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

Thu 33a

Filed:	April 17, 2008
49th Day:	June 5, 2008
180th Day:	October 14, 2008
Staff:	Gary Cannon-SD
Staff Report:	July 17, 2008
Hearing Date:	August 6-8, 2008

REGULAR CALENDAR
STAFF REPORT AND PRELIMINARY RECOMMENDATION

Application No.: 6-07-134

Applicant: David Brehmer, Megan Matchinske, James and Kimberly Caccavo

Agent: Bob Trettin

Description: Construct 170 ft.-long, 35 ft.-high seawall, fill of the seacave area landward of the seawall and reconstruct the bluff face above the seawall through the installation of a geogrid soil reinforced structure incorporating the use of soil nails. Applicant is also proposing the payment of an in-lieu fee to address impacts to sand supply and recreation.

Site: On the public beach and bluff below 417 and 423 Pacific Avenue, Solana Beach, San Diego County. APN 263-051-09 and 10, APN 263-051-02.

STAFF NOTES:

The City of Solana Beach does not yet have a certified LCP. Therefore, Chapter 3 policies of the Coastal Act is the standard of review.

Summary of Staff's Preliminary Recommendation: Staff is recommending approval of the subject development as the applicant has demonstrated that the existing blufftop residential structures are in danger from erosion. Due to a recent bluff collapse and exposure of the clean sand layer below the residences, the applicant's geotechnical representative has performed a slope stability analysis of the overall site and concluded that the two blufftop structures are in danger from erosion. Based on the applicant's geotechnical reports, the seawall, seacave fill and geogrid backfill structure are necessary to protect the structures at the top of the bluff. The Commission's staff engineer and geologist have reviewed the applicant's geotechnical assessment and concur with its conclusions.

The proposed development has been conditioned to mitigate its impact on coastal resources such as scenic quality, public access and recreation opportunities, and shoreline sand supply. In addition, the applicant is proposing to pay an in-lieu fee of $61,164.64

for the associated impacts of the development on regional sand supply and is proposing the payment of a separate mitigation fee of $170,000.00 to the City of Solana Beach for the impacts of the development on public access and recreational opportunities. With the proposed sand mitigation and mitigation required by the City, impacts of the proposed shoreline protection on regional sand supply and public access and recreation will be mitigated to the extent feasible. A special condition has been attached which requires the applicant to acknowledge that should additional stabilization be proposed in the future, the applicant will be required to identify and address the feasibility of all alternative measures which would avoid additional alteration of the natural landform of the public beach or coastal bluffs, and would reduce the risk to the blufftop structures and provide reasonable use of the property. Other conditions involve the timing of construction, the appearance of the seawall and geogrid structure, and approval from other agencies.

Substantive File Documents: City of Solana Beach General Plan and Zoning Ordinance; City Resolution No. 2007-042/Interim Fee Process for Approvals Associated With Permits for Construction of Bluff Retention Devices; City Resolution 2007-084/Burns, Matchinske; "Geotechnical Basis of Design Shoreline Stabilization Project" by TerraCosta Consulting Group, Inc., dated March 3, 2006; "Assumption of Geotechnical Engineer of Record from Soil Engineering Construction, Inc. dated November 6, 2007; Coastal Development Permits Nos. 4-87-161/Pierce Family Trust and Morgan; 6-87-371, Van Buskirk; 5-87-576, Miser and Cooper; 6-00-9/Del Mar Beach Club, 6-99-100/Presnell, et. al, 6-99-103/ Coastal Preservation Association, 6-00-66/Pierce, Monroe, 3-02-024/ Ocean Harbor House, 6-02-02/Gregg, Santina, 6-02-84/Scism, 6-03-33/Surfsong; 6-04-83/Cumming, Johnson and 6-05-72/Las Brisas.

I. PRELIMINARY STAFF RECOMMENDATION:

The staff recommends the Commission adopt the following resolution:

MOTION: ***I move that the Commission approve Coastal Development Permit No. 6-07-134 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 and will not prejudice the ability of the local government having jurisdiction over the area to prepare a Local Coastal Program conforming to the provisions of Chapter 3. Approval of the permit complies with the California Environmental Quality Act because either 1) feasible mitigation measures and/or alternatives have been incorporated to substantially lessen any significant adverse effects of the development on the environment, or 2) there are no further feasible mitigation measures or alternatives that would substantially lessen any significant adverse impacts of the development on the environment.

II. Standard Conditions.

See attached page.

III. Special Conditions.

The permit is subject to the following conditions:

1. Final Revised Plans. **PRIOR TO THE ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT**, the applicants shall submit for review and written approval of the Executive Director, final plans for the seawall, seacave fill and reconstructed slope that are in substantial conformance with the submitted plans dated 2/15/08 by Soil Engineering Construction, Inc. Said plans shall first be approved by the City of Solana Beach and be revised to include the following:

a. Sufficient detail regarding the construction method and technology utilized for constructing the seawall so as to gradually blend it into the adjacent natural bluffs. The north and south ends of the seawall shall be designed and constructed to minimize the erosive effects of the approved seawall on the adjacent bluffs.

b. Sufficient detail regarding the construction method and technology utilized for texturing and coloring the seawall and concrete infill behind the seawall. Said plans shall confirm, and be of sufficient detail to verify, that the seawall and concrete backfill's color and texture closely matches the adjacent natural bluffs, including provision of a color board indicating the color of the material.

c. Sufficient detail regarding the construction method and technology utilized for constructing the geogrid reconstructed bluff area that appears undulating or more natural in its slope so as to blend with the adjacent natural bluff.

d. Any existing permanent irrigation system located on the bluff top site(s) shall be removed or capped.

e. All runoff from impervious surfaces on the top of the bluff shall be collected and directed away from the bluff edge towards the street.

f. Existing accessory improvements (i.e., decks, patios, walls, windscreens, etc.) located in the geologic setback area on the site(s) shall be detailed and drawn to scale on the final approved site plan and shall include measurements of the distance between the accessory improvements and the bluff edge (as defined by Section 13577 of the California Code of Regulations) taken at 3 or more locations. The locations for these measurements shall be identified through permanent markers, benchmarks, survey position, written description, or other method that enables accurate determination of the location of structures on the site. Any removed accessory structures located within 5 ft. of the bluff edge shall not replaced in a location closer than 5 feet landward of the natural bluff edge or approved reconstructed bluff edge. Any new Plexiglas or other glass wall shall be non-clear, tinted, frosted or incorporate other elements to inhibit bird strikes.

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

2. Landscape Plan. **PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT**, the applicants shall submit, for the review and written approval of the Executive Director, a plan for landscaping to vegetate the reconstructed bluff slope that has been approved by the City of Solana Beach. The plan shall be prepared by a licensed landscape architect and shall demonstrate that:

(a) all vegetation planted on the face of the bluff will consist of native, drought-tolerant and non-invasive plants;

(b) all planting will be completed within 60 days after construction of the reconstructed bluff area;

(c) all required plantings will be maintained in good growing condition throughout the life of the project, and, whenever necessary, shall be replaced with new plant materials to ensure continued compliance with the landscape plan.

In addition, the plan shall include, at a minimum, the following components:

(d) the type, size, and location of all plant materials that will be on the reconstructed bluff area and any proposed temporary and limited irrigation for the proposed landscaping.

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

3. Mitigation for Impacts to Sand Supply. **PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT**, the applicants shall provide evidence, in a form and content acceptable to the Executive Director, that a fee of $61,164.64 has been deposited in an interest bearing account designated by the Executive Director, in-lieu of providing the total amount of sand to replace the sand and beach area that will be lost due to the impacts of the proposed protective structure. All interest earned by the account shall be payable to the account for the purposes stated below.

The developed mitigation plan covers impacts only through the identified 22-year design life of the seawall. No later than 19 years after the issuance of this permit, the permittees or their successor in interest shall apply for and obtain an amendment to this permit that either requires the removal of the seawall within its initial design life or requires mitigation for the effects of the seawall on shoreline sand supply for the expected life of the seawall beyond the initial 22-year design life. If, within the initial design life of the seawall, the permittees or their successor in interest obtain a coastal development permit or an amendment to this permit to enlarge or reconstruct the seawall or perform repair work that extends the expected life of the seawall, the permittee shall provide mitigation for the effects of the seawall on shoreline sand supply for the expected life of the seawall beyond the initial 22-year design life.

The purpose of the account shall be to establish a beach sand replenishment fund to aid SANDAG, or a Commission-approved alternate entity, in the restoration of the beaches within San Diego County. The funds shall be used solely to implement projects which provide sand to the region's beaches, not to fund operations, maintenance or planning studies. The funds shall be released only upon approval of an appropriate project by the Executive Director of the Coastal Commission. The funds shall be released as provided for in a MOA between SANDAG, or a Commission-approved alternate entity and the Commission, setting forth terms and conditions to assure that the in-lieu fee will be expended in the manner intended by the Commission. If the MOA is terminated, the Commission can appoint an alternative entity to administer the fund.

4. Mitigation for Impacts to Public Access and Recreational Use. **PRIOR TO COMMENCEMENT OF CONSTRUCTION,** the applicants shall provide evidence, in a form and content acceptable to the Executive Director, that the interim mitigation fee of

$170,000.00 required by the City of Solana Beach to address adverse impacts to public access and recreational use, has been satisfied.

WITHIN 6 MONTHS of approval of the City's economic study of the impacts associated with shoreline devices, the applicant shall submit to the Executive Director for review and written approval, documentation of the final mitigation fee amount required by the City to address impacts of the proposed shoreline protection on public access and recreation. If the amount differs from the interim amount required above, then the applicant shall submit an application for an amendment to this permit to adjust the mitigation fee to be paid to the City to address adverse impacts to public access and recreational use resulting from the proposed development.

5. Monitoring Program. **PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT**, the applicants shall submit to the Executive Director for review and written approval, a monitoring program prepared by a licensed civil engineer or geotechnical engineer to monitor the performance of the seawall, return walls and reconstructed slope which requires the following:

a. An annual evaluation of the condition and performance of the seawall, return wall and geogrid slope addressing whether any significant weathering or damage has occurred that would adversely impact the future performance of the structures. This evaluation shall include an assessment of the color and texture of the seawall and return wall comparing the appearance of the structures to the surrounding native bluffs. In addition, the evaluation shall include an assessment of the appearance of the geogrid slope structure.

b. Annual measurements of any differential retreat between the natural bluff face and the seawall face, at the north and south ends of the seawall and at 20-foot intervals (maximum) along the top of the seawall face/bluff face intersection. The program shall describe the method by which such measurements shall be taken.

c. Provisions for submittal of a report to the Executive Director of the Coastal Commission by May 1 of each year (beginning the first year after construction of the project is completed) for a period of three years and then, each third year following the last the annual report, for the life of the approved seawall and upper bluff retention system. However, reports shall be submitted in the Spring immediately following either:

    1. An "El Niño" storm event – comparable to or greater than a 20-year storm.

    2. An earthquake of magnitude 5.5 or greater with an epicenter in San Diego County.

    Thus, reports may be submitted more frequently depending on the occurrence of the above events in any given year.

d. Each report shall be prepared by a licensed civil, geotechnical engineer or geologist. The report shall contain the measurements and evaluation required in sections a, and b above. The report shall also summarize all measurements and analyze trends such as erosion of the bluffs or changes in sea level and the stability of the overall bluff face, including the upper bluff area, and the impact of the seawall on the bluffs to either side of the wall. In addition, each report shall contain recommendations, if any, for necessary maintenance, repair, changes or modifications to the project.

e. An agreement that the permittee shall apply for a coastal development permit within 90 days of submission of the report required in subsection c. above for any necessary maintenance, repair, changes or modifications to the project recommended by the report that require a coastal development permit.

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

6. Storage and Staging Areas/Access Corridors. **PRIOR TO THE ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT**, the applicant shall submit to the Executive Director for review and written approval, final plans approved by the City of Solana Beach indicating the location of access corridors to the construction site and staging areas. The final plans shall indicate that:

a. No overnight storage of equipment or materials shall occur on sandy beach or public parking spaces at Fletcher Cove. During the construction stages of the project, the permittee shall not store any construction materials or waste where it will be or could potentially be subject to wave erosion and dispersion. In addition, no machinery shall be placed, stored or otherwise located in the intertidal zone at any time, except for the minimum necessary to construct the notch fill. Construction equipment shall not be washed on the beach or in the Fletcher Cove parking lot or access road.

b. Access corridors shall be located in a manner that has the least impact on public access to and along the shoreline.

c. No work shall occur on the beach on weekends, holidays or between Memorial Day weekend and Labor Day of any year.

d. The applicant shall submit evidence that the approved plans/notes have been incorporated into construction bid documents. The staging site shall

be removed and/or restored immediately following completion of the development.

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

7. Storm Design/Certified Plans. **PRIOR TO THE ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT**, the applicant shall submit certification by a registered civil engineer that the proposed shoreline protective devices are designed to withstand storms comparable to the winter storms of 1982-83.

In addition, **within 60 days following construction**, the permittee shall submit certification by a registered civil engineer, acceptable to the Executive Director, verifying the seawall, return walls and reconstructed slope have been constructed in conformance with the approved plans for the project.

8. Future Response to Erosion. If in the future the permittees seek a coastal development permit to construct additional bluff or shoreline protective devices, the permittees will be required to include in the permit application information concerning alternatives to the proposed bluff or shoreline protection that will eliminate impacts to scenic visual resources, recreation and shoreline processes. Alternatives shall include but not be limited to: relocation of all or portions of the principle structure that are threatened, structural underpinning, and other remedial measures capable of protecting the principal structure and providing reasonable use of the property, without constructing bluff or shoreline stabilization devices. The information concerning these alternatives must be sufficiently detailed to enable the Coastal Commission or the applicable certified local government to evaluate the feasibility of each alternative, and whether each alternative is capable of protecting existing structures that are in danger from erosion. No additional bluff or shoreline protective devices shall be constructed on the adjacent public bluff face above the approved seawall or on the beach in front of the proposed seawall unless the alternatives required above are demonstrated to be infeasible. No shoreline protective devices shall be constructed in order to protect ancillary improvements (patios, decks, fences, landscaping, etc.) located between the principal residential structures and the ocean.

9. Future Maintenance. The permittee shall maintain the permitted seawall, return walls and reconstructed slope in its approved state. Maintenance of the seawall and return walls shall include maintaining the color, texture and integrity. Maintenance of the reconstructed slope shall include an assessment of the appearance of the geogrid slope structure. Any change in the design of the project or future additions/reinforcement of the seawall, return walls and/or reconstructed slope beyond exempt maintenance as defined in Section 13252 of the California Code of Regulations to restore the structure to its original condition as approved herein, will require a coastal development permit. **However, in all cases, if after inspection, it is apparent that repair and maintenance**

is necessary, including maintenance of the color of the structures to ensure a continued match with the surrounding native bluffs, the permittee shall contact the Executive Director to determine whether a coastal development permit or an amendment to this permit is legally required, and, if required, shall subsequently apply for a coastal development permit or permit amendment for the required maintenance.

10. Other Permits. **PRIOR TO COMMENCEMENT OF CONSTRUCTION,** the permittee shall provide to the Executive Director copies of all other required local, state or federal discretionary permits for the development authorized by CDP #6-07-134. The applicant shall inform the Executive Director of any changes to the project required by other local, state or federal agencies. Such changes shall not be incorporated into the project until the applicant obtains a Commission amendment to this permit, unless the Executive Director determines that no amendment is legally required.

11. State Lands Commission Approval. **PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT**, the applicants shall submit to the Executive Director for review and written approval, a written determination from the State Lands Commission that:

a) No state lands are involved in the development; or

b) State lands are involved in the development, and all permits required by the State Lands Commission have been obtained; or

c) State lands may be involved in the development, but pending a final determination of state lands involvement, an agreement has been made by the applicant with the State Lands Commission for the project to proceed without prejudice to the determination.

12. Public Rights. The Coastal Commission's approval of this permit shall not constitute a waiver of any public rights that exist or may exist on the property. The permittee shall not use this permit as evidence of a waiver of any public rights that exist or may exist on the property.

13. Assumption of Risk, Waiver of Liability and Indemnity Agreement. By acceptance of this permit, the applicant acknowledges and agrees (i) that the site may be subject to hazards from erosion and coastal bluff collapse; (ii) to assume the risks to the applicant and the property that is the subject of this permit of injury and damage from such hazards in connection with this permitted development; (iii) to unconditionally waive any claim of damage or liability against the Commission, its officers, agents, and employees for injury or damage from such hazards; and (iv) to indemnify and hold harmless the Commission, its officers, agents, and employees with respect to the Commission's approval of the project against any and all liability, claims, demands, damages, costs (including costs and fees incurred in defense of such claims), expenses, and amounts paid in settlement arising from any injury or damage due to such hazards.

14. Best Management Practices. **PRIOR TO THE ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT**, the applicants shall submit for review and written approval of the Executive Director, a Best Management Plan approved by the City of Solana Beach that effectively assures no shotcrete or other construction byproduct will be allowed onto the sandy beach and/or allowed to enter into coastal waters. The Plan shall apply to both concrete pouring/pumping activities as well as shotcrete/concrete application activities. During shotcrete/concrete application specifically, the Plan shall at a minimum provide for all shotcrete/concrete to be contained through the use of tarps or similar barriers that completely enclose the application area and that prevent shotcrete/concrete contact with beach sands and/or coastal waters. All shotcrete and other construction byproduct shall be properly collected and disposed of off-site.

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

15. Other Special Conditions of the City of Solana Beach Permit #17-06-18. Except as provided by this coastal development permit, this permit has no effect on conditions imposed by the City of Solana Beach pursuant to an authority other than the Coastal Act.

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

IV. Findings and Declarations.

The Commission finds and declares as follows:

1. Detailed Project Description. Proposed is the construction of an approximately 170 ft.-long, 35 ft. high, 2 ft.-wide colored and textured concrete tiedback seawall on the public beach below two residential structures on Pacific Avenue in the City of Solana Beach. In addition, the applicant proposes to reconstruct the bluff below

the residences in order to prevent continued upper bluff failures. The reconstructed bluff work involves fill of the bluff area behind the seawall with an erodible concrete material up to approximately 5 ft. above the height of the seawall. The concrete fill will serve as a platform to construct a geogrid soil structure leading to the top of the bluff below the residences and will be landscaped with native plants. The residence at 417 Pacific Avenue is located approximately 12 feet from the edge of the bluff and the residence at 423 Pacific is located approximately 8 feet from the bluff edge. The applicants also propose to pay an in-lieu fee to mitigate the adverse effects of the shoreline protective devices on the local sand supply of $61,164.64 and propose to pay an in-lieu to the City of Solana Beach of $170.000.00 to mitigate the adverse impacts to public access and recreational use.

The residences at 417 and 423 Pacific Avenue were constructed prior to the Coastal Act. In 1997, the property owner at 417 Pacific Avenue received an Emergency Permit to infill the seacave located on the beach below with riprap and concrete (Ref. Emergency Permit #6-97-157-G/Folgner). As a condition of approval, the applicant was required to follow-up the emergency permit with the submission of a regular coastal permit application within 90 days. The follow-up application did not occur until the submission of the completed subject application on April 17, 2008.

On December 13, 2007, the Executive Director authorized an emergency permit for the construction of a 100 ft.-long, 35 ft.-high seawall involving the fill of the seacave area landward of the seawall and limited backfill behind the seawall to elevation 40 ft. MSL with erodible concrete below the residences at 417 and 423 Pacific Avenue (Ref. 6-07-116-G/Burns, Brehmer). Because the emergency permit subsequently expired and the work had not been completed, the Executive Director authorized an additional emergency permit for the seawall construction on May 23, 2008 (Ref. 6-08-55-G/Burns, Brehmer). In addition, on May 27, 2008, the Executive Director authorized an emergency permit for the reconstruction of the bluff face above the 100 ft.-long seawall through the installation of a geogrid soil reinforced structure incorporating the use of soil nails (Ref. 6-07-134-G/Burns, Brehmer). While the 100 ft. of seawall has subsequently been constructed pursuant to the emergency permits, the reconstruction of the bluff face is still under construction. (Since approval of the emergency permits, the "Burns" property at 417 Pacific Avenue has been purchased by James and Kimberly Caccavo.) The subject application request represents the required follow-up regular coastal development permit for the 100 ft.-long seawall, the fill of the seacave, the 5 ft. of concrete backfill behind the seawall and the reconstruction of the bluff face using a geogrid structure. In addition, the subject application involves a request to extend the 100 ft. of seawall by adding 30 feet to the north and 40 ft. to the south.

The proposed project will be located approximately 100 feet south of Tide Beach Park public access stairway and approximately ½ mile to the north of Fletcher Cove, the City's central beach access location. The City of Solana Beach does not yet have a certified LCP. Therefore, the Chapter 3 policies of the Coastal Act are the standard of review.

2. Geologic Conditions and Hazards. Section 30235 of the Coastal Act states, in part:

> Revetments, breakwaters, groins, harbor channels, seawalls, cliff retaining walls, and other such construction that alters natural shoreline processes shall be permitted when required to serve coastal-dependent uses or to protect existing structures or public beaches in danger from erosion, and when designed to eliminate or mitigate adverse impacts on local shoreline sand supply.

