of Existing Conditions

The Kiko property, which is presently partially protected by a low (up to ~ +11 feet MSL elevation) redwood bulkhead with return walls, is located between a modern (late

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<sup>1</sup> Wolf Design-Build, Inc., "Kiko Development, Sheet A4," a copy of which was given to Commission staff at the meeting with applicant's representatives on November 12, 2003. The correct deck-terrace stringline is also shown on Exhibit 2, Sheet 1.



1990's) downcoast vertical seawall and an older (1970's) upcoast rock revetment. (See, e.g., Exhibit 2, Sheet 1.) A continuous array of vertical walls and older revetments, sometimes in combination, extends along the westerly property lines of 28 adjoining developed and redeveloped properties, as shown, e.g., in a January, 2001 aerial photograph taken prior to the interagency beach nourishment project. (Exhibit 3.<sup>2</sup>)

The bulkhead was reportedly constructed in response to emergency conditions associated with the 1978 storms, but was apparently not engineered or constructed to meet current standards for shoreline protective structures relating to design height relative to runup and maximum wave loading (to avoid overtopping), foundation depth, return walls, construction materials, and seismic loading. (Skelly Engineering, September 10, 2003, at 3.)

However, where the downcoast seawall meets the Kiko property line, the seawall is supported by a retaining (rather than engineered return) wall, with shallow footings into bedrock, that does not protect the seawall against flanking erosion. (Id.; see, C. J. Randle, PE, "Retaining Wall and Stairway Site Plan & Elevations, Ocean Street Condominiums, 2653-2655 Ocean Street, Carlsbad," June 14, 1996, revised August 26, 1998, a full-sized copy of which is attached to Id. as Exhibit 2.) Similarly, although a ~50 square feet sand backfill area in the northwesterly corner of the Kiko property, adjacent to the 1970's upcoast rock revetment, is underlain by revetment rocks between elevations + 4-5 feet MSL to + 8 feet MSL, the placement of these rocks does not assure protection for the upcoast revetment against flanking erosion or settlement associated with major storm-high tide events. For example, January, 2001 aerial photography in the area in front of and upcoast from the adjacent revetment indicates considerable migration by revetment boulders.

The project coastal engineer has found that "Oceanographic conditions similar to those in 1982-83 or 1997-98 would result in a depth limited design wave of +6 feet MSL, which would overtop the wooden wall, likely result in its failure, and result in shoreline retreat back to the toe of the mapped bluff [sea cliff]. Failure of the wooden wall would expose the adjacent retaining wall along the downcoast property line with 2653-2655 Ocean Street to undercutting and failure, which in turn would threaten the seawall itself with flanking destruction. ... Similarly, failure of the wooden wall would expose the adjacent rock revetment along the upcoast property line with 2643 Ocean Street to undercutting, settlement, and structural failure." (Skelly Engineering, Id. at 4-5.)

### 2.3.2. Alternatives Analysis

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<sup>2</sup> Exhibit 3 contains two side-by-side 8 1/2 by 11 inch excerpts of the larger copy of this 2001 aerial photograph that was given to Commission staff by the project planner, Paul Klukas, in November, 2003. Sheet 1 depicts a continuous, if deteriorated, rock revetment along eight homes and the Army-Navy School to the north (upcoast) from the iceplant-covered wooden bulkhead at the Kiko property. Sheet 2 depicts a continuous sequence of vertical seawalls and rock revetments along eighteen homes and lodging facilities to the south (downcoast) of the Kiko property.

The project coastal engineer has carefully analyzed five (5) project alternatives based, in part, on the then-available site geotechnical and soils data, including (1) the "no project" alternative, (2) upgrading the wooden bulkhead to current standards, (3) removing the wooden wall and constructing engineered return walls, (4) replacing the wooden wall with an engineered seawall and return walls, and (5) reliance on beach sand nourishment during the 75+ year economic life of the Kiko project. (Skelly Engineering, September 10, 2003, at 5-11.)

In summary: (1) the no project alternative is considered infeasible because it would likely result, in conjunction with a near term major high tide-storm event, in (a) the loss of the wooden wall, (b) consequent flanking erosion and possible loss of adjacent segments of the upcoast revetment and downcoast retaining wall and seawall, (c) creation of an additional small cove or back beach area, and (d) expose the Kikos to claims of loss estimated between \$400,000 and \$1 million, plus the loss of highly valued neighborhood peace and friendships, without beneficially effecting (e) enhancement of public beach lateral access opportunities through an offer of dedication of an easement therefore, as described, (f) the removal of revetment rocks from the northwesterly corner and of invasive non-native vegetation from the entirety of the seaward slope on the Kiko property, or (g) the guidance for other future projects along this shoreline with regard to a beach sand nourishment mitigation fee and participation in a beach nourishment assessment district, as described.

