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CALIFORNIA COASTAL COMMISSION

SOUTH CENTRAL COAST AREA 89 SOUTH CALIFORNIA ST., SUITE 200 VENTURA, CA 93001 (805) 585-1800 Filed: 6/23/05 270 Day: 3/20/06 Staff: J. Johnson Staff Report: 2/17/06 Hearing Date: 3/7/06

Commission Action:



STAFF REPORT: REGULAR CALENDAR

APPLICATION NO.: 4-04-071

APPLICANTS: Robert & Kathleen Holmgren AGENTS: Steven Perlman,

Stan Tenpenny, Kurt Magness

PROJECT LOCATION: 3164 Solimar Beach Drive, Ventura County

PROJECT DESCRIPTION: Repair and maintain an existing 200 lineal foot rock revetment (which is part of an existing, larger 3,860 foot long rock revetment which extends across 70 separate parcels located downcoast of the subject site) on a parcel with a new residence under construction. The proposed repair and maintenance consists of placing a total of 650 tons of additional armor rock (a 17.5% addition of rock) on top of the existing 200 ft. long rock revetment which will include: (1) new placement of approximately 250 tons of armor rock, (2) the request for after-the-fact approval for the previous placement of approximately 400 tons of armor rock in 2004, and (3) removal of errant boulders from the beach and re-placement of the errant boulders on the revetment. The proposed placement of all rock will occur entirely landward of the previously approved toe of the rock revetment and no rock shall be placed seaward of the previously approved toe of the rock revetment. Most of this work would be performed from the applicant's property above the revetment with an excavator. If needed, a temporary beach ramp may be created to access the errant boulders on the beach seaward of the revetment.

Lot area: 8,340 sq. ft.

Max. Height Above Mean Sea Level: +15.27 feet NGVD

Existing Rock Weight Along 200 ft. Section: 3,720 tons

SUMMARY OF STAFF RECOMMENDATION

Staff recommends that the Commission <u>approve with conditions</u> the repair and maintenance of the existing 200 ft. long rock revetment which is part (approximately 5% in length) of an existing, larger 3,860 foot long rock revetment which extends across more than 70 separate parcels located both up and downcoast of the subject site. All proposed rock will be placed landward of the previously approved/existing toe of the rock revetment. The proposed application includes the request for after-the-fact approval of the placement of approximately 450 tons of armor rock/cap stone along approximately 1/3 of the length of the 200-foot long revetment. The proposed project also includes the placement of approximately 200 tons of new armor rock/cap stone

along the remaining 2/3 length of the 200 ft. long portion of the revetment. The total proposed addition of 650 tons of rock constitutes an approximately 17.5% addition to the existing 3,720 tons of rock along this 200 foot section of rock revetment. In addition, the existing errant rocks on the sandy beach below the revetment are also proposed to be relocated back on top of the revetment. This section of Ventura County has existing rock revetments and concrete seawalls extending for about 14 miles in both directions along the coast, protecting residences, parks, and Caltrans Highway 1.

The proposed repair and maintenance project, including the placement of 650 tons of armor rock/cap stone landward of the existing toe of the revetment will constitute less than a 20% increase in the bulk/size of the existing 3,720 ton, 200 ft. long rock revetment and will not result in any seaward expansion of development on the sandy beach. In past permit actions, the Commission has found that rock revetments do require occasional repair and maintenance due to: (1) the natural settling or subsidence of the rock structure into the sand over time and (2) the inadvertent loss of rock material due to errant rock becoming dislodged from the structure and settling on the sandy beach seaward of the structure. In this case, the proposed addition of rock is considered a relatively minor repair and maintenance project which will be limited to maintaining the existing revetment at its previously approved design height and footprint. In addition, in past permit actions involving residential development on the beach, the Commission has also found that the expected design-life of a residential structure is approximately 75 years. In this case, although the existing revetment, as currently designed, was constructed in 1981, the revetment is considered necessary to protect the residence that was recently approved by Ventura County on the subject site. The stability of this new residence requires the existing revetment to remain in place, with maintenance the revetment can be expected to protect the new structure for its design life. The revetment is expected to have a similar design-life as the residence itself. The proposed repair work will serve to maintain the original footprint, location, design height and shape of the previously approved revetment and will not involve any significant reconstruction of the existing revetment or serve to extend the life of the rock revetment beyond its normally expected design-life.

In addition, the Coastal Permit issued by the County of Ventura for the construction of the partially completed single family residence on the site, specifically requires the applicant to repair and maintain the existing revetment as a condition of approval. The addition of the errant rocks and the new rock is needed to return the height of the revetment to its original design elevation of 15.27 feet above National Geodetic Vertical Datum (NGVD). The applicant also proposes to retrieve errant rocks now located on the beach in front of the revetment that have fallen off the revetment over time and place them on top of the revetment. These errant rocks will be retrieved with heavy machinery located from the applicant's property landward for those rocks located within the reach of an excavator located landward of the revetment. The remaining errant rocks located beyond the reach of the excavator located on the applicant's property will be relocated to the rock revetment with a bulldozer operating from the sandy beach. The removal of the errant rocks on the beach is clearly a benefit for restoring unimpeded public access and recreational opportunities along this section of sandy beach. Therefore, in the case of this project, since no new impacts to shoreline sand supply or public access will result from the relatively minor repair and maintenance of this existing rock revetment, mitigation for such impacts has not be required.

It is important to note that this property has had some form of shore protection since 1960-1961 when a wooden bulkhead was built across a 440-foot wide parcel which included the subject 140 foot wide lot that was then vacant. Beyond this bulkhead, a rock revetment extended about 3,420 feet further to the east that appears to have been also constructed at this time in 1960-1961. In 1966, this bulkhead was reinforced with the placement of rocks in front of the wall along the 440-foot length. In January 1981, the Executive Director approved an emergency coastal permit (Coastal Emergency Permit No. 216-19) for the placement of a temporary shoreline structure along Solimar Beach Colony. In March 1981, the Commission approved Coastal Permit No. 216-21 (Solimar Beach Colony) for the reconstruction and replacement of the 3,420 foot section of the eastern rock revetment in addition to adding new rock to the existing wooden/rock seawall bulkhead at the northwest end of Solimar Beach. Four conditions addressing public access were required in Coastal Permit No. 216-21. One condition required a lateral public access deed restriction seaward of the entire 3,860-foot long revetment. A second condition required a vertical access deed restriction north of the subject lot about 440 feet and the construction of a stairway within 2 years of the issuance of Coastal Permit No. 216-21; this stairway currently exists. The third condition required the construction of an accessway within 2 years of the issuance of Coastal Permit No. 216-21 about 70 feet southeast of the last residence along Solimar Beach Colony. This accessway exists on Caltrans property and appears to be maintained by Caltrans including a port-a-potty and trash bin. The fourth condition required three public access signs be placed along Highway 1 in the vicinity of Solimar Beach Colony. These signs do not exist today. The sign requirement will be addressed separately from this application by Commission enforcement staff.

In 1982, the Commission approved Coastal Permit No. 4-82-321, (Solimar Beach Trust) for the subdivision of a vacant oceanfront at the northwestern most portion of Solimar Beach into four lots. Since then, Ventura County on December 29, 2003 approved a coastal permit for the construction of a single-family residence on the northwestern most lot of the four-lot subdivision. This County Coastal Permit was not appealed to the Commission and the residence is now under construction

The applicant submitted this application for the repair and maintenance of the subject revetment on July 15, 2004, it was filed as complete on June 23, 2005. The Commission previously heard this application at the December 16, 2005 meeting. The Commission postponed the hearing on this application in December and directed staff to further address issues related to the scope of the revetment repair; and does the proposed repair substantially extend the design life of the revetment to the extent that some form of mitigation should be required to compensate for the future loss of sand due to beach scour resulting wave action off the revetment.

Although the Commission has previously certified a Local Coastal Program for Ventura County, this project is located within an area where the Commission has retained jurisdiction over the issuance of coastal development permits and the standard of review for this project is the Chapter 3 policies of the Coastal Act. Staff recommends that the project, as conditioned, will be consistent with the applicable public access and resource protection provisions of the Coastal Act.

STAFF NOTE

This application was filed on June 23, 2005 and must be acted upon by the Commission by March 20, 2006, within 270 days after the filing of this application as required by the Permit Streamlining Act.

LOCAL APPROVALS RECEIVED: None required.

SUBSTANTIVE FILE DOCUMENTS: Coastal Permit No. 216-21, Solimar Beach Colony; Coastal Permit No. 4-99-008, Hockney; Coastal Permit No. 4-00-111, Kilb; Commentary on Rock Revetment Repair at 3164 Solimar Beach Road, by David Weiss, Structural Engineer & Associates, Inc., dated July 5, 2004; Coastal Engineering Report, by David Weiss, Structural Engineer & Associates, Inc., dated April 24, 2003.

I. STAFF RECOMMENDATION:

MOTION: I move that the Commission approve Coastal Development

Permit No. 4-04-071 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 Chapter 3 of the Coastal Act. Approval of the permit complies with the California Environmental Quality Act because either 1) feasible mitigation measures and/or alternatives have been incorporated to substantially lessen any significant adverse effects of the development on the environment, or 2) there are no further feasible mitigation measures or alternatives that would substantially lessen any significant adverse impacts of the development on the environment.

II. Standard Conditions

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

III. Special Conditions

1. <u>Sign Restriction</u>

By acceptance of this permit, the applicants acknowledge and agree that no signs shall be posted on the project site (including the sandy beach and the rock revetment) unless specifically authorized by a coastal development permit or an amendment to this CDP. No signs which restrict public access to State tidelands, public vertical or lateral access easement areas, or which purport to identify the boundary between State tidelands and private property shall be permitted.

2. Maintenance Activities and Future Alterations

By acceptance of this permit, the applicants acknowledge and agree to the following:

- A. The permittee shall be responsible for removing or redepositing any debris, rock or material that becomes dislodged after completion of the approved shoreline protection as soon as possible after such displacement occurs. The permittee shall contact the Coastal Commission District Office immediately to determine whether such activities require a coastal development permit prior to removing any debris, rock or material.
- B. No future repair or maintenance, enhancement, reinforcement, or any other activity affecting the shoreline protective structure approved pursuant to Coastal Development Permit No. 4-04-071, as shown on Exhibit 3, shall be undertaken if such activity extends the seaward footprint or design height of the subject shoreline protective device. The applicants expressly waive any rights to such activity that may exist under Public Resources Code Section 30235.

3. <u>Assumption of Risk, Waiver of Liability and Indemnity, and Shoreline Protection</u>

- A. By acceptance of this permit, the applicant acknowledges and agrees to the following:
- 1. The applicant acknowledges and agrees that the site may be subject to hazards from severe ground shaking, tsunami, storm waves, erosion, and flooding.
- 2. The applicant acknowledges and agrees 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.
- 3. The applicant unconditionally waives any claim of damage or liability against the Commission, its officers, agents, and employees for injury or damage from such hazards.
- 4. The applicant agrees 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.

4. Plans Conforming to Engineers' Recommendations

Prior to commencement of development, all project plans must be reviewed and approved by the consulting engineer. The final plans approved by the consultant shall be in substantial conformance with the plans approved by the Commission relative to construction, grading, and drainage. Any substantial changes in the proposed development approved by the Commission which may be required by the consultant shall require an amendment to the permit or a new coastal permit.

5. Construction Responsibilities and Debris Removal

The applicant shall, by accepting this permit, agree and ensure that the project contractor shall comply with the following construction-related requirements:

- (a) No construction materials, debris, or waste shall be placed or stored where it may be subject to wave erosion and dispersion;
- (b) Any and all debris resulting from construction activities shall be removed from the beach prior to the end of each work day;
- (c) No machinery or mechanized equipment shall be allowed at any time within the intertidal zone, except for that necessary to remove the errant rocks from the beach seaward of the revetment];
- (d) All excavated beach sand shall be redeposited on the beach.