In addition, Section 30253 of the Coastal Act states, in part:

> New development shall:
>
> (l) 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...

The proposed project involves the construction of an approximately 170 ft.-long, 35 ft.-high tiedback seawall, concrete infill behind the seawall to a level of approximately 5 ft. above the seawall and the reconstruction of the collapsed bluff using a geogrid reinforced slope that will be planted with native plants. The threatened residential structures on the blufftop are located as close as 8 and 12 ft. from the edge of the bluff.

The applicants' geotechnical reports indicate that the project is required to protect two residential structures threatened by erosion due largely to the mid and upper-bluff failures that have occurred over the last few years resulting from the exposure of a "clean sands" lense below the residences and the expansion of a seacave at the base of the bluff. The applicants' geotechnical report from October 2007 identifies that:

> A rather significant area of the bluff was observed to have failed recently, September 2007, which has further threatened the structures on the sites. The most significant threats to the structures on site are the existence of the sea cave, exposure of the clean sand lense and the ongoing failure occurring in the mid and upper portions of the bluff. It is our professional opinion that the sea cave is near collapse which would be catastrophic to the residential structures located on the bluff top. (Ref: Letter from Soil Engineering Construction, Inc. (SEC) dated October 29, 2007)

In addition, an updated geotechnical letter of May 2, 2008 documents that before the construction of the 100 ft. seawall construction and the fill of the seacave could be completed pursuant to the Executive Director authorized emergency permits (Ref. 6-07-116-G/Burns, Brehmer and 6-08-55-G/Burns, Brehmer), additional upper bluff failures

have occurred as well as the appearance of an approximately ½" fracture along the top edge of the bluff fronting the two residences. (Ref. Letter from SEC dated May 2, 2008)

The applicant's geotechnical reports describe the clean sands lens as being located between the Torrey Sandstone and Marine Terrace deposits at approximately elevation 25-35 ft. Mean Sea Level (MSL). To protect the residences, in addition to the seacave fill, the applicants are proposing to construct a seawall up to 35 ft. MSL which will effectively cover the exposed section of the clean sands lens and prevent collapse of the upper bluff area above the clean sands layer. Above the seawall where the upper bluff has already collapsed, the applicant proposes to reconstruct the bluff area using an erodible concrete fill up to 5 ft. above the seawall and an approximately 35 ft. high geogrid/soil structure up to the top of the approximately 75 ft. high coastal bluff.

According to the Commission's staff geologist, the clean sands lens consists of a layer of sand with a limited amount of capillary tension and a very minor amount of cohesion, which causes the material to erode easily, making this clean sand layer, once exposed, susceptible to wind blown erosion and continued sloughing as the sand dries out and loses the capillary tension that initially held the materials together. Geotechnical reports associated with developments near this site have stated that gentle sea breezes and any other perturbations, such as landing birds or vibrations from low-flying helicopters, can be sufficient triggers of small- or large-volume bluff collapses, since the loss of the clean sands eliminates the support for the overlying, slightly more cemented, terrace deposits.

The presence of this clean sands layer within the bluffs along the Solana Beach shoreline has previously been identified in geotechnical reports submitted in conjunction with seawall, seacave and notch infill projects in Solana Beach (ref. CDP 6-00-9/Del Mar Beach Club, CDP #6-99-100/Presnell, et. al, #6-99-103/ Coastal Preservation Association, #6-00-66/Pierce, Monroe, #6-02-02/Gregg, Santina, #6-02-84/Scism and #6-03-33/Surfsong; #6-04-83, Cumming, Johnson and #6-05-72/Las Brisas). According to the Commission's staff geologist, the typical mechanism of sea cliff retreat along the Solana Beach shoreline involves the slow abrasion and undercutting of the Torrey Sandstone bedrock, which forms the sea cliff at the base of the bluffs, from wave action which becomes more pronounced in periods of storms, high surf and high tides. Other contributing factors to sea cliff retreat include fracturing, jointing, sea cave and overhang collapse and the lack of sand along the shoreline. When the lower sea cliff is undercut sufficiently, it commonly fails in blocks. The weaker terrace deposits are then unsupported, resulting in the collapse of the terrace deposits through circular failures. Such paired, episodic failures eventually result in a reduction in the steepness of the upper bluff, and the landward retreat of the bluff edge. Such retreat may threaten structures at the top of the slope. When failures of the upper bluff have sufficiently reduced the overall gradient of the upper bluff, a period of relative stability ensues, which persists until the lower bluff becomes sufficiently undercut to initiate a block failure once more, triggering a repetition of the entire process.

The mechanism of bluff retreat that occurs in conjunction with the exposure of the clean sands layer is somewhat different than the paired, episodic failure model described above. Because of the cohesionless character of the clean sands, once they are exposed, they continue to slump on an ongoing basis as a result of very small triggers such as traffic vibrations or wind erosion. Continued sloughage results in the further exposure of more clean sand, and ongoing upper bluff collapse. This cycle occurs so quickly (over months or days, rather than years) that the upper bluff may never achieve a stable angle of repose. Unless the base of the bluff is afforded shoreline protection and the clean sands lens is contained, additional bluff failures can further expose the layer of clean sands and result in a potential upper bluff failure and an immediate threat to the structures at the top of the bluff.

According to the Commission's staff geologist, the best regional estimate of historical long-term bluff retreat for Solana Beach is from a FEMA-funded study summarized in Benumof and Griggs (1999). These authors report an average long-term retreat rate of 0.27 ft/yr for the Solana Beach area over the period 1932 - 1994. Episodic erosion events such as sea cave or notch overhang collapses, and erosion related to severe winter storms, can lead to short-term bluff retreat rates well above the long-term average. These short-term retreat rates are inherently included in the estimation of the long-term retreat rate for Solana Beach and, therefore, are included in the methodology used for the in-lieu fee sand replenishment calculations.

While the existing residences are set back from the bluff edge between 8 and 12 feet, the slope stability analysis performed by the applicant's engineer indicates that further collapse of the upper bluff would threaten both residences at the top of the bluff. The factor of safety against sliding along the most likely slide planes were estimated to be at approximately 0.98 for the home at 423 Pacific Avenue and 1.16 for the home at 417 Pacific. In addition, the slope stability analysis in the area between the two homes is identified as a factor of safety of 1.1. (The factor of safety is an indicator of slope stability where a value of 1.5 is the industry-standard value for new development. In theory, failure should occur when the factor of safety drops to 1.0, and no slope should have a factor of safety less than 1.0.) Following construction of the proposed 170 ft.-long seawall, seacave fill and reconstructed slope, the applicant's engineer has demonstrated that the factor of safety for the homes will be at 1.5.

Thus, given the significant bluff collapses that have occurred over the recent years, the potential collapse of the seacave, the presence of the clean sands layer, the extreme erodibility of these sands once exposed, and the low factor of safety on the subject bluffs, substantial evidence has been provided to document that the existing primary blufftop structures are in danger from erosion. However, there are a variety of ways in which the threat from erosion could be addressed. Under the policies of the Coastal Act, the project must eliminate or mitigate adverse effects on shoreline sand supply and minimize adverse effects on public access, recreation, and the visual quality of the shoreline.

Alternatives

One of the geotechnical reports submitted by the applicant includes an alternatives analysis to demonstrate that no other feasible less-environmentally-damaging alternatives exist to address the threats to the structures at the top of the bluff (Ref. "Geotechnical Basis of Design" by TerraCosta Consulting Group, dated 3/3/06). The applicant's engineer has identified that removal or relocation of the residential structures is not feasible or practical because of the expense and/or the lack of available area on the lots to setback the structures so as to not be threatened by the ongoing erosion. Maintenance of the existing seacave fill will also not effectively protect the residences since the upper bluff failures have occurred even with concrete fill of the seacaves. Control of groundwater and irrigation restrictions while recommended by the applicants' representative as a way of reducing bluff sloughage, will not prevent the bluff collapses that occur at the subject site. Underpinning of the existing residences has also been examined by the applicant, however without controlling the ongoing failures, the underpinnings would soon be exposed. In the case of the seawall, the applicant's engineer has also identified that the height of the wall at 35 ft. is the minimum size necessary to protect the toe of the bluff from marine erosion and contain the layer of clean sands which has been determined to be located between 25 ft. and 35 ft. MSL.

In summary, the exposure of the clean sands layer presents a threat of rapid erosion and bluff collapses that must be addressed by a solution that effectively contains the clean sands and affords protection to the residences at the top of the bluff. Given the substantial amount of documented erosion on the site over the last few years, the presence of the clean sands, the extreme erodibility of these sands, and the low factor of safety on the subject bluffs, substantial evidence has been provided to document that the existing primary blufftop structures are in danger from erosion and that the proposed seawall and geogrid reconstructed bluff are necessary to protect the structures at the top of the bluff from the danger of erosion. In addition, the above-described alternatives presented by the applicant do not suggest there is a less-environmentally-damaging feasible alternative. The Commission's staff geologist and coastal engineer have reviewed the applicant's geotechnical assessment of the site along with their alternatives analysis and concur with its conclusions and recommendations. Therefore, the Commission finds that the proposed seawall, return walls and geogrid reconstructed bluff structure are the least environmentally damaging feasible alternative.

Sand Supply/In Lieu Mitigation Fee

Although construction of a seawall is required to protect the existing principle structures on the site, Section 30235 of the Coastal Act requires that the shoreline protection be designed to eliminate or mitigate adverse impacts on local shoreline sand supply. There are a number of adverse impacts to public resources associated with the construction of shoreline protection. The natural shoreline processes referenced in Section 30235, such as the formation and retention of sandy beaches, can be significantly altered by construction of a seawall, since bluff retreat is one of several ways that beach area and beach quality sand is added to the shoreline. This retreat is a natural process resulting

from many different factors such as erosion by wave action causing cave formation, enlargement and eventual collapse, saturation of the bluff soil from ground water causing the bluff to slough off and natural bluff deterioration. When a seawall is constructed on the beach at the toe of the bluff, it directly impedes these natural processes.

Some of the effects of a shoreline protective structure on the beach such as scour, end effects and modification to the beach profile are temporary or difficult to distinguish from all the other actions which modify the shoreline. Seawalls also have non-quantifiable effects to the character of the shoreline and visual quality. However, some of the effects which a structure may have on natural shoreline processes can be quantified. Three of the effects from a shoreline protective device which can be quantified are: 1) loss of the beach area on which the structure is located; 2) the long-term loss of beach which will result when the back beach location is fixed on an eroding shoreline; and 3) the amount of material which would have been supplied to the beach if the back beach or bluff were to erode naturally.

Loss of beach material and loss of beach area are two separate concerns. A beach is the result of both sandy material and a physical area between the water and the back beach. Thus, beach area is not simply a factor of the quantity of sandy beach material. In Solana Beach, the shoreline is a shallow bedrock layer covered by a thin veneer of sand. The bedrock layer provides an area for collection of sandy material. The sand material is important to the overall beach experience, but even without the sand, the bedrock layer provides an area for coastal access between the coastal bluff and the ocean. The loss of beach material that will be a direct result of this project can be balanced or mitigated by obtaining similar quality and quantity of sediment from outside the littoral cell and adding this sediment to the littoral cell. There are sources of beach quality sediment that can be drawn upon to obtain new sediment for the littoral cell. Unfortunately there is not a source of extra beach land that can be used to add new land area to the littoral cell. Beach nourishment is a method that allows us to shift the shore profile seaward and create a new area of dry beach. This will not create new coastal land, but will provide many of the same benefits that will be lost when the beach area is covered by a seawall or "lost" through passive erosion when the back bluff location is fixed.

The volume of sand that is calculated by the Beach Sand In-lieu Fee Mitigation Program currently utilized by the Commission is the quantification of the direct impacts to the existing recreational beach from the proposed seawall project. The mitigation program that has been proposed by the applicant and recommended as a special condition for this project includes quantification of the impacts from wall and infill encroachments, denial of sand to the littoral cell and passive erosion, as discussed herein. The purpose of the Beach Sand In-Lieu Fee Mitigation Program is to mitigate for the small, persistent loss of recreational beach such as will result from the proposed project by placing funds into a program that will be used for placement of sand on the beach in this area. This Beach Sand In-Lieu Fee Mitigation Program is administered by the San Diego Association of Governments (SANDAG) and has been in place in San Diego County for many years.

It is possible to estimate the volume of sand needed to create a given area of dry beach through beach nourishment. The proposed project will result in a loss of 340 sq. ft. of beach due to the long-term physical encroachment of the seawall (based on a 170-foot length and 2- foot width). In addition, there will be 1009.8 sq. ft. of beach area that will no longer be formed because the back of the beach will be fixed (170 ft. x .27 [erosion rate] x 22 [estimated life of the seawall in years]). This 1349.8 sq. ft. of beach area (340 + 1009.8) cannot be directly replaced by land, but a comparable area can be built through the one-time placement of 1,214.82 cubic yards of sand on the beach seaward of the seawall as beach nourishment. Further explanation of this calculation is provided below. Thus, the impact of the seawall on beach area can be quantified as 1,214.82 cubic yards of sand. In addition to the impact on beach area, there is the amount of sand material in the bluff that would have been added to the beach if natural erosion had been allowed to continue at the site, which is calculated to be a volume of 1,858.78 cubic yards. (This figure has already been reduced by 466 cu. yds. to account for the sand already contributed to the beach by the recent bluff failures.) Therefore, the amount of sand necessary to mitigate for the impacts associated with the seawall construction is estimated to be 3,073.60 cubic yards (1,858.78 cy. yds. + 1,214.82 cu. yds.). This estimate is only a "rough approximation" of the impact of the seawall on beach area because a one-time placement of this volume of sand cannot result in creation of beach area over the long term.

Special Condition #3 reflects the applicant's proposal to deposit an in-lieu fee to fund beach sand replenishment of 3,073.60 cubic yards of sand, as mitigation for impacts of the proposed shoreline protective device on beach sand supply and shoreline processes. In the case of the proposed project, the fee calculates to be $61,164.64, based on 3,073.60 cubic yards of sand multiplied by the cost of obtaining a cubic yard of sand, as proposed by the applicants' engineer at $19.90 per cu. yd.

The following is the methodology used by the Commission in developing the in-lieu fee amount. The methodology uses site-specific information provided by the applicant as well as estimates, derived from region-specific criteria, of both the loss of beach material and beach area which could occur over the life of the structure, and of the cost to purchase an equivalent amount of beach quality material and to deliver this material to beaches in the project vicinity.

The following is a description of the methodology:

Fee = (Volume of sand for mitigation) x (unit cost to buy and deliver sand)

$\mathbf{M} = \mathbf{V_t} \times \mathbf{C}$

where **M** = Mitigation Fee

$\mathbf{V_t}$ = Total volume of sand required to replace losses due to the structure, through reduction in material from the bluff, reduction in nearshore area

and loss of available beach area (cubic yards). Derived from calculations provided below.

C = Cost, per cubic yard of sand, of purchasing and transporting beach quality material to the project vicinity ($ per cubic yard). Derived from the average of three written estimates from sand supply companies within the project vicinity that would be capable of transporting beach quality material to the subject beach, and placing it on the beach or in the near shore area.

$$\mathbf{V_t = V_b + V_w + V_e}$$

where

V_b = Volume of beach material that would have been supplied to the beach if natural erosion continued, based on the long-term regional bluff retreat rate, design life of the structure, percent of beach quality material in the bluff, and bluff geometry (cubic yards). This is equivalent to the long-term reduction in the supply of bluff material to the beach resulting from the structure.

V_w = Volume of sand necessary to replace the beach area that would have been created by the natural landward migration of the beach profile without the seawall, based on the long-term regional bluff retreat rate, and beach and nearshore profiles (cubic yards)

V_e = Volume of sand necessary to replace the area of beach lost due to encroachment by the seawall; based on the seawall design and beach and nearshore profiles (cubic yards)

$$\mathbf{V_b} = (S \times W \times L/27) \times [(R\ h_S\mathbf{)} + \mathbf{(h_u}/2 \times (R + (R_{Cu} - \mathbf{R_{cs}})))]$$

where

R = Long-term regional bluff retreat rate (ft./yr.), based on historic erosion, erosion trends, aerial photographs, land surveys, or other accepted techniques. For the Solana Beach area, this regional retreat has been estimated by the applicants' representative to be 0.27 ft./year. The use of any alternative retreat rates must be documented by the applicant and should be the same as the predicted

retreat rate used to estimate the need for shoreline armoring.

L = Design life of armoring without maintenance (yr.) If maintenance is proposed and extends the life of the seawall beyond the initial estimated design life, a revised fee shall be determined through the coastal development permit process.

W = Width of property to be armored (ft.)

h = Total height of armored bluff (ft.)

S = Fraction of beach quality material in the bluff material, based on analysis of bluff material to be provided by the applicant

h_S = Height of the seawall from the base to the top (ft)

h_u = Height of the unprotected upper bluff, from the top of the seawall to the crest of the bluff (ft)

R_{cu} = Predicted rate of retreat of the crest of the bluff, during the period that the seawall would be in place, assuming no seawall were installed (ft/yr). This value can be assumed to be the same as R unless the applicant provides site-specific geotechnical information supporting a different value.

R_{cs} = Predicted rate of retreat of the crest of the bluff, during the period that the seawall would be in place, assuming the seawall has been installed (ft/yr). This value will be assumed to be zero unless the applicant provides site-specific geotechnical information supporting a different value.

NOTE: For conditions where the upper bluff retreat will closely follow the lower bluff, this volume will approach a volume of material equal to the height of the total bluff, the width of the property and a thickness equal to the total bluff retreat that would have occurred if the seawall had not been constructed. For conditions where the upper bluff has retreated significantly and would not be expected to retreat further during the time that the seawall is in place, this volume would approach the volume of material

immediately behind the seawall, with a thickness equal to the total bluff retreat that would have occurred if the seawall had not been constructed.

$\mathbf{V_W} = \mathbf{R} \times \mathbf{L} \times \mathbf{v} \times \mathbf{W}$

where

R = Long-term regional bluff retreat rate (ft./yr.), based on historic erosion, erosion trends, aerial photographs, land surveys, or other accepted techniques. For the Solana Beach area, this regional retreat has been estimated by the applicants' representative to be 0.27 ft./year. The use of any alternative retreat rates must be documented by the applicant and should be the same as the predicted retreat rate used to estimate the need for shoreline armoring.

L = Design life of armoring without maintenance (yr.) If maintenance is proposed and extends the life of the seawall beyond the initial estimated design life, a revised fee shall be determined through the coastal development permit process.

v = Volume of material required, per unit width of beach, to replace or reestablish one foot of beach seaward of the seawall; based on the vertical distance from the top of the beach berm to the seaward limit of reversible sediment movement (cubic yards/ft of width and ft. of retreat). The value of v is often taken to be 1 cubic yard per square foot of beach. In the report, Oceanside Littoral Cell Preliminary Sediment Budget Report" (December 1987, part of the Coast of California Storm and Tide Wave Study, Document #87-4), a value for v of 0.9 cubic yards/square foot was suggested. If a vertical distance of 40 feet is used for the range of reversible sediment movement, v would have a value of 1.5 cubic yards/square foot (40 feet x 1 foot x 1 foot / 27 cubic feet per cubic yard). These different approaches yield a range of values for v from 0.9 to 1.5 cubic yards per square foot. The value for v would be valid for a region, and would not vary from one property to the adjoining one. Until further technical information is available for a more exact value of v, any value within the range of 0.9 to 1.5 cubic yards per square foot could be used by the

applicant without additional documentation. Values below or above this range would require additional technical support.

W = Width of property to be armored (ft.)

$\mathbf{V_e} = \mathbf{E} \times \mathbf{W} \times \mathbf{v}$

where

E = Encroachment by seawall, measured from the toe of the bluff or back beach (ft.)

W = Width of property to be armored (ft.)

v = Volume of material required, per unit width of beach, to replace or reestablish one foot of beach seaward of the seawall, as described above;

The San Diego Association of Governments (SANDAG) has adopted the Shoreline Preservation Strategy for the San Diego region and is currently working on techniques toward its implementation. The Strategy considers a full range of shoreline management tactics, but emphasizes beach replenishment to preserve and enhance the environmental quality, recreational capacity, and property protection benefits of the region's shoreline. Funding from a variety of sources will be required to implement the beach replenishment and maintenance programs identified in the SANDAG Strategy. In this particular case, SANDAG has agreed to administer a program which would identify projects which may be appropriate for support from the beach sand replenishment fund, through input from the Shoreline Preservation Working Group which is made up of representatives from all the coastal jurisdictions in San Diego County. The Shoreline Preservation Working Group is currently monitoring several large scale projects, both in and out of the coastal zone, they term "opportunistic sand projects", that will generate large quantities of beach quality material suitable for replenishing the region's beaches. The purpose of the account is to aid in the restoration of the beaches within San Diego County. One means to do this would be to provide funds necessary to get such "opportunistic" sources of sand to the shoreline.