(2) Upgrading the existing redwood wall and return walls to current coastal engineering design standards is considered feasible, but would require increasing its height to +18 feet MSL with steel framing, placement of 3-5 ton toe stone along the seaward 10-foot wide band of the back beach adjacent to the wall, and capping the wall with shotcrete to give it an estimated additional 10 years of functional life. However, this alternative is not considered to be the environmentally preferred alternative because (a) it would maintain and extend the seawall along its present location on the westerly Kiko property line, (b) degrade a 500 square foot (50 x 10 feet) area of sandy public beach with toe stone rock, and (c) not make available for dedication and public use the 387 square feet of additional lateral beach access area proposed in the preferred alternative.

(3) Long-term beach nourishment and maintenance of the existing wooden bulkhead during the next 75 years is, with regard to the first component, infeasible for the project applicant to perform, since the Kiko property constitutes only a small part of even the littoral sub-cell, in which, moreover, repetitive beach nourishment on the order of every 2-4 years would be prohibitively expensive for one single family homeowner to perform.

Based on geotechnical cross sections recently mapped by GEI, the proposed seawall is estimated to interrupt a maximum total of 103 cubic yards of beach quality sand from entering into the littoral cell during the 75 year period.<sup>3</sup> Purchasing and placing

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<sup>3</sup> Exclusive of 81 cubic yards that are proposed to be used for beach nourishment as a result of removal of man-placed beach quality sand from behind the wooden bulkhead. Calculations are by Skelly Engineering, based on 70% of the material consisting of beach quality sand. This

approximately 3,000 cubic yards of beach quality sand every 2-4 years to attempt to maintain a level of protection for just the adjacent downcoast seawall and retaining wall, as well as the upcoast revetment, would cost the applicant over \$1.1 million over 75 years at the current rate of \$15/cubic yard, unadjusted for inflation.

### 2.3.3. Proposed Seawall Location, Design, Monitoring, and Maintenance

Based on further geotechnical work performed by GEI during November, 2003 to delineate the location of the toe of the sea cliff (coastal bluff) on the Kiko property, the project structural engineer (Lovelace Engineering), project coastal engineer (Skelly Engineering), and project architect have refined the location and design of the proposed seawall to be aligned with the toe of the sea cliff and to increase its footing in bedrock.

As recommended by Skelly Engineering in September, 2003 and consistent with Commission practice, the relocated seawall will also be contoured in its vertical expression and be textured/colored to reflect natural geomorphological conditions along this segment of the Carlsbad shoreline. An example or photograph of a seawall facing segment, or panel, is proposed to be submitted to Commission staff as part of the coastal permit condition compliance review to document implementation of this project component.

Exhibit 2, Sheet 1 depicts the location in plan view of the proposed 18-foot high seawall in relation to the toe of seacliff, westerly Kiko property line, seaward beach sand level, and existing wooden bulkhead and return walls on the site topographical base map.

Along 39 feet of its length, starting at the northwesterly Kiko property corner, the westerly edge of the seawall is proposed to be located immediately behind (landward of) the mapped toe of sea cliff (coastal bluff), which results in a setback from the westerly property line of ~7 to 9.5 feet and a proposed public lateral access area behind the present back beach of 387 square feet. (See Section 2.3.4.) A small private stairway to access the beach at existing sand profile elevations is proposed to be located to landward and below the top of the wall, as shown on Sheet 1. Along the southerly (downcoast) ~11 feet length of the proposed seawall, it necessarily curves toward the southwest to join the nearest edge of the vertical seawall on the adjacent downcoast property. An even steeper curve, or a 90-degree corner, where the wall meets the adjoining downcoast 18-foot high sea wall, would likely result in accelerated beach scouring during combined high tide-large storm events, due to increased wave reflection and refraction, and was therefore rejected by the project engineers. Return walls, 10 and 15 feet in length, are proposed, respectively, along the southerly and northerly property lines to further protect against potential flanking erosion.

Exhibit 2, Sheet 2 depicts the seawall structural details in three side-by-side panels.

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calculation supersedes the estimate presented in the September 10, 2003 letter report by Skelly Engineering.

The right panel, "Seawall Detail 1," shows the recurved concrete (Type V cement), 18-foot high seawall in section view, with details (from foundation to top) to indicate the minimum 4-foot deep footing in bedrock, the minimum 15-inch thick #5 steel bar (12 inches on center, each side) and concrete center, 4-inch thick seaward facing stone veneer, top of wall reentrant feature, and gravel backfill with drains and cleanout. The groundwater collector and drain in the southwesterly bend of the seawall, near the southerly property line, will be sized and located to serve the ground water seep that daylight on the back beach along the top of the bedrock formation. Sand is proposed to be restored on the seaward side of the wall, within the proposed 387 square foot public lateral access easement dedication area, to existing post-2002 beach nourishment sand levels (+ 10 feet MSL), or five feet above the base of the recurved wall, which at completion of construction and restoration work will show a visible seawall height of ~8 feet 6 inches above the new back beach.

