

CALIFORNIA COASTAL COMMISSION

725 FRONT STREET, SUITE 3 00
SANTA CRUZ, CA 95060
VOICE (831) 427- 4863
FAX (831) 427- 4877



F18b

Filed: 2/6/2012
Action Deadline: 11/2/2012
Staff: J. Akeman - SC
Staff Report: 7/19/2012
Hearing Date: 8/10/2012

STAFF REPORT: REGULAR CALENDAR

Application No.: 3-11-034

Applicant: Richard Novak

Agent: Derek Van Alstine

Location: On beach and base of bluffs at Privates Beach seaward of 4480 Opal Cliff Drive in the Opal Cliffs region of the unincorporated Live Oak area of Santa Cruz County (APN 33-151-10).

Project Description: Modify the foundation of an existing concrete seawall by placing about 3 cubic yards of concrete into voids that have formed under the seawall's base, painting the existing seawall, removal of invasive plants and replanting native plants on the bluff face and drainage improvements.

Staff Recommendation: Approval with conditions.

SUMMARY OF STAFF RECOMMENDATION

Staff is recommending approval for the repair and maintenance of an existing previously permitted reinforced concrete vertical seawall located at the base of the bluff fronting 4480 Opal

Cliff Drive in the Opal Cliffs neighborhood in Santa Cruz County. The project consists of filling voids and undermined sections beneath the seawall platform with cement; applying surface treatment to fill cracks and scoured areas; painting the seawall to cover graffiti and to visually blend it in with the surrounding bluff; removing rocks, riprap and concrete blocks that are located on the beach seaward of the seawall; removing invasive non-native vegetation on the blufftop and bluff face above the seawall; replanting the blufftop and bluff area above the seawall with native plant species, and drainage improvements (to direct drainage and drainage infrastructure inland and away from the bluffs).

The proposed project would alter the base of the seawall through the addition of approximately 3 cubic yards of cement grout to fill voids and an undermined section beneath the seawall platform, but would otherwise return the seawall to its originally permitted configuration. Although such a repair project is fairly routine, Coastal Act issues are engendered nonetheless because the recreational beach area will be impacted for the duration of the repair and maintenance activities, failure and deterioration of the seawall could adversely affect recreational resources, and future erosion response could lead to more substantive shoreline armoring in the future.

These Coastal Act issues are addressed by conditions that reinforce the Applicant's proposed mitigations and build on them to facilitate implementation success, including by attaching them as project conditions requiring: appropriate best management practices to protect water quality, public property, public amenities and public access during construction; removal of the invasive, non-native plants and replanting with native vegetation for stability and visual enhancement; upgraded drainage facilities away from the bluff; removal of fugitive rocks, riprap and concrete blocks off the beach below the property to improve beach access and recreational opportunities; restoration of the beach area after construction activities; mottled surface painting to ensure that the seawall blends with the surrounding natural bluff landforms as much as possible; long-term monitoring and maintenance of the repaired, as-built seawall, drainage infrastructure, and bluff plantings; other required agency approvals; and assumption of risk. As conditioned, the project can be found consistent with the Coastal Act.

Staff recommends that the Commission **approve** coastal development permit application 3-11-034, as conditioned. The motion to act on this recommendation is found on page 4 below.

TABLE OF CONTENTS

I. MOTION AND RESOLUTION	4
II. STANDARD CONDITIONS	4
III. SPECIAL CONDITIONS	5
IV. FINDINGS AND DECLARATIONS	13
A. PROJECT LOCATION AND DESCRIPTION	13
B. PROJECT BACKGROUND	14
C. COASTAL DEVELOPMENT PERMIT DETERMINATION	15
D. CALIFORNIA ENVIRONMENTAL QUALITY ACT	21

APPENDICES

Appendix A – Substantive File Documents

EXHIBITS

Exhibit 1 – Project Location Map

Exhibit 2 – Proposed Project Plans

Exhibit 3 – Proposed Landscaping Plans

Exhibit 4 – Project Area Photos

I. MOTION AND RESOLUTION

Motion:

*I move that the Commission **approve** Coastal Development Permit Application No. 3-11-034 subject to the conditions set forth in the staff recommendation.*

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

Resolution:

The Commission hereby approves coastal development permit 3-11-034 and adopts the findings set forth below on grounds that the development as conditioned will be in conformity with the policies of Chapter 3 of the Coastal Act. Approval of the permit complies with the California Environmental Quality Act because either 1) feasible mitigation measures and/or alternatives have been incorporated to substantially lessen any significant adverse effects of the development on the environment, or 2) there are no further feasible mitigation measures or alternatives that would substantially lessen any significant adverse impacts of the development on the environment.

II. STANDARD CONDITIONS

This permit is granted subject to the following 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 of 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.

III. SPECIAL CONDITIONS

This permit is granted subject to the following special conditions:

1. **Final Plans.** PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the Permittee shall submit two sets of Final Plans to the Executive Director for review and approval. The Final Plans shall be substantially in conformance with the plans submitted to the Coastal Commission (titled "Seawall Maintenance" by Soil Engineering Construction, Inc. dated revised February 2, 2012 and dated received in the Commission's Central Coast District Office February 3, 2012; and titled "Novak Residence Landscape Plan" by Ellen Cooper, Landscape Architect dated July 13, 2011) but shall show the following changes and clarifications to the project:

- (a) **Concrete Surfacing.** The surface of the concrete seawall shall be painted in a mottled style that best replicates the range and variety of adjacent natural bluff colors (i.e., the painted seawall shall include an appropriate range of mottled hues, browns, greens, beiges, etc., that best mimic the surrounding bluff face). The Permittee shall submit color samples for the seawall surface painting to the Executive Director for review and approval prior to painting.

- (b) **Landscaping.** The landscaping component of the Final Plans shall address the entire project area (i.e., on the blufftop and bluff face between a line 5-feet inland of the blufftop edge and the top of the seawall), shall be developed with input from a landscape professional experienced in invasive plant eradication and native coastal bluff planting efforts, and shall be submitted with evidence of the review and approval of a licensed engineering geologist with experience with coastal bluffs and processes to ensure that the Plan is consistent with promoting blufftop and bluff stability. The landscaping component shall at a minimum provide for the following:

- i. Remove non-native and invasive species. All non-native and invasive species in the project area (including ice plant, pampas grass, and english ivy) shall be removed and shall not be allowed to persist. If physical removal (including the root ball) of existing non-native and invasive vegetation on the bluff face will compromise the integrity of the coastal bluff (in the opinion of the licensed engineering geologist and the Executive Director), then the majority of the tops of such vegetation shall be removed (by cutting or other appropriate methods, thus leaving minimum plant material and the root ball intact), an appropriate herbicide shall be applied and reapplied to the remaining plant material until it has completely died, and native bluff species shall be aggressively planted or seeded around the remaining plant material.
- ii. Plant native species. The project area shall be planted with non-invasive native (to the Opal Cliffs bluff area) species in a manner designed to provide for a dense cascading

screen of vegetation over the project area for the life of the project. Nearest the seawall, bluff species capable of trailing vegetation that can screen the top of the seawall as seen from the beach and area offshore shall be used (e.g., Carmel creeper, *Ceanothus griseus* var. *horizontalis*) to provide as much screening of the seawall as possible. The plans shall include certification from a licensed landscape professional experienced with native species indicating that all plant species to be used are native and non-invasive. A permanent irrigation program and/or system capable of providing for long-term planting success shall be included. All plants shall be replaced as necessary to maintain the approved vegetation over the life of the project. The landscaping plan shall be implemented immediately following completion of the seawall repair, and all plantings shall be kept in good growing condition and replaced as necessary to maintain some visual screening of the wall over the life of the project.