The applicant is being required to pay a fee in-lieu of directly depositing the sand on the beach, because the benefit/cost ratio of such an approach would be too low. Many of the adverse effects of the seawall on sand supply will occur gradually. In addition, the adverse effects impact the entire littoral cell but to different degrees in different locations throughout the cell (based upon wave action, submarine canyons, etc.) Therefore, mitigation of the adverse effects on sand supply is most effective if it is part of a larger project that can take advantage of the economies of scale and result in quantities of sand at appropriate locations in the affected littoral cell in which it is located. The funds will be used only to implement projects which benefit the area where the fee was derived, and provide sand to the region's beaches, not to fund operations, maintenance or planning studies. Such a fund will aid in the long-term goal of increasing the sand supply and

thereby reduce the need for additional armoring of the shoreline in the future. The fund also will insure available sandy beach for recreational uses. The methodology, as proposed, ensures that the fee is roughly proportional to the impacts to sand supply attributable to the proposed seawall. The methodology provides a means to quantify the sand and beach area that would be available for public use, were it not for the presence of the seawall.

The above-described impacts on the beach and sand supply have previously been found to result from seawalls in other areas of North County. In March of 1993, the Commission approved CDP #6-93-85/Auerbach, et al for the construction of a seawall fronting six non-continuous properties located in the City of Encinitas north of the subject site. In its finding for approval, the Commission found the proposed shoreline protection would have specific adverse impacts on the beach and sand supply and required mitigation for such impacts as a condition of approval. The Commission made a similar finding for several other seawall developments within San Diego County including an August 1999 approval (ref. CDP No. 6-99-100/Presnell, et. al) for the approximately 352-foot-long seawall project located approximately ¼ mile south of the subject development and a March 2003 approval (ref. CDP No. 6-02-84/Scism) located 2 lots south of the subject site. (Also ref. CDP Nos. 6-93-36-G/Clayton, 6-93-131/Richards, et al, 6-93-136/Favero, 6-95-66/Hann, 6-98-39/Denver/Canter and 6-99-41/Bradley; 6-00-138/Kinzel, Greenberg; 6-02-02/Gregg, Santina and 6-03-33/Surfsong, 604-83,Cumming, Johnson and 6-05-72 Las Brisas).

In addition to the adverse impacts the seawall will have on the beach as detailed above, the Commission finds that the proposed seawall could also have adverse impacts on adjacent unprotected properties caused by wave reflection, which leads to accelerated erosion. Numerous studies have indicated that when continuous protection is not provided, unprotected adjacent properties experience a greater retreat rate than would occur if the protective device were not present. This is due primarily to wave reflection off the protective structure and from increased turbulence at the terminus of the seawall. According to James F. Tait and Gary B. Griggs in Beach Response to the Presence of a Seawall (A Comparison of Field Observations) "[t]he most prominent example of lasting impacts of seawalls on the shore is the creation of end scour via updrift sand impoundment and downdrift wave reflection. Such end scour exposes the back beach, bluff, or dune areas to higher swash energies and wave erosion." As such, as the base of the bluff continues to erode on the unprotected adjacent properties, failure of the bluff is likely. Thus, future failures could "spill over" onto other adjacent unprotected properties, prompting requests for much more substantial and environmentally damaging seawalls to protect the residences. This then starts a "domino" effect of individual requests for protection.

According to information contained in the Planners Handbook (dated March 1993), which is included as Technical Appendix III of the Shoreline Preservation Strategy adopted by the San Diego Association of Governments (SANDAG) on October 10, 1993, "[a] longer return wall will increase the magnitude of the reflected wave energy. On a coast where the shoreline is retreating, there will be strong incentives to extend the length

of the return wall landward as adjacent property is eroded, thereby increasing the return wall, and its effects on neighboring property, with time."

The plans for the subject seawall submitted by the applicant do not address the design of the north and south ends of the seawall in terms of how the design will mitigate these known effects. Therefore, Special Condition #1 has been attached which requires the submission of revised final plans that reflect the end design of the proposed seawall. The condition requires that the returns incorporate a design to gradually blend into the adjacent natural bluffs which will help to reduce the turbulence at the end of the wall that can lead to accelerated erosion of adjacent unprotected bluffs.

However, although the proposed seawall must be designed to reduce impacts of the wall on adjacent properties, at best, the impacts can be reduced, but not eliminated. Regardless of whether accelerated erosion will occur on the adjacent unprotected properties, the adjacent bluffs will continue to erode due to the same forces that are causing them to erode currently. As this occurs, more surface area of the feathered edges will be exposed to wave attack leading to increased turbulence and accelerated erosion of the adjacent unprotected bluff. These impacts are particularly problematic in the case of the proposed project, as the seawall will be an isolated structure in a stretch of largely unprotected shoreline.

If the proposed wall were damaged in the future (e.g. as a result of wave action, storms, etc.) it could threaten the stability of the site, which could lead to the need for more bluff alteration. In addition, damage to the seawall could adversely affect the beach by resulting in debris on the beach and/or creating a hazard to the public using the beach. In addition, excessive wear of the seawall could result in the loss of or damage to the color or texture of the seawall resulting in adverse visual impacts (discussed in more detail in a subsequent section of this report). Therefore, in order to find the proposed seawall consistent with the Coastal Act, the Commission finds that the condition of the seawall in its approved state must be maintained for the life of the seawall. Further, in order to ensure that the permittee and the Commission know when repairs or maintenance are required, the permittee must monitor the condition of the seawall annually, for three years and at three-year intervals after that, unless a major storm event occurs. The monitoring will ensure that the permittee and the Commission are aware of any damage to or weathering of the seawall and can determine whether repairs or other actions are necessary to maintain the seawall in its approved state.

Therefore, Special Condition #5 requires the applicant to submit a monitoring report which evaluates the condition and performance of the seawall, return walls, reconstructed slope and overall site stability, and submit an annual report with recommendations, if any, for necessary maintenance, repair, changes or modifications to the project. In addition, the condition requires the applicant to perform the necessary repairs through the coastal development permit process.

Special Condition #8 requires that feasible alternative measures must be implemented on the applicant’s blufftop property in the future, should additional stabilization be required, which would avoid additional alteration of the natural landform of the public beach or coastal bluffs, but would reduce risk to the principle residential structures and provide

reasonable use of the property. The condition will ensure that future property owners will be aware that any future proposals for additional shoreline protection, such as upper bluff stabilization, will require an alternative analysis similar to one required for the subject project. If there are feasible alternatives to shoreline protection that would have less impact on visual quality, sand supply, or public access, the Commission (or, where applicable, the City of Solana Beach after the effective certification of its Local Coastal Program) will require implementation of those alternatives. The condition also states that no shore or bluff protection shall be permitted for ancillary improvements located within the blufftop setback area. Through this condition, the property owner is required to acknowledge the risks inherent in the subject property and that there are limits to the structural protective measures that may be permitted on the adjacent public property in order to protect the existing development in its current location.

Special Condition #1 requires the applicant to submit final plans for the project indicating that the seawall conforms to the bluff contours, details the design of the return wall and reconstructed bluff area and that demonstrate that any existing irrigation systems on the blufftop have been removed, as these would impact the ability of the seawall and other shoreline protection devices to adequately stabilize the site. In addition, Special Condition #2 requires the applicant to submit final landscape plans documenting the use of native, drought-tolerant or non-invasive plants in the reconstructed bluff areas. Submission of final plans will ensure that overall site conditions which could adversely impact the stability of the bluff have been addressed.

Special Condition #9 notifies the applicants that they are responsible for maintenance of the herein approved shore and bluff protection. The condition also indicates that, should it be determined that maintenance of the proposed structures are required in the future, including maintenance of the color and texture, the applicant shall contact the Commission to determine if permits are required.

To assure the proposed shore/bluff protection has been constructed properly, Special Condition #7 has been proposed. This condition requires that, within 60 days of completion of the project, as built-plans and certification by a registered civil engineer be submitted that verifies the proposed seawall has been constructed in accordance with the approved plans.

Special Conditions #10 requires the applicants to submit a copy of any required permits from other local, state or federal agencies to ensure that no additional requirements are placed on the applicants that could require an amendment to this permit.

Also, due to the inherent risk of shoreline development, Special Condition #13 requires the applicants to waive liability and indemnify the Commission against damages that might result from the proposed shoreline devices or their construction. The risks of the proposed development include that the proposed shoreline devices will not protect against damage to the residences from bluff failure and erosion. In addition, the structures themselves may cause damage either to the applicants' residence or to neighboring properties by increasing erosion of the bluffs. Such damage may also result

from wave action that damages the seawall. Although the Commission has sought to minimize these risks, the risks cannot be eliminated entirely. Given that the applicants have chosen to construct the proposed shoreline devices despite these risks, the applicants must assume the risks. Special Condition #16 requires the applicant to record a deed restriction imposing the conditions of this permit as covenants, conditions and restrictions on the use and enjoyment of the property. Only as conditioned can the proposed project be found consistent with Sections 30235 and 30253 of the Coastal Act.

In summary, the applicants have documented that the existing blufftop primary residential structures are in danger from erosion and subsequent bluff collapse. In addition, even with the construction of the seawall, the upper bluff will continue to erode and soon will threaten the blufftop home(s). Thus, the return walls, backfill and reconstructed bluff area using a geogrid/soil structure are also necessary to assure full protection for the existing blufftop residences. As conditioned, there are no other less damaging alternatives available to reduce the risk from bluff erosion. Thus, the Commission is required to approve the proposed protection for the residential structures. Since the proposed seawall will contribute to erosion and geologic instability over time and also deplete sand supply, occupy public beach and fix the back of the beach, Special Condition #3 requires the applicants to pay an in-lieu mitigation fee to offset this impact. Therefore, as conditioned, the Commission finds that the proposed seawall is consistent with Sections 30235 and 30253 of the Coastal Act.

3. Public Access/Recreation. In addition to the adverse impacts on local sand supply, shoreline protective devices also have significant adverse impacts to public access and recreation. Coastal Act Section 30604(c) requires that every coastal development permit issued for any development between the nearest public road and the sea "shall include a specific finding that the development is in conformity with the public access and public recreation policies of [Coastal Act] Chapter 3." The proposed project is located seaward of the first through public road, on the beach. Coastal Act Sections 30210 through 30213, as well as Sections 30220 and 30221 specifically protect public access and recreation, and state:

> **Section 30210:** In carrying out the requirement of Section 4 of Article X of the California Constitution, maximum access, which shall be conspicuously posted, and recreational opportunities shall be provided for all the people consistent with public safety needs and the need to protect public rights, rights of private property owners, and natural resource areas from overuse.
>
> **Section 30211:** Development shall not interfere with the public's right of access to the sea where acquired through use or legislative authorization, including, but not limited to, the use of dry sand and rocky coastal beaches to the first line of terrestrial vegetation.
>
> **Section 30212(a):** Public access from the nearest public roadway to the shoreline and along the coast shall be provided in new development projects…

> **Section 30213:** Lower cost visitor and recreational facilities shall be protected, encouraged, and, where feasible, provided. Developments providing public recreational opportunities are preferred. …
>
> **Section 30220:** Coastal areas suited for water-oriented recreational activities that cannot readily be provided at inland water areas shall be protected for such uses.
>
> **Section 30221:** Oceanfront land suitable for recreational use shall be protected for recreational use and development unless present and foreseeable future demand for public or commercial recreational activities that could be accommodated on the property is already adequately provided for in the area.

Coastal Act Section 30240(b) also protects parks and recreation areas such as Fletcher Cove Beach Park. Section 30240(b) states:

> **Section 30240(b).** Development in areas adjacent to environmentally sensitive habitat areas and parks and recreation areas shall be sited and designed to prevent impacts which would significantly degrade those areas, and shall be compatible with the continuance of those habitat and recreation areas.

The project site is located on a public beach utilized by local residents and visitors for a variety of recreational activities such as swimming, surfing, jogging, walking, surf fishing, beachcombing and sunbathing. The site is located 100 ft. south of the Tide Beach Park public access stairway and approximately ½ mile north of Fletcher Cove, the City's main beach access location. The proposed seawall will be constructed on sandy beach area that is currently available to the public and will have both immediate and long-term adverse impacts on public access and recreational opportunities.

Although the proposed seawall has been designed to be as narrow as feasible, it will project approximately 2 feet seaward of the toe of the bluff. In addition, although the seaward encroachment of the wall appears at first glance to be minimal, the beach along this area of the coast is narrow and at high tides and winter beach profiles, the public may be forced to walk virtually at the toe of the bluff or the area could be impassable. As such, an encroachment of any amount, including 2 feet for a length of 170 feet onto the sandy beach, reduces the small beach area available for public use and is therefore a significant adverse impact. This is particularly true given the existing beach profiles and relatively narrow beach where access is sometimes only available at low tides. In addition, however, were it not for the seawall, the seaward face of the bluff would naturally recede making additional beach area available for public use. During the 22 year life of the seawall, as the beach area available to the public is reduced, dry sandy beach will become less available seaward of the seawall such that beachgoers will not want to sit or lay a towel in this area. In addition, over time as the surrounding unprotected bluffs recede, the seawall structure along with others constructed to the south will likely impede or completely eliminate public access to the beach south of Tide Beach Park at the subject site.

As explained in Section 2 of this report, the proposed seawall will result in the encroachment and the fixing of the back beach, which will result in the immediate loss of 340 square feet of beach and after 22 years with no recession of the bluff will result in the loss of a total approximately 1,258 square feet of public beach. The sand that would have reached the beach were it not for the proposed seawall is generally mitigated by the applicant's proposal to pay an in-lieu fee for the purchase of an equal amount of sand for future placement. However, the loss of this approximately 1,258 sq. ft. of recreational area is not mitigated by the one-time placement of sand since that area will not be available for public use (or placement of sand) over the estimated 22 year life of the seawall. Since any loss of public beach area will significantly affect public access and recreational opportunities along the beach adjacent Tide Beach Park, additional mitigation is required.

Development along the shoreline which may burden public access in several respects has been approved by the Commission. However, when impacts can't be avoided and have been reduced to the maximum extent feasible, mitigation for any remaining adverse impacts of the development on access and public resources is always required. The Commission's permit history reflects the experience that development can physically impede public access directly, through construction adjacent to the mean high tide line in areas of narrow beaches, or through the placement or construction of protective devices seawalls, rip-rap, and revetments. Since physical impediments adversely impact public access and create private benefit for the property owners, the Commission has found in such cases (in permit findings of CDP #4-87-161,Pierce Family Trust and Morgan; CDP #6-87-371, Van Buskirk; CDP #5-87-576, Miser and Cooper; CDP 3-02-024, Ocean Harbor House; and 6-05-72, Las Brisas) that a public benefit must arise through mitigation conditions in order that the development will be consistent with the access policies of the Coastal Act, as stated in Sections 30210, 30211, and 30212.

Appropriate mitigation for the subject development would be creation of additional public beach area in close proximity to the impacted beach area. However, all of the beach areas in Solana Beach are already in public ownership such that there is not private beach area available for purchase. In addition to the more qualitative social benefits of beaches (recreational, aesthetic, habitat values, etc.), beaches provide significant direct and indirect revenues to local economies, the state, and the nation. There is little doubt that the loss of 1,258 sq. ft. of sandy beach in an urban area such as Solana Beach represents a significant impact to public access and recreation, including a loss of the social and economic value of this recreational opportunity. The question becomes how to adequately mitigate for these qualitative impacts on public recreational beach use and in particular, how to determine a reasonable value of this impact to serve as a basis for mitigation.

In the past ten to fifteen years, the Commission has approved the construction of shoreline devices in San Diego County when they are necessary to protect an existing primary structure and when mitigation is provided according to a formula that the Commission developed to address some of the more easily quantifiable effects on local sand supply, as required by Section 30235 of the Coastal Act. In each of those decisions,

the Commission recognized that the mitigation in the form of an in-lieu fee paid for the purchase of sand to offset the sand lost by the shoreline structure, provided some, but not all mitigation, associated with the adverse impacts of shoreline devices.

In recent years, the Commission has sought additional ways to quantify the adverse impacts to public access and recreation that result from shoreline protective devices and, thereby, develop more appropriate mitigation for those impacts. However, except in a few cases, the Commission has been unable to adequately quantify those impacts and thus has been unable to accurately evaluate the economic loss to public access/recreation associated with necessary shoreline protection projects.

In 2005, the Commission contracted with Dr. Phillip King, Chair of the Economics Department at San Francisco State University, to perform an economic analysis of the loss of recreational values associated with a seawall located adjacent to Fletcher Cove Beach Park approximately ½ mile south of the subject site (Ref. CDP #6-04-92/Las Brisas). Since that time, Commission staff have attempted to use Dr. King's study as a basis for evaluating the subject site, but because the character of the beach at Fletcher Cove is different in terms of accessibility, number of users and width of beach, and several other variables, staff has concluded Dr. King's study cannot be used as basis for determining impacts to the subject site. For instance, Dr. King estimated the number of beach users at Fletcher Cove on what he described as a "flawed" parking study for the Fletcher Cove parking lot. He also identified that most the beachgoers place their towels no further than 150 ft. from the Fletcher Cove access ramp. Since these numbers are the only known figures for beach attendance in Solana Beach and are based on a "flawed" parking study and, according to his report, those beach users generally do not go beyond 150 ft. from Fletcher Cove, his report was deemed insufficient for use on the subject seawall project where most users likely use the Tide Beach public access stairway. In addition, the City does not have attendance records for beach use at Tide Beach Park or elsewhere along the shoreline.

However, as a filing requirement for seawall applications, applicants have recently been asked to address the adverse impacts of shoreline devices on public access and recreation opportunities and to consider ways those impacts could be mitigated. Mitigation might be in the form of particular public access or recreational improvement to be located in close proximity to the project or might involve an in-lieu fee to be used sometime in the future for a public access/recreation improvement. To address this issue, the subject applicants are proposing to utilize an in-lieu fee program recently adopted by the City of Solana Beach that addresses impacts of shoreline devices on public access/recreation and on sand supply which, in the case of the proposed 170 ft.-long seawall, will result in the initial payment of $170,000.00 over an approximately 73 year period ($1000.00 per lineal foot). In addition, the fee is subject to modification following completion of a City funded study to determine more precisely the economic loss associated with the construction of protective devices along the Solana Beach shoreline. According to the City, the economic study is estimated to be completed in 2009.

In June of 2007, the City of Solana Beach adopted an interim in-lieu fee program to mitigate the adverse impacts associated with shoreline devices (Ref. Resolution 2007-042, City of Solana Beach). The program has been designed as "interim" in that until the City completes an economic study that more precisely determines the economic costs, the ultimate costs to the property are unknown. As such, the City's program requires that a $1,000.00 per lineal foot fee be assessed in the interim and requires an applicant to agree to modifications to the fee once the economic study is complete and a more site specific fee is assessed. In the case of the proposed development, the City approved a Conditional Use Permit and as a condition of approval of that permit, required the applicant to pay $1000.00 per lineal foot of the shoreline device (seawall) so as to mitigate the adverse impacts to public access, recreational use and sand supply resulting from the seawall construction. In addition the City approval required the applicant to agree to a future modification of that fee following the approval of the City's economic study. According to the City's program, the monies collected through the mitigation program will be directed for City use for public access and recreational projects. The applicant has proposed payment into the City's program as mitigation for adverse impacts of the proposed development on public access and recreation.

As previously identified, the proposed seawall, return walls, and reconstructed slope will have adverse impacts to public access and recreational opportunities which must be mitigated. Since the site specific information is not currently available to assess those impacts, but is anticipated to be available following completion of the City's economic study, in this particular case, the Commission is accepting the applicant's proposal to mitigate the identified adverse impacts on public access and recreation associated with the proposed 170- ft. long seawall project through the initial payment of $170,000.00 to the City of Solana Beach and requiring that the applicant provide the Commission with evidence that this fee has actually been paid.

The City of Solana Beach has submitted a draft Local Coastal Program (LCP) to the Commission which is anticipated to be reviewed by the Commission sometime later in 2008. The City's mitigation program to address loss of sand and public access/recreation is included as part of the LCP submittal, which the Commission will evaluate when it reviews the City's draft LCP. The Commission's acceptance, in this case, of the applicant's proposed mitigation for the loss of public access and recreational opportunities associated with the subject seawall should not be seen as Commission approval of the City's mitigation plan or of the City's economic study, as that plan is not in front of the Commission for evaluation at this time. Instead, due to the lack of sufficient information concerning the economic loss to public access/recreation from the proposed seawall, the Commission agrees to accept the applicant's proposal, and requires it to pay the City's interim fee, until such time that the City completes its economic study and a more accurate economic loss evaluation can be determined. In order to ensure that any subsequent modification of this mitigation fee is consistent with the Chapter 3 policies of the Coastal Act, the Commission imposes Special Condition #4, requiring the applicants to submit an application for an amendment to this permit to the Commission if the final mitigation fee imposed by the City is different than the proposed $170,000 interim fee. The appropriateness of any reduction in the fee amount will be addressed by

the Commission at that time to assure compliance with the Coastal Act and the City's LCP if certified.

It is anticipated that the City's economic study will provide information such as number of beach users throughout the year, what the economic value of a "day at the beach" is, quantification of beach area lost over time and other information which can assist the Commission to more accurately estimate the economic loss associated with seawall devices. However, while the Commission is accepting payment into the City's program with this application, the Commission has not yet had the opportunity to review and address the City's mitigation program as a whole in the context of the LCP and as such, makes it clear that in approving the applicant's proposed mitigation, the Commission is not approving the City's interim ordinance or the findings of the as yet unfinished economic study.