The central panel, "Return Wall @ North P(ropery) L(ine)-2," shows the return wall in section view, with a minimum width of 15 inches, a minimum 3 feet deep foundation in bedrock to extend beneath adjacent revetment rock, and a proposed height of 18 feet MSL to match the crest of the adjacent rock revetment.<sup>4</sup> All revetment rock on the Kiko property will be removed and disposed off outside the coastal zone.

The left panel, "Return Wall @ South P(ropery) L(ine)-3," shows the comparable dimensions of the return wall adjacent to the Blair-Palisoul retaining wall in section view. As noted on Sheet 1, the joint between the Kiko and Blair-Palisoul seawalls and return-retaining walls will be grouted (sealed).

Construction of the seawall and restoration of the public lateral access easement dedication area is proposed to be completed prior to Memorial Day, the traditional start of the 2004 beach recreational season. If for any reason these two project components cannot be completed prior to said date, work after that date will be limited to daylight hours on weekdays, excluding holidays.

The location of the as-built seawall is proposed to be surveyed and reported to the Commission within 60 days following completion of construction, to serve as documentation of construction compliance with approved working drawings and as a basis for determining whether future maintenance or repair work on the seawall may require a subsequent coastal development permit amendment.

Monitoring of the performance of the seawall by a qualified coastal engineer is proposed to occur no later than October 1 of each year, or following any 100-year storm event or major seismic event that affects the North San Diego coastline, with photo-recording of the condition of the seawall and sand within the proposed public lateral beach access easement dedication area to be submitted to the Commission San Diego staff office no later than October 10 of each year. When maintenance or repair of the seawall is recommended by the coastal engineer, a copy of that recommendation is proposed to

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<sup>4</sup> The note near the top of the return wall that references "(Match South Seawall Height)" is in error and should indicate "Match Adjacent Rock Revetment Height."

be sent to Commission staff at least 30 days prior to commencement of such work, except in cases of emergency, when Commission staff will be promptly contacted by telephone, for obtaining appropriate approvals or permit waivers for such work.

#### 2.4. OFFER TO DEDICATE PUBLIC LATERAL ACCESS EASEMENT

The applicant proposes to offer to dedicate to a public agency (e.g., City of Carlsbad, State Coastal Conservancy, or similar entity) an easement for public lateral beach access across the area, encompassing ~387 square feet, as shown on Exhibit 2, Sheet 1 as that area defined by the mapped seaward edge of the seawall, and the northerly, westerly, and southerly Kiko property lines to seaward thereof.

The applicant proposes to remove, and dispose offsite and outside the coastal zone, the wooden bulkhead and wooden return walls, revetment rocks on the northwesterly corner of the Kiko property, poured concrete, and invasive iceplant (including those mats that extend onto the adjacent public back beach), all of which were constructed or placed prior to the Kiko's purchase of the property and without their knowledge or consent. This proposed easement dedication area will be restored, following completion of the seawall, with beach quality sand (from the 81 cubic yard backfill envelope associated with the wooden bulkhead) to match existing adjacent mid-2003 public beach sand elevations.

#### 2.5. BEACH SAND IMPACT MITIGATION FEE AND NOURISHMENT

The applicant proposes to pay to a public agency responsible for long term public beach nourishment (e.g., the City of Carlsbad, SANDAG, State Coastal Conservancy, or similar public entity) a proportionate, one-time beach sand impact mitigation fee equal to the replacement cost of the quantity of beach quality sand that will be impeded by the proposed seawall from being eroded from the Kiko property into the littoral sub-cell.

The applicant's coastal engineer estimates that, based on a reasonably conservative average annualized sea cliff (coastal bluff) erosion rate of 0.3 feet over the 75-year economic life of the proposed seawall, the quantity of all beach quality sand (70% of the total material) from the 50-foot wide property that will be denied to the littoral sub-cell by the proposed seawall will be (a) 81 cubic yards of previously backfilled beach quality sand behind the wooden bulkhead, and (b) 103 cubic yards of potentially eroded terrace materials.

The applicant proposes to contribute (move) the 81 cubic yards of suitable material directly to beach nourishment during project implementation prior to Memorial Day (the traditional start of the southern California beach recreational season), including through restoration of the proposed lateral access easement dedication area from which the revetment rocks, concrete, wooden walls/posts, and iceplant will be removed. As a result, this project component has beneficial rather than adverse impacts on the beach and no mitigation for it is required.