(c) **Drainage.** The plans shall clearly identify all permanent measures to be taken to collect and direct site drainage, including drainage in the blufftop area. Such drainage may be used for landscape irrigation provided such irrigation use does not contribute to bluff instability in any way. Any drainage not used for on-site irrigation purposes shall be collected and directed to inland storm drain collection systems. Drainage shall not be allowed: to pond at the blufftop edge; sheet flow over the bluff seaward; or otherwise be directed seaward. Drain pipes shall not be directed over, through, or in any way seaward of the blufftop edge.

(d) **Riprap, rock, concrete blocks, and debris removal.** The plans shall provide that all debris and all riprap, rock, concrete blocks, and any other materials associated with prior armoring attempts on the seawall or seaward of it shall be immediately removed and properly disposed of at an appropriate disposal location acceptable to the Executive Director.

All requirements above and all requirements of the approved Final Plans shall be enforceable components of this coastal development permit. The Permittee shall undertake development in accordance with the approved Final Plans.

2. **Construction Plan.** PRIOR TO COMMENCEMENT OF CONSTRUCTION, the Permittee shall submit two sets of a Construction Plan to the Executive Director for review and approval. The Construction Plan shall, at a minimum, include the following:

(a) **Construction Areas.** The Construction Plan shall identify the specific location of all construction areas, all staging areas, all storage areas, all construction access corridors (to the staging areas and construction site,), and all public pedestrian access corridors. All such areas within which construction activities and/or staging are to take place shall be minimized to the maximum extent feasible in order to minimize construction encroachment on the beach, Opal Cliff Drive, the Opal Cliffs Recreation District's park area and public coastal access stairway and all other beach access points, and to have the least impact on public access.

(b) **Construction Methods and Timing.** The Construction Plan shall specify the construction methods to be used, including methods for keeping the construction areas separated from public recreational use areas (i.e., using the space available on the

Permittee's property inland of the blufftop for staging, storage, and construction activities to the maximum extent feasible, and including using unobtrusive fencing, or equivalent measures, to delineate construction areas). All erosion control/water quality best management practices to be implemented during construction and their location shall be noted.

- (c) **Property Owner Consent.** The Construction Plan shall be submitted with written evidence indicating that the owners of any properties on which construction activities are to take place, including properties to be crossed in accessing the site, consent to such use of their properties.
- (d) **Construction Requirements.** The Construction Plan shall include the following construction requirements specified by written notes on the Construction Plan. Minor adjustments to the following construction requirements may be allowed by the Executive Director if such adjustments: (1) are deemed reasonable and necessary; and (2) do not adversely impact coastal resources.
- All work shall take place during daylight hours and lighting of the beach area is prohibited.
 - Construction work or equipment operations shall not be conducted below the mean high water line unless tidal waters have receded from the authorized work areas.
 - Grading of intertidal areas is prohibited with one exception as follows: existing rock, riprap and concrete blocks that have migrated seaward of the seawall, that are naturally exposed, and that can be retrieved without substantial excavation of the surrounding sediments, shall be retrieved and removed to an appropriate disposal location acceptable to the Executive Director. Any existing materials retrieved in this manner shall be recovered by excavation equipment positioned landward of the waterline (i.e., excavator equipment with mechanical extension arms).
 - Only rubber-tired construction vehicles are allowed on the beach, except track vehicles may be used if the Executive Director agrees that they are required to safely carry out construction. When transiting on the beach, all such vehicles shall remain as high on the upper beach as possible and avoid contact with ocean waters and intertidal areas.
 - All construction materials and equipment placed on the beach during daylight construction hours shall be stored beyond the reach of tidal waters. All construction materials and equipment shall be removed in their entirety from the beach area by sunset each day that work occurs. The only exceptions shall be for erosion and sediment controls and/or construction area boundary fencing where such controls and/or fencing are placed as close to the toe of the seawall as possible, and are minimized in their extent, and for rock and concrete materials that are in the process of being relocated.
 - Construction (including but not limited to repair and maintenance construction activities, and materials and/or equipment storage) is prohibited outside of the defined construction, staging, and storage areas.