This stretch of beach has historically been used by the public for access and recreation purposes. Special Condition #12 acknowledges that the issuance of this permit does not waive the public rights that may exist on the property. The seawall may be located on State Lands property, and as such, Special Condition #11 requires the applicant to obtain any necessary permits or permission from the State Lands Commission to perform the work.

In addition, the use of the beach or public parking areas for staging of construction materials and equipment can also impact the public's ability to gain access to the beach. While the applicant has not submitted a construction staging and material storage plan for the subject development, it is likely that beach access to the site will occur via Fletcher Cove which is located approximately ½ mile south of the subject site. Because the applicant has not identified the location of the staging and storage area, Special Condition #6 has been attached to mitigate the impact on public parking areas and public access. Special Condition #6 prohibits the applicant from storing vehicles on the beach overnight, using any public parking spaces within Fletcher Cove overnight for staging and storage of equipment, and prohibits washing or cleaning construction equipment on the beach or in the parking lot. The condition also prohibits construction on the beach during weekends and holidays and during the summer months (between Memorial Day to Labor Day) of any year.

With Special Conditions that require mitigation for the adverse impacts to public access and recreation, maximum public access during construction and authorization from the State Lands Commission, impacts to the public will be minimized to the greatest extent feasible. Thus, as conditioned, the Commission finds the project consistent with the public access and recreation policies of the Coastal Act.

4. Visual Resources/Alteration of Natural Landforms. Section 30240 (b) of the Coastal Act is applicable and states:

> (b) Development in areas adjacent to environmentally sensitive habitat areas and parks and recreation areas shall be sited and designed to prevent impacts which

> would significantly degrade those areas, and shall be compatible with the continuance of those habitat and recreation areas.

In addition, Section 30251 of the Coastal Act states, in part:

> The scenic and visual qualities of coastal areas shall be considered and protected as a resource of public importance. Permitted development shall be sited and designed to protect views to and along the ocean and scenic coastal areas, to minimize the alteration of natural land forms, to be visually compatible with the character of surrounding areas, and, where feasible, to restore and enhance visual quality in visually degraded areas . . .

As stated above, the proposed development will occur on the face of a coastal bluff and on the public beach. The bluff face on either side of the proposed seawall remains in its natural state although lower notches at the base of the bluff have been filled with colored and textured concrete approximately 75 to 100 ft. north of the site and adjacent to the south side of the proposed seawall. The proposed 170 ft.-long, 35 ft.-high concrete seawall, approximately 5 ft. high erodible concrete backfill and reconstruction of the bluff face with a geogrid structure has the potential for adverse impacts on visual resources of the existing natural bluffs. Following construction, the natural appearance of the bluffs will be substantially altered. To mitigate the visual impacts of the proposed seawall, the applicant proposes to color and texture the seawall and vegetate the reconstructed bluff. The visual treatment proposed is similar to the visual treatment approved by the Commission in recent years for shoreline devices along the Solana Beach shoreline. (ref. CDP #6-02-84/Scism; 6-02-02/Gregg, Santina; 6-03-33/Surfsong; 6-04-83/Johnson, Cumming). The technology in design of seawalls has improved dramatically over the last two decades. Today seawalls typically involve sculpted and colored concrete that upon completion closely mimic that natural surface of the lower bluff face. In the case of the subject seawall request, the specific design methods for coloring and texturing the seawall have not as yet been submitted. It is also not clear whether the concrete backfill is also proposed to be colored and textured to closely match the natural bluff. Therefore, Special Condition #1 requires the submittal of detailed plans, color samples, and information on construction methods and technology for the surface treatment of the seawall and backfill structures.

In addition, to address other potential adverse visual impacts, Special Conditions Nos. 5 and 9 have been attached which require the applicant to monitor and maintain the proposed seawall, concrete backfill and upper bluff geogrid structure in their approved state. In this way, the Commission can be assured that the proposed structures will be maintained so as to effectively mitigate their visual prominence.

Therefore, as conditioned, the Commission finds that potential visual impacts associated with the proposed development have been reduced to the maximum extent feasible and the proposed development will include measures to prevent impacts that would significantly degrade the adjacent park and recreation area (beach area). Thus, the project can be found consistent with Sections 30240 and 30251 of the Coastal Act.

5. Protection of Ocean Waters/BMP's. Section 30230, 30231 and 30232 of the Coastal Act require that new development be designed so that ocean waters and the marine environment be protected from polluted runoff and accidental spill of hazardous substances:

Section 30230

Marine resources shall be maintained, enhanced, and where feasible, restored. Special protection shall be given to areas and species of special biological or economic significance. Uses of the marine environment shall be carried out in a manner that will sustain the biological productivity of coastal waters and that will maintain healthy populations of all species of marine organisms adequate for long-term commercial, recreational, scientific, and educational purposes.

Section 30231

The biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain optimum populations of marine organisms and for the protection of human health shall be maintained and, where feasible, restored through, among other means, minimizing adverse effects of waste water discharges and entrainment, controlling runoff, preventing depletion of ground water supplies and substantial interference with surface water flow, encouraging waste water reclamation, maintaining natural vegetation buffer areas that protect riparian habitats, and minimizing alteration of natural streams.

Section 30232

Protection against the spillage of crude oil, gas, petroleum products, or hazardous substances shall be provided in relation to any development or transportation of such materials. Effective containment and cleanup facilities and procedures shall be provided for accidental spills that do occur.

The construction of the proposed seawall will occur on the public beach within a few feet of ocean waters. Construction activities will only occur at low tides when access along the beach is available. However, at high tides ocean waters will extend up to the face of the seawall such that the seawall at times will be subject to wave action. The method of construction of the seawall involves the multiple application of shotcrete that is sprayed (at high pressure) over the face of the seawall structure. This shotcrete material will eventually be sculpted and colored to closely match the appearance of the natural bluffs. According to the engineers for similar seawall projects in Solana Beach, approximately 10 to 15% of this shotcrete (concrete) material rebounds off the structure onto the beach as it is being applied. Because the material is wet, the applicant's representative indicates it cannot be picked up until it hardens. The Commission is aware that in previously constructed seawalls along the Solana Beach shoreline, this shotcrete "rebound" has not

be removed before the ocean waters rise and mix with the wet shotcrete material. After the return of low tides, any remaining hardened shotcrete is then picked up by the construction crews and removed from the beach. According to the Commission's water quality division and staff of the State Regional Water Quality Control Board, San Diego Region, the mixing of this rebound shotcrete with ocean waters is a violation of the State Water Quality Act since it would involve the unauthorized discharge of a pollutant into ocean waters.

Along other sections of the coast, shotcrete is applied without the associated rebound problems. Contractors place tarps on the beach to collect material that drops from the wall. They also use backdrops or drapes along the face of the bluff to contain splatter and rebound and prevent scatter of shotcrete material all around the beach. These and other techniques are possible ways to control shotcrete debris and prevent discharge into the marine environment.

Special Condition #6 is attached which requires that during the construction of the project, "the permittee shall not store any construction materials or waste where it will be or could potentially be subject to wave erosion and dispersion". This is a standard requirement for all seawall projects approved by the Commission. However, based on information supplied by the applicant's engineer, this special condition has not effectively served to prohibit the contamination of ocean waters by rebounded shotcrete. To assure that the subject development will not result in the pollution of the ocean waters, Special Condition #14 has been attached. Special Condition #14 requires the applicant to submit a Polluted Runoff Control Plan that incorporates structural and nonstructural Best Management Practices (BMPs), for Executive Director approval, for the construction of the proposed seawall. Construction methods must be devised to assure this rebound shotcrete material does not mix with or pollute ocean waters. With appropriate BMPs, the potential for this polluted material from the site making its way into the ocean will be eliminated. Therefore, as conditioned, the Commission finds the proposed development consistent with the marine and water quality protection policies of the Coastal Act.

6. Local Coastal Planning. Section 30604(a) also requires that a coastal development permit shall be issued only if the Commission finds that the permitted development will not prejudice the ability of the local government to prepare a Local Coastal Program (LCP) in conformity with the provisions of Chapter 3 of the Coastal Act. In this case, such a finding can be made.

The subject site was previously in the County of San Diego jurisdiction, but is now within the boundaries of the City of Solana Beach. The City is preparing and plans to submit a new LCP for the area to the Commission for review. Because of the incorporation of the City, the County of San Diego's LCP never became effectively certified. However, the issues regarding protection of coastal resources in the area have been addressed by the Commission in its review of the San Diego County LUP and Implementing Ordinances.

The City of Solana Beach has prepared a draft LCP. In preparation of its LCP, the City of Solana Beach is faced with many of the same issues as the City of Encinitas, located immediately north of Solana Beach, whose LCP was certified by the Commission in March 1995. The City of Encinitas' LCP includes the intent to prepare a comprehensive plan to address the coastal bluff recession and shoreline erosion problems in the City. The plan will include at a minimum, bluff top setback requirements for new development and redevelopment; alternatives to shore/bluff protection such as beach sand replenishment, removal of threatened portions of a residence or the entire residence or underpinning existing structures; addressing bluff stability and the need for protective measures over the entire bluff (lower, mid and upper); impacts of shoreline structures on beach and sand area as well as mitigation for such impacts; impacts for groundwater and irrigation on bluff stability and visual impacts of necessary/required protective structures.

The City of Solana Beach LCP should also address these items in the context of a comprehensive approach to management of shoreline resources. As shoreline erosion along the coast rarely affects just one individual property, it is imperative that a regional solution to the shoreline erosion problem be addressed and solutions developed to protect the beaches. Combined with the decrease of sand supply from coastal rivers and creeks, armoring of the coast will continue to erode beaches without their being replenished. This will, in turn, decrease the public's ability to access and recreate on the shoreline.

As previously described, the draft LCP prepared by the City includes provisions for mitigating the adverse impacts of seawalls on public access, recreational use and sand supply. The Commission has not yet reviewed or approved the City's draft LCP. Therefore, the Commission's acceptance of the applicant's proposed mitigation for the loss of public access and recreational opportunities associated with the subject seawall should not be seen as Commission approval of the City's mitigation plan or of the City's economic study.

In the case of the proposed project, site-specific geotechnical evidence has been submitted indicating that the existing structures at the top of the bluff are in danger. The Commission feels strongly that approval of the proposed project should not send a signal that there is no need to address a range of alternatives to armoring for existing development. Planning for comprehensive protective measures should include a combination of approaches including limits on future bluff development, ground and surface water controls, and beach replenishment. Although the erosion potential on the subject site is such that action must be taken promptly, decisions regarding future shoreline protection should be done through a comprehensive planning effort that analyzes the impact of such a decision on the entire City shoreline.

The location of the proposed seawall, seacave fill and geogrid structure is designated for Open Space Recreation in the City of Solana Beach Zoning Ordinance and General Plan, and was also designated for open space uses under the County LCP. As conditioned, the subject development is consistent with these requirements. Based on the above findings, the proposed development is consistent with the Chapter 3 policies of the Coastal Act in

that the need for the shoreline protective devices has been documented and its adverse impacts on beach sand supply and on adjacent unprotected properties will be mitigated.

Therefore, the Commission finds the proposed development, as conditioned, is consistent with the Chapter 3 policies of the Coastal Act, and will not prejudice the ability of the City of Solana Beach to complete a certifiable local coastal program. However, these issues of shoreline planning will need to be addressed in a comprehensive manner in the future through the City's LCP certification process

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

The proposed project has been conditioned in order to be found consistent with the water quality, geologic stability, visual quality, and public access and recreation policies of the Coastal Act. Mitigation measures, including conditions addressing payment of an in-lieu fee for impacts to sand supply, requirements for minimizing impacts to public access and recreation, monitoring and maintenance of the structures over the lifetime of the project, color of construction materials, timing of construction and the use of BMP's will minimize all adverse environmental impacts. As conditioned, there are no feasible alternatives or feasible mitigation measures available which would substantially lessen any significant adverse impact which the activity may have on the environment. Therefore, the Commission finds that the proposed project is the least environmentally-damaging feasible alternative and is consistent with the requirements of the Coastal Act to conform to CEQA.

STANDARD CONDITIONS:

1. Notice of Receipt and Acknowledgment. The permit is not valid and development shall not commence until a copy of the permit, signed by the permittee or authorized agent, acknowledging receipt of the permit and acceptance of the terms and conditions, is returned to the Commission office.

2. Expiration. If development has not commenced, the permit will expire two years from the date on which the Commission voted on the application. Development shall be pursued in a diligent manner and completed in a reasonable period of time. Application for extension of the permit must be made prior to the expiration date.

3. Interpretation. Any questions of intent or interpretation of any condition will be resolved by the Executive Director or the Commission.

4. Assignment. The permit may be assigned to any qualified person, provided assignee files with the Commission an affidavit accepting all terms and conditions of the permit.

5. Terms and Conditions Run with the Land. These terms and conditions shall be perpetual, and it is the intention of the Commission and the permittee to bind all future owners and possessors of the subject property to the terms and conditions.

(\\Tigershark1\Groups\San Diego\Reports\2007\6-07-134 Brehmer, Caccavo.doc)

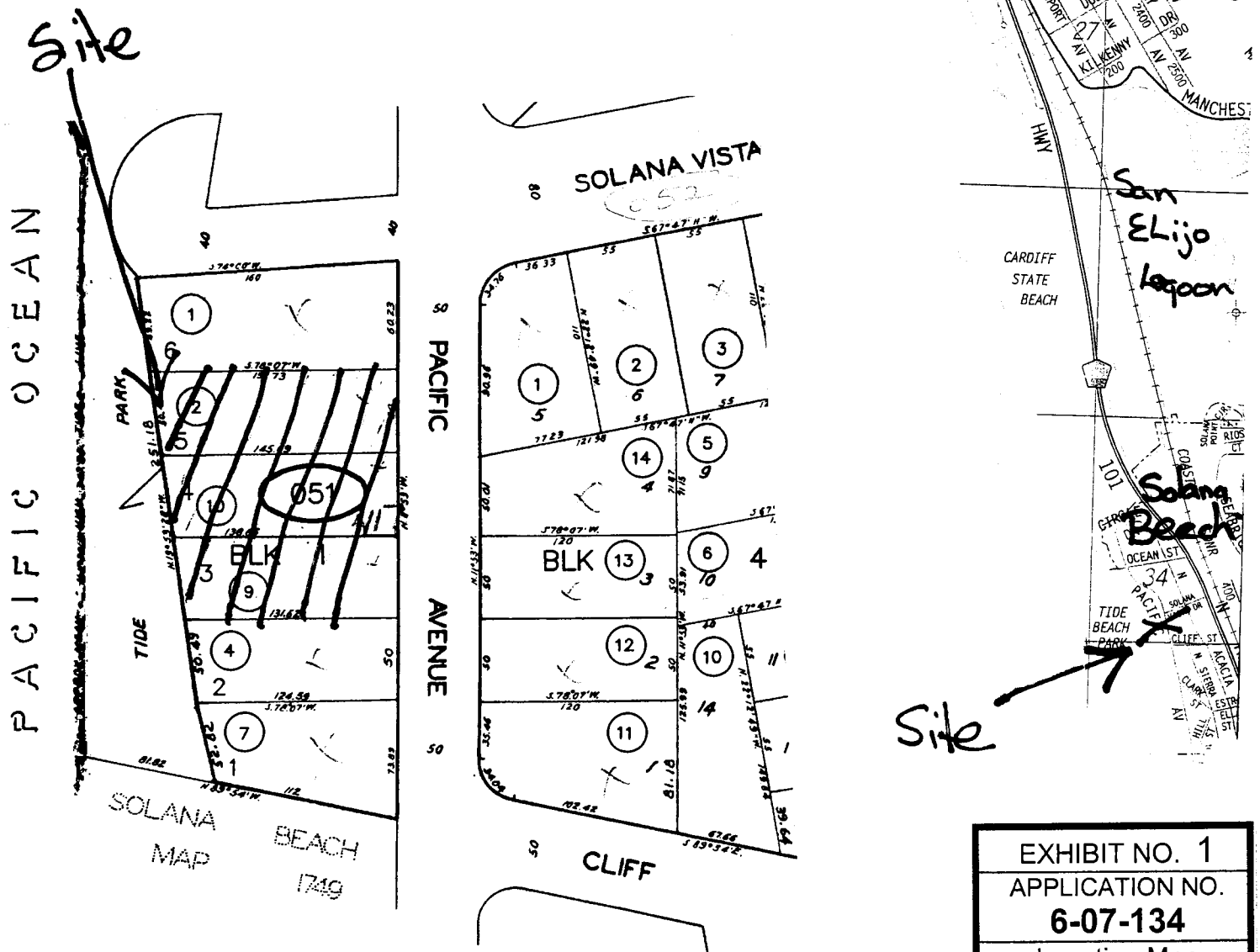


EXHIBIT NO. 1
APPLICATION NO. **6-07-134**
Location Map
California Coastal Commission