The applicant is informed that in July, 2002, a local vendor (Ocean Restoration, Inc.) proposed to deliver beach quality sand of up to 10,000 cubic yards per site to Fletcher Cove and Moonlight Beach at a price of \$11.25/cubic yard. (Ray Files, Ocean Restoration, Inc., pers. com. to Dave Skelly, July 23, 2003.) Skelly Engineering conservatively estimates that the cost of delivering 103 cubic yards of beach quality sand to the subject Kiko project beach nourishment area in Spring, 2004 will be \$15 per yard, or 103 yards x \$15/yd.= \$1,545.00.

The applicant therefore proposes a nexus and proportionate beach sand mitigation fee for this City residential lot of \$1,545.00 to fully mitigate the loss of the relatively small quantity of beach quality sand due the proposed seawall over its 75-year economic life.

## 2.6. BEACH NOURISHMENT ASSESSMENT DISTRICT

The applicant supports the formation of a Carlsbad Beach Nourishment Assessment District for long-term maintenance and protection of the beach in this area and therefore offers, consistent with applicable law, not to oppose such formation when it is proposed to the electorate.

NO PART OF HOME (BUILDING), BALCONY, PATIO/TERRACE, OR PLANTERS WILL EXTEND BEYOND RESPECTIVE STRINGLINES

BUILDING STRINGLINE

BALCONY STRINGLINE

PATIO STRINGLINE

PROPERTY LINE

7'-0" SETBACK

(Proposed seawall is 7'-10" from property line)

"OTD" AREA

SEAWALL  
TOP OF WALL 18'

EXISTING SAND DEPOSITS

PLANTERS, SEE LANDSCAPE PLAN FOR DETAIL AND PLANT TYPES; NATIVE AND DROUGHT-TOLERANT NON-INVASIVE VEGETATION ONLY

SECTION "A" SECTION THRU BUILD'G

MASTER BEDROOM

MASTER BATH

HIS

HIS

GREAT ROOM

KITCHEN

MAIDS

2 CAR GARAGE

BASEMENT AND STORAGE AREA

POOL EQUIPMENT

EXHIBIT NO. 6  
APPLICATION NO.  
A-6-CII-03-026  
Section

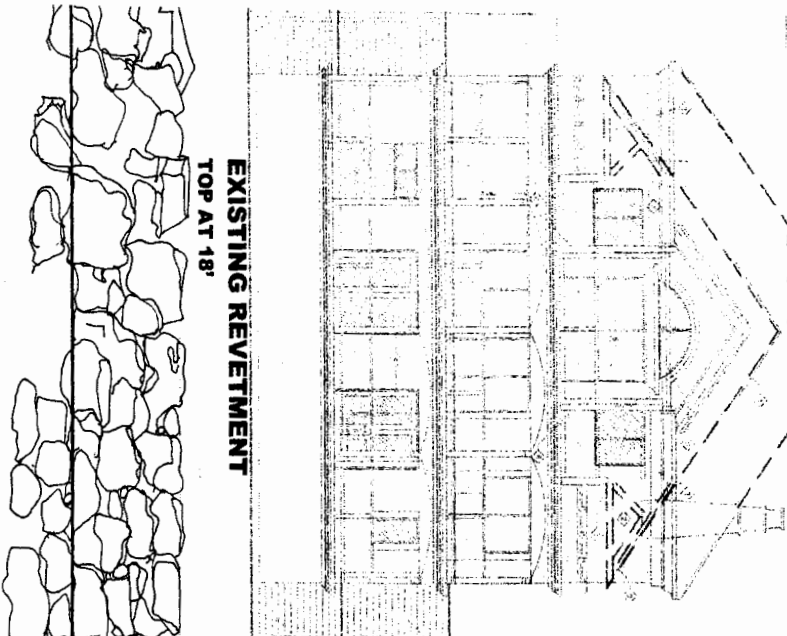
California Coastal Commission  
WOLF DESIGN + BUILD INC. C