- No work shall occur on the beach during weekends and/or the summer peak months (i.e., from the Saturday of Memorial Day weekend through Labor Day, inclusive) unless, due to extenuating circumstances (such as tidal issues or other environmental concerns), the Executive Director authorizes such work.
- Equipment washing shall not take place on the beach; refueling and/or servicing of equipment shall be allowed only at a designated location as noted on the Plan. Appropriate best management practices shall be used to ensure that no spills of petroleum products or other chemicals take place during these activities.
- The construction site shall maintain good construction site housekeeping controls and procedures (e.g., clean up all leaks, drips, and other spills immediately; keep materials covered and out of the rain, including covering exposed piles of soil and wastes; dispose of all wastes properly, place trash receptacles on site for that purpose, and cover open trash receptacles during wet weather; remove all construction debris from the beach; etc.).
- All erosion and sediment controls shall be in place prior to the construction as well as at the end of each workday. At a minimum, silt fences, or equivalent apparatus, shall be installed at the perimeter of the construction site to prevent construction-related runoff and/or sediment from entering into the Pacific Ocean.
- All beach areas and all beach access points impacted by construction activities shall be restored to their pre-construction condition or better within three days of completion of construction. Any beach sand impacted shall be filtered as necessary to remove all construction debris from the beach.
- The Permittee shall notify planning staff of the Coastal Commission's Central Coast District Office at least three working days in advance of commencement of construction, and immediately upon completion of construction.

All requirements above and all requirements of the approved Construction Plan shall be enforceable components of this coastal development permit. The Permittee shall undertake development in accordance with the approved Construction Plan.

3. Construction Site Documents & Construction Coordinator. DURING ALL CONSTRUCTION:

- (a) Construction Site Documents.** Copies of the signed coastal development permit and the approved Construction Plan shall be maintained in a conspicuous location at the construction job site at all times, and such copies shall be available for public review on request. All persons involved with the construction shall be briefed on the content and meaning of the coastal development permit and the approved Construction Plan, and the public review requirements applicable to them, prior to commencement of construction.
- (b) Construction Coordinator.** A construction coordinator shall be designated to be contacted during construction should questions arise regarding the construction (in case of both regular inquiries and emergencies), and the coordinator's contact information (i.e., address, phone numbers, etc.) including, at a minimum, a telephone number that will

be made available 24 hours a day for the duration of construction, shall be conspicuously posted at the job site where such contact information is readily visible from public viewing areas, along with an indication that the construction coordinator should be contacted in the case of questions regarding the construction (in case of both regular inquiries and emergencies). The construction coordinator shall record the name, phone number, and nature of all complaints received regarding the construction, and shall investigate complaints and take remedial action, if necessary, within 24 hours of receipt of the complaint or inquiry.

- 4. MBNMS/SLC Review.** PRIOR TO COMMENCEMENT OF CONSTRUCTION, the Permittee shall submit to the Executive Director for review a copy of the Monterey Bay National Marine Sanctuary (Sanctuary) and State Lands Commission (State Lands) authorizations for the approved project, or evidence that no Sanctuary/State Lands authorizations are necessary. Any changes to the approved project required by the Sanctuary or State Lands shall be reported to the Executive Director. No changes to the approved project shall occur without a Commission amendment to this coastal development permit unless the Executive Director determines that no amendment is legally necessary.
- 5. As-Built Plans.** WITHIN THREE MONTHS OF COMPLETION OF CONSTRUCTION, the Permittee shall submit two copies of As-Built Plans to the Executive Director for review and approval showing the as-built seawall and all other development completed pursuant to this coastal development permit; all property lines; and all development inland of the seawall structure. The As-Built Plans shall be substantially consistent with the approved project described in Special Condition 1 above, including providing for all of the same requirements specified in those plans, and shall account for all of the parameters of Special Condition 6 (Monitoring and Reporting) and Special Condition 7 (Future Maintenance). The As-Built Plans shall include a graphic scale and all elevation(s) shall be described in relation to National Geodetic Vertical Datum (NGVD). The As-Built Plans shall include color photographs (in hard copy and jpg format) that clearly show all components of the as-built project, and that are accompanied by a site plan that notes the location of each photographic viewpoint and the date and time of each photograph. At a minimum, the photographs shall be from representative upcoast and downcoast viewpoints that provide full photographic coverage of all development authorized and the entire bluff area at the site, including the blufftop landscaping area. The As-Built Plans shall be submitted with certification by a licensed civil engineer with experience in coastal structures and processes, acceptable to the Executive Director, verifying that the seawall maintenance project has been constructed in conformance with the approved final plans.
- 6. Monitoring and Reporting.** The Permittee shall ensure that the condition and performance of the approved project and related development are regularly monitored, including that the seawall must be regularly monitored by a licensed civil engineer with experience in coastal structures and processes. Such monitoring evaluation shall at a minimum address whether any significant weathering or damage has occurred that would adversely impact future performance, and identify any structural damage requiring repair to maintain the approved development in its approved and/or required state. Monitoring reports prepared by a licensed civil engineer with experience in coastal structures and processes, and covering the above-described evaluations, shall be submitted to the Executive Director for review and approval