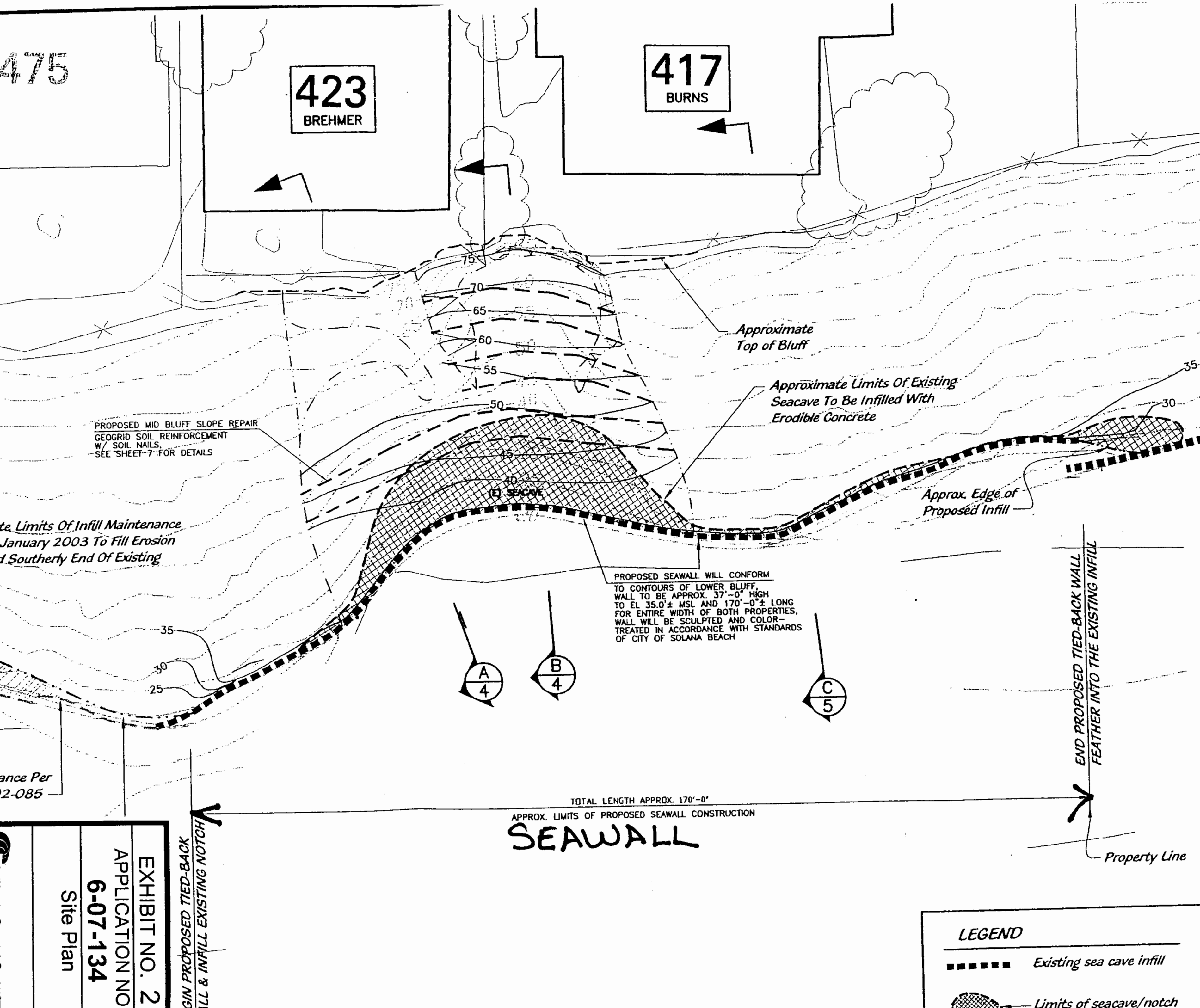


EXHIBIT NO. 2
APPLICATION NO
6-07-134
Site Plan

SITE PLAN– PROPOSED IMPROVEMENTS

EPAIRS TO COASTAL LUFF

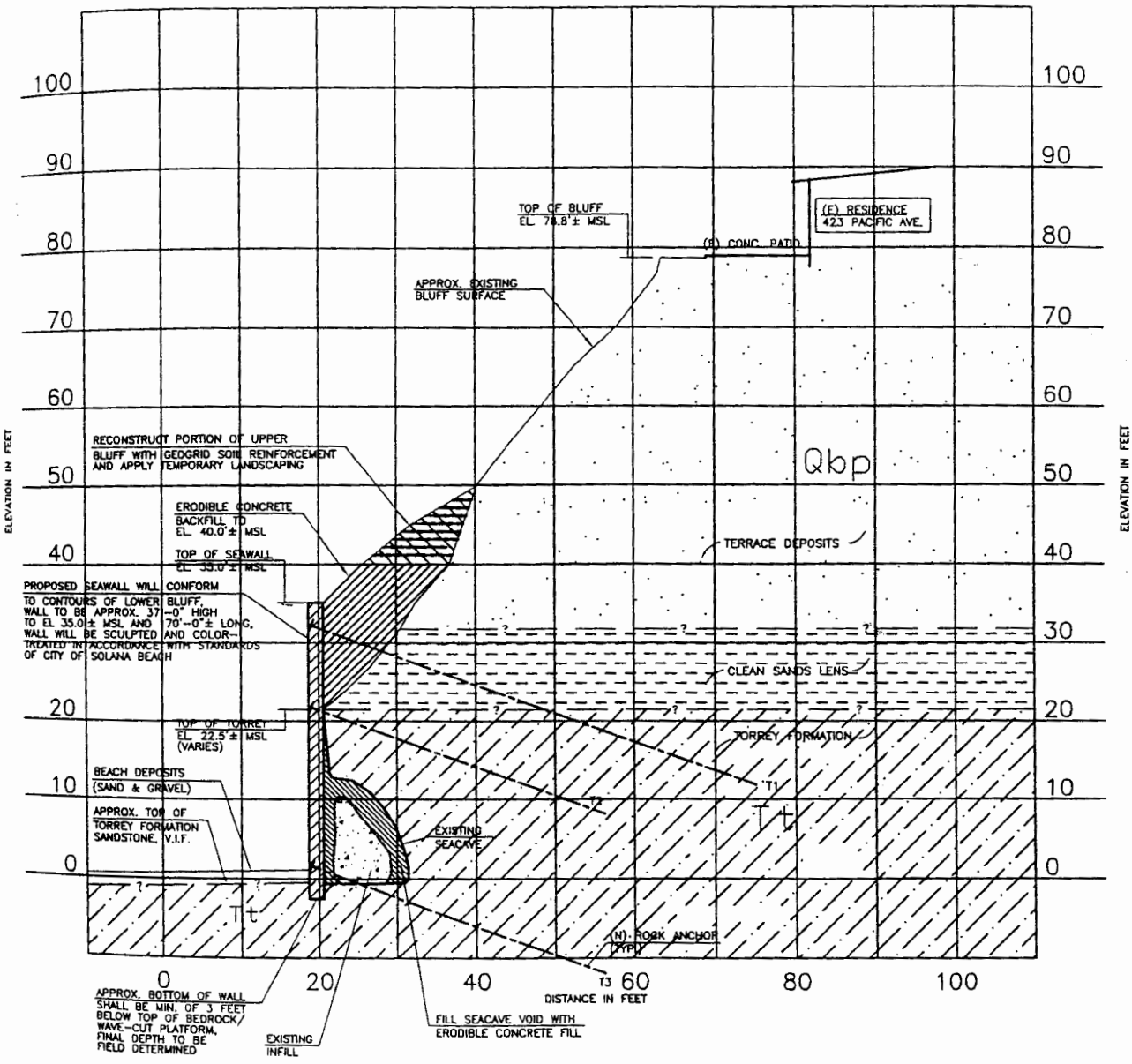
R. BRAD BURNS, 417 PACIFIC AVENUE, SOLANA BEACH, CALIFORNIA

SOIL ENGINEERING CONSTRUCTION

SOIL ENGINEERING CONSTRUCTION, INC.

REGISTERED PROFESSIONAL R.D. MAHONY No. C. 16459 No. GE 554 EXP. 6-30-09 CIVIL & GEOTECHNICAL STATE OF CALIFORNIA

LOOKING NORTH



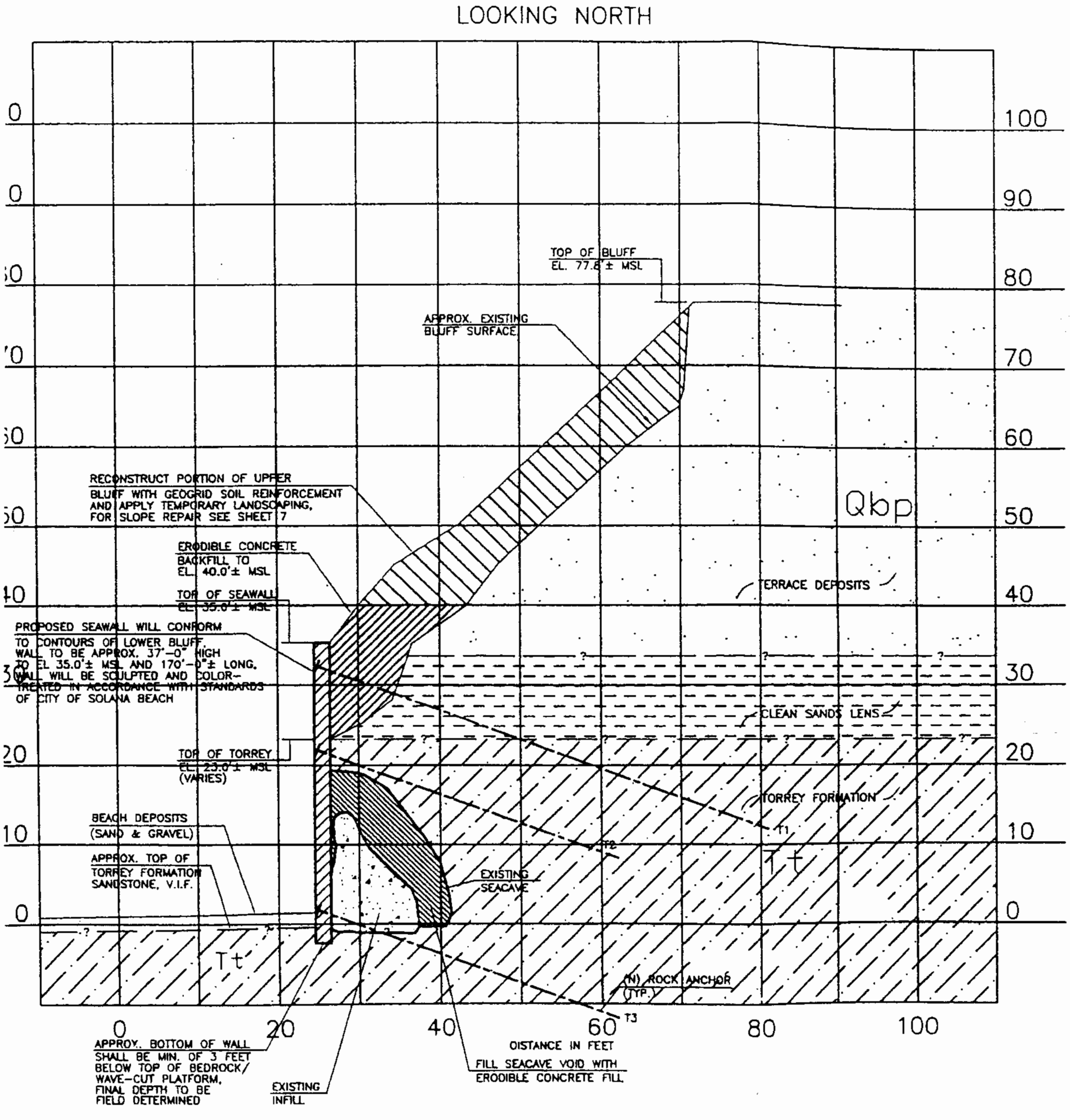
PROFILE SECTION A–A'
SCALE: 1"=10'

A/4

SOLANA BEACH FIRE DEPARTMENT	SANTA FE IRRIGATION DISTRICT	ENGINEER OF WORK	CITY APPROVED
Fire Chief Date:	By:	By: Date: Name:	

EXHIBIT NO. 3
APPLICATION NO.
6-07-134
Cross-Section
A-A

California Coastal Commission



PROFILE SECTION B–B'
SCALE: 1"=10'
B / 4

SOIL ENGINEERING CONSTRUCTION, INC.

PROFILE SECTION A–A' & B–B'

REPAIRS TO COASTAL BLUFF

MR. BRAD BURNS, 417 PACIFIC AVENUE, SOLANA BEACH, CALIFORNIA
MR. DAVID BREHMER, 423 PACIFIC AVENUE, SOLANA BEACH, CALIFORNIA

REGISTERED PROFESSIONAL ENGINEER R.D. MAHONY No. C. 16459 No. GE 554 EXP.6-30-09 CIVIL & GEOTECHNICAL STATE OF CALIFORNIA

FILE NO.	
DATE	02-15-08
PROJECT	08-003 & 08-004
DWG. NO.	BurnsBrehmerProp-04
REVISION	△

APPROVED FOR CONSTRUCTION	BENCH MARK	CITY OF SOLANA BEACH ENGINEERING
By: Chandra P. Collure, City Engineer	DESCRIPTION: SEE SHEET 2 LOCATION: RECORD FROM: ELEV.: DATUM:	REPAIRS TO COASTAL BLUFF MR. BRAD BURNS & MR. DAVID BREHMER, 417 & 423 PACIFIC AVENUE, SOLANA BEACH, CALIFORNIA
R.C.E. 31567 Exp. 12/08 Date:		

EXHIBIT NO. 4
APPLICATION NO.
6-07-134
Cross Sections B-B

California Coastal Commission

RESOLUTION NO. 2007- 084

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF SOLANA BEACH, CALIFORNIA, APPROVING A CONDITIONAL USE PERMIT FOR CONSTRUCTION OF AN EMERGENCY REQUEST BLUFF RETENTION DEVICE CONSISTING OF A SEA CAVE INFILL OF AN EXISTING 20+ FOOT DEEP SEA CAVE WITH CONCRETE, AND A 170-FOOT LONG, 35 FOOT HIGH, FREE FORM, STRUCTURAL SHOTCRETE TIED BACK WALL EXTENDING ALONG THE BASE OF THE BLUFFS FOR THE PROPERTIES AND GEOGRID REINFORCED REBUILT SLOPING UPPER BLUFF LOCATED AT 417 AND 423 PACIFIC AVENUE, SOLANA BEACH

APPLICANTS: BRAD BURNS AND MEGAN MATCHINSKE

CASE NO.: 17-06-18

WHEREAS, Mr. Brad Burns and Ms. Megan Matchinske with Terra Costa Consulting (hereinafter referred to as "Applicants") have requested the issuance of a Conditional Use Permit to construct Coastal Structures consisting of a seacave with concrete and a 170-foot long, 35 foot high, free form, structural shotcrete tied back wall extending along the base of the bluffs for the properties and geogrid reinforced rebuilt sloping upper bluff located at 417 and 423 Pacific Avenue pursuant to Title 17 of the Solana Beach Municipal Code, Section 17.62.080; and

WHEREAS, as specifically referenced in the Staff Report to the City Council, the applicants have submitted a geotechnical analysis reviewed and confirmed by the City's third party independent geotechnical consultant that an imminent threat to property and public safety exists; and

WHEREAS, a slope analysis was prepared by a certified geotechnical engineer describing and graphically describing and geographically depicting areas of less than twenty-five percent slope, twenty-five to forty percent slope and greater than forty percent slope; and

WHEREAS, the geotechnical report showed that no structures or improvements on the Applicant's property are proposed within any areas of greater than twenty-five percent slope; and

WHEREAS, the geotechnical report submitted indicates where unstable geological conditions are indicated and proposed solutions are applied to remedy the nature and magnitude of the unstable conditions; and

WHEREAS, the City's third party independent geotechnical expert consultant testified at the Public Hearing as to the emergency nature of the condition that exists at the Properties as defined in Section 15359 of the California Environmental Quality Act Guidelines ("CEQA Guidelines") (an "Emergency"). 'Emergency', as

defined in this Resolution and the CEQA Guidelines, means a sudden, unexpected occurrence, involving a clear and imminent danger, demanding immediate action to prevent or mitigate loss of, or damage to, life, health, property, or essential public services. 'Emergency' includes such occurrences as soil or geologic movements. In the opinion of the City's third party independent geotechnical consultant, the occurrence in question involving the bluff area involved a clear and imminent danger, demanding immediate action; and

WHEREAS, an assessment has been performed to determine the impact of the Coastal Structures on biological habitat and sand supply and conditions of approval are included to address those impacts; and

WHEREAS, the geotechnical analysis shows that the coastal bluff in front of the subject properties is affected by marine erosion that has or is likely to fail within one year of the date of the hearing without the Coastal Structures being added; and

WHEREAS, the Upper Bluff system shall meet City Design Standards applicable to bluff retention devices and the natural bluff face, shall be preserved, to the greatest extent feasible, by using approved soft systems planted with native species; and

WHEREAS, the applicant has agreed to maintain and repair the Lower and Upper Bluff System on an "as needed" basis at the Bluff Property Owner's expense; and

WHEREAS, the Coastal Structures shall be subject to the conditions established herein for removal based on the time frames and criteria established herein; and

WHEREAS, the City Council of the City of Solana Beach found the application request exempt from the California Environmental Quality Act pursuant to Section 15269(c) of the 2007 State CEQA Guidelines; and

WHEREAS, on June 13, 2007, the City approved a Sand Mitigation Fee and Land Lease Fee deposit program at a cost of $1,000 per linear foot of structure proposed; and

WHEREAS, the City is disclosing to applicants that the Sand Mitigation Fee and Land Lease Fee deposit could range from $25,000 to $250,000 or more for a 50-foot wall as determined based on the length of the bluff retention structure as proposed; and

WHEREAS, the actual Sand Mitigation Fees and Land Lease Fees are uncertain at this time, an objective analysis is being prepared by the City that will determine the actual fee program and will be customized for each application; and

WHEREAS, the project approval will be subject to Sand Mitigation and Land Lease Fees which will assist in providing continuous safe, public lateral access at sea level beaches; and

WHEREAS, to the extent feasible, the conditions of approval shall mandate the removal of existing impediments to public lateral access and sea level beaches provided all consequences resulting therefore are fully addressed and mitigated; and

WHEREAS, the conditions of approval contained herein, including the payment of fees, will encourage sand replenishment, retention, and maintenance programs to create a wider beach to improve public lateral access; and

WHEREAS, to the extent feasible, the approval of this project minimizes the encroachment of Coastal Structures seaward of the bluff drip line to help maintain lateral accesses along the beaches with the conditions of approval requiring eventual removal the approved bluff retention devices; and

WHEREAS, To maximize the natural, aesthetic appeal and scenic beauty of the beaches and bluffs by minimizing the size of Coastal Structures to the extent feasible while ensuring that each Coastal Structure accomplishes its intended purpose of protecting Bluff Properties and preserving the maximum amount of bluff face; and

WHEREAS, to the extent feasible, while ensuring that each approved Coastal Structure accomplishes its intended purpose of protecting bluff properties and preserving the maximum amount of bluff face, the conditions contained herein maximize the natural aesthetic appeal and scenic beauty of the beaches and bluffs by minimizing the size of the Coastal Structures; and

WHEREAS, the conditions contained herein, to the extent feasible, provide a realistic opportunity for the ultimate removal of Coastal Structures, if feasible and necessary to prevent loss of the beach, consistent with Bluff Home Owners' property rights and examination of all costs to the City and other affected parties; and

WHEREAS, the conditions contained herein, to the extent feasible, ensure the approved Coastal Structure shall be preventative in nature to forestall and minimize the size of any future Coastal Structure. Conditions of approval herein require that future Coastal Structures shall be allowed only where no reasonably feasible alternative exists, such as underpinning of a Bluff Home (provided the underpinning is not exposed in the future), relocation of the structure or portions

thereof, or acquisition of the Bluff Property by the City or other public or non-profit entity in accordance with the terms hereof; and

WHEREAS, the conditions of approval herein allow Coastal Structures to encroach onto public bluffs and beaches only under certain conditions and for limited periods of time established herein, ultimately being either re-permitted or removed subject to the City of Solana Beach making certain findings as outlined herein; and

WHEREAS, to ensure that all Coastal Structures provide for reasonable and feasible mitigation for their impacts, such as the payment of Sand Mitigation Fees and Land Lease Fees. Specifically, since Coastal Structures prevent early episodic bluff failures from occurring and effectively stop erosion of the bluff, the Sand Mitigation Fees and the Land Lease Fees shall include a greater initial payment to compensate for the prevention of an episodic event which would likely result in the immediate deposit of sand into the littoral cell. The benefits to the City and the public associated with the Coastal Structure shall be offset against any such fees in accordance with the City's fee process currently being processed; and

WHEREAS, the establishment of a fee program for Sand Mitigation and Land Lease Fees is a condition precedent to the processing of Permits, including the Conditional Use Permit approved herein. The approval herein is contingent upon the agreement to pay reasonable fees established by the City as part of its Local Coastal Program approval process being pursued concurrently with this Application. The payment of a "good faith" deposit and the ultimate payment of the fees in the amount to be established under the process established in Resolution No. 2007-42 are necessary for the City Council to make the findings required for approval of this Conditional Use Permit under Chapter 17.62 of the Solana Beach Municipal Code; and

WHEREAS, the conditions of approval include requirements allowing the City to acquire the property subject to this Conditional Use Permit. The acquisition conditions contained herein are necessary and appropriate conditions to allow the City to protect public property and limit the duration of artificial devices on the natural bluff slopes; and

WHEREAS, on June 13, 2007, the City Council held a duly noticed public hearing; and

WHEREAS, the City has submitted for approval to the California Coastal Commission a Draft Land Use Plan (DLUP), which includes a Seventy-Five Year Bluff Management Plan. The DLUP was approved by the City Council on July 12, 2006 and is the basis of the policies that are included herein; and

WHEREAS, the City Council hereby includes policies from the DLUP in this Resolution to the extent that those policies are applicable to the Project approved hereunder and to the extent that those policies are consistent with Chapter 17.62 of the Solana Beach Municipal Code; and

WHEREAS, this decision is based upon the evidence presented at the Public Hearing on this matter; Oral Communications and information presented during the City Council Meeting, including expert testimony from Terra Costa Consulting (TCC) and the City's Third Party geotechnical expert; the Emergency Permit application, and any information the City Council gathered by viewing the site and the area as disclosed at the hearing.

NOW THEREFORE, the City Council of the City of Solana Beach, California does resolve as follows:

1. That the forgoing recitations are true and correct.

2. That the drawings entitled: 417 - 423 Pacific Avenue Shoreline Stabilization Project submitted with the application in April 2006 are approved based upon the following Findings (Section 3) and subject to the following Conditions (Section 4).

3. The approval of Case No. 17-06-18 (Burns/Matchinske) is consistent with the requirements of Solana Beach Municipal Code Section 17.62.080 and the applicable Policies of the Draft LCP as follows:

(A) FINDINGS UNDER SBMC 17.62.080:

In accordance with SBMC 17.62.080, "Issuance and Denial - Permits for Seawalls, Revetments and Bluff Retaining Walls", a special use permit for a seawall, bluff retaining wall, armoring or revetment may be issued only if the City Council finds all of the following:

1(a). REQUIRED FINDING SBMC 17.62.080 (A) (1) (a)

An existing significant structure is threatened with imminent danger or destruction because of bluff erosion which occurs naturally, or which results or arises from circumstances which are not within the control of the property owner, and it is reasonably foreseeable that without the shoreline defense structure the threatened structure on the site will suffer structural damage[1].

DLUP POLICY TO BE CONSIDERED REGARDING FINDING "SBMC 17.62.080 (A) (1) (a)"

---

[1] For the purposes of subparagraph (1)(a), structural damage means a noticeable or measurable amount of structural damage directly related to the bluff condition to be mitigated but does not include construction defects or damage to a structure caused by weather or earthquake.

Policy K.1.2: Development proposals in certain areas must include a geologic reconnaissance report to determine the geologic stability of the area. When additional information is needed to assess stability, a preliminary engineering geology report must also be prepared identifying the results of subsurface investigation regarding the nature and magnitude of unstable conditions, as well as mitigation measures needed to reduce or avoid such conditions.

DISCUSSION REGARDING FINDING "SBMC 17.62.080 (A) (1) (a)"

Consistent with LCP Policy F.1.2, a slope analysis was prepared by a certified geotechnical engineer describing and graphically describing and geographically depicting areas of less than twenty-five percent slope, twenty-five to forty percent slope and greater than forty percent slope. The geotechnical report showed that no structures or improvements on Applicant's property are proposed within any areas of greater than twenty-five percent slope.

The geotechnical report submitted by TCC indicates the location of unstable geological conditions and proposed solutions are applied to remedy the nature and magnitude of the unstable conditions. An assessment has been performed to determine the impact of the Bluff Retention Device on biological habitat and sand supply and conditions of approval are included to address those impacts as appropriate.