FRED AND JESSIE KIKO  
BEACH RESIDENCE

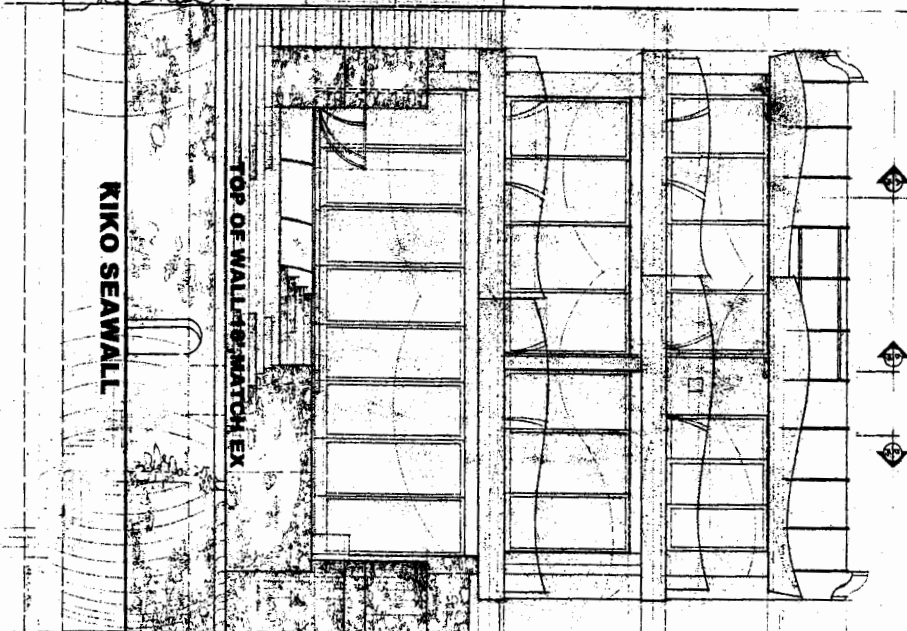
WOLF DESIGN + BUILD INC.  
WOLFRAM VALBER ARCHITECTS & GENERAL CONTRACTORS  
EXCELLENCE IN CUSTOM RESIDENTIAL DESIGN & CONSTRUCTION