at five year intervals by May 1st of each fifth year (with the first report due May 1, 2017, and subsequent reports due May 1, 2022, May 1, 2027, and so on) for as long as the seawall and related development exists at these locations. The reports shall identify the existing configuration and condition of the seawall, irrigation/drainage infrastructure, and required landscaping, shall recommend actions necessary to maintain these project elements in their approved and/or required state, and shall include photographs taken from each of the same vantage points required in Special Condition 5 (As-Built Plans) with the date and time of the photographs and the location of each photographic viewpoint noted on a site plan. Actions necessary to maintain the approved project in a structurally sound manner and its approved state shall be implemented within 30 days of Executive Director approval, unless a different time frame for implementation is identified by the Executive Director.

7. Future Maintenance Required and Authorized. This coastal development permit requires and authorizes future maintenance as described in this special condition. The Permittee acknowledges and agrees, on behalf of itself and all successors and assigns that: (a) it is the Permittee's responsibility to maintain the seawall, the landscaping and vegetative screening, and all irrigation and drainage structures associated with this permit in a structurally sound manner and their approved state; (b) to retrieve and dispose of rocks, concrete blocks, and any other like materials located seaward of the seawall at a location acceptable to the Executive Director as soon as is feasible after discovery; and (c) to remove all debris that may fall from the area seaward of the residence onto the seawall or the beach below. This coastal development permit authorizes future seawall maintenance and repair subject to the following:

(a) Maintenance. "Maintenance," as it is understood in this special condition, means development that would otherwise require a coastal development permit whose purpose is to maintain the seawall, irrigation/drainage infrastructure, and landscaping in their approved states and to maintain consistency with the terms and conditions of this coastal development permit (e.g., retrieval and disposal of rocks, concrete blocks, and any other like materials).

(b) Other Agency Approvals. The Permittee acknowledges that these maintenance stipulations do not obviate the need to obtain permits from other agencies for any future maintenance and/or repair episodes.

(c) Maintenance Notification. At least two weeks prior to commencing any maintenance event, the Permittee shall notify, in writing, planning staff of the Coastal Commission's Central Coast District Office. The notification shall include: a detailed description of the maintenance event proposed; any plans, engineering and/or geology reports describing the event; a construction plan that complies with all aspects of the Construction Plan described above; identification of a construction coordinator and his/her contact information (i.e., address, phone numbers, etc.) as described above; other agency authorizations; and any other supporting documentation (as necessary) describing the maintenance event. The maintenance event shall not commence until the Permittee has been informed by planning staff of the Coastal Commission's Central Coast District Office that the maintenance event complies with this coastal development permit. If the Permittee has not been given a verbal, or sent a written, response within 30 days of the notification being received in the Central Coast District Office, the maintenance event

shall be authorized as if planning staff affirmatively indicated that the event complies with this coastal development permit. The notification shall clearly indicate that the maintenance event is proposed pursuant to this coastal development permit, and that the lack of a response to the notification within 30 days constitutes approval of it as specified in the permit. In the event of an emergency requiring immediate maintenance, the notification of such emergency episode shall be made as soon as possible, and shall (in addition to the foregoing information) clearly describe the nature of the emergency.