Per the Terra Costa Consulting Group in a letter report to the City dated May 19, 2007 states:

"This letter memorializes our recent discussions regarding the imminent danger to the bluff-top residences located at 417 & 423 Pacific Avenue in Solana Beach, California, resulting from an impending collapse of the existing sea cave below the subject properties. In the past year, this sea cave has continued to enlarge, making its collapse imminent. As indicated in our April 18, 2006, Geotechnical Basis of Design report for the subject project, and our August 1, 2006, Response to Third-Party Geotechnical Review Comments for the subject shoreline stabilization project, as the sea cave has continued to grow, the roof rock supporting the top of the sea cave has narrowed to the point where its collapse is imminent. The collapse of this sea cave will immediately trigger an upper-bluff failure that will likely damage or destroy one or both of the bluff-top residences. The sea cave is one of the last, and by far the largest, remaining sea caves in Solana Beach, and represents an attractive nuisance -- one that children often play in. Anyone in the cave during its collapse would be buried and killed."

Per the June 1, 2006 GeoSoils Third-Party Geotechnical Review letter prepared for the City:

> *"...we agree that the structures would be in jeopardy if the cave/bluff collapses, and that this failure could happen in the near future."*

The geotechnical report identifies the result of subsurface investigation regarding the nature and magnitude of the unstable conditions found in this portion of the bluff. The mitigation of these conditions requires filling the existing 20+ feet deep sea cave and construction of a seawall along the face of the bluffs below the subject properties.

CONCLUSION REGARDING FINDING "SBMC 17.62.080 (A) (1) (a)"

This finding is made. Two existing significant structures are threatened with imminent danger or destruction because of bluff erosion which occurs naturally, or which results or arises from circumstances which are not within the control of the property owner, and it is reasonably foreseeable that without the proposed shoreline defense structure the threatened structures on the site will suffer structural damage including the possible collapse of the structures onto the public beach below.

1(b). REQUIRED FINDING SBMC 17.62.080 (A) (1) (b)

The shoreline defense structure is necessary to abate a public nuisance existing on the property that cannot be reasonably abated in another manner.

DLUP POLICY TO BE CONSIDERED REGARDING FINDING "SBMC 17.62.080 (A) (1) (b)"

> ***Policy H.1:*** The public interest in eliminating and abating private and public nuisances that affect public and private property and public recreational areas. For example, Bluff Retention Devices must be adequately maintained.

DISCUSSION REQUIRED REGARDING FINDING "SBMC 17.62.080 (A) (1) (b)"

The public interest in eliminating and abating private and public nuisances that affect public and private property and public recreation areas is protected by the approval of the Bluff Retention Device (Seawall addition) that prevent an immediate bluff failure. The conditions of approval implement the Seventy-five Year Bluff Management Plan by conditioning the approval of the seawall addition on its ultimate removal. The removal shall be no later than December 31, 2081 unless specific finding can be made as set forth herein (Policy L7).

According to the May 19, 2006 letter report from Terra Costa Consulting Group:

> "...Past notch collapses, prior to the 1998 sea cave infill, have removed support from the fragile upper bluffs, and clean sands are now exposed and actively eroding. Enlargement of the active failure is also continuing along with enlargement of the sea cave and, if not stabilized, the existing bluff-top structures will be destabilized in the near future. In our opinion, the only feasible option that can be used in this situation is the construction of a tall seawall and reconstructed upper bluff. "

Per the June 1, 2006 GeoSoils Third Party Geotechnical Review letter prepared for the City:

> *"Based on our experience, (we) generally concur that the bluff retention structure may be necessary to abate the public nuisance/hazard."*

CONCLUSION REQUIRED REGARDING FINDING "SBMC 17.62.080 (A) (1) (b)"

This finding is made. The shoreline defense structure is necessary to abate a public nuisance existing on the property that cannot be reasonably abated in another manner.

1(c). REQUIRED FINDING SBMC 17.62.080 (A) (1) (c)

Unless the shoreline defense structure is permitted the property will be unable to be used for any economically viable use permitted by the City's General Plan and applicable zoning.

DRAFT LCP POLICY TO BE CONSIDERED REGARDING FINDING "SBMC 17.62.080 (A) (1) (c)"

> ***Policy H.9:*** Subject to Policy H.10, recognizing the public interest in removing, where feasible, existing Bluff Retention Devices and returning the beach to as natural a condition as possible. In this regard, ensuring that the year 2081 is a deadline by which all such structures are to be removed, unless it is established that there is no feasible alternative to allowing the Bluff Retention Device to remain and all environmental impacts of Bluff Retention Devices on the public beach, during the term of the renewed permit, are adequately and reasonably mitigated.

DISCUSSION REQUIRED REGARDING FINDING "SBMC 17.62.080 (A) (1) (c)"

According to the May 19, 2006 TCC letter report:

> "Ongoing upper-bluff erosion is progressively removing bluff-top property from 417 and 423 Pacific Avenue. As the failure scarp continues to enlarge, the adjacent structures will be at risk. There is no question that the current property owners had no control over the significant marine erosion that has occurred and that without the shoreline defense structure, the threatened structures on site will suffer damage.

Per the June 1, 2006 GeoSoils Third-Party Review letter prepared for the City:

> "Similarly, GSI generally agrees that if the shoreline defense structure is not permitted, it is likely that the property will not likely be able to be used for

any economically viable use permitted by the City's General Plan and applicable zoning."

As a condition of approval set forth herein, the year 2081 is a deadline for removing the Coastal Structure (seawall- existing and proposed) subject to the terms and conditions set forth herein.

CONCLUSION REQUIRED REGARDING FINDING "SBMC 17.62.080 (A) (1) (c)"

This finding is made. Unless the shoreline defense structure is permitted there is a substantial likelihood of a major bluff failure and loss of residences will occur. The property will be unable to be used for any economically viable use permitted by the City's General Plan and applicable zoning.

2. FINDING SBMC 17.62.080 (A) (2)

No other reasonably feasible method of stabilizing the coastal bluff will protect the existing structure, abate the nuisance or preserve the economically viable use of the property. This economically viable use will allow for use of the property with the Bluff Retention Device until removal in the manner set forth herein.

DLUP POLICIES TO BE CONSIDERED REGARDING FINDING "SBMC 17.62.080 (A) (2)"

Policy E.1: To maximize the natural, aesthetic appeal and scenic beauty of the beaches and bluffs by minimizing the size of Bluff Retention Devices to the extent feasible while ensuring that each Bluff Retention Device accomplishes its intended purpose of protecting Bluff Properties and preserving the maximum amount of bluff face.

Policy E.1.1: To provide a realistic opportunity for the ultimate removal of Bluff Retention Devices, if feasible and necessary to prevent loss of the beach, consistent with Bluff Home Owners' property rights and examination of all costs to the City and other affected parties as referenced in Policies A.4.1, A.4.2 and A.10.

Policy E.1.2: To ensure Bluff Retention Devices shall be preventative in nature to forestall and minimize the size of any future Bluff Retention Device. Bluff Retention Devices shall be allowed only where no reasonably feasible alternative exists, such as underpinning of a Bluff Home (provided the underpinning is not exposed in the future), relocation of the structure or portions thereof, or acquisition of the Bluff Property by the City or other public or non-profit entity in accordance with the terms hereof.

Policy E.1.3: To allow Bluff Retention Devices to encroach onto public bluffs and beaches only under certain conditions and

presumably for limited periods of time, ultimately being either re-permitted or removed subject to the City of Solana Beach making certain findings as outlined in Policy L.7.

Policy E.3.1: To regulate every Bluff Retention Device including initial approval, construction, maintenance and repair and, if feasible, future removal.

Policy F.1.1: Utilize the Hillside/Coastal Bluff Overlay requirements to: a) preserve the natural topography and scenic qualities; b) protect native coastal sage/chaparral and grassland habitat; c) preserve existing watersheds; and d) reduce the potential for environmental hazards including soil erosion, siltation of coastal wetlands, land slides, adverse impacts due to run-off, and other adverse effects.

Policy L.4: An Upper Bluff System shall be approved only if the following applicable findings can be made and the stated criteria will be satisfied.

A. Based on the advice of a Licensed Engineer selected by the applicant from a city pre-approved list of qualified engineers, the City finds that:

   1. the material above the portion of Bluff affected by marine erosion has or is likely to fail within two to four years after the date the Upper Bluff System is to be constructed; and

   2. the Bluff Home, or City Facility is more likely than not to be in danger within five years after the date an application is made to the City.

B. The Upper Bluff System shall meet City Design Standards applicable to Bluff Retention Devices, including ensuring the natural bluff face is preserved to the greatest extent feasible, by using soft systems such as Geogrid, Geoweb, or Loeffelstein planted with native species.

C. The Bluff Property Owner shall maintain and repair the Upper Bluff System on an "as needed" basis at the Bluff Property Owner's expense. Any Assessing Entity in which the project lies shall ensure such payments are reimbursed to the City if the Bluff Property Owner fails to complete such work and the City elects to do the work.

D. All Upper Bluff Systems shall be subject to the same permitting time frames as specified for a Coastal Structure, and may be

subject to removal based upon the same time frames and similar criteria set forth for removal of Bluff Retention Devices, as reasonably determined by the City.

DISCUSSION REGARDING FINDING "SBMC 17.62.080 (A) (2)"

Per the May 16, 2006 TCC Report:

> "Past notch collapses, prior to the 1998 sea cave infill, have removed support from the fragile upper bluffs, and clean sands are now exposed and actively eroding. Enlargement of the active failure is also continuing along with enlargement of the sea cave and, if not stabilized, the existing bluff-top structures will be destabilized in the near future. In our opinion, the only feasible option that can be used in this situation is the construction of a tall seawall and reconstructed upper bluff."

Per the June 1, 2006 GeoSoils Third-Party Review letter prepared for the City:

> "Based on the alternative analysis provided, there is no other reasonable feasible method. "

Per Policy E.1, the Bluff Retention Device (Seawall) is necessary to prevent the imminent danger of bluff collapse. The sea cave infill and seawall are the only feasible options for bluff stabilization considering the depth and condition of the sea cave and adjacent bluff conditions, to adequately secure the bluff and residences above. To the extent possible, the proposed sea cave infill and seawall is only allowed to the extent that it is necessary to secure the unstable portions of the bluff. It will be designed in a way which will reflect the color of the neighboring seawalls and the surrounding face of the bluff. It will also be subject to removal under the conditions contained herein. To the extent it is possible considering the necessity of securing the unstable areas, it maximizes the natural, aesthetic appeal and scenic beauty of the beaches and bluffs by minimizing the size of Bluff Retention Devices to the extent feasible while ensuring that each Bluff Retention Device accomplishes its intended purpose of protecting Bluff Properties and preserving the maximum amount of bluff face.

The conditions of approval address the balance between the opportunity for removal of the Bluff Retention Device while preserving the Bluff Homeowner's property rights. The conditions of approval provide a realistic opportunity for the ultimate removal of Bluff Retention Devices, if feasible and necessary to prevent loss of the beach, consistent with Bluff Home Owners' property rights and examination of all costs to the City and other affected parties as referenced in Draft LCP Policies A.4.1, A.4.2 and A.10.

To ensure Bluff Retention Devices shall be preventative in nature to forestall and minimize the size of any future Bluff Retention Device. Bluff Retention Devices shall be allowed only where no reasonably feasible alternative exists, such as underpinning of a Bluff Home (provided the underpinning is not exposed in the

future), relocation of the structure or portions thereof, or acquisition of the Bluff Property by the City or other public or non-profit entity in accordance with the terms hereof. This Bluff Retention Device is designed to prevent future instability and is the only reasonable alternative to stabilize the bluff in that other alternatives would not provide the stabilization of the bluff in a manner that would protect the bluff face from eroding and falling due to the unstable nature of the immediate bluff area.

To allow Bluff Retention Devices to encroach onto public bluffs and beaches only under certain conditions and presumably for limited periods of time, ultimately being either re-permitted or removed subject to the City of Solana Beach making certain findings as outlined in Policy L.7. This Bluff Retention Device will be subject to removal under the conditions of approval established herein with its continuation based only on the making of certain findings, set out herein, in the future.

CONCLUSION REGARDING FINDING "SBMC 17.62.080 (A) (2)"

This finding is made. No other reasonably feasible method of stabilizing the coastal bluff will protect the existing structures, abate the nuisance or preserve the economically viable use of the properties.

3. REQUIRED FINDING SBMC 17.62.080 (A) (3)

The property owner has taken reasonable steps to protect the property and significant structures by other means.

DLUP POLICY TO BE CONSIDERED REGARDING FINDING "SBMC 17.62.080 (A) (3)"

> ***Policy I.1.9:*** Require Accessory Structures on Bluff properties to be constructed in a manner that allows easy relocation landward should they become threatened by coastal erosion. Condition coastal development permits authorizing Accessory Structures with a requirement that the permittee (and all successors in interest) shall remove the accessory structure(s) if threatened by shoreline erosion and that no Bluff Retention Device shall be allowed for the sole purpose of protecting an Accessory Structure(s).

DISCUSSION REGARDING REQUIRED FINDING "SBMC 17.62.080 (A) (3)"

In 1998, the subject property previously was granted approval by the City for construction of a sea cave infill at the base of the bluff below 417 and 423 Pacific Avenue. This infill was constructed and is visible today. Despite the construction of the sea cave infill, wave attack has continued to erode the bluffs below the subject properties. In April 2006, the subject property submitted this Use Permit Application. In May 2007, the Applicant requested an emergency issuance of the bluff retention device permit.

Per the May 16, 2006 TCC Report:

> "This stretch of coastline experienced significant lower-bluff failures during the El Niño winter of 1997-98. These lower-bluff failures exposed a near vertical section of upper-bluff terrace deposits. Additional, more recent, lower-bluff failures destabilized these upper-bluff deposits beyond their ability to remain intact. At no time have there been other reasonable steps available to re-stabilize the upper bluffs.

Per the June 1, 2006 GeoSoils Third-Party Review letter prepared for the City:

> "GSI also generally agrees that based on the available data, and to our knowledge, the property owners have taken reasonable steps to protect the property and significant structures by other means. These means include the cave plugs and notch fills and control of surface water runoff and site drainage."

Policy I.1.9 requires Accessory Structures on Bluff properties to be constructed in a manner that allows easy relocation landward should they become threatened by coastal erosion. Condition coastal development permits authorizing Accessory Structures with a requirement that the permittee (and all successors in interest) shall remove the accessory structure(s) if threatened by shoreline erosion and that no Bluff Retention Device shall be allowed for the sole purpose of protecting an Accessory Structure(s). The conditions of approval require removal unless certain specific conditions are met by 2081.

The public hearing testimony indicated that the homes, even if relocated landward, would not prevent the erosion from threatening the homes in the future. Relocation would not mitigate hazards to the public on the beach. The lots at both 417 and 423 Pacific Avenue are not of sufficient size and depth to move the homes backward to protect them without intruding into the setbacks. No evidence was produced at the public hearing showing that moving the homes would be either economically feasible or prevent the harm which will occur by leaving in place unsafe conditions as demonstrated in the public hearing record.

CONCLUSION REGARDING FINDING "SBMC 17.62.080 (A) (3)"

This finding is made. The property owner has taken reasonable steps to protect the property and significant structures by other means.

4. <u>REQUIRED FINDING SBMC 17.62.080 (A) (4)</u>

The owner or prior owners did not create the necessity for the shoreline defense structure by unreasonably failing to implement generally accepted erosion and drainage control measures or by otherwise unreasonably acting or failing to act with respect to the property.

The provisions of this subsection (A)(4) shall not apply to a bona fide purchaser who acquired the property without knowledge of the condition resulting in the necessity for construction of the shoreline protection device.

DLUP POLICY TO BE CONSIDERED REGARDING FINDING "SBMC 17.62.080 (A) (4)

> ***Policy L.5:*** Any Bluff Retention Device shall be reasonably maintained and repaired by the Bluff Property Owner on an "as needed" basis, at the Bluff Property Owner's expense, in accordance with the Shoreline and Bluff Coastal Protection Ordinance and any permit issued by the City. Any authorized Assessing Entity in which the project lies shall ensure such payments are reimbursed to the City if the Bluff Property Owner fails to perform such work and the City elects to do so, subject to mandatory reimbursement.

DISCUSSION REGARDING FINDING "SBMC 17.62.080 (A) (4)"

Per the May 16, 2006 TCC Report:

> "Increased coastal erosion and the necessity for the shoreline defense structure originates from the conflicting societal interests within an urbanizing coastal watershed, and specifically the wholesale loss of terrestrial alluvial sediments that were at one time destined for the County's beaches. The current and prior owners in no way contributed to the necessity for the shoreline defense structure."

Per the June 1, 2006 GeoSoils Third-Party Review letter prepared for the City:

> "GSI also generally agrees that based on the available data, and to our knowledge, the property owners have taken reasonable steps to protect the property and significant structures by other means. These means include the cave plugs and notch fills and control of surface water runoff and site drainage."

CONCLUSION REGARDING FINDING "SBMC 17.62.080 (A) (4)"

This finding is made. The owner or prior owners did not create the necessity for the shoreline defense structure by unreasonably failing to implement generally accepted erosion and drainage control measures or by otherwise unreasonably acting or failing to act with respect to the property.

5. REQUIRED FINDING SBMC 17.62.080 (A) (5)

To the extent the location, size, design and operation characteristics of the proposed shoreline defense structure adversely affect adjacent public or private property, natural resources, or public use of the beach, mitigation shall be

provided to the extent deemed feasible with a statement of overriding considerations issued to the extent said impacts are not fully mitigated.

DLUP POLICIES TO BE CONSIDERED REGARDING FINDING "SBMC 17.62.080 (A) (5)"

> ***Policy A.2:*** To the extent feasible, provide continuous safe public lateral access at sea level beaches.
>
> ***Policy A.2.2:*** Conduct and encourage sand replenishment, retention, and maintenance programs to create a wider beach to improve public lateral access.
>
> ***Policy A.2.3:*** Minimize the encroachment of Bluff Retention Devices seaward of the bluff drip line to help maintain public lateral access along the beaches.
>
> ***Policy E.1.5:*** To ensure that all Bluff Retention Devices provide for reasonable and feasible mitigation for their impacts, such as the payment of Sand Mitigation Fees and Land Lease Fees. Specifically, since Bluff Retention Devices prevent early episodic bluff failures from occurring and effectively stop erosion of the bluff, the Sand Mitigation Fees and Land Lease Fees shall include a greater initial payment to compensate for the prevention of an episodic event which would likely result in the immediate deposit of sand into the littoral cell. The benefits to the City and the public associated with the Bluff Retention Device shall be offset against any such fees in accordance with Policy L.3.

DISCUSSION REGARDING FINDING "SBMC 17.62.080 (A) (5)"

The project is designed to provide the stabilization necessary to protect the private residences and users of the public beach below. The resulting bluff stabilization will likely benefit adjacent properties as well. The project includes a number of conditions of approval established by Regulations (SBMC) and Policies to incorporate an earth-like appearance to conform to the natural form of the bluff and seawall and to minimally encroach onto public use areas, both temporally and spatially. The findings and declarations contained in the ordinance specifically state the City's desire to balance the public interest with private property rights and to apply its ordinances in a manner consistent with the Coastal Act and other state laws. SBMC 17.62.010 (B) specifically states, in part:

> "Unless properly regulated, seawalls, revetments, bluff retaining walls, erosion control devices, rip rap, cave filling or plugging, and other similar shoreline and coastal bluff protection measures individually and cumulatively may adversely impact the shoreline. *When permitted,* such devices should be designed, constructed and maintained in a manner *that has the least impact* on the shoreline and public use of the beach while

providing adequate protection to the bluff top structures and uses." (Emphasis added.)

"In adopting this chapter the City Council, *in a manner consistent with the policies and goals of the Coastal Act,* has attempted to balance the rights and privileges of private property owners to preserve, protect, develop and use property with the rights of the public to assure protection of important public resources and the need to assure that development designed to preserve or enhance one property does not adversely affect another property." (Emphasis added.)

Without coastal bluff protection structures, additional, and/or ongoing beach use may be restricted to the public given the higher risk of bluffs and buildings in imminent danger of falling on the beach as is the case with the current project.

CONCLUSION REGARDING FINDING "SBMC 17.62.080 (A) (5)"

This finding is made. To the extent the location, size, design and operation characteristics of the proposed shoreline defense structure adversely affect adjacent public or private property, natural resources, or public use of the beach, mitigation is provided to the extent deemed feasible and a statement of overriding considerations issued to the extent said impacts are not fully mitigated. The mitigation contained in the Conditions of Approval include, but is not limited to, Sand Mitigation Fees, Land Lease Fees, limited Bluff Retention Device life span, acquisition conditions, maintenance requirements and construction requirements.

6. REQUIRED FINDING SBMC 17.62.080 (A) (6)

The proposed shoreline defense structure will be:

The minimum measure necessary to provide a reasonable level of protection; and constructed and maintained to incorporate an earth-like appearance which will resemble as closely as possible the natural color and texture of the adjacent bluffs; and constructed and maintained to reasonably conform to the natural form of the bluff; and placed at the most feasible landward location; and appropriately landscaped and maintained to blend in with the existing environment.

DLUP POLICIES TO BE CONSIDERED REGARDING FINDING "SBMC 17.62.080 (A) (6)"

Policy J.1: Protect the scenic and visual qualities of Solana Beach, including the unique character of the Highway 101 Corridor, the Cedros Design District, and the coastal bluffs.