DATE: 11/11/11  
SCALE: 1/4" = 1'-0"  
JOB NO.: 11-001  
FILE NO.: 11-001-001

A14



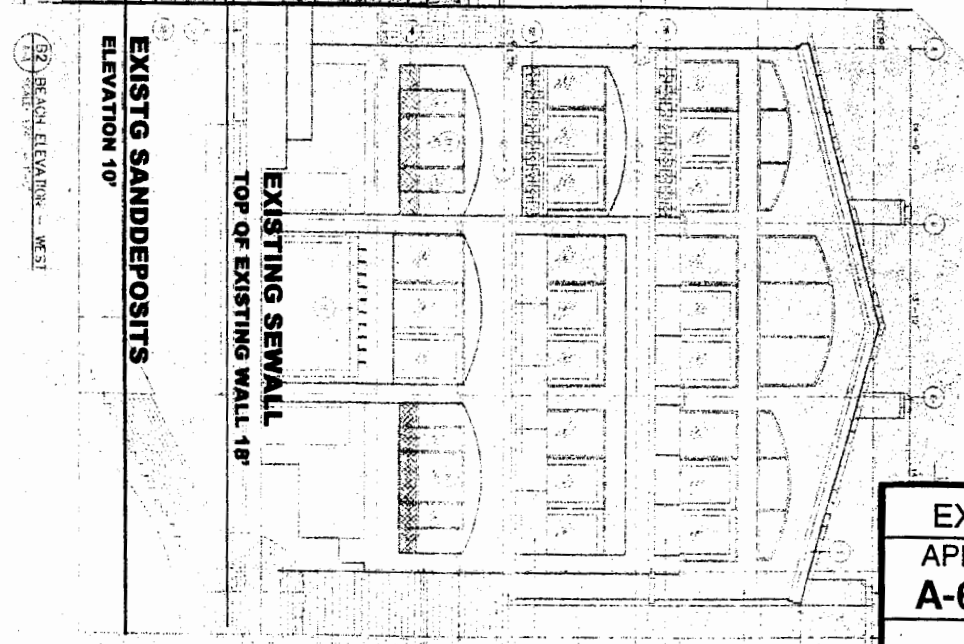
**EXISTING REVETMENT  
TOP AT 18'**



**WEST ELEVATION**

**KIKO SEAWALL**

**TOP OF WALLING MATCH EX**



**EXISTING SEAWALL  
TOP OF EXISTING WALL 18'**

**EXISTG SANDEPOSITITS  
ELEVATION 10'**

92 BEACH ELEVATION - WEST

<b>EXHIBIT NO. 7</b>
<b>APPLICATION NO.</b>
<b>A-6-CII-03-026</b>
Elevation

California Coastal Commission



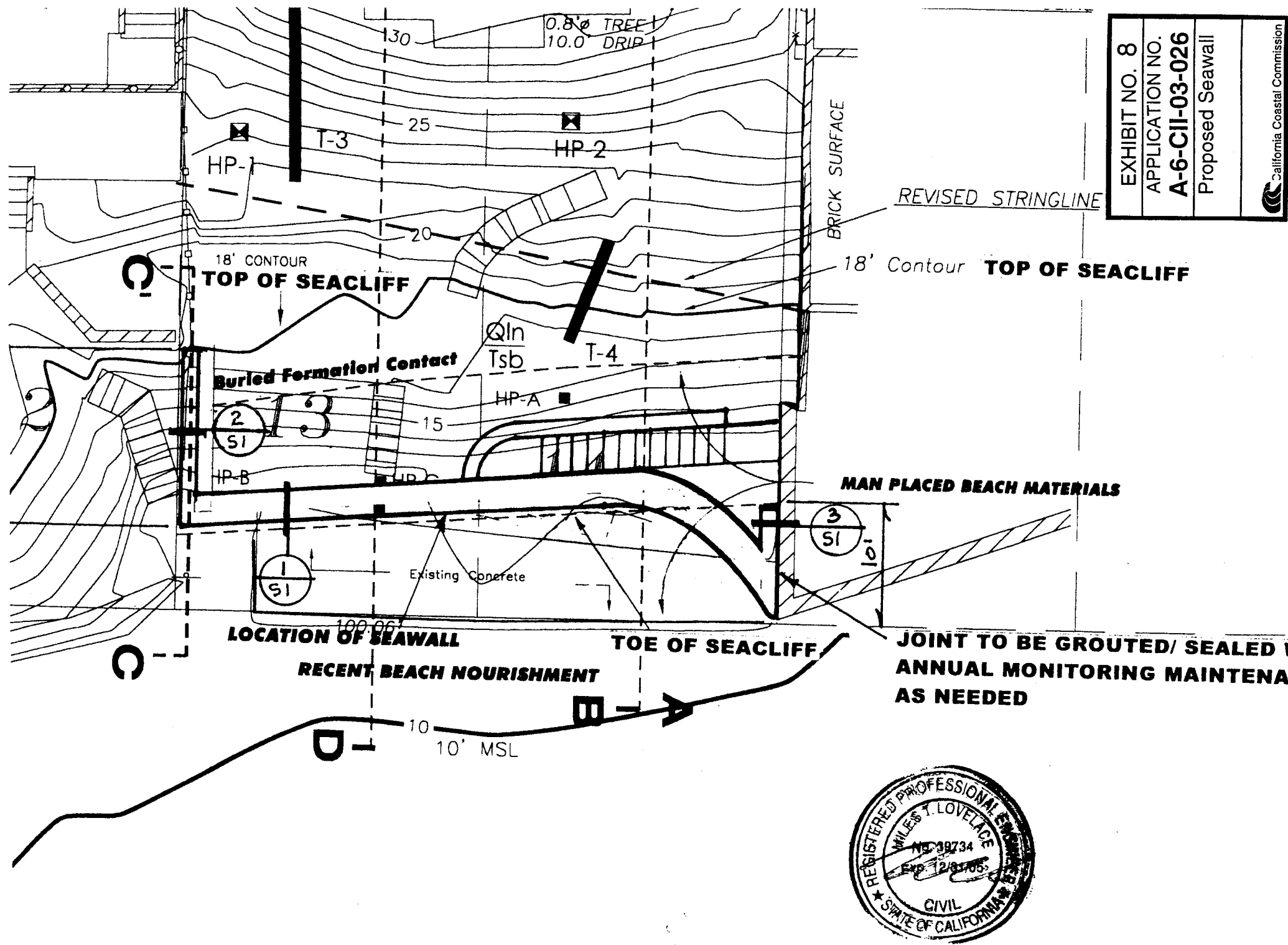


EXHIBIT NO. 8
APPLICATION NO. <b>A-6-CII-03-026</b>
Proposed Seawall
California Coastal Commission



## CALIFORNIA COASTAL COMMISSION

45 FREMONT, SUITE 2000  
SAN FRANCISCO, CA 94105-2219  
VOICE AND TDD (415) 904-5200  
FAX (415) 904-5400

December 17, 2003

TO: Bill Ponder, Coastal Program Analyst

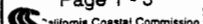
FROM: Lesley Ewing, Staff Engineer

SUBJECT: Kiko Project, A-6-CII-03-26

Significant information has been prepared on this project, as indicated in the staff record and a listing of documents prepared by Mr. Norbert Dall, coastal consultant. This memo is based on general material provided on the project. In addition, it relies on specific information regarding the need for the seawall as provided in the September 10, 2003 Letter Report from Skelly Engineers. The most recent information on the seawall design is providing in the 2/19/03 structural detail plans prepared by Lovelace Engineering. Information regarding the proposed development and house design is provided in site development plans prepared by Wolf Design + Build, Inc. (dated 11-17-2002 for sheet a-1, no date for sheets A2 and A3, June 6, 2002 for sheets A4 - A7, and 12-12-02 for sheets G1 and G2). Site topography is taken from the 2-14-2002 Topographic Survey by San Diego Land Surveying & Engineering, Inc.