6. 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 a deed restriction, in a form and content acceptable to the Executive Director: (1) indicating that, pursuant to this permit, the California Coastal Commission has authorized development on the subject property, subject to terms and conditions that restrict the use and enjoyment of that property (hereinafter referred to as the "Standard and Special Conditions"); and (2) imposing all Standard and Special Conditions of this permit as covenants, conditions and restrictions on the use and enjoyment of the Property. The deed restriction shall include a legal description of the applicant's entire parcel. 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.

7. Engineer Survey of Revetment Toe

Prior to issuance of the coastal development permit, the applicant shall submit for the review and approval of the Executive Director, a site plan with a surveyed line identifying the seaward toe of the existing rock revetment. This survey line shall not

include any errant rocks that are proposed to be re-located further seaward onto the revetment. The survey line shall be completed by a State licensed surveyor and include identification of reference benchmarks and measured survey positions on an accurate site plan exhibit.

8. Condition Compliance

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

IV. Findings and Declarations

The Commission hereby finds and declares:

A. **Project Description and Background:**

The applicants request approval to repair/maintain a 200 lineal foot long rock revetment located along the southwest (140 foot long) and northwest (60 foot long) property boundaries of a parcel with a new residence under construction (Exhibits 1 - 3). A 60 foot portion of the existing revetment along the northwest property boundary is located on an adjoining parcel owned by the Solimar Beach Colony, Inc. and Trust; the Trust has provided a letter authorizing the proposed development on this adjoining parcel (Assessor's Parcel Number 060-0-330-000 also known as Parcel A). The proposed maintenance consists of placing 650 tons of armor rock, about 5-7 tons each, on the existing revetment and removing errant boulders from the sandy beach and re-placing them on the revetment. The proposed placement of new and errant rock will be located landward of the previously approved toe of the rock revetment. A proposed sand beach ramp would be constructed along the northwest portion of the revetment and will be removed at the completion of the work. All proposed rock will be placed landward of the previously approved/existing toe of the rock revetment. No rock shall be placed seaward of previously approved/existing toe of the rock revetment and the proposed repair work will not result in any seaward expansion of development on the sandy beach.

The existing 200 foot long rock revetment on the subject site is part of a larger continuous 3,680 ft. long revetment that extends across several other separate properties both up and downcoast of the subject site. In this case, the proposed repair and maintenance activities will only occur on approximately 5% of the total length of the existing 3,860 foot long rock revetment. In addition, the proposed project includes the request for after-the-fact approval of the placement of approximately 450 tons of armor rock/cap stone along approximately 1/3 of the length of the 200 foot long revetment, which was placed in 2004. The proposed project also includes the placement of approximately 200 tons of new armor rock/cap stone along the remaining 2/3 length of the 200 ft. long portion of the revetment. The applicant's structural engineer, David Weiss, has analyzed the entire existing 3,680 ft. long rock revetment along Solimar

Beach Colony and calculated that each linear foot of the existing revetment consists of approximately 18.6 tons of rock and that; therefore, there are approximately 71,800 tons of armor rock across the entire 3,860 ft. long revetment. The applicant's engineer has further calculated that there is a total of approximately 3,720 tons of armor rock within the 200-foot section of the existing rock revetment on the subject site. Therefore, the total proposed addition of 650 tons of rock constitutes an approximate 17.5% addition to the existing 3,720 tons of rock along this 200-foot section of rock revetment on the applicant's property, according to the applicant's structural engineer, David Weiss.

The proposed repair and maintenance project, including the placement of 650 tons of armor rock/cap stone landward of the existing toe of the revetment will constitute less than a 20% increase in the bulk/size of the existing 3,720 ton, 200 ft. long rock revetment and will not result in any seaward expansion of development on the sandy beach. Removal of the errant rock from the active beach will reduce the revetment footprint from what exists at present. In past permit actions, the Commission has found that rock revetments require occasional repair and maintenance due to: (1) the natural settling or subsidence of the rock structure into the sand over time and (2) the inadvertent loss of rock material due to errant rock becoming dislodged from the structure and settling on the sandy beach seaward of the structure. In this case, the proposed addition of rock is considered a relatively minor repair and maintenance project which will be limited to maintaining the existing revetment at its previously approved design height and footprint.

The elements of a revetment, fabric filter, core rock and armor rock are all very durable and it is difficult to discuss these elements in terms of design life. When incorporated into an engineered and well-maintained rock riprap revetment, they can remain functional for many decades. Maintenance of the structure is integral to the design life. If a structure is not maintained, its effectiveness can decline rapidly. And while the rock structure may remain in place for years, it may be ineffective in protecting the backshore area or development from storm waves or erosion.

For the current project, there are two ways to consider the design life of the revetment. The first is to consider the design conditions used for the original revetment design. The second is to consider the design life of the new residence since it is the new residence that will rely upon the revetment for protection from storm waves and erosion. With the first approach, the key design criteria that would establish some limit for a revetment are the water level and wave conditions. These two criteria are part of the basic design for the revetment and are used by coastal engineers to determine the appropriate rock size and the appropriate height of the revetment. Once those design conditions are exceeded on a regular basis, the revetment may be inadequate to provide the expected level of protection needed by the backshore development. Complete re-engineering of the revetment, with larger rock or a higher crest elevation, would be needed to improve the level of protection. Thus the effective design life of the revetment will depend upon future changes in sea level and wave conditions, and how those compare with the basic design conditions used in the original revetment design.

The second approach for establishing a design life for the existing revetment is to link it with the development that it is protecting. In past permit actions involving residential development on the beach, the Commission has also found that the expected design-

life of a residential structure is approximately 75 years. In this case, although the existing revetment, as currently designed, was constructed in 1981, the revetment is considered necessary to protect the residence that was recently approved by Ventura County on the subject site and is expected to have a similar design-life as the residence itself. The proposed repair work will serve to maintain the original footprint, location, design height and shape of the previously approved revetment and will not involve any significant reconstruction of the existing revetment or serve to significantly extend the life of the rock revetment beyond its normally expected design-life.

In addition, the applicant is required, pursuant to a condition of approval of the separate Coastal Permit issued by the County of Ventura for the construction of the new residence on the subject site, to repair and maintain the existing revetment. As part of this application, the applicant also proposes to retrieve errant rocks now located on the beach in front of the revetment with heavy machinery located on the applicant's property landward of the revetment. From this location errant rocks will be picked up within the reach of an excavator with an articulating arm. The remaining errant rocks located beyond the reach of the excavator will be relocated to the rock revetment with a bulldozer accessing the beach at a temporary sand ramp and traversing the sandy beach to the location of these rocks. The addition of the errant rocks and the new rock is needed to return the height of the revetment to its original design elevation of 15.27 feet above NGVD. The removal of the errant rocks on the beach is clearly a benefit for restoring unimpeded public access and recreational opportunities along this section of sandy beach.

1. <u>Background and History</u>

This section of Ventura County has existing rock revetments and concrete seawalls extending for ten miles to the north at Rincon Point near the border with Santa Barbara County and four miles south to Emma Wood State Park west of the Ventura River mouth. These revetments and seawalls protect residences, campgrounds, and Caltrans Highways 1 and 101. In this case, the proposed repair and maintenance project is relatively minor in nature as the proposed addition of new rock will result in less than a 20% increase in the weight/bulk and size of the existing 3,720 tons of rock on this section of the revetment, will be located within the same footprint as the existing rock revetment, and will not result in any seaward encroachment of the existing rock revetment on the sandy beach.

It is important to note that the existing revetment was originally constructed in 1960-1961 as a wooden bulkhead across the subject 140 foot wide vacant lot which at the time existed as one parcel totaling 440 feet width along the shoreline. Beyond this bulkhead, a rock revetment extends about 3,420 feet further to the east which appears to have been also constructed at this time in 1960-1961. In 1966, this bulkhead was reinforced with the placement of rocks in front of the wall along the 440 foot length.

The California Coastal Zone Conservation Act was effective January 1973 and the California Coastal Act was effective in January 1977 at this site. In 1980, the State Commission approved Appeal No. 219-79 for replacement of an existing gate to Solimar Beach Colony with conditions including an offer to dedicate a vertical access through a barranca near the northern portion of Solimar Beach Colony, a deed restriction for

lateral access, and signs for vertical access. Based on current access information and a recent site visit by staff, the offer to dedicate the vertical access along the barranca was not recorded. Commission access staff are researching this accessway offer which does not exist today. This potential vertical access through the barranca, which is now a drainage channel, is blocked by a gate and a residential parking area.

In January 1981, the Executive Director approved an emergency coastal permit (Coastal Emergency Permit No. 216-19) for the placement of a temporary shoreline structure along Solimar Beach Colony. In March 1981, the Commission approved Coastal Permit No. 216-21 (Solimar Beach Colony) for the reconstruction and replacement of the 3,420 foot section of the eastern rock revetment in addition to adding new rock to the existing wooden/rock seawall bulkhead at the northwest end of Solimar Beach. Four conditions addressing public access were required in Coastal Permit No. 216-21. One condition required a lateral public access deed restriction seaward of the entire 3,860-foot long revetment. A second condition required a vertical access deed restriction north of the subject lot about 440 feet and the construction of a stairway within 2 years of the issuance of Coastal Permit No. 216-21; this stairway currently exists. The third condition required the construction of an accessway within 2 years of the issuance of Coastal Permit No. 216-21 about 70 feet southeast of the last residence along Solimar Beach Colony. This accessway exists on Caltrans property and appears to be maintained by Caltrans including a port-a-potty and trash bin. The fourth condition required three public access signs be placed along Highway 1 in the vicinity of Solimar Beach Colony. Based on Staff's February 8, 2006 site visit these signs do not exist. The sign requirement will be addressed separately from this application by Commission enforcement staff.

In 1982, the Commission approved Coastal Permit No. 4-82-321, (Solimar Beach Trust) for the subdivision of a vacant ocean front at the northwestern most portion of Solimar Beach into four lots. This Coastal Permit was approved with two conditions addressing public access. The first condition required that the two vertical access dedications required in Coastal Permit No. 216-21 be constructed. To ensure that these two accessways be constructed, the applicant was required to provide a financial instrument in a sufficient amount to provide for 1982 cost levels of construction. Based on Staff's February 8, 2006 site visit, the northern accessway is provided by a stairway, while the southern accessway is a path through the existing rock revetment. In addition, the applicant was required to install a minimum of three signs notifying the public of the vertical and lateral accessways at Solimar Beach. As noted above, these signs do not exist and will be addressed separately from this application by Commission enforcement staff.

On December 11, 2003, Ventura County approved the construction of a 5,319 sq. ft. primary residence, a 512 sq. ft. second residence, and 875 sq. ft. three car garage on the subject lot. The Commission received a notice of the County's final action on this project on December 29, 2003 (4-VNT-03-266); this project was not appealed to the Commission. This project is now under construction. The County's approval of the residential structure did not include the proposed repair and maintenance of the existing rock revetment, although the County's approval requires regular repair and maintenance of the revetment. This lot was the last vacant lot on the northwest portion of the Solimar Beach community.

2. Recent Commission Action

The applicant submitted this application for the repair and maintenance of the subject revetment on July 15, 2004, it was filed as complete on June 23, 2005. The Commission heard this application at the December 16, 2005 meeting. The applicant postponed the application to the March 8-10, 2006 Commission meeting to allow the applicant and staff to provide additional information on the proposed project.

3. Surrounding Development

The adjoining Solimar Beach community located to the southeast consists of numerous residences seaward of Pacific Coast. This section of coast in northern Ventura County extends in a northwest to southeast direction. The adjoining parcel to the northwest, where a portion of the existing rock revetment is located, is owned by the Solimar Beach Colony, Inc. and Trust. An existing adjacent rock revetment is located seaward of Pacific Coast Highway and adjoins the northwestern most portion of the subject revetment. The Faria Beach residential community is located about a mile to the northwest, while Emma Wood State Beach is located about four miles to the southeast of the project site.