Policy J.1.2: Avoid proposed (new building) development that will interfere with or degrade those natural or man-made visual features

of the sites, or adjacent sites which contribute to its scenic attractiveness, as viewed from either the scenic highway such as Highway 101, or the adjacent scenic, historic, or recreational resources.

Policy K.1.1: Regulate development in hillside areas to preserve the natural topography and enhance scenic qualities of the City, protect native coastal vegetation, preserve existing watersheds, and reduce the potential for environmental hazards including soil erosion, situation of coastal wetlands, land slides, adverse impacts due to runoff, and other impacts which may affect general safety and welfare.

Policy K.1.4: Require the removal or capping of any permanent irrigation system over permeable surfaces within 40' of the bluff edge in connection with permits for new development, redevelopment or shoreline protection to the extent required to decrease the probability of bluff erosion. Irrigation systems in courtyards or above impervious surfaces where all water is directed to the adjoining First Road are permitted provided there is no risk of bluff erosion. (should be 100')

Policy K.1.6: Require the bluff top landscaping to consist of native, non-invasive, drought-tolerant, and salt-tolerant species; encourage the use of hydroseed mixtures that require no irrigation to become established and strongly discourage the use of temporary and permanent irrigation systems on coastal bluff faces.

Policy L.5: Any Bluff Retention Device shall be reasonably maintained and repaired by the Bluff Property Owner on an "as needed" basis, at the Bluff Property Owner's expense, in accordance with the Shoreline and Bluff Coastal Protection Ordinance and any permit issued by the City. Any authorized Assessing Entity in which the project lies shall ensure such payments are reimbursed to the City if the Bluff Property Owner fails to perform such work and the City elects to do so, subject to mandatory reimbursement.

DISCUSSION REGARDING FINDING "SBMC 17.62.080 (A) (6)"

As stated in the TCC letter report dated May 16, 2006:

> "Significant erosion to the lower bluff, and the subsequent collapse of the upper sloping terrace deposits at the project site, has occurred despite preventative measures. In order to prevent further erosion, the existing sea cave must be in filled and the clean sand layer between the upper bluff and lower cliff must be stabilized. The sand layer is susceptible to both marine and subaerial erosion. The most feasible option is to encapsulate this clean sand layer through the incorporation of a wall and to rebuild the upper slope."

The architectural treatment for the project will ensure an earthlike appearance very similar to the natural color and texture of the adjacent bluffs where the shotcrete wall was constructed directly against the face of the lower bluff. The seawall is proposed to be located at the most feasible landward location, following the existing curves and contours of the existing seawall located against the lower bluff.

From recent practices, a top elevation of 35 feet for a seawall seems to be the current standard since a seawall at that elevation is able to encapsulate the clean sand lens that exists from approximately elevation 25 to elevation 35.

According to TCC:

> "As this project is, for all intents and purposes, structurally identical to the free-form, tied-back, shotcrete walls constructed below 249-311 Pacific Avenue and 333-337 Pacific Avenue, the alignment of this structure will, by its design, conform to the natural form of the bluff. The upper-bluff reconstruction will similarly conform as closely as possible to the slope and alignment of the adjacent upper bluff."

Per the GeoSoils letter report dated June 1, 2006:

> "Based on information provided, GSI generally agrees that the project represents the minimum necessary to provide a reasonable level of protection."

Further, the GeoSoils letter report dated June 1, 2006 states:

> "GSI similarly agrees that the proposed project will be located in the most landward location feasible, textured and colored to match the adjacent bluff..."

The proposed wall will replicate the existing sea cliff, which is essentially unvegetated. Landscaping is proposed for a portion of the face of the bluff. The upper bluff reconstruction will include application of a native, non-invasive, drought-tolerant and salt-tolerant hydroseed mix designed to become established without supplemental irrigation once applied consistent with LUP Policy K.1.6 as revised.

CONCLUSION REGARDING FINDING "SBMC 17.62.080 (A) (6)"

This finding is made. The proposed shoreline defense structure will be the minimum measure necessary to provide a reasonable level of protection; constructed and maintained to incorporate an earth-like appearance, which will resemble as closely as possible the natural color and texture of the adjacent bluffs; constructed and maintained to reasonably conform to the natural form of the bluff; placed at the most feasible landward location and appropriately landscaped and maintained to blend in with the existing environment.

7. REQUIRED FINDING SBMC 17.62.080 (A) (7)

The shoreline defense structure will be located entirely on private property or, if the structure will be located partially or entirely on public property or property subject to a public trust all required permits for construction or real property interests have been obtained, or will be obtained, from the appropriate public agency or agencies with jurisdiction and/or ownership.

DLUP POLICY TO BE CONSIDERED REGARDING FINDING "SBMC 17.62.080 (A) (7)"

> ***Policy D.1.1:*** Limit development and land alterations in coastal waters, lagoons and other wetland areas to a) aquaculture, nature study projects or other similar resource dependent uses, b) wetland restoration projects, c) incidental public utility improvements where there is no feasible less environmentally damaging alternative and where mitigation measures have been provided to avoid or minimize adverse environmental effects, d) sand replenishment and retention programs and devices, subject to analysis and environmental review as addressed elsewhere in the LCP, and e) Bluff Retention Devices in accordance with the conditions set forth in the LCP.

DISCUSSION REGARDING FINDING "SBMC 17.62.080 (A) (7)"

According to the GeoSoils letter report dated June 1, 2006 states:

> "GSI similarly agrees that the proposed project will be located in the most landward location feasible...".

The structure will be partially located on sovereign tidelands of the State of California and, thus, the State Lands Commission maintains ownership of the intertidal areas at the base of the sea cliff. The U.S. Army Corps of Engineers regulates and permits construction activities within any intertidal areas. Both of these agencies have been contacted by the Applicant and permits will be obtained.

The project has been conditioned to obtain all necessary permits and/or approvals from appropriate Federal, State and local agencies. These generally include the Army Corp of Engineers, the Coastal Commission and the State Lands Commission and, whether on public or private property, those agencies have the statutory requirement to ensure that all Federal and State requirements for development and use of public lands and beaches are adhered to.

CONCLUSION REGARDING FINDING "SBMC 17.62.080 (A) (7)"

This finding is made. If the structure will be located partially or entirely on public property or property subject to a public trust all required permits for construction or real property interests will have been obtained, or will be obtained, from the

appropriate public agency or agencies with jurisdiction and/or ownership. The Applicant will also be required to pay a deposit to the City for future implementation of a sand mitigation and land lease fee mitigation program as required in LUP Policy L.2.

8. REQUIRED FINDING SBMC 17.62.080 (A) (8)

The construction of the structure and reconstruction of the bluff face, if any, will not result in a usable area at the top of the bluff larger than existed on January 3, 1991 or extend the bluff-top edge seaward more than 10 feet from the bluff-top edge as it existed on January 3, 1991 as shown on the orthophoto map of the City dated January 3, 1991 and on file in the Community Development Department.

THERE ARE NO DLUP POLICIES TO BE CONSIDERED REGARDING FINDING "SBMC 17.62.080 (A) (8)"

DISCUSSION REGARDING FINDING "SBMC 17.62.080 (A) (8)"

To make this Finding, mid and upper bluff modifications shall be constructed to minimize landward expansion of the property such that construction of the Bluff Retention Device will not result in a usable area at the top of the bluff larger than existed on January 3, 1991 or extend the bluff-top edge seaward more than 10 feet from the bluff-top edge as it existed on January 3, 1991 as shown on the orthophoto map of the City dated January 3, 1991 and on file in the Community Development Department.

CONCLUSION REGARDING FINDING "SBMC 17.62.080 (A) (8)"

This finding is made. The construction of the structure and reconstruction of the bluff face, will not result in a usable area at the top of the bluff larger than existed on January 3, 1991 or extend the bluff-top edge seaward more than 10 feet from the bluff-top edge as it existed on January 3, 1991 as shown on the orthophoto map of the City dated January 3, 1991 and on file in the Community Development Department.

9. REQUIRED FINDING SBMC 17.62.080 (A) (9)

The project as approved or conditionally approved will not adversely affect the public health, safety or welfare and will not unreasonably affect the public use of the beach. Encroachments into the public beach shall be mitigated to the satisfaction of the City Council.

DLUP POLICIES TO BE CONSIDERED REGARDING FINDING "SBMC 17.62.080 (A) (9)"

> ***Policy E.4:*** To continue to allow reasonable use of City property by a Bluff Property Owner during the construction of a Bluff Retention Device. For example, the City shall allow use of City parking lots for

staging areas and reasonable access to City ramps and the beach.

Policy H.3: Acknowledge the importance of balancing the rights of private property owners with minimizing, and potentially eliminating, the need for future Bluff Retention Devices by the provision of alternate forms of protection such as a wide sandy beach, thereby reducing the impacts of such devices and achieving a more natural and attractive beach and bluff compared to what exists now. Sand Mitigation and Land Lease/Recreation Fees will be provided to help fund sand replenishment and retention programs.

Policy L.7: Absent early acquisition by the City or defined exceptional circumstances, it is presumed that any Bluff Retention Device approved after the recommendations of this Report are adopted will remain in place until December 31, 2081. It is further presumed that in 2081 all then-existing Bluff Retention Device permits, regardless of when issued, shall come due and expire resulting in removal of all the Bluff Retention Devices unless the City Council finds generally, or on a case-by-case basis, all of the following:

1. There is no reasonably feasible alternative for all or certain Bluff Retention Devices to remain in place for the continuing protection of all or certain Bluff Homes, City Facilities, City Infrastructure and Non-City-Owned Utilities;

2. The City elects not to acquire the Bluff Property at fair market value; and the Bluff Retention Device is still needed for each such Bluff;

3. All of the consequences of removal of each such Bluff Retention Device have been analyzed and the City finds that important matters will not be accommodated financially and/or logistically to provided for prudent removal of the Bluff Retention Device, including without limitation, the City determining that all costs associated with any eventual collapse of the Bluff Property, City Facilities, and City Infrastructure, will not be covered by the City or other government or private parties responsible therefore;

4. Removal of the Bluff Retention Device will unreasonably jeopardize the subject Bluff Property, other properties, the City Infrastructure, City Property, Non-City-Owned Utilities or homes landward of the First Roads; and

5. Adequate City funds will not be committed by the City, other government agencies and/or private parties to address all economic, safety and environmental consequences

associated with the removal of each such Bluff Retention Device.

Policy L.8: If the City makes all of the findings for allowing a Bluff Retention Device to remain in place after 2081, then new permits may be issued for the Bluff Retention Devices to remain for a successive twenty (20) year permit extension; however, the City shall not reissue a Bluff Retention Device Permit on or after 2081, or upon any additional renewal, unless it makes all the following additional findings at the time of each renewal, supported by substantial evidence in the record:

1. The affected Bluff Home Owner has not unreasonably caused or contributed to the need for the Bluff Retention Device; and
2. Adequate, reasonable, and Feasible mitigation will be required and implemented in proportion to the known and reasonably anticipated (impacts with a Bluff Retention Device that is allowed to remain in place during the term of the renewed permit will have).

Policy L.9.1: Early Removal. Notwithstanding any other provisions of the LCP, but subject to the City ensuring that the criteria set forth in Policy L.9.2 are satisfied, a Bluff Retention Device may be removed at a date earlier than 2081 under any one of the following circumstances:

1. the Bluff Property Owner agrees to an earlier date for removal of the Bluff Retention Device;

2. the City acquires the Bluff Property and pays for removal of the Bluff Retention Device and all attendant consequences thereof;

3. a State or federal permitting agency requires earlier removal of the Bluff Retention Device;

4. after adequate notice to cure a material defect is given by the City to the Bluff Property Owner, the Bluff Property Owner fails to cure within a reasonable period of time, without just cause;

5. the Bluff Retention Device continues to be a material public nuisance, and the Bluff Property Owner fails to cure the nuisance within a reasonable period of time, without just cause; or

6. the Coastal Permit or any permit or approval issued by a State or federal permitting agency required for the continued existence of the Bluff Retention Device expires and is not renewed, is revoked by any such

agency for material non-compliance, and the agency requires removal of the Bluff Retention Device.

Policy L.9.2: Removal Procedures.

A. In order for the City to enforce removal of a Bluff Retention Device that meets the conditions stated above for removal, the City shall:

1. notify the Bluff Property Owner of the requirement to remove the Bluff Retention Device at least one year in advance of the date of removal;

2. enforce any existing permit conditions or other applicable legal requirements to ensure that the Bluff Retention Device permit holder pays for any and all removal and related costs required by the existing permits or applicable requirements of law, including restoring the bluff to a natural-appearing condition, to the extent feasible;

3. with respect to those matters which fall outside the private applicant's responsibility, the City shall ensure that adequate funds will be made available from the City, from other government agencies, and/or from private parties to prudently address such matters including, without limitation, all present and future economic, safety and environmental consequences associated with the removal of the Bluff Retention Device, such as demonstrating that any costs and damages associated with removal of the Bluff Retention Device as revealed in a cost/benefit analysis in accordance with Policies A.4.1, A.4.2 and A.10, will be paid; and

4. not unreasonably jeopardize other properties, the City Infrastructure, City Property, Non-City-Owned Utilities or homes landward of the First Roads.

B. Any removal of a Bluff Retention Device shall occur on a reasonable time line determined by the City.

Policy L.10: Incentives To Remove Bluff Retention Devices

On the later of December 31, 2006 or within six months after the certification of this LCP, the City shall develop a list of incentives to encourage Bluff Property Owners to relocate Bluff Homes or portions thereof, to eliminate or delay the need for a Bluff Retention Device and/or to remove Bluff Retention Devices, which could include, without limitation:

A. waiving permit fees; and

B. subject to the City maintaining adequate reserves in its Shoreline District Account, paying to the Bluff Property Owner:

1. any credit owed for overriding public benefit;

2. all property specific, prepaid Sand Mitigation Fees;

3. prepaid Land Lease Fees; and/or

4. the cost to remove the Bluff Retention Device.

DISCUSSION REGARDING FINDING "SBMC 17.62.080 (A) (9)"

The loss of beach area to the footprint of the wall will be mitigated by the increased safety for users of the public beach below the properties as a result of the wall and by payment of a deposit to the City that will be applied toward future payment of fees included as part of the City's sand mitigation and land lease fee program currently being developed.

The requirement that Marine Safety lifeguards monitor the construction and the Applicant pay ramp fees and usage fees encourages an expeditious completion of the work. In addition, other City Departments, including Engineering, Public Works and Code Enforcement, will be required to insure City standards are adhered to relative to health, safety and welfare. In addition, the project may increase public safety by reducing the potential hazards of major bluff failure. Further, the project has been and/or will be subject to payment of Coastal Commission sand mitigation and recreational impact fees, and land lease fees to offset any sand loss potentially resulting from passive erosion. The project has been conditioned to ensure that the bluff retention device is removable in 2081 as determined necessary (See Finding 5 for additional information).

CONCLUSION REGARDING FINDING "SBMC 17.62.080 (A) (9)"

This finding is made. The project as approved or conditionally approved will not adversely affect the public health, safety or welfare and will not unreasonably affect the public use of the beach. Encroachments into the public beach shall be mitigated to the satisfaction of the City Council by payment of land lease fees.

(B) CONDITIONS OF APPROVAL UNDER SBMC 17.62.080:

The City Council herby approves the issuance of a Conditional Use Permit subject to the following conditions:

Where applicable, a Permit for a Bluff Retention Device shall be conditioned as follows:

(1) Absent early acquisition by the City or defined exceptional circumstances as specified in the City adopted policies found in the DLUP approved by the City Council on July 12, 2006, the Bluff Retention Device approved hereunder may remain in place until December 31, 2081. It is further presumed that in 2081 the Bluff Retention Devices shall be subject to review and removal, unless the City Council finds generally, or on a case-by-case basis, all of the following:

(a) There is no reasonably feasible alternative for all or certain Bluff Retention Devices to remain in place for the continuing protection of all or certain Bluff Homes, City Facilities, City Infrastructure and Non-City-Owned Utilities; and

(b) The City elects not to acquire the Bluff Property at fair market value; and the Bluff Retention Device is still needed for each such Bluff Property; and

(c) All of the consequences of removal of each such Bluff Retention Device have been analyzed and the City determines that removal is not financially and logistically feasible. The analysis regarding prudent removal of the Bluff Retention Device shall include, without limitation, the City determining that all costs associated with any eventual collapse of the Bluff Property, City Facilities, and City Infrastructure, will not be paid by the City or other government or private parties responsible therefore; and

(d) Removal of the Bluff Retention Device will not unreasonably jeopardize the subject Bluff Property, other properties, the City Infrastructure, City Property, Non-City-Owned Utilities or homes landward of the First Roads; and

(e) Adequate City funds will not be committed by the City other government agencies and/or private parties to address all economic, safety and environmental consequences associated with the removal of each such Bluff Retention Device.

(2) If the City makes all of the findings for allowing a Bluff Retention Device to remain in place after 2081, then new permits may be issued for the Bluff Retention Devices to remain for a successive minimum twenty (20) year permit extension; however, the City shall not reissue a Bluff Retention Device permit on or after 2081, or upon any additional renewal, unless it makes all the following additional findings at the time of each renewal, supported by substantial evidence in the record:

The affected Bluff Home Owner has not unreasonably caused or contributed to the need for the Bluff Retention Device; and

Adequate, reasonable, and feasible mitigation will be required and implemented in proportion to the known and reasonably anticipated

impacts, which a Bluff Retention Device that is allowed to remain in place during the term of the renewed permit will have.

(3) Early Removal. Notwithstanding any other provisions of the DLUP in effect at that time, but subject to the removal procedures set forth below, a Bluff Retention Device may be removed at a date earlier than 2081 under any one of the following circumstances:

(a) The Bluff Property Owner agrees to an earlier date for removal of the Bluff Retention Device;

(b) The City acquires the Bluff Property and pays for removal of the Bluff Retention Device and all attendant consequences thereof;

(c) A State or federal permitting agency requires earlier removal of the Bluff Retention Device;

(d) After adequate notice to cure a material defect is given by the City to the Bluff Property Owner, the Bluff Property Owner fails to cure within a reasonable period of time, without just cause;

(e) The Bluff Retention Device continues to be a material public nuisance, and the Bluff Property Owner fails to cure the nuisance within a reasonable period of time, without just cause; or

(f) The Coastal Permit or any permit or approval issued by a State or federal permitting agency required for the continued existence of the Bluff Retention Device expires and is not renewed, is revoked by any such agency for material non-compliance, and the agency requires removal of the Bluff Retention Device.

(4) In order for the City to enforce removal of a Bluff Retention Device that meets the conditions stated above for removal, the City shall:

(a) Notify the Bluff Property Owner of the requirement to remove the Bluff Retention Device at least one year in advance of the date of removal; and

(b) Enforce any existing permit conditions or other applicable legal requirements to ensure that the Bluff Retention Device permit holder pays for any and all removal and related costs required by the existing permits or applicable requirements of law, including restoring the bluff to a natural-appearing condition, to the extent feasible; and

(c) With respect to those matters which fall outside the private applicant's responsibility the City shall ensure that adequate funds will be made available from the City, from other government agencies, and/or from private parties to prudently address such matters including, without

limitation, all present and future economic, safety and environmental consequences associated with the removal of the Bluff Retention Device, such as demonstrating that any costs and damages associated with removal of the Bluff Retention Device as revealed in a cost/benefit analysis in accordance with Policies A.4.1, A.4.2 and A.10, will be paid; and

(d) Not unreasonably jeopardize other properties, the City Infrastructure, City Property, Non-City-Owned Utilities or homes landward of the First Roads; and

(e) Any removal of a Bluff Retention Device shall occur on a reasonable time line determined by the City.

(5) If the City develops programs to encourage Bluff Property Owners to relocate Bluff Homes or portions thereof, to eliminate or delay the need for a Bluff Retention Device and/or to remove Bluff Retention Devices, nothing herein prevents the Property Owner subject to this Permit from using such incentives. These incentives could include, but not be limited to:

(a) Waiving permit fees; and

(b) Subject to the City maintaining adequate reserves in its Shoreline District Account, paying to the Bluff Property Owner:

1. Any credit owed for overriding public benefit;
2. All property specific, prepaid Sand Mitigation Fees;
3. Prepaid Land Lease/Recreation Fees; and/or
4. The cost to remove the Bluff Retention Device.

(6) The Applicants shall pay a $170,000.00 deposit, based on $1,000.00 per linear foot of the primary bluff retention structure, to the City to be applied against Sand Mitigation Fees and Land Lease/Recreation Fees to be assessed by the City following adoption of a formal program for said fees as defined in Resolution No. 2007-042. A mitigation offset credit shall be provided to the Applicant, as provided for in Resolution No. 2007-042. If the deposit exceeds the amount to be paid in Sand Mitigation fees, the City shall refund the excess amount, with interest. The interest shall be calculated based on the rate of return received by the City on the deposited funds as determined by the City's Finance Director from the date of receipt of the deposit to the date any such excess is refunded. Since all such fees deposited or paid by Applicant are not to duplicate other similar fees charged by other governmental agencies, the City shall pay from the fees deposited or paid (plus interest) any amounts which are due and payable to any such other governmental agencies. Any shortfall in amounts owed for said Sand Mitigation and Land Lease/Recreation Fees shall be paid by the Applicant.