In discussions concerning the No Project Alternative, the letter report from Skelly Engineers states, "The "no project alternative" would not affect the structural integrity of the existing 75+ year old house on the Kiko property, nor the integrity over its 75 - 100 year economic life of the proposed new Kiko home, both of which by application of the planning string line for the siting of homes along this coastal area are sufficiently set back from an projected shoreline retreat envelope to avoid requiring the placement of a shoreline protective structure to assure and maintain that integrity. Specifically, application of the annualized average retreat rate of the shoreline in this area (based on the historic record) does not indicate that a shoreline protective structure will (would) be required to protect the existing or new home during their economic life spans against known recurrent oceanographic conditions or trends over the next 75 - 100 years, as they affect this segment of coast." (September 10, 2003 Letter Report from Skelly Engineers, page 5)

The "no project alternative" assumes that the existing wooden bulkhead will remain in place, but that it will be damaged or destroyed by wave forces within the next 2 to 3 years, if not sooner. Under the "no project alternative" the seaward most planters, the covered shade deck and portions of the sun deck can be expected to be threatened by erosion at the same time the wooden bulkhead collapses or soon thereafter. If the wall is destroyed by a major series of coastal storms, it is likely that the seaward most planters and garden walls may be threatened during the same storm. If the wall were destroyed by a moderately severe storm or series of storms, then the planters and garden walls would likely be threatened within a few years after the collapse of the wooden bulkhead wall. The wooden bulkhead would be doing little, if anything, to protect these proposed accessory structures. There would be little change in the

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Commission Staff
Memo
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 California Coastal Commission

threat to these structures or the timing at which these structures will be at risk, whether the wooden bulkhead collapses in a storm or if it is removed prior to its collapse, either as part of the new development or as it is threatened.

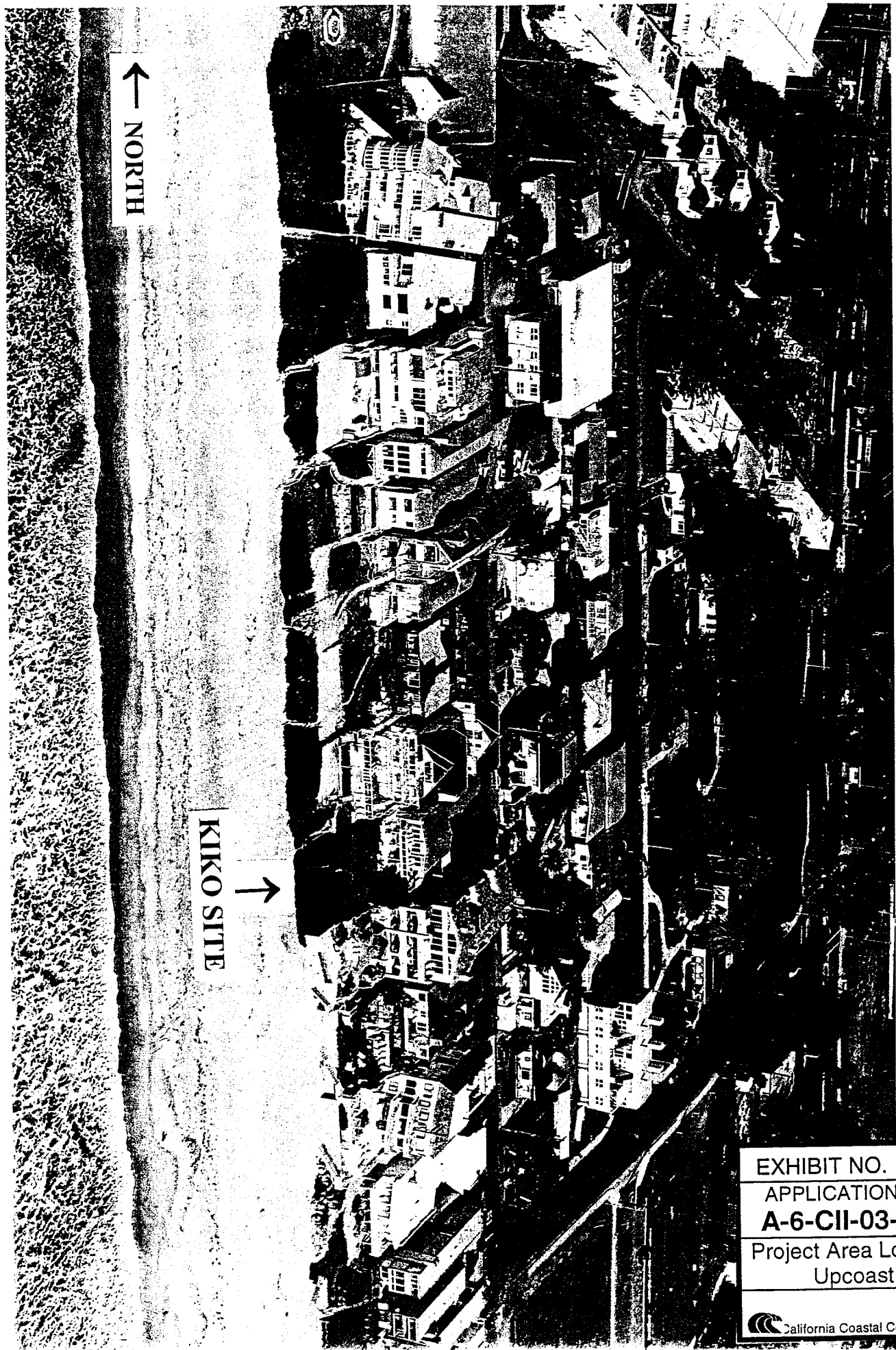
Landward of the covered shade deck and the sun deck, the applicant is proposing to construct a pool and spa. Sheet A7 shows that the pool and spa will extend approximately 24 feet seaward of the residence. The outer (seaward most) pool wall will be approximately 16 feet from the identified 18-foot contour, the approximate location where the bluff steepness markedly increases seaward. Sheet A4 (undated) shows a plan view of the development with the 18-foot contour drawn onto the plan view. The spa is shown as a semi-circular feature near the northern lot line, and the pool is mostly rectangular, widening to the south in a step-wise fashion. In these plans, the spa is within 20 feet of the identified 18-foot contour and the pool is 24 to 28 feet from the 18-foot contour. The submitted plans do not show the foundation plans for either the spa or the pool, so the foundations for these structures may be further seaward than what is shown on either Sheet A4 or A7.