The project site is designated in the certified Ventura Local Coastal Program as a Residential Beach community. The project site does not include any environmentally sensitive habitat areas (ESHA). The sandy beach immediately seaward of the subject site beyond the applicant's property does not include any ESHA.

B. Public Access and Seaward Encroachment

1. Proposed Project and Site Shoreline Characteristics

The applicant requests approval to maintain a 200 lineal foot long rock revetment located along the southwest and northwest property boundaries of the subject lot (Exhibit 7). The lot has a new residence currently under construction which was authorized pursuant to the issuance of a coastal development permit by the County of Ventura. A portion of the existing revetment along the northwest property boundary is located on an adjoining parcel owned by the Solimar Beach Colony, Inc. and Trust. The proposed repair and maintenance consists of placing 650 tons (450 tons of as-built rock and 200 tons of new proposed rock) of armor rock on the existing revetment and removing errant boulders from the sandy beach and placing them on the revetment. All proposed rock would be placed within the footprint of the existing rock revetment. No rock would be placed seaward of the existing/previously approved toe of the rock revetment. Most of this work would be performed from the applicant's property above the revetment with an excavator. If needed, a temporary beach ramp along the northwest property boundary may be created to access the errant boulders on the beach in front of the revetment with mechanized equipment and the ramp would be removed upon completion of the project.

The proposed repair and maintenance project, including the placement of 650 tons of armor rock/cap stone landward of the existing toe of the revetment will constitute less

than a 20% increase in the bulk/size of the existing 3,720 ton, 200 ft. long rock revetment and will not result in any seaward expansion of development on the sandy beach. In past permit actions, the Commission has found that rock revetments require occasional repair and maintenance due to: (1) the natural settling or subsidence of the rock structure into the sand over time and (2) the inadvertent loss of rock material due to errant rock becoming dislodged from the structure and settling on the sandy beach seaward of the structure. In this case, the proposed addition of rock is considered a relatively minor repair and maintenance project which will be limited to maintaining the existing revetment at its previously approved design height and footprint. In addition, in past permit actions involving residential development on the beach, the Commission has also found that the expected design-life of a residential structure is approximately 75 years. In this case, although the existing revetment, as currently designed, was constructed in 1981, the revetment is considered necessary to protect the residence that was recently approved by Ventura County on the subject site and is expected to have a similar design-life as the residence itself. The proposed repair work will serve to maintain the original footprint, location, design height and shape of the previously approved revetment and will not involve any significant reconstruction of the existing revetment or serve to significantly extend the life of the rock revetment beyond its normally expected design-life. Therefore, in the case of this project, no new impacts to shoreline sand supply or public access will result from the relatively minor repair and maintenance of this existing rock revetment.

According to the applicant's engineer, the purpose of the revetment is to protect the subject property and the adjacent Pacific Coast Highway as noted in the letter report titled: "Commentary on Rock Revetment Repair" by David Weiss, Structural Engineer & Associates, Inc., dated July 5, 2004. The seaward most portion of the existing rock revetment is located approximately 80 feet seaward of the applicant's northern property line co-terminus with a 20-foot wide access road easement owned by the Solimar Beach Colony, Inc. and Trust. From the Pacific Coast Highway right of way, the seaward most portion of the rock revetment is located approximately 100 feet seaward. The seaward edge of the residence now under construction is located about 20 – 40 feet landward of the landward edge of the rock revetment.

This portion of northern Ventura County includes a narrow strip of coast from the Ventura River to Rincon Point and Creek that is about 19 miles long, along a backdrop of coastal mountains including Red Mountain. The applicant's proposed project is located on Solimar Beach, a narrow sandy backed by Pacific Coast Highway and low bluffs inland of the Highway. This portion of Solimar Beach located to the southeast of the subject site includes a number of modest sized lots developed with about 58 single family residences and a common area with two sports courts. According to the Commission's historic aerial photographs the lot appears to be vacant prior to 2004.

Coastal Act Section 30210 states that:

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.

Coastal Act Section 30211 states:

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.

Coastal Act Section 30212(a) states:

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

- (1) it is inconsistent with public safety, military security needs, or the protection of fragile coastal resources.
- (2) adequate access exists nearby, or,
- (3) agriculture would be adversely affected. Dedicated access shall not be required to be opened to public use until a public agency or private association agrees to accept responsibility for maintenance and liability of the accessway.

Section **30251** of the Coastal Act states that:

The scenic and visual qualities of coastal areas shall be considered and protected as a resource of public importance. permitted development shall be sited and designed to protect views to and along the ocean and scenic coastal areas, to minimize the alteration of natural land forms, to be visually compatible with the character of surrounding areas, and, where feasible, to restore and enhance visual quality in visually degraded areas. New development in highly scenic areas such as those designated in the California Coastline Preservation and Recreation Plan prepared by the Department of Parks and Recreation and by local government shall be subordinate to the character of its setting.

Coastal Act Sections 30210 and 30211 mandate that maximum public access and recreational opportunities be provided and that development not interfere with the public's right to access the coast. Likewise, Section 30212 of the Coastal Act requires that adequate public access to the sea be provided to allow use of dry sand and rocky coastal beaches. Section 30251 of the Coastal Act requires that the scenic and visual qualities of coastal areas be protected as a resource of public importance and designed to protect views to and along the ocean and scenic coastal areas.

2. Public Access Considerations for Beachfront Projects

All beachfront projects requiring a coastal development permit must be reviewed for compliance with the public access provisions of Chapter 3 of the Coastal Act. In past permit actions, the Commission has required public access to and along the shoreline in new development projects and has required design changes in other projects to reduce interference with access to and along the shoreline. The major access issue in such permits is the occupation of sand area by a structure in contradiction of Coastal Act policies 30210, 30211, and 30212.

Past Commission review of shoreline residential projects in Ventura County has shown that individual and cumulative adverse effects to public access from such projects can include encroachment on lands subject to the public trust (thus physically excluding the public); interference with the natural shoreline processes necessary to maintain publiclyowned tidelands and other public beach areas; overcrowding or congestion of such tideland or beach areas; and visual or psychological interference with the public's access to and the ability to use public tideland areas.

The proposed project must be judged against the public access and recreation policies of the State Constitution, Sections 30210, 30211, and 30212 of the Coastal Act. Along the California coast, the line between land and ocean is complex and constantly moving. This dynamic environment has introduced uncertainty into questions about the location of public and private ownership as well as rights of public use. It is generally accepted that the dividing line between public tidelands and private uplands, or the tidal boundary, in California is the mean high tide line (MHTL), essentially the same as the ordinary high water mark or line.

The courts have not fully resolved the question of the extent to which the location of the tidal boundary in California changes as the profile of the shoreline changes. Where there has not been a judicial declaration of a reasonable definite boundary based upon evidence in a specific case, or where the upland owner has not entered into an agreement with the state fixing the boundary, uncertainty remains.

Nevertheless, despite this legal uncertainty, as a practical matter the actual dividing line between sea and land moves constantly, and this gives rise to issues involving protection of public rights based on use, rather than ownership. These use rights arise as the public walks the wet or dry sandy beach below the mean high tide plane. This area of use, in turn moves across the face of the beach as the beach changes in depth on a daily basis. The free movement of sand on the beach is an integral part of this process, and it is here that the effects of structures are of concern.

The beaches of Ventura County are extensively used by visitors of both local and regional origin and most planning studies indicated that attendance of recreational sites will continue to significantly increase over the coming years. While the Commission cannot determine if prescriptive rights exist on the subject property, it must protect those potential public rights by assuring that any proposed shoreline development does not interfere with or will only minimally interfere with those rights. Presently, this shoreline remains open and can be used by the public for access and general recreational activities.

Regarding vertical public access from Pacific Coast Highway to the beach, to the northwest, the project site is located about 440 feet from a stairway leading from Pacific Coast Highway to the sandy beach. Further to the southeast about 2/3 of a mile of the project site, at the end of the Solimar Beach community, there is a vertical public accessway along a parking area seaward of Pacific Coast Highway located about 75 feet southeast of the last Solimar Beach residence. Therefore, vertical access to the beach exists nearby.

Regarding lateral public access and state tidelands ownership, the State Lands Commission, in a letter dated August 24, 2005 reviewed the proposed project and its location concluding that the existing rock revetment is located on State Tide Lands. The State Lands Commission has completed a General Lease (PRC 8633.1) for the

reconstruction and maintenance of the existing rock revetment wall located at 3164 Solimar Beach Drive (Exhibit 5). The annual rent is \$100.

The applicant's engineer, David Weiss & Associates, submitted a report titled: Proposed Single Family Residence, dated April 30, 2003 and Coastal Engineering Report, dated April 24, 2003 which states that the Mean High Tide Line (MHTL) is located beneath the existing rock revetment. The report further states that the seaward base of the existing rock revetment is located approximately 100 feet seaward from Pacific Coast Highway. Therefore, it appears that some portions of the existing rock revetment are, at times, located seaward of the mean high tide line and on State Tidelands.

The applicant submitted a letter report by David Weiss, Structural Engineer & Associates dated January 15, 2006 that states numerous relevant issues to consider for this proposed project. The report (Exhibit 6) provides the following findings and comments:

- 1. There is no question that the revetment is needed to protect not only the subject site, but also the adjacent highway and neighboring properties.
- 2. The addition of the new rocks to fill some of the voids in the revetment has had no effect and will have no effect on the movement of sand along the beach.
- 3. Based upon the site survey taken on 1/1/03, the toe of the revetment is located at 0.0' NGVD and the top of the revetment is at an elevation of 15.27' NGVD.
- 4. At 650 tons of added rock, this is a relatively minor maintenance project (adding less than 20% to the volume of the wall contained in the 200 linear feet of the project). The 400 tons that have been added so far have been securely placed in locations landward of the toe of the revetment (See Exhibit I Rock Tonnage Assessment).
- I have reviewed and approved the placement plans for the rock already added and that which will be added. All rock will be placed landward of the revetment toe and generally in the upper portion of the revetment wall (See Exhibit II – Rock Placement Plan).
- 6. The attached revetment wall cross section is accurate representation of the existing structure and indicates where maintenance will be typically done (See Exhibit III).
- 7. The Holmgren's wall is part of a continuous rock revetment structure that connects to adjoining revetment structures for neighboring properties. Elimination or allowing the Holmgren's wall to fall into disrepair would potentially adversely affect these neighboring properties and their protective structures (See Exhibit IV photos).
- 8. That the project includes the replacement of errant rocks back onto the revetment (See Exhibit V).

Although, based on evidence submitted by applicant, the State Lands Commission lease (Exhibit 5) and the applicant's engineer, it appears that the sandy beach seaward of the toe of the revetment may, at times, be located on public tidelands, there is also an existing lateral public access deed restriction recorded on the applicant's property allowing "lateral public access and passive recreational use of the beach running from the toe of the seawall seaward to the mean high tide line effective in 1981. This deed restriction was required as a condition of Coastal Development Permit 216-21. The applicant has stated that the proposed addition of new rock will be located landward of the previously approved toe of the existing rock revetment and will not encroach further seaward into the previously recorded lateral public access area located seaward of the revetment. Therefore, although the existing rock revetment may result in adverse impacts to public access along the beach by directly occupying sandy beach that would otherwise be available for public use, the addition of new rock will not result in any new adverse impacts to public access.