(7) Nothing herein is intended to increase or decrease the rights of the Applicant under the Constitution of the State of California or the United States in accordance with Public Resources Code section 30010.

(8) The Applicant shall reduce the potential for environmental hazards including soil erosion, siltation of coastal wetlands, land slides, adverse impacts due to run-off, and other adverse effects. Landscaping for the property shall be limited to native, salt-tolerant, non-invasive and drought-tolerant species.

(9) The Coastal Structure shall be maintained and repaired on an "as needed" basis to ensure continued compatibility with the color, texture and topography of the contiguous areas, and to ensure that all surrounding areas are kept safe. The Bluff Retention Device shall be subject to periodic inspection by officers or agents of the City to determine compliance with the terms and conditions of this resolution.

(10) The Applicant shall ensure that any Accessory Structure on the Properties shall be constructed in a manner that allows easy relocation landward should they become threatened by coastal erosion. Any coastal development permits authorizing Accessory Structures shall be conditioned with a requirement that the permittee (and all successors in interest) shall remove the Accessory Structure(s) if threatened by shoreline erosion and that no Bluff Retention Device shall be allowed for the sole purpose of protecting an Accessory Structure(s).

(11) The Coastal Structure shall meet City Design Standards, which shall include the following criteria to ensure the Coastal Structure will be:

(a) Constructed to resemble as closely as possible the natural color, texture and form of the adjacent bluffs;

(b) Landscaped, contoured, maintained and repaired to blend in with the existing environment;

(c) Designed so that it will serve its primary purpose of protecting the Bluff Property, and can be feasibly removed provided all other requirements under the City's Shoreline and Bluff Protection Ordinance are satisfied, with minimal adverse impacts on the bluff face;

(d) Reduced in size and scope, to the extent feasible, while attempting to minimize the impact on the applicant's Bluff Property and other properties; and

(e) Placed at the most feasible landward location considering the importance of preserving the maximum amount of natural bluff and ensuring adequate bluff stability to protect the Bluff Property.

(12) Any pre-existing deed and/or permit restrictions applicable to the Bluff Property or Bluff Home may be reviewed and enforced by the City to bring any such pre-existing conditions into conformance with the DLUP, subject to any requirements of the CCC and to the vested rights of the Bluff Property Owner.

(13) Mitigation.

The Bluff Property Owner shall pay for the cost of the Coastal Structure and pay to the City a Sand Mitigation Fee and a Land Lease/Recreation Fee, subject to any offset for the cost of the Coastal Structure. It is understood that these fees are in lieu of all Sand Mitigation, Land Lease, Recreation and any other fees paid to any government agency or district, including, without limitation, the CCC, the San Diego Association of Governments (SANDAG) and the State Lands Commission. These fees are to be [paid based on the process established in this resolution and the City Council Resolution No. 2007-042 establishing the fee standards to be applied to this Project.

(a) Sand Mitigation Fee to Mitigate for Loss of Sand.

1. Upon issuance of the building permit for a Coastal Structure, the total amount of the Sand Mitigation Fee shall then be established. Thirty three percent (33%) of the total Sand Mitigation Fee shall be paid to the City when the permit for the Coastal Structure is issued, as mitigation for episodic events, which might have occurred if the Coastal Structure had not prevented erosion of the bluff from occurring. The remaining sixty seven percent (67%) of the Sand Mitigation Fee shall be amortized over the yearly periods ending December 31, 2081. The Sand Mitigation Fee shall be paid in equal annual installments for the period beginning one (1) year after the completion of the Coastal Structure . At the Bluff Property Owner's election, the Sand Mitigation Fee may be present valued for the period through December 31, 2081, as reasonably determined by the City, and paid in full upon issuance of the permit. Unless prepaid, a restriction shall be recorded with the property obligating the present and all future owners to make said payments.

2. To encourage removal of the Coastal Structure, the Sand Mitigation Fee shall be paid only for the period the Coastal Structure is in place, subject to a credit for any prepaid amount.

3. A credit shall be applied to the Sand Mitigation Fee equal to the value of the amount of any quantifiable deposit of sand on the beach prior to or after the issuance of the permit from the bluff area landward of the Coastal Structure.

(b) Land Lease/Recreation Fee to Mitigate for Passive Erosion Effects.

After issuance of the building permit for the Coastal Structure, requiring mitigation, and after the amount of the Land Lease/Recreation Fee is determined by the City, thirty three percent (33%) of the total amount of the Land Lease/Recreation Fee shall be paid to the City, as mitigation for episodic events, which might have occurred if the Coastal Structure had not prevented erosion of the bluff from occurring. The remaining sixty seven percent (67%) of the Land Lease/Recreation Fee shall be paid in equal annual installments over the life of the Coastal Structure. At the Bluff Property Owner's election, the Land Lease/Recreation Fee may be present valued according to a reasonable formula established by the City considering expert opinions regarding appropriate inflation and discount rates, and paid in full by the Bluff Property Owner as soon as the City establishes said Fee. The Land Lease/Recreation Fee is the same as a so-called Recreation Fee since it gives the Bluff Property Owner use of the land area which otherwise might have been available for recreational use or access, albeit with uncertainty related to safe use of the beach adjoining an unprotected bluff. If not present valued and fully paid, a restriction shall be recorded against the Bluff Property so obligating the present and all future owners to make any such deferred Land Lease/Recreation Fee payments.

The City's determination of the Land Lease/Recreation Rate shall be based upon expert opinions as to the value of the affected beach area. Any such evaluation shall be based upon vertical and lateral access, parking, climate, frequency of use, safety, distance form access points, surf quality, water and air temperature, area leased, san quality, time available for use of beach, beach width, tides, ocean conditions, and any other relevant variables.

As with any final permit decision made by the City and CCC, the right of judicial review is available to applicants and opponents including, but not limited to, judicial review of the reasonableness of the amount of the mitigation imposed, the Land Lease/Recreation Rate and any present value formula.

To encourage removal of the Coastal Structure, the Land Lease/Recreation Fee shall be paid only for the period the Coastal Structure is in place, subject to a credit when the Coastal Structure is removed for any prepaid amount.

(c) Mitigation Offset Credit

The Sand Mitigation and Land Lease/Recreation Fees shall be offset over time by an amount determined by the City Council, (or the Shoreline Planning Commission if it exists) after a public hearing to account for any proven quantified monetary public benefit flowing from

the Coastal Structure (e.g., enhance safety to beachgoers; protection of City Facilities, City Properties, City Infrastructure, greater property tax revenues, etc.) that exceeds the quantified monetary private benefit (e.g., the increase in the value of the Bluff Property). Any such credit shall also be adjusted by the CPI as referenced above in DLUP Policy L.3B and shall not exceed the dollar amount of the total of the Sand Mitigation and Land Lease/Recreation Fees paid by the Bluff Property Owner.

The City, in a public hearing, shall establish the methodology for determination of the proven public and private benefits. At the public hearing, any interested party may testify and present credible evidence, expert or otherwise, to help develop this formula which shall take into consideration all relevant variables. The pre-existing seawall on the Properties shall be brought into conformance with certain requirements for the new Coastal Structure, approved hereby, regarding compliance only with the acquisition rights provisions and the provisions in the DLUP governing the repair and maintenance. The existing seawall shall not require structural modification for the sole purpose of facilitating removal at a later date; however, if the City finds that the existing seawall is structurally unsound, is unsafe, or is materially jeopardizing contiguous private or public properties for which there is no adequate and feasible mitigation, then the City may require its reconstruction.

(14) City's Rights to Acquire Bluff Property

This discretionary permit shall be recorded against the subject Bluff Property and shall include, subject to the ability of the City to enforce these conditions, on a case-by-case basis, the following conditions:

(a) If the Applicant, or its successor in interest, desires to sell the Bluff Property, the Applicant, or its successor in interest, shall Notice the City of his, her or its intent to sell. From the date of receipt of said Notice, the City shall have a maximum forty-five (45) day First Right to Offer to purchase and enter into an agreement to purchase the Bluff Property for the List Price. The City is obligated to inform the Applicant, or its successor in interest, as soon as possible, regarding its intent to acquire or not acquire the Bluff Property. Unless the Applicant, or its successor in interest, and the City agree to other terms, the purchase agreement shall provide for a cash closing for the List Price within ninety days after receipt by the City of the Notice to sell, subject only to review of title, a current survey and an inspection of the Bluff Home and Bluff Property. If the City elects not to purchase for the original List Price and the List Price is subsequently reduced by the Applicant, or its successor in interest,, the City shall be granted a renewed First Right to Offer on the same terms as stated above, for a period of ten days after receipt of written notification by the Bluff Property Owner to the City of the reduced List Price.

(b) If the Bluff Property is under contract with a Buyer for less than 95% of the List Price, the Applicant, or its successor in interest, shall Notice the City of its ten day First Right of Refusal to buy the Bluff Property. At the City's option, the City's purchase shall be on the same terms to which the Buyer and Applicant, or its successor in interest, have agreed, or provided there is no economic harm to the Applicant, or its successor in interest, the City may purchase the Bluff Property for all cash at the Buyer's contract price with a closing on or before the date escrow would have closed with the Buyer, but not more than sixty days after the City notifies the Applicant, or its successor in interest, of its intent to purchase.

(c) The City shall have the Option Right to Purchase the Bluff Property on December 31, 2081 and at every twenty-year anniversary after that date for the Agreed Value. The acquisition terms shall be all-cash, to close by March 1 of each such following year. To the extent allowed by law, at the Seller's option, any such purchase shall be deemed to be under threat of condemnation. The City shall notify the Applicant, or its successor in interest, of its intent to purchase at least one year in advance to provide sufficient time to determine the Agreed Value.

(d) If the Applicant, or its successor in interest, submits and does not then withdraw a request to develop a new Minimum Home, or to achieve a Minimum Home by Extensive Remodel, and the Minimum Home will encroach into the required Geologic Setback, then the City shall have an Option Right to Purchase the non-conforming Bluff Property for the Agreed Value, assuming a Minimum Home can be built as provided herein, plus all reasonable costs associated with preparation and submittal of the application (e.g., architect's fee, permit costs, etc.). The Agreed Value shall be determined as expeditiously as possible, but not later than thirty (30) days after the commencement of this Option Right to Purchase. The ninety (90) day option period for the City to exercise its Option Right to Purchase shall begin on the date the Applicant, or its successor in interest, submits an application to the City for the new Bluff Home or extensive Remodel to achieve a Minimum Home. If the City does not acquire the Bluff Property within said ninety (90) day period, then the Applicant, or its successor in interest, may proceed for approval to develop a Minimum Home and the Bluff Property shall qualify, based upon its unique circumstances, for a variance to allow construction of the Minimum Home, notwithstanding that the Minimum Home would otherwise be required to conform to the DLUP and the Implementing Ordinances.

(C) COUNCIL ADOPTED ENGINEERING DEPARTMENT CONDITIONS OF APPROVAL UNDER SBMC 17.62.080:

Prior to obtaining any building or grading permits pursuant to this bluff stabilization, the Applicant shall:

(1) Prepare, execute and record a declaration of restrictions on the Properties approved by the City Attorney whereby the Applicant, or the Applicant's successors in interest, to the Properties will construct and maintain the shoreline defense structure in accordance with Conditions of this approval and in a manner so as to accommodate the continual erosion of the natural cliffs, as necessary, and the eventual removal of the structure in accordance with the other terms of this approval.

(2) Execute a waiver of all claims against the City of Solana Beach for future liability or damage resulting from permission to build as granted under this permit. Said waiver shall be notarized and recorded in the Office of the County Recorder.

(3) Obtain required CCC Permits prior to the issuance of any structure and grading permits issued by the City, or present evidence that an emergency waiver has been granted.

(4) Obtain any other permits or emergency waivers, which may be required from State and Federal agencies including the State Lands Commission and the U.S. Army Corps of Engineers.

(5) The project shall be designed and shall provide appropriate data to the satisfaction of the City Engineer. This shall include, but is not limited to, a geotechnical report.

(6) No construction materials are to be off-loaded on the ramp or at the end of the ramp. No washing of equipment shall occur unless a containment system is properly utilized.

(7) For all projects on which equipment is driven on the Fletcher Cove Beach Access Ramp, including all new City improvements and City-owned property, the access ramp and adjacent parking lot affected by the equipment must be swept daily to remove sand that has been tracked onto the ramp and parking lot. At least once a week, the access ramp and parking lot affected by the equipment must be swept with a street sweeper that is capable of cleaning the streets and parking lots affected by the equipment of paper, glass, dirt, silt, sand, rocks, litter and miscellaneous debris. The street sweeper shall be equipped with dual gutter brooks, and vacuum equipment may be used. If any sand is tracked outside the parking lot, these areas (including City streets) must also be cleaned weekly with a street sweeper.

(8) The Applicant shall pay all inspection and plan check fees as required by the City.

(9) Plans and specifications for the project shall be approved by the City Engineer in addition to approvals from the Director of Planning as may be required, and shall substantially conform to the plans submitted by the Applicant. The Coastal Structure shall produce a natural appearing bluff to the satisfaction of the City Engineer and the Community Development Director. Project implementation shall provide a final product mimicking a naturally appearing bluff in terms of colors, textures, forms and angles.

(10) A grading/drainage plan shall be prepared by a registered civil engineer in accordance with the current Grading Ordinance and be submitted to the City Engineer for approval and permit issuance, as applicable.

(11) Plans and specifications for the project shall be approved by the Planning Department prior to submittal to the Engineering Department.

(12) The Applicant shall post with the City a Performance Bond equal to the full amount of the work to be completed to guarantee that once started, construction will be completed per approved plans.

(13) The Applicant shall submit a Certificate of Insurance naming the City of Solana Beach as an additional insured in the amount of $1,000,000 on a policy of general liability insurance issued by an insurance company licensed to do business in California, and meeting the requirements established by City Council resolution for insurance companies doing business with the City, covering injuries to persons and property during the construction period.

(14) The Applicant shall obtain a Special Use (Marine Safety) Permit specifying the conditions governing use of vehicles, use of the boat ramp, and entry upon and use of areas of the public beach for construction equipment and vehicles. Evidence of the Special Use (Marine Safety) permit issuance shall be submitted to the City Engineer before issuance of the City permit for the project.

(15) The Applicant shall have on file evidence from the Captain of Marine Safety and City Engineer, City of Solana Beach, that arrangements have been made to satisfy the following criteria:

a. Prior to usage of the Solana Beach Fletcher Cove ramp or parking lot, a cash deposit, bond or other security agreement shall be delivered to the City to cover the following impact charges.

b. A two-dollar and fifty cents per ton fee, or less if approved by the City Council, based on the estimated weight of the vehicle and load for all vehicles in excess of ¾ ton capacity, excluding any vehicles solely transporting beach grade replenishment sand.

c. A twenty-five dollar per day charge for the first 30 days escalating to fifty dollars per day for the 31st and subsequent days charge shall be

collected to encourage a timely completion of all projects, unless otherwise modified for good cause by the City Council or City Manager.

d. Any damage caused to the Solana Beach Fletcher Cove ramp and parking lot.

e. A five-dollar per round trip vehicle charge for all construction related vehicles using the ramp.

(16) At least one City of Solana Beach Lifeguard shall be contracted, at the Applicant's expense, through the Captain of Marine Safety to monitor all beach activities in order to insure full compliance with the conditions of this permit. The lifeguard(s) shall be on duty at all times when any construction activity takes place. Additional lifeguards may be added at the discretion of the Captain of Marine Safety as reasonably required to ensure public safety and no damage to City properties.

(17) If construction access is from South Sierra Avenue, precautions shall be taken to avoid damage to the Fletcher Cove parking lot and the beach access ramp leading from the parking lot cul-de-sac to the beach during construction and repairs. If damage to the ramp occurs, it shall be repaired to a condition equivalent to the condition at the start of construction activity to the satisfaction of the City of Solana Beach City Engineer. All City owned work areas including Plaza Street and access ramp shall be videotaped prior to the commencement of the project. The videotape shall establish the "as-is" condition. In any areas missed by the videotape, the City Engineer will determine "as-is" condition.

(18) If access is from the State Park at the north end of Solana Beach, precautions shall be taken to avoid damage to the hard layer of fossiliferous sandstone that forms the beach surface at the north end of the coastal bluffs. Such access may necessitate State approval. Proof of approval for such access shall be provided to the City Engineer before construction begins.

(19) The Applicant and/or contractor shall obtain a haul route permit from the City Engineering Department.

(20) Beach quality sand from the excavation for the proposed project shall be deposited and spread on the beach in front of this site unless unique and/or inappropriate conditions are encountered. The Applicant should reference this condition to other permitting agencies on an "as needed" basis.

(21) An encroachment permit from the Engineering Department is required if a crane, construction materials, etc. are to be stationed anywhere in the public right of way. Public property shall not be used as a staging area or storage yard at any time during the project. This includes, but is not limited to: Fletcher Cove (including the beach, the ramp and the parking area) and any of the City owned parking lots along Sierra Avenue.

(22) Any grout mixture used on the project that may be visible from the beach or surrounding areas shall be of similar strength, erosion properties, and color as the surrounding natural bluffs. Color samples shall be submitted and approved by the City prior to placing the grout.

(23) The structure and any exposed construction shall mimic the natural contours, color and texture to the maximum extent practicable, as determined by the City Engineer and Community Development Director.

(24) Where appropriate, a carved, colored and textured facade on the face of the structure matching the adjacent bluff areas shall be constructed. The façade shall match the contours, both vertically and horizontally, and the texture of the adjacent natural bluffs. Coastal bluff colored grouting shall be used.

(25) A qualified, licensed and insured contractor shall perform all required work as outlined by a certified/registered engineering geologist or Registered Civil Engineer on the construction plans. Special and general notes on said plans shall be followed to the satisfaction of the City Engineer or his designee.

(26) Lateral pedestrian and Marine Safety vehicular access through the construction area shall be provided past the site at all times, subject to high tides and safety issues. A 30-foot wide safety/construction work zone shall be provided during work hours to separate the work zone from the open public beach.

(27) No construction activities may occur during the period between Memorial Day and Labor Day. The contractor shall obtain approval from the City of Solana Beach Engineering and Marine Safety Departments regarding the use and timing of the Fletcher Cove parking lot and beach access ramp for all construction related access, staging and parking issues if such use becomes required.

(28) Prior to Final Inspection of the project, the Applicant shall:

a. Submit certifications to the City Engineer from the Geotechnical Engineer and the Civil Engineer of Record for the project that they have inspected the project and certify that it was constructed per the approved plan, specifying the date of the plan.

b. The Applicant and/or contractor shall repair any damage caused to City property and facilities, including but not limited to, Fletcher Cove ramp and parking lot to the satisfaction of the City Engineer.

(29) The Applicant shall provide for and adhere to the following Conditions:

a. All development on the site shall substantially conform to the final Conditional Use Permit Plan approved by the City Council

b. The Applicant shall be responsible to immediately remove, in perpetuity, any graffiti or other markings should they appear on the project exterior face. If erosion exposes the steel rebar, the Applicant or its successor in interest shall arrange to apply a sculptor-coat of concrete over the exposed steel to match the natural bluff. The Applicant, or its successor in interest, shall be responsible for the removal of the structure or any portion thereof.

c. If requested by the City Manager or his designee, the Applicant, or its successor in interest, shall install and maintain signage about unstable bluffs fronting their Properties.

d. The Applicant shall provide "As-Built" plans and all required certifications to the City before the City will release the Performance Bond.

(30) Pursuant to SBMC Section 7.34.100, Construction hours are limited to 7:00 a.m. to 7:00 p.m., Monday through Friday, and 8:00 a.m. to 7:00 p.m. on Saturday. No work is allowed on Sunday or holidays unless specifically approved pursuant to SBMC Section 7.34.100.B. Engines shall not be started, no construction-related materials shall be moved, or any other construction-related activities occur outside these hours. Work is not permitted on the beach on Saturdays without the written approval of the City Manager.

//

//

//

//

//

//

Plans for new development and redevelopment projects shall incorporate Best Management Practices (BMPs) during construction activities, as well as, post-construction activities that will reduce to the maximum extent practicable the amount of pollutants that are generated and/or discharged into the City's storm drain system and surrounding coastal waters. BMPs should be selected based on efficacy at mitigating Constituents of Concern (COC) associated with respective development types/uses and the surrounding watershed. For design purposes, post-construction structural BMPs (or suites of BMPs) should be designed to treat, infiltrate or filter storm water runoff from each storm, up to and including the 85th percentile, 1-hour storm event, with an appropriate safety factor, for flow-based BMPs. All new developments and significant redevelopment projects as defined in the City's Standard Urban Runoff Mitigation Plan (SUSMP) must comply with regulations contained in the City's adopted SUSMP.

PASSED AND ADOPTED at a regular meeting of the City Council of the City of Solana Beach, California, held on the 22nd day of August 2007, by the following vote.

AYES: Councilmembers – Heebner, Kellejian, Roberts, Nichols, Campbell

NOES: Councilmembers – None

ABSENT: Councilmembers – None

ABSTAIN: Councilmembers – None

LESA HEEBNER, Mayor

APPROVED AS TO FORM:

JAMES P. LOUGH, City Attorney

ATTEST:

ANGELA IVEY, City Clerk