The annualized average retreat rate in this location is approximately 0.2 feet. Considering only erosion, the spa and pool would be setback far enough to be safe from the theoretical amount of erosion that would occur over a 75 year period ( $0.2 \text{ ft/yr} \times 75 \text{ yrs} = 15 \text{ feet}$ ). Such a setback would not provide any buffer nor make any accommodation for slope instability. In addition, erosion is more likely to occur during large storms, as episodic events. As noted by the applicant's coastal engineer, "The adjoining property to the south lost about 20 feet of the toe of the slope to erosion in the January-February, 1978 storms." (September 10, 2003 Letter Report from Skelly Engineers, page 2) The pool and spa are close enough to the 18-foot contour that under the no project alternative, they could be threatened by erosion and bluff retreat well before the 75 year time period.

The spa and pool structures may not be threatened for several decades. I am not familiar with any reports that establish the economic life of spas or pools; however, due to their reliance on electrical and pumping systems, it may be that these facilities would have a much shorter term for economic viability than a house or commercial building. While these structures may not be safe from erosion for the proposed 75 to 100 year period that has been set for the main home, these structures may be safe for a long enough period that they could reach or exceed their functionally useful life before they are threatened by erosion.

While the proposed spa and pool may have a shorter term of economic viability than the proposed home, there may be adverse impacts to the coastal landform from installing and removing these structures. The plans do not show the foundation plans for these structures. These structures are often more difficult and disruptive to remove than planters, flat terraces or shallow foundation garden walls. Thus while the proposed spa and pool may be safe for their anticipated economic life, the removal of these structures at the end of their economic life may greatly disturb the coastal area seaward of the proposed home. The full life-cycle impacts of these structures should be considered and issues of removal need to be factored into the overall evaluation of how these structures could impact coastal resources.

Finally, there is always some uncertainty in trying to determine future storm and wave conditions, changes in sea level and other oceanographic conditions and rates of erosion. In addition, there is always some risk inherent in living in a highly seismic area immediately adjacent to the coast. Thus, while it is reasonable to anticipate that the proposed new home can be safe for 75 to 100 years under the "no project alternative", nevertheless, it is also reasonable to anticipate that unforeseeable events could alter conditions to the extent that this house could be threatened sooner than 75 to 100 years. In addition, several of the accessory structures can be expected to be threatened well before the 75 to 100 year time period. Therefore, it would be prudent to require that the property owner must remove the accessory structures as they are threatened and also apply a no future seawall condition for the house.



← NORTH

KIKO SITE →

EXHIBIT NO. 10a
APPLICATION NO.
<b>A-6-CII-03-026</b>
Project Area Looking Upcoast



KIKO SITE



South →

EXHIBIT NO. 10b
APPLICATION NO.
<b>A-6-CII-03-026</b>
Project Area Looking Downcoast