Further, as noted above, beachgoers who access the beach from the public accessways along Pacific Coast Highway, walk along the shore past the applicant's proposed project. Given the ambulatory nature of the mean high tide line, and thus the boundary between public and private lands, there may be conflicts and confusion between the beach users and private property owners regarding which portions of Solimar Beach that are private and which are public. The placement of signs on residential beachfront property which state "PRIVATE BEACH" or "PRIVATE PROPERTY" or contain similar such message prohibiting public use of the beach have routinely caused members of the public to believe that they do not have the right to use the shoreline along the beaches of Ventura County. In effect, these signs have served to contradict the public's rights to use the shoreline pursuant to the California Constitution and California common law. In order to ensure that the general public is not precluded from using the shoreline, the Commission finds it necessary to impose Special Condition No. One, which would prohibit the landowners from placing any signs on the project site (including the sandy beach and the rock revetment) unless specifically authorized by a new coastal development permit or an amendment to this permit. No signs which restrict public access to State tidelands, public vertical or lateral access easement areas, or which purport to identify the boundary between State tidelands and private property shall be permitted.

Regarding the issue of stringline development, the proposed project does not invoke the restrictions of the stringline policy because the project involves adding new rock to the top of the rock revetment landward of the previously approved toe and will not result in any further seaward encroachment by new development. In addition, the applicant proposes to remove the errant rocks from the sandy beach which have migrated seaward of the previously approved toe of the revetment over time and re-place the same rock on top of the revetment again landward of the toe. **Special Condition No. Seven** requires the applicants to submit an engineered survey identifying the existing toe of the revetment as a baseline for any future revetment related development to ensure any future revetment related development does not extend further seaward. No development is proposed to extend seaward of the existing rock revetment and, thus, the proposed project has no potential to exceed the applicable stringline setback.

In addition, to ensure that future repair, maintenance, enhancement, reinforcement or any other activity affecting the existing shoreline protective device shall not result in any seaward encroachment by new development, Special Condition No. Two specifically prohibits any future repair or maintenance, enhancement, reinforcement, or any other activity affecting the shoreline protective structure approved pursuant to this permit, as shown on Exhibit 3, if such activity extends the seaward footprint of the subject shoreline protective device. The applicants expressly waive any rights to such activity that may exist under Public Resources Code Section 30235. In addition, **Special Condition No. Two** also requires that the permittee shall be responsible for removing or redepositing any debris, rock or material that becomes dislodged after completion of the approved shoreline protection as soon as possible after such displacement occurs. The permittee shall contact the Coastal Commission District Office immediately to determine whether such activities require a coastal development permit prior to removing any debris, rock or material.

Additionally, any future improvements to the proposed revetment that might result in the seaward extension of the shoreline protection device would result in increased adverse effects to shoreline sand supply and public access. Therefore, to ensure that the proposed project does not result in new future adverse effects on shoreline sand supply and public access and that future impacts are reduced or eliminated, **Special Condition No. Two** prohibits any future repair or maintenance, enhancement, reinforcement, or any other activity affecting the shoreline protective device approved pursuant to this permit, if such activity extends the seaward footprint of the subject shoreline protective device. **Special Condition No. Six** requires the applicant to record a deed restriction that imposes the terms and conditions of this permit as restrictions on use and enjoyment of the property and provides any prospective purchaser of the site with recorded notice that the restrictions are imposed on the subject property.

The applicant submitted a project summary (Exhibit 8) dated February 16, 2006 for the Commission to consider.

Therefore, the Commission notes that the proposed maintenance project, as conditioned, will not result in any new adverse effects to shoreline processes or public access along the beach.

3. Public Views

And lastly, pursuant to Section 30251 of the Coastal Act, the Commission reviews the publicly accessible locations along adjacent public roads and the sandy beach where the proposed development is visible to assess visual impacts to the public. The Commission examines the proposed construction site and the size of the proposed project. The residence now under construction along Solimar Beach Drive and Pacific Coast Highway, which was approved by the County pursuant to a separate coastal development permit, will already block public views from the highway across the subject parcel seaward to the beach and ocean and of the revetment itself (Exhibit 7). In addition, the although the proposed addition of new rock to the existing rock revetment will be visible from the public sandy beach immediately seaward and to the northwest of the revetment, the new rock will not result in a substantially larger revetment or result in any significant changes to the visibility of the proposed project. Further, in order to minimize impacts to public views, in past Commission actions, the Commission has limited the seaward encroachment of new development on sandy beaches in order to minimize adverse impacts to public views along the beach. In this case, the proposed placement of new rock on the existing revetment will be located landward of the approved toe of the revetment and will not result in any further seaward encroachment by new development. Thus, the proposed repair/maintenance of the rock revetment will not adversely affect existing public views.

The project will not preclude public access to any presently existing vertical or lateral public access easements or rights or adversely affect public coastal views. For all of these reasons, the Commission finds that the proposed project will have no individual or cumulative adverse effects on public access. Therefore, the Commission finds that the project, as conditioned, is consistent with Coastal Act Sections 30210, 30211, 30212, and 30251.

C. Shoreline Development and Geologic Stability

Section **30253** of the Coastal Act states in pertinent part that new development shall:

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

Section 30253 of the Coastal Act mandates that new development provide for geologic stability and integrity and minimize risks to life and property in areas of high geologic, flood, and fire hazard.

The proposed repair and maintenance project, including the placement of 650 tons of armor rock/cap stone landward of the existing toe of the revetment will constitute less than a 20% increase in the bulk/size of the existing 3,720 ton, 200 ft. long rock revetment and will not result in any seaward expansion of development on the sandy beach. In past permit actions, the Commission has found that rock revetments require relatively frequent repair and maintenance due to: (1) the natural settling or subsidence of the rock structure into the sand over time and (2) the inadvertent loss of rock material due to errant rock becoming dislodged from the structure and settling on the sandy beach seaward of the structure. In this case, the proposed addition of rock is considered a relatively minor repair and maintenance project which will be limited to maintaining the existing revetment at its previously approved design height and footprint. In addition, in past permit actions involving residential development on the beach, the Commission has also found that the expected design-life of a residential structure is approximately 75 years. In this case, although the existing revetment, as currently designed, was constructed in 1981, the revetment is considered necessary to protect the residence that was recently approved by Ventura County on the subject site and is expected to have a similar design-life as the residence itself. The proposed repair work will serve to maintain the original footprint, location, design height and shape of the previously approved revetment and will not involve any significant reconstruction of the existing revetment or serve to extend the life of the rock revetment beyond its normally expected design-life. Therefore, in the case of this project, no new impacts to shoreline sand supply or public access will result from the relatively minor repair and maintenance of this existing rock revetment.

1. Storm, Wave and Flood Hazard

The Ventura coastal area has been subject to substantial damage as a result of storm and flood occurrences and geological failures. Therefore, it is necessary to review the proposed project and project site with the area's known hazards. The proposed project involves the repair and maintenance of an existing rock revetment including the placement of 650 tons of new rock landward of the existing toe of the revetment along the beach on a lot being developed with a residence, second unit and garage structure located on a developed stretch of Solimar Beach (Exhibit 7).

The site is susceptible to flooding and/or wave damage from storm waves and storm surge conditions. Past occurrences have resulted in public costs for public service (including low-interest loans) in the millions of dollars in the Ventura County area. Along the Ventura coast, significant damage has occurred to coastal areas from high waves, storm surge and high tides in past years.

Shoreline protective devices individually and cumulatively affect coastal processes, shoreline sand supply, and public access by causing accelerated and increased erosion on the adjacent public beach. Adverse impacts resulting from shoreline protective devices may not become clear until such devices are constructed individually along a shoreline and they eventually affect the profile of an entire beach. Changes in the shoreline profile, particularly changes in the slope of the profile, caused by increased beach scour, erosion, and a reduced beach width, alters usable beach area under public ownership. A beach that rests either temporarily or permanently at a steeper angle than under natural conditions will have less horizontal distance between the mean low water and mean high water lines. This reduces the physical area of public property available for public beach use. Additionally, through the progressive loss of sand caused by increased scour and erosion, shore material is no longer available to nourish the beach and seasonal beach accretion occurs at a much slower rate. The Commission notes that if a seasonal eroded beach condition occurs with greater frequency due to the placement of a shoreline protective device on the subject site, then the subject beach would also accrete at a slower rate. As the natural process of beach accretion slows the beach fails to establish a sufficient beach width, which normally functions as a buffer area absorbing wave energy. The lack of an effective beach width can allow such high wave energy on the shoreline that beach material may be further eroded by wave action and lost far offshore where it is no longer available to nourish the beach. The effect of this on public access along the beach is again a loss of beach area between the mean high water line and the actual water.

Shoreline protection devices also directly interfere with public access to tidelands by impeding the ambulatory nature of the mean high tide line (the boundary between public and private lands) during high tide and severe storm events, and potentially throughout the entire winter season. The impact of a shoreline protective device on public access is most evident on a beach where wave run-up and the mean high tide line are frequently observed in an extreme landward position during storm events and the winter season. As the shoreline retreats landward due to the natural process of erosion, the boundary between public and private land also retreats landward. Construction of rock revetments and seawalls to protect private property fixes a boundary on the beach and prevents any current or future migration of the shoreline and mean high tide line landward, thus eliminating the distance between the high water mark and low water mark. As the distance between the high water mark and low water mark becomes obsolete the seawall effectively eliminates lateral access opportunities along the beach as the entire area below the fixed high tideline is inundated. The ultimate result of a fixed tideline boundary which would normally migrate and retreat landward, while maintaining a passable distance between the high water mark and low water mark overtime, is a reallocation of tideland ownership from the public to the private property owner.

Furthermore, if not sited landward in a location that ensures that the seawall is only acted upon during severe storm events, beach scour during the winter season will be

accelerated because there is less beach area to dissipate wave energy. The adverse effects of shoreline protective devices are greater the more frequently that they are subject to wave action. In order to minimize adverse effects from shoreline protective devices, when such devices are found to be necessary to protect existing development, the Commission has required applicants to locate such structures as far landward as is feasible.

As noted in Coastal Protection Structures and Their Effectiveness (Fulton-Bennett and Griggs, 1986):

[T]he success rate of riprap walls is marred by relatively high repair and maintenance requirements, and by the fact that significant property damage often occurs when these walls suffer even partial failure...Within the study region, at virtually every location where riprap has been founded on sand, it has settled into that sand over time. A seaward movement of the toe of the structure often accompanies this settlement...

Further, in the same study, Fulton-Bennett and Griggs also found that a storm event of roughly ten-year recurrence required total repairs to engineered revetments between 50 and 150% of construction costs. In this case, the proposed addition of rock is considered a relatively minor repair and maintenance project which will be limited to maintaining the original footprint, location, design height and shape of the previously approved revetment and will not involve any significant reconstruction of the existing revetment or serve to extend the life of the rock revetment beyond its normally expected design-life. Therefore, in this case, no new impacts to shoreline sand supply or public access will result from the relatively minor repair and maintenance of this existing rock revetment.

2. Sea Level Rise

In addition, sea level has been rising slightly for many years. As an example, in the Santa Monica Bay area, the historic rate of sea level rise has been 1.8 mm/yr. or about 7 inches per century¹. Sea level rise is expected to increase by 8 to 12 inches in the 21st century.² There is a growing body of evidence that there has been a slight increase in global temperature and that an accelerated rate of sea level rise can be expected to accompany this increase in temperature. Mean water level affects shoreline erosion in several ways and an increase in the average sea level will exacerbate all these conditions.

On the California coast the effect of a rise in sea level will be the landward migration of the intersection of the ocean with the shore. On a relatively flat beach, with a slope of 40:1, every inch of sea level rise will result in a 40-inch landward movement of the ocean/beach interface. For fixed structures on the shoreline, such as a single family residence, pilings, or seawalls, an increase in sea level will increase the inundation of the structure. More of the structure will be inundated or underwater than are inundated now and the portions of the structure that are now underwater part of the time will be underwater more frequently.

¹ Lyles, S.D., L.E. Hickman and H.A. Debaugh (1988) Sea Level Variations for the United States 1855 – 1986. Rockville, MD: National Ocean Service.