- (d) **Maintenance Coordination.** Maintenance events shall, to the degree feasible, be coordinated with other maintenance events proposed in the immediate vicinity with the goal being to limit coastal resource impacts, including the length of time that construction occurs in and around the beach area and beach access points. As such, the Permittee shall make reasonable efforts to coordinate the Permittee' maintenance events with other adjacent events, including adjusting maintenance event scheduling as directed by planning staff of the Coastal Commission's Central Coast District Office.
- (e) **Construction Site Documents and Construction Coordinator.** All requirements set forth above under Special Condition 3 (Construction Site Documents & Construction Coordinator) shall apply to any maintenance event.
- (f) **Restoration.** The Permittee shall restore all beach areas and all beach access points, specifically the Opal Cliffs Recreation District's park area and public coastal access stairway, which may be impacted by construction activities to their pre-construction condition or better. Any beach sand impacted shall be filtered as necessary to remove all construction debris from the beach within three days of completion of construction. The Permittee shall notify planning staff of the Coastal Commission's Central Coast District Office upon completion of beach-area restoration activities to arrange for a site visit to verify that all beach-area restoration activities are complete. If planning staff should identify additional reasonable measures necessary to restore the beach and beach access points, such measures shall be implemented as quickly as reasonably possible.
- (g) **Noncompliance Proviso.** If the Permittee is not in compliance with the terms and conditions of any Coastal Commission coastal development permits or other coastal authorizations that apply to the subject property at the time that a maintenance event is proposed, then the maintenance event that might otherwise be allowed by the terms of this future maintenance condition shall not be allowed by this condition until the Permittee is in full compliance with those terms and conditions.
- (h) **Emergency.** In addition to the emergency provisions set forth in subsection (c) above, nothing in this condition shall serve to waive any Permittee rights that may exist in cases of emergency pursuant to Coastal Act Section 30611, Coastal Act Section 30624, and Subchapter 4 of Chapter 5 of Title 14, Division 5.5, of the California Code of Regulations (Permits for Approval of Emergency Work).
- (i) **Duration of Covered Maintenance.** Future maintenance under this coastal development permit is allowed subject to the above terms until August 10, 2022. Maintenance can be carried out beyond August 10, 2022 if the Permittee requests an extension prior to that date and if the Executive Director extends the maintenance term in writing. The intent of

this permit is to allow for 10-year extensions of the maintenance term for as long as the seawall remains authorized unless there are changed circumstances that may affect the consistency of this maintenance authorization with the policies of Chapter 3 of the Coastal Act and thus warrant a re-review of this permit.

- 8. Public Rights.** The issuance of this coastal development permit shall not constitute a waiver of any public rights which may exist on the subject properties. The Permittee shall not use such permit as evidence of a waiver of any public rights that may exist on the properties.
- 9. Assumption of Risk, Waiver of Liability, and Indemnity Agreement.** By acceptance of this permit, the Permittee acknowledges and agrees on behalf of itself and all successors and assigns:
 - (a) That the site is subject to extreme coastal hazards including but not limited to episodic and long-term shoreline retreat and coastal erosion, high seas, ocean waves, storms, tsunamis, coastal flooding, landslides, bluff and geologic instability, and the interaction of same;
 - (b) To assume the risks to the Permittee and the property that is the subject of this permit of injury and damage from such hazards in connection with this permitted development;
 - (c) To unconditionally waive any claim of damage or liability against the Commission, its officers, agents, and employees for injury or damage from such hazards;
 - (d) 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; and,
 - (e) That any adverse effects to property caused by the permitted project shall be fully the responsibility of the Permittee.
- 10. Deed Restriction.** WITHIN ONE YEAR OF COMMISSION APPROVAL OF THIS COASTAL DEVELOPMENT PERMIT, the Permittee shall submit to the Executive Director for review and approval documentation demonstrating that the Permittee has executed and recorded against the subject property governed by this permit (i.e., APN 033-151-10) 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 said properties; and (2) imposing the 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 and a graphic description of the property 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 property so long as either this permit or the development this permit authorizes, or any part, modification, or amendment thereof, remains in existence on or with respect to said properties.