² Field et. al., Union of Concerned Scientists and the Ecological Society of America (November 1999) Confronting Climate Change in California, www.ucsusa.org.

Accompanying this rise in sea level will be increased wave heights and wave energy. Along much of the California coast, the bottom depth controls the nearshore wave heights, with bigger waves occurring in deeper water. Since wave energy increases with the square of the wave height, a small increase in wave height can cause a significant increase in wave energy and wave damage. Combined with the physical increase in water elevation, a small rise in sea level can expose previously protected back shore development to both inundation and wave attack, and those areas that are already exposed to wave attack will be exposed to more frequent wave attack with higher wave forces. Structures that are adequate for current storm conditions may not provide as much protection in the future.

A second concern with global warming and sea level rise is that the climatic changes could cause changes to the storm patterns and wave climate for the entire coast. As water elevations change, the transformation of waves from deep water will be altered and points of energy convergence and divergence could shift. The new locations of energy convergence would become the new erosion "hot spots" while the divergence points may experience accretion or stability. It is highly likely that portions of the coast will experience more frequent storms and the historic "100-year storm" may occur every 10 to 25 years. For most of California the 1982/83 El Niño event has been considered the "100-year storm." Certain areas may be exposed to storms comparable to the 1982/83 El Niño storms every few decades. In an attempt to ensure stability under such conditions, the Commission has required that all new shoreline structures be designed to withstand either a 100-year storm event, or a storm event comparable to the 1982/83 El Niño. Also, since it is possible that storm conditions may worsen in the future, the Commission has required that structures be inspected and maintained on a regular basis. The coast can be altered significantly during a major storm and coastal structures need to be inspected on a regular basis to make sure they continue to function as If storm conditions worsen in future years, the structures may require changes or modifications to remain effective. In some rare situations, storm conditions may change so dramatically that existing protective structures may no longer be able to provide any significant protection, even with routine maintenance.

In this case, the proposed addition of rock is considered a relatively minor repair and maintenance project which will be limited to maintaining the original footprint, location, design height and shape of the previously approved revetment and will not involve any significant reconstruction of the existing revetment or serve to extend the life of the rock revetment beyond its normally expected design-life. The applicant has submitted plans prepared by Kurt Magness, Architect and dated 9/1/04 and by David Weiss' letter dated January 15, 2006 his Exhibit II on two pages (See Staff Report Exhibit 6). illustrating the proposed locations where additional rocks will be installed and which show that all proposed rock will be located landward of the previously approved toe of the existing revetment. In addition, the applicant has submitted a letter report addressed to Mr. Magness, the applicant's representative, titled: Commentary on Rock Revetment Repair, by David Weiss & Associates, dated July 5, 2004. This letter report states that:

The existing rock revetment that protects the subject site from ocean wave action is a small section of a long rock revetment that protects the entire Solimar Beach Development. As a matter of fact, the section of revetment on the subject lot is only a very small length of a section of coast that is armored with rock from the southeastern

end of Solimar beach to the extreme west end of Faria Beach, the next development west.

The revetment was constructed in the 1970's and apparently reconfigured to its present form in the mid 1980's. The subject site is the last lot on the northwest end of the Solimar Beach tract. As stated in the coastal engineering report referenced above, the waves approach this beach predominantly from 260 degrees to 275 degrees. Although there is some sheltering from the western end of the Channel Islands at the 260 degree end of the spectrum and sheltering by Point Conception against waves approaching from the northwest, there is almost no sheltering from the waves approaching from 275 degrees. For this reason, this site is subject to very severe, direct wave action, almost unreduced by refraction in magnitude and force. Because of this exposure on two sides, this particular site takes a much greater "beating" in a coastal storm than do the "interior" lots in the development.

There is no question that the revetment is needed to protect not only the subject site, but the adjacent highway. Given its location and the harsh environment in which it is located, it is only normal that it might need some maintenance and repair from time to time.

Recently, the contractor for the house to be constructed on the site made some repairs to the revetment. The repairs consist of placing a series of large cap stone on the face of the revetment. I have been asked to comment on the appropriateness of those repairs with regard to such questions as adequacy of the repairs, effect on coastal process and effect on public safety and lateral access.

This can be classified as a small repair project, i. e., consisting of less than 500 cubic yards of rock. The rocks placed are equal to or greater than the two to four ton size of the cap stones used in the original reconfiguration of the revetment performed in the 1980's. Note should be made at this time that it is not unusual for an occasional rock to roll off of the face of a revetment during a severe coastal storm; however in almost forty years of experience on the beach, I have not experienced one rolling off during a period of calm. When this occurs, it should be recaptured and placed back on the face of the revetment. This particular revetment seems to have performed fairly well over the years, since its reconfiguration in the 1980's.

... The point of all of this is that the new rock is not encroaching on the beach, that is, the revetment extends no further onto the beach than before the new rock was placed.

As stated in the coastal engineering report referenced at the beginning of this writing, the revetment on this site does not interfere with the littoral process. Obviously, from the above photographs, the sand still comes and goes as it did before the new rock was placed. The addition of the new rocks to fill some of the voids in the revetment has had no effect and will have no effect on the movement of sand along the beach.

In addition, the applicant submitted a letter report by David Weiss, Structural Engineer & Associates dated January 15, 2006 that states numerous relevant issues to consider for this proposed project. The report (Exhibit 6) provides the following findings and comments:

- 1. There is no question that the revetment is needed to protect not only the subject site, but also the adjacent highway and neighboring properties.
- 2. The addition of the new rocks to fill some of the voids in the revetment has had no effect and will have no effect on the movement of sand along the beach.
- 3. Based upon the site survey taken on 1/1/03, the toe of the revetment is located at 0.0' NGVD and the top of the revetment is at an elevation of 15.27' NGVD.

- 4. At 650 tons of added rock, this is a relatively minor maintenance project (adding less than 20% to the volume of the wall contained in the 200 linear feet of the project). The 400 tons that have been added so far have been securely placed in locations landward of the toe of the revetment (See Exhibit I Rock Tonnage Assessment).
- 5. I have reviewed and approved the placement plans for the rock already added and that which will be added. All rock will be placed landward of the revetment toe and generally in the upper portion of the revetment wall (See Exhibit II Rock Placement Plan).
- 6. The attached revetment wall cross section is accurate representation of the existing structure and indicates where maintenance will be typically done (See Exhibit III).
- 7. The Holmgren's wall is part of a continuous rock revetment structure that connects to adjoining revetment structures for neighboring properties. Elimination or allowing the Holmgren's wall to fall into disrepair would potentially adversely affect these neighboring properties and their protective structures (See Exhibit IV photos).
- 8. That the project includes the replacement of errant rocks back onto the revetment (See Exhibit V).

Thus, the applicant's consulting engineer has concluded that repairs proposed for the rock revetment is considered maintenance only and will further protect the subject site and highway but not adversely affect the littoral sand flow process. The applicant's engineer also states that the proposed rock, including the approximately 400 tons of rock that was placed without the required coastal permit, was placed landward of the previously existing toe of the rock revetment and will not result in any further seaward encroachment by new development on the sandy beach. Thus, in this case, no new impacts to shoreline sand supply or public access will result from the relatively minor repair and maintenance of this existing rock revetment. Therefore, the Commission notes that the proposed development, as submitted, is consistent with the requirements of Coastal Act Section 30253 that require the stability of the rock revetment and protect the subject lot and highway landward.

However, the Commission further notes that the proposed development is located on a beachfront lot in Ventura County. The Ventura County coast has historically been subject to substantial damage as the result of storm and flood occurrences--most recently, and perhaps most dramatically, during the past 1998 El Nino severe winter storm season.

The subject site is clearly susceptible to flooding and/or wave damage from storm waves, storm surges and high tides. The El Nino storms recorded in 1982-1983 caused high tides of over 7 feet, which were combined with storm waves of up to 15 feet. These storms caused substantial damage to structures in Ventura County. The severity of the 1982-1983 El Nino storm events are often used to illustrate the extreme storm event potential of the California, and in particular, Ventura County's coast.

Thus, ample evidence exists that all beachfront development in the Ventura County area is subject to an unusually high degree of risk due to storm waves and surges, high surf conditions, erosion, and flooding. The residential development on site, even after the completion of the repair/maintenance work, will continue to be subject to the high degree of risk posed by the hazards of oceanfront development in the future, as will the residence that the revetment helps to protect. The Coastal Act recognizes that

development, such as the proposed maintenance of the rock revetment, even as designed and constructed to incorporate the recommendations of the consulting coastal engineer, may still involve the taking of some risk. When development in areas of identified hazards is proposed, the Commission considers the hazard associated with the project site and the potential cost to the public, as well as the individual's right to use the subject property.

The Commission finds that due to the possibility of liquefaction, storm waves, surges, erosion, and flooding, the applicant shall assume these risks as conditions of approval. Because this risk of harm cannot be completely eliminated, the Commission requires the applicant to waive any claim of liability against the Commission for damage to life or property which may occur as a result of the permitted development. The applicant's Assumption of Risk, Waiver of Liability and Indemnity, as required by **Special Condition No. Three**, when executed and recorded on the property deed as required by **Special Condition No. Six**, will show that the applicant is aware of and appreciates the nature of the hazards which exist on the site, and that may adversely affect the stability or safety of the development it protects. **Special Condition No. Six** requires the applicant to record a generic deed restriction that imposes the terms and conditions of this permit as restrictions on use and enjoyment of the property and provides any prospective purchaser of the site with recorded notice that the restrictions are imposed on the subject property.

To ensure that the potential for construction activities and landform alteration to adversely effect the marine environment are minimized, **Special Condition No. Five** requires the applicants to ensure that no construction materials, debris or waste shall be placed or stored where it may be subject to wave erosion and dispersion, that all debris resulting from construction activities shall be removed from the beach prior to the end of each work day; no machinery or mechanized equipment shall be allowed in the intertidal zone, except for that necessary to remove the errant rocks from the beach seaward of the revetment; and all excavated beach sand shall be redeposited on the beach.

The Commission further finds that the project is subject to possible deterioration, such as resulting from the above noted hazards. The proposed development may experience dislodging of materials that move seaward of the seawall/rockwall and stairs and intrude into the area of public access use. Such materials can adversely impact access by blocking or impeding beach users as well as presenting a potential hazard. In order to ensure that such materials are removed and replaced landward in a timely manner, the Commission requires through **Special Condition No. Two** that the applicant contact the Commission office to determine the necessary resolution. The Commission Staff can determine whether permits are necessary for a new coastal development permit or repair and maintenance, as provided pursuant to California Code of Regulations Section 13252. Approval with this condition ensures avoidance or interference with public access opportunities, so that the project maximizes public lateral access in a manner consistent with Public Resources Code Sections 30210 and 30211.

Further, to ensure geologic stability and ensure that the recommendations of the engineering consultant have been incorporated into all proposed development, the

Commission, as specified in **Special Condition No. Four,** requires the applicant to incorporate the recommendations cited in the Coastal Engineering Report dated April 24, 2003 and the Commentary on Rock Revetment Repair dated July 5, 2004 into all final design and construction plans. The final plans approved by the consultants shall be in substantial conformance with the plans approved by the Commission. Any substantial changes to the proposed development approved by the Commission which may be recommended by the consultants shall require an amendment to the permit or a new coastal permit.

Additionally, any future improvements to the proposed revetment that might result in the seaward extension of the shoreline protection device would result in increased adverse effects to shoreline sand supply and public access. Therefore, to ensure that the proposed project does not result in new future adverse effects on shoreline sand supply and public access and that future impacts are reduced or eliminated, **Special Condition No. Two** prohibits any future repair or maintenance, enhancement, reinforcement, or any other activity affecting the shoreline protective device approved pursuant to this permit, if such activity extends the seaward footprint or design height of the subject shoreline protective device. **Special Condition No. Six** requires the applicant to record a deed restriction that imposes the terms and conditions of this permit as restrictions on use and enjoyment of the property and provides any prospective purchaser of the site with recorded notice that the restrictions are imposed on the subject property.