IV. FINDINGS AND DECLARATIONS

A. PROJECT LOCATION AND DESCRIPTION

Project Location

The project is located in Santa Cruz County on California's central coast. Santa Cruz County is bordered to the north by San Mateo County and to the south by Monterey County. Santa Cruz County coastal zone resources are varied and oftentimes spectacular, and consist of an eclectic collection of shoreline environments ranging from craggy outcrops to sandy beaches. The grandeur of the region and its national significance was formally recognized in 1992 when the Monterey Bay was designated as a National Marine Sanctuary, one of the largest of the fourteen such federally protected marine sanctuaries in the nation.

The project area is located along a roughly one-mile stretch of coastline in the unincorporated area of Santa Cruz County known as Opal Cliffs. The Opal Cliffs area extends roughly from 41st Avenue (upcoast) to Cliff Drive near Hooper Beach at the Capitola city limits (downcoast). The Opal Cliffs shoreline area is almost entirely developed with a row of private residential properties that are perched atop the bluffs located seaward of the first through public road (Opal Cliff Drive). As a result, seaward public views and access from Opal Cliff Drive have been extremely curtailed (see Exhibit 1 for project location maps).

The project is located at the base of the bluffs and on the beach at the base of the Opal Cliffs Recreation District's stairway, which is a relatively small pocket beach accessed by the only public coastal accessway to the shoreline (via a stairway) between 41st Avenue and Hooper Beach in Capitola. The beach accessway is operated by the Opal Cliffs Recreation District, and it is accessed via Opal Cliff Drive along a path through a linear park area that leads to the stairway down to the beach. The beach area is relatively narrow, and is almost entirely backed by a range of different shoreline armoring structures (riprap, concrete seawalls, formed concrete cylinders, etc.). Even so, as the site of the one vertical accessway to the shoreline between the stairway at the Hook at 41st Avenue and the stairway to Hooper Beach in Capitola, a stretch of 1 mile, the accessway and beach area are important public access areas.

The project site itself is located seaward of 4480 Opal Cliff Drive at the base of the coastal bluff, about 100 feet upcoast from the stairway location. The bluffs here are about 45 to 50 feet tall, and consist of a layer of Purisima siltstone/sandstone bedrock overlain by coastal terrace deposits (see project area photos in Exhibit 4).

Project Description

The base of the bluff seaward of 4480 Opal Cliff Drive is fronted by an existing 17-foot tall reinforced concrete vertical seawall that spans the length of the 85-foot wide parcel (see Exhibit 4 for a 2012 photo of the seawall, and see the project background section below for site history). According to the Applicant's geotechnical representative, the existing seawall requires repair and maintenance in order to ensure its continued protective function. In addition, other erosion control work on the bluff is necessary. Thus, work would take place at the blufftop, on the bluff face, on the existing seawall, and on the beach seaward of the existing seawall.

The work at the blufftop and on the bluff face would consist of the eradication of all non-native invasive vegetation (including the removal of the pampas grass, english ivy, and ice plant) between the top of the seawall and a line 5 feet inland of the blufftop edge. The blufftop area and bluff face at the top of the seawall would be replanted with native plantings designed to help with erosion control and cascade over the topmost portion of the blufftop and top of the seawall. The Applicant proposes to maintain all plantings in good growing condition and in a manner to provide complete vegetative cover, including screening of the top of the seawall. Replacement plants would be installed as necessary to maintain such landscaping for the life of the project. The work on the beach seaward of the existing seawall will consist of the collection of fugitive rocks, riprap and concrete blocks below the property at the toe of the seawall on the beach and disposing of such materials at a certified landfill facility. No removal work will be done in the intertidal areas unless existing rock, riprap and concrete blocks that have migrated seaward of the seawall are naturally exposed, and can be retrieved without substantial excavation of the surrounding sediments and at low tides.