The Commission finds, for the reasons set forth above, that the proposed development, as conditioned, is consistent with Section 30253 of the Coastal Act.

D. <u>Violation</u>

Development has occurred on the subject site without the required coastal development permits including the placement of about 400 additional tons of armor rock on about 78 lineal feet of the existing rock revetment. In addition to the placement of approximately 250 tons of new additional rock, the applicant is also requesting after-the-fact approval for the placement of the previously placed unpermitted rock as part of this application.

In order to ensure that the violation aspect of the portion of the project is resolved in a timely manner, **Special Condition No. Eight** requires that the applicant satisfy all conditions of this permit which are prerequisite to the issuance of this permit within 90 days of Commission action or within such additional time as the Executive Director may grant for good cause.

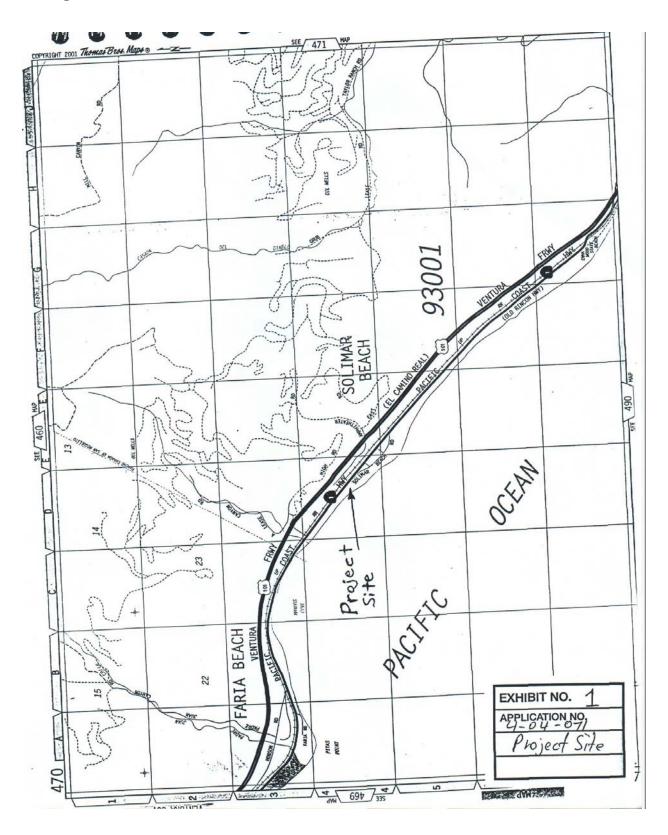
Although development has taken place prior to the submission of this permit amendment application, consideration of the application by the Commission has been based solely upon the Chapter 3 policies of the Coastal Act. Approval of this permit does not constitute a waiver of any legal action with regard 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. Only as conditioned is the proposed development consistent with the Coastal Act.

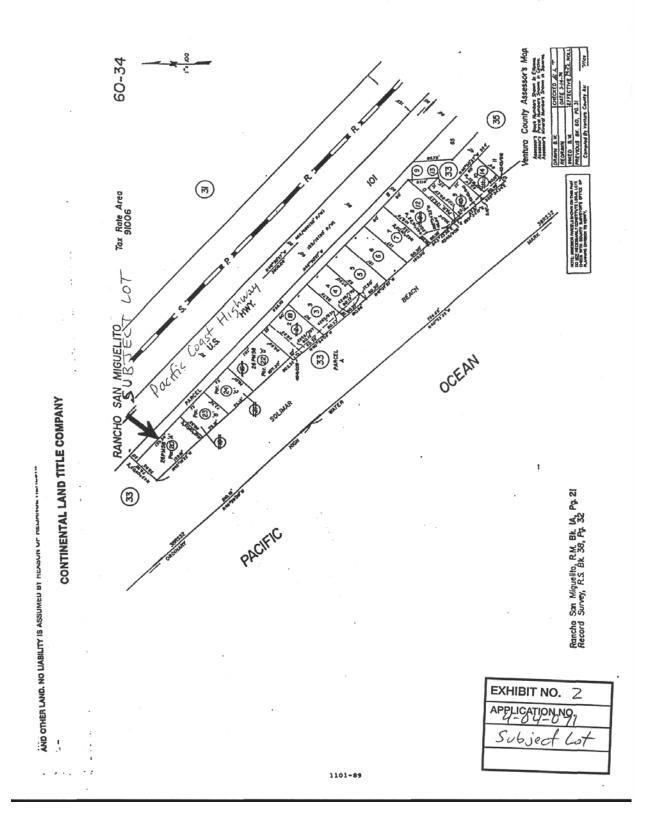
E. CEQA

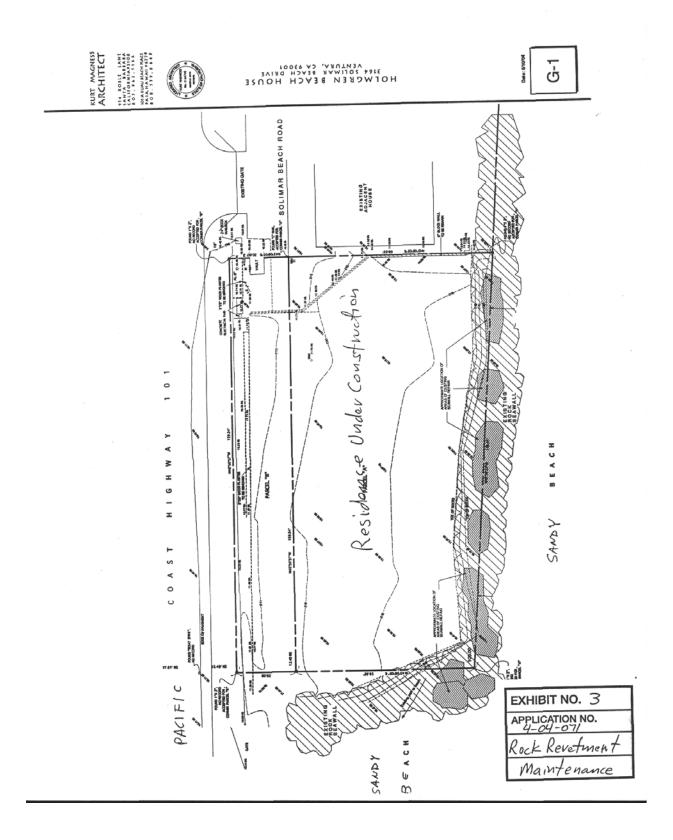
Section 13096(a) of the Commission's administrative regulations requires Commission approval of Coastal Development Permit application to be supported by a finding showing the application, as conditioned by any conditions of approval, to be consistent with any applicable requirements of the California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

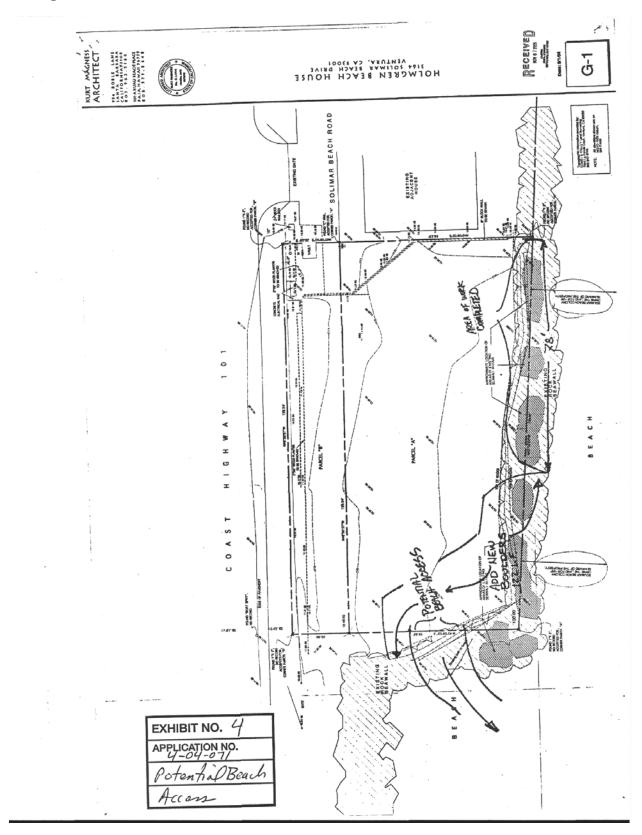
The Commission finds that, the proposed project, as conditioned will not have significant adverse effects on the environment, within the meaning of the California Environmental Quality Act of 1970 and is the preferred alternative. Therefore, the proposed project, as conditioned, has been adequately mitigated and is determined to be consistent with CEQA and the policies of the Coastal Act.

404071holmgrenreport









ARNOLD SCHWARZENEGGER, Governor

STATE OF CALIFORNIA

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



PAUL D. THAYER, Executive Officer FAX (916) 574-1810 (916) 574-1800 Relay Service From TDD Phone 1-800-735-2929 from Voice Phone 1-800-735-2922

> Contact Phone: (916) 574-1879 Contact FAX: (916) 574-1925

PRC 8633.1/W26089

August 24, 2005

Mr. and Mrs. Robert G. Holmgren 3785 Smallwood Court Pleasanton, CA 94566

Dear Mr. and Mrs. Holmgren:

CAHIFORNIA CONSTAL COMMISSION STRICK TRANSMIL CHAST PISTRIES

SEP 1 9 2005

General Lease - Protective Structure Use for the Reconstruction and Maintenance of an Existing Rock Revetment Wall Located at Subject:

3164 Solimar Beach Drive, Ventura, Ventura County

Enclosed is your fully executed lease, PRC No. 8633.1, for the reconstruction and maintenance of the existing rock revetment wall located at 3164 Solimar Beach Drive, Ventura, Ventura County.

Our Accounting Office will be notifying you regarding the annual rental due in the amount of \$100 for the existing rock revetment wall effective August 8, 2005. However, if you do not receive an invoice, you are still obligated to pay rent as set forth in your lease.

The Commission appreciates your cooperation and patience in helping to complete this transaction. Please feel free to write or call if you have any questions.

Sincerely,

Susan M. Young Public Land Management Specialist

Accounting

Enclosure

EXHIBIT NO.

page 1 of 6

RECORDED AT THE REQUEST OF AND WHEN RECORDED MAIL TO: STATE OF CALIFORNIA California State Lands Commission Attn: Title Unit 100 Howe Avenue, Suite 100-South Sacramento, CA 95825-8202

STATE OF CALIFORNIA OFFICIAL BUSINESS

Document entitled to free recordation pursuant to Government Code Section 27383

SPACE ABOVE THIS LINE FOR RECORDER'S USE

A.P.N. 00

060-0-340-205

County: Ventura

W26089

LEASE PRC 8633./

This Lease consists of this summary and the following attached and incorporated parts:

Section 1

· Basic Provisions

Section 2

Special Provisions Amending or Supplementing Section 1 or 4

Section 3

Description of Lease Premises

Section 4

General Provisions

SECTION 1

BASIC PROVISIONS

THE STATE OF CALIFORNIA, hereinafter referred to as Lessor acting by and through the CALIFORNIA STATE LANDS COMMISSION (100 Howe Avenue, Suite 100-South, Sacramento, California 95825-8202), pursuant to Division 6 of the Public Resources Code and Title 2, Division 3 of the California Code of Regulations, and for consideration specified in this Lease, does hereby lease, the California Code of Regulations, and Kathleen M. Holmgren, Trustees of The Holmgren demise and let to Robert G. Holmgren and Kathleen M. Holmgren, Trustees of The Holmgren Family Trust of 1996 DTD 12-23-96, hereinafter referred to as Lessee, those certain lands described in Section 3 subject to the reservations, terms, covenants and conditions of this Lease.

page Zof6

W26089

ADDRESS:

3164 Solimar Beach Drive

Ventura, CA 93001-9756

LEASE TYPE:

General Lease - Protective Structure Use

LAND TYPE:

Sovereign tide and submerged

LOCATION:

0.0221 acres, more or less, of tide and submerged lands adjacent to Solimar Beach

near the city of Ventura, Ventura County

LAND USE OR PURPOSE: Reconstruction, use and maintenance of an existing rock revetment.

TERM: Ten years; beginning August 8, 2005; ending August 7, 2015, unless sooner terminated as provided under this Lease.

CONSIDERATION: \$100 per annum; subject to modification by Lessor as specified in Paragraph 2(b) of Section 4 - General Provisions.

AUTHORIZED IMPROVEMENTS:

X EXISTING: Rock Revetment

X_TO BE CONSTRUCTED: Reconstruction of existing rock revetment within the lease premises as described in Section 3 of this Lease. The waterward limit of the revetment is as noted on the topographic survey dated 11/19/2004 and prepared by Coast Valley Engineering. The landward limit of the revetment is as noted in Book 26 of Parcel Maps, Page 59, of the Grading Plan dated 1986 and prepared by Robert Martin and Associates.

CONSTRUCTION MUST BEGIN BY: Within 180 days from receipt of all permits and authorizations.

LIABILITY INSURANCE: Not less than \$1,000,000 combined single limit coverage

SURETY BOND OR OTHER SECURITY:

N/A

SECTION 2 SPECIAL PROVISIONS

BEFORE THE EXECUTION OF THIS LEASE, ITS PROVISIONS ARE AMENDED, REVISED OR SUPPLEMENTED AS FOLLOWS:

Lessee acknowledges and agrees:

a. The site may be subject to hazards from natural geophysical phenomena including, but not limited to waves, storm waves, tsunamis, earthquakes, flooding, and erosion.

page 30f6

W26089

b. To assume the risks to the Lessee and to the property that is the subject of any Coastal Development Permit (CDP) issued for development on the leased property, of injury and damage from such hazards in connection with the permitted development and use.

- c. To unconditionally waive any claim or damage or liability against the State of California, its agencies, officers, agents, and employees for injury or damage from such hazards.
- d. To indemnify, hold harmless and, at the option of Lessor, defend the State of California, its agencies, officers, agents, and employees, against and for any and all liability, claims, demands, damages, injuries or costs of any kind and from any cause (including costs and fees incurred in defense of such claims), expenses, and amounts paid in settlement arising from any alleged or actual injury, damage or claim due to site hazards or connected in any way with respect to the approval of any CDP involving this property or issuance of this Lease, any new lease, renewal, amendment, or assignment by Lessor.
- 2. The State of California's sovereign ownership claim of the lands underlying the Pacific Ocean extends to the ordinary high water mark. The Section 3 Land Description contained herein, is not to be deemed an admission by Lessor or Lessee as to the boundary between private and Stateowned lands. This lease is entered into by both parties without prejudice to their respective claims of ownership.
- Any equipment to be used on the lease premises is limited to that which is directly required to perform the authorized use and does not include any equipment that may cause damage to the lease premises.
- 4. The Lessor does not accept any responsibility for any damages caused by flooding and theft to any property, including any equipment, tools or machinery on the lease premises.

page 4 of 6

SECTION 3

W26089

LAND DESCRIPTION

A parcel of tide and submerged land at Solimar Beach, in Ventura County described as follows:

Commencing at the South corner of Parcel A as shown on that certain Parcel Map recorded in Book 26 Parcel Maps page 59 in Ventura County, Recorders Office, thence along the southwesterly extension of the southeasterly line of said parcel South 43° 09' 03" West, 20.94 feet to the Point of Beginning; thence South 43° 09' 03" West, 8.28 feet, thence North 42° 38' 34" West, 41.82 feet; thence North 42° 21' 43' West, 53.87 feet; thence North 39° 48' 42" West, 36.52 feet; thence North 08° 36' 07" West, 8.34 feet; thence South 43° 16'22" East, 138.48 feet, to the point of beginning.

EXCEPTING THEREFROM any portion thereof lying landward of the ordinary high water mark.

END OF DESCRIPTION

Prepared 07/14/2005 by the California State Lands Commission Boundary Unit

STATE OF CALIFORNIA - STATE LANDS COMMISSION

LEASE P.R.C. NO. 8633./

This lease shall become effective only when approved by and executed on behalf of the State Lands Commission of the State of California and a duly executed copy has been delivered to Lessee. The submission of this Lease by Lessor, its agent or representative for examination by Lessee does not constitute an option or offer to lease the Lease Premises upon the terms and conditions contained herein, or a reservation of the Lease Premises in favor of Lessee. Lessee's submission of an executed copy of this Lease to Lessor shall constitute an offer to Lessor to lease the Lease Premises on the terms and conditions set forth herein.

IN WITNESS WHEREOF, the parties hereto have executed this Lease as of the date hereafter affixed.

LESSEE Robert G. Holmgren and Kathleen M.	STATE OF CALIFORNIA STATE LANDS COMMISSION
Holmgren, Trustees of The Holmgren Family	
Holmgren, Trustees of the Holmig. Car	
Trust of 1996 DTD 12-23-96	
By: Kolat 6. Johnson Preside	By: Wichart & Storting
Dal G Hedmanini Trustee 1	Chief, Division of
With Moldman I rustle.	Land Management
Kathleen M. Holmgren, Trustee	Title:
	CED 0 0 2005
Date: Jour 21, 2005	SEP 0 8 2005
Date.	Date:
	This Lease was authorized by the

ACKNOWLEDGEMENT

Form 51.15 (Rev. 11/91)

California State Lands Commission on

August 8, 2005 (Month Day Year)

page 6 of 6

DAVID C. WEISS

Structural Engineer & Associates, Inc.

January 15, 2006

California Coastal Commission 89 S. California Street, Suite 200 Ventura, CA 93001

Subject: Holmgren Revetment Wall Project

3164 Solimar Beach Drive Ventura, CA CCC Permit Application # 4-04-071



To Whom It May Concern:

The following are several of my specific findings and comments regarding the Holmgren revetment project identified above:

- 1. There is no question that the revetment is needed to protect not only the subject site, but also the adjacent highway and neighboring properties.
- 2. The addition of the new rocks to fill some of the voids in the revetment has had no effect and will have no effect on the movement of sand along the beach.
- 3. Based upon the site survey taken on 1/1/03, the toe of the revetment is located at 0.0' NGVD and the top of the revetment is at an elevation of 15.27' NGVD.
- 4. At 650 tons of added rock, this is a relatively minor maintenance project (adding less than 20% to the volume of the wall contained in the 200 linear feet of the project). The 400 tons that have been added so far have been securely placed in locations landward of the toe of the revetment (See Exhibit I Rock Tonnage Assessment)
- 5. I have reviewed and approve the placement plans for the rock already added and that which will be added. All rock will be placed landward of the revetment toe and generally in the upper portion of the revetment wall. (See Exhibit II Rock Placement Plan)
- 6. The attached revetment wall cross section is accurate representation of the existing structure and indicates where maintenance will be typically done. (See Exhibit III)
- 7. The Holmgren's wall is part of a continuous rock revetment structure that connects to adjoining revetment structures for neighboring properties. Elimination or allowing the Holmgren's wall to fall into disrepair would potentially adversely affect these neighboring properties and their protective structures (See Exhibit IV photos)
- 8. That the project includes the replacement of errant rocks back onto the revetment (See Exhibit V).

If you have any questions regarding these findings, please contact me.

Very truly yours,

David C. Weiss, President S.E. 1867 David C. Weiss
No. 1867
Structural

EXHIBIT NO. 6

APPLICATION NO.
4-04-04

Letter From

David Wai3s

page 10f7

24372 Vanowen Street ● Suite 104 ● West Hills, CA 91307 ● Tel: (818) 227-8040 ● Fax: (818) 227-8041

EXHIBIT I – ROCK TONNAGE ASSESSMENT

SOLIMAR BEACH REVETMENT

3,860 Linear Feet of Rock Revetment in Solimar Beach Colony Armor Rock weighs 5-7 tons per stone 18.6 Tons of Revetment Rock per Linear Foot of Wall (Wall: 15 ft. height, 30 ft. base, 165 lb./cu ft. density) 71,800 Tons of Armor Rock in Solimar Beach Revetment

HOLMGREN PORTION OF WALL

200 Total Linear Feet of Rock Revetment in Proposed Project 18.6 Tons of Armor Rock per Linear Foot of Revetment Wall 3,720 Tons of Armor Rock in 200 Feet of Revetment Wall

PROPOSED REPAIR/MAINTENANCE

400 tons of Armor Rock Placed in July 2004 250 tons to be added 650 tons total for maintenance (17.5% of total 3,720 tons in Holmgren revetment)



Page 20f7

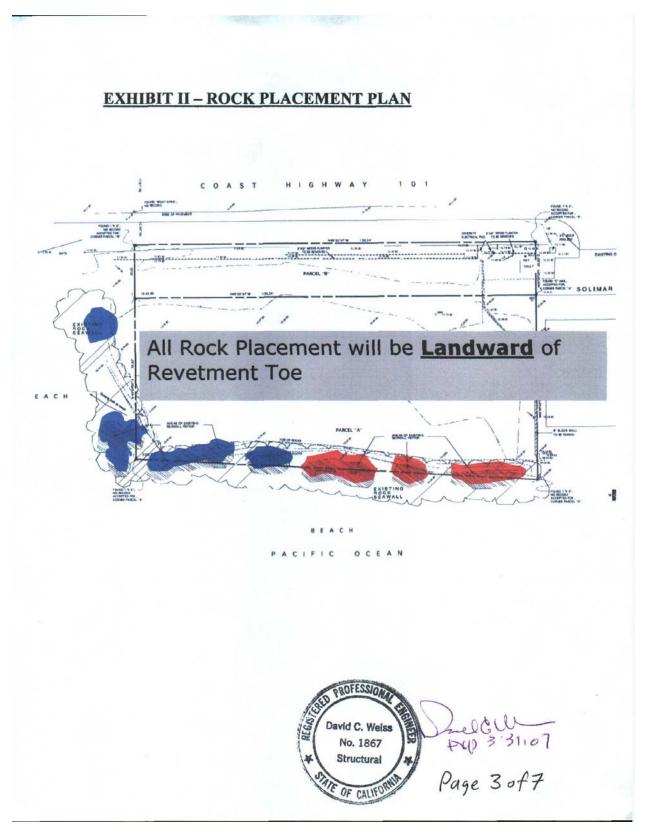


EXHIBIT II - ROCK PLACEMENT PLAN (continued)



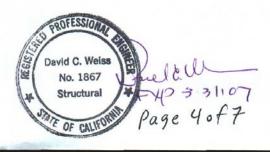
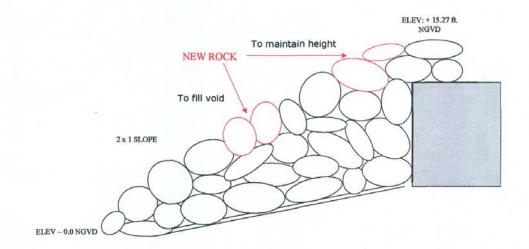


EXHIBIT III – REVETMENT WALL REPRESENTATIVE CROSS SECTION



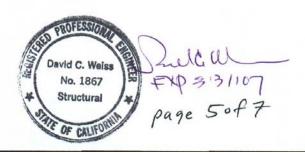
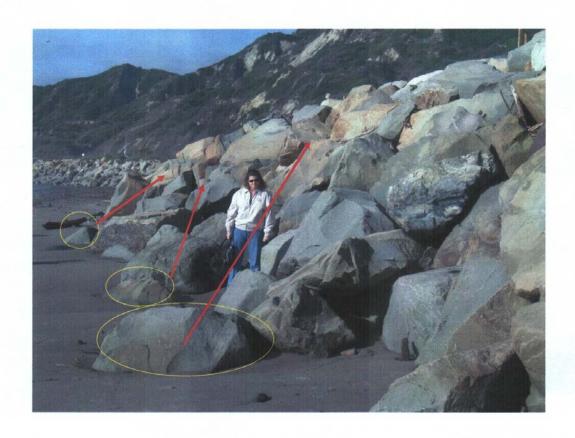


EXHIBIT IV -NEIGHBORING PROPERTIES AND THEIR PROTECTIVE STRUCTURES





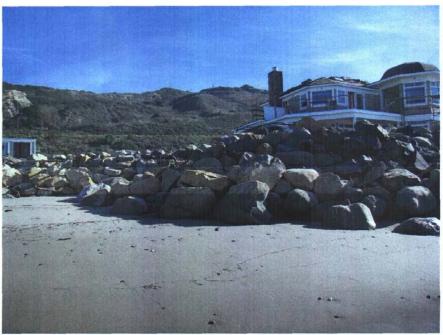
EXHIBIT V -ERRANT ROCK REPLACEMENT







Looking Northeast at Existing Revetment: Applicant's Residence Located to Left.



Looking North at Northwestern Portion of Revetment Along Two Sides of Applicant's Property.

Exhibit 7 Application No. 4-04-071 Site Photos





COASTAL COMMISSION SOUTH CENTRAL COAST DISTRICT February 16, 2006

California Coastal Commission % Mr. James Johnson, South Central Coast Area Office 89 S. California Street, Suite 200 Ventura, CA 93001

Re:

Project Summary, Holmgren Application No. 4-04-071 Solimar Beach Rock Revetment Maintenance

To the Commissioners:

Attached is a project summary we wish to provide for your information regarding the intended maintenance of the subject revetment. We believe our request is for minor maintenance of an integrated rock revetment that protects both the homes of Solimar Beach and the adjacent Highway 1 along the coast to Faria Beach; the protection of this area has a history back to the early 1960's as reviewed in Coastal Permit No. 216-21.

We also wish to add some additional information we have been provided in regard to San Diego County mitigation and maintenance guidance. It is our understanding that in Ventura County a similar program does not exist at this time, neither a program entity nor program criteria. There are, however, other forms of mitigation used in San Diego and Ventura County we believe we are in compliance with, and as well have agreed to the additional staff proposed conditions. It appears that a primary difference is that in our case there is no coastal bluff providing sand.

We and Solimar Beach have previously provided for lateral public access, vertical public access, access signage and we propose to clear the errant rock from the existing public access way. It is acknowledged by the provided information that a deteriorating structure may have greater impacts on public access and recreation than would well maintained structures.

Thank you in advance for your consideration.

Sincerely,

Steven D. Perlman for Bob and Kathleen Holmgren

APPLICATION NO.
Letter and Info

page tof 7

7811 Marin Lane • Ventura, California 93004 • Phone/Fax (805) 647-8428 Planning Services Applicants: Robert and Kathleen Holmgren

3164 Solimar Beach Drive Ventura, California 93001

Coastal Permit Application No.:

4-04-071

Assessors Parcel No.:

060-0-340-205 8,956 sq ft

Area of Parcel: Zoning:

RB

Project Location & Revetment History:

o Last home on northwest end of Solimar Beach Colony, an infill home.

- Parcel always part of Solimar and protected by a permitted continuous integrated revetment structure originally constructed in the early 1960's to protect over 70 homes
- Solimar Revetment permitted again in 1981 CCC Permit No. 216-21, permit extended on 8/10/84.

Project Information:

☐ Proposed Project:

- Repair and maintain a 200 lineal foot portion of an **integrated**, **permitted** 3,860 ft. rock revetment wall that protects 70 homes to the south (Solimar Beach Colony). This portion is also integrated with the ½ mile rock revetment structure that parallels public highway 1 north to the Faria Beach Colony.
- Placement of new and replacement of errant rock will be located landward of the revetment toe
- 110 new armor rocks that represent 17.5% of the total tonnage currently existing along the 200 lineal foot portion.
- Maintenance required to preserve protective structure because it is integrated with neighboring revetment walls and Highway 1 protection and is part of a continuous structure going miles in either direction.
- Work will be performed from the applicant's property above the revetment using an excavator with extending arm.
- If needed, a temporary beach ramp may be created to access errant boulders on the beach seaward of revetment beyond reach of excavator's extending arm.

Coastal Engineer Findings: Wave Uprush Study, April 24, 2003, David C. Weiss & Commentary on Rock Revetment Repair, July 5, 2004, David C. Weiss:

□ "The existing revetment is needed to protect the site and Highway 1. Without ..., the site and highway could be washed out to a distance of 60' landward of the highway 1/site right of way line.

page Zof7

	"This is just one section of revetment in a long line along Solimar Beach Road and located somewhat more landward than the rest of the revetment The mid-length of Solimar Beach is much further seaward than the subject site."
	"This entire length of coast from the north (or northwest) end of Faria Beach to the east end of Solimar Beach is armored with either rock or concrete seawalls." (Approx. 4 miles)
	The surveyed benchmark is set at elevation +4.5 NGVD, "Based on measurements taken at that time, the sand at the toe of the revetment is 4' 6" below the benchmark or at 0.0' NGVD."
	Regarding recent repairs"The rocks imported to the site have been placed on the face of the revetment and not on the beachthe revetment extends no further onto the beach than before the new rock was placed." (Surficial maintenance only)
	"The addition of the new rocks to fill some of the voids in the revetment has had no effect and will have no effect on the movement of sand along the beach.
Summ	ary:
	The site and home require protection
	The existing revetment is permitted and is necessary to protect not only the subject site, but also the adjacent highway and neighboring properties
	The home on the subject parcel has been placed as far back as possible via zero setback variance
	The additional 110 rocks to be placed is a minor percentage of overall revetment
	volume (17.5%) There will be NO seaward extension of the previously permitted footprint – the
	majority of work to be performed on upper half of the revetment, therefore, the addition of new rocks to fill the voids in the revetment has had and should have no effect on the movement of sand along the beach.
	The applicant has agreed to the seven (7) special conditions recommended by CCC
	staff The applicant has worked closely with CCC staff on both the home development and
	revetment maintenance projects. The applicant has met all requirements for the Commission to approve this Coastal
_	development permit including additional studies, clarifications, RFI's, land lease and
	sub-permits. The project will improve public lateral access by replacing errant rocks back onto the
	revetment. The applicant has already dedicated lateral access along the beach in front of the
	revetment
	The applicant/Solimar Beach has provided for horizontal beach access by providing a stairway just north of the property as previously required by the CCC
	The applicant/Solimar Beach has provided public access signage on the beach as previously required by the CCC.
page 3 of 7	

Minor Repair - Armor Rock Tonnage Calculation:

SOLIMAR BEACH REVETMENT

3,860 Linear Feet of Rock Revetment in Solimar Beach Colony Armor Rock weighs 5-7 tons per stone 18.6 Tons of Revetment Rock per Linear Foot (per D.C. Weiss) 71,800 Tons of Armor Rock in Solimar Beach Revetment

HOLMGREN PORTION OF WALL

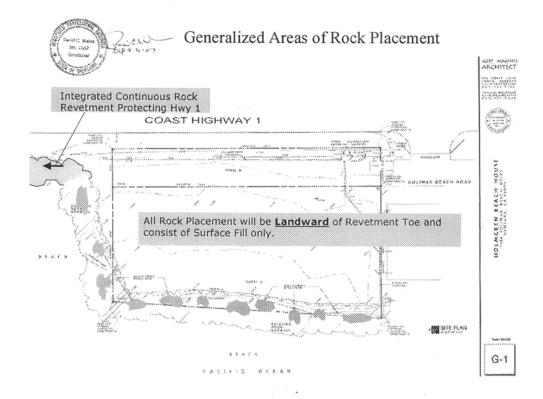
200 Total Linear Feet of Rock Revetment in Proposed Project 18.6 Tons of Armor Rock per Linear Foot of Revetment Wall 3,720 Tons of Armor Rock in 200 Feet of Revetment Wall

PROPOSED REPAIR/MAINTENANCE - TO BE ADDED

400 tons of Armor Rock Placed in July 2004 250 tons to be added 650 tons total for maintenance (17.5% of total 3,720 tons in Holmgren revetment) Approximately 110 rocks total to be placed

Exhibit: Generalized Areas of Rock Placement

$\frac{\textbf{EXHIBIT I} - \textbf{GENERALIZED AREAS OF ROCK}}{\textbf{PLACEMENT}}$



page Sof7

MITIGATION AND GUIDANCE FOR MONITORING SHORELINE PROTECTION DEVICES - CALIFORNIA COASTAL COMMISSION DOCUMENTED PROCEDURES, POLICIES AND PROGRAMS

Holmgren Application for Revetment Maintenance, Solimar Beach

There are other forms of mitigation than fees.

- provide lateral access
- offer to dedicate lateral access easement
- provide for vertical access (stairway)

Examples where the fee was not required.

- adverse impacts to public access and recreation opportunities were being offset by project design, including public access improvements
- lateral access dedication was determined to be sufficient mitigation for infill development
- replacement of previously approved seawall in La Jolla provided lateral access dedication
- in some cases it may be difficult to support payment of a fee in an area that has been historically armored

Primary constraints to the use of the fee as mitigation.

- absence of an established program
- absence of a public entity to collect fees, spend funds, determine projects (criteria, eligibility, etc)
- local government incorporate in LCP
- · if encroachment on State tidelands, coordinate with State Lands

Rationale for monitoring procedures.

- facilitate prompt maintenance
- prevent need for massive rebuilding through proper maintenance
- work closely with applicant to insure timely maintenance without repeated permits or permit amendments

page 6 of 7

Holmgren Application for Revetment Maintenance, Solimar Beach CCC Documented Procedures, Policies and Programs Page 2

<u>Most shoreline protection efforts need occasional maintenance for the protection effort to perform effectively.</u>

- a deteriorating structure may have greater impacts on public access and recreation than would a well maintained structure
- the inclusion of maintenance in the initial coastal development permit (either as
 part of the project description or as a permit condition) should not allow situations
 where routine maintenance is deferred for so long that the maintenance
 essentially rebuilds the project without benefit of a new or amended coastal
 development permit
- a revetment can be used for many years to effectively protect upland property if
 there is regular inspection and maintenance, such as repositioning rock into the
 revetment if it has shifted seaward, or adding small amounts of rocks if the
 revetment is settling slowly
- scour is more likely to occur in front of or adjacent to a vertical surface rather than the non-uniform face of a revetment
- maintenance activities can be covered in the initial permit, routine maintenance can be undertaken after a brief written notice or phone call
- · it must be recognized that not all maintenance and repairs can be anticipated

Holmgren Maintenance Project Summary Information

- protect through infill development existing upland public beach access, Highway 1 access road and downland homes
- provides an integrated revetment to protect adjacent Highway 1 and about 70 homes throughout the Solimar Beach community
- provides for lateral access
- provides through Solimar Beach vertical access by stairways
- provides through Solimar Beach signage directing the public to vertical and lateral access along Solimar Beach
- provides for an agreement to clean up the lateral public access way Oceanside of the revetment in front of their private property by removing errant rocks
- will not increase the impact of the structure on shoreline sand supply to any greater degree than the existing revetment
- proposal will not result in adverse impacts to public access or visual resources (toe not affected, protection of public road, protection of existing home structures, cleanup of errant rock on public access)

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