The work at the existing seawall would consist of filling cracks and areas of scour on the seawall surface, and voids and undermined sections below the seawall platform formed due to settlement, erosion of the bluff material and bluff movement, ocean exposure, wave run-up and wave swash. The filling of the voids at the seawall foundation would use approximately three cubic yards of cement. The voids and undermined areas are estimated to be 6-inches deep and 12-inches back from the face of the front edge along the entire 85-foot length of the seawall. The cement would be installed using a standard dry pack installation method where the voids and undermined areas would be cleared of sand and debris, and a dry sand cement mix would be packed by hand to fill the voids and undermined areas. In addition, the surface of the wall has been tagged by graffiti and painted over numerous times to cover it up, and the Applicant further proposes to paint over the seawall in a mottled style that mimics the surrounding bluff face in terms of coloring.

The Applicant further proposes a series of construction best management practices to protect water quality, public property amenities and public access during the work. Once the repair and maintenance of the seawall is complete, the Applicant proposes to restore the beach area back to its original condition. See proposed project plans in Exhibit 2.

B. PROJECT BACKGROUND

The existing seawall has a long CDP history associated with it. Originally the property owner at 4480 Opal Cliff Drive was granted a CDP in 1983 for a rock revetment at the base of the bluffs fronting this site (CDP 3-83-176).¹ However, the riprap was not installed, apparently due to concerns about construction access issues from high tides, the narrowness of the beach areas, the bluff outcroppings that prevent lateral access during high tides, and the difficulty of bringing materials and equipment to the project site.

After the installation of the riprap at 4350, 4360 and 4390 Opal Cliff Drive, the property at 4370

¹ CDP 3-83-176 allowed for the expansion of three existing rock revetments at 4350 and 4360 Opal Cliff Drive (at the time 4360 Opal Cliff Drive was two separate parcels with one address), and the installation of two new rock revetments, one at 4390 and the other at 4480 Opal Cliff Drive. The riprap at 4390 was installed; however, the riprap at 4480 Opal Cliff Drive was not installed along with the others.

(between parcels 4360 and 4390 Opal Cliff Drive), with an unprotected section of bluff, was subject to accelerated erosion from wave action (wave run up and wave swash). On September 24, 1984, the Commission granted an amendment to the original permit for the installation of a 15-foot reinforced concrete vertical seawall at 4370 Opal Cliff Drive (CDP amendment 3-83-176-A1).² Subsequently, the Commission approved a CDP amendment to replace the previously authorized revetment at 4480 Opal Cliff Drive with a 17-foot tall reinforced concrete vertical seawall (CDP amendment 3-83-176-A2).

During the construction of the seawall fronting 4480 Opal Cliff Drive, the applicant's engineering geologist determined that the adjacent section of unarmored bluff located immediately upcoast at 4460 Opal Cliff Drive was subjected to accelerated erosion. This unprotected bluff section had an undulating concave bluff face between two different shoreline armoring structures: one, a series of concrete slabs, concrete blocks and riprap upcoast straddling the properties at 4460 and 4440 Opal Cliff Drive, and the other the concrete seawall to the downcoast, which was at the time under construction fronting 4480 Opal Cliff Drive. In 1985 the Commission approved another CDP amendment to extend the seawall fronting 4480 Opal Cliff Drive upcoast an additional 60-linear feet fronting 4460 Opal Cliff Drive. This 60-foot extension of seawall fronts approximately two-thirds (linearly) of the bluff fronting 4460 Opal Cliff Drive, with the other one-third occupied by the series of concrete slabs, concrete blocks and riprap further upcoast and extending onto the adjacent property upcoast at 4440 Opal Cliff Drive.³

Finally, in 2011, Santa Cruz County approved a CDP to demolish the existing single-family dwelling at 4480 Opal Cliff Drive and to construct a new two story residence and attached garage at the site (County CDP 111122). Per the County's LCP, the residence was set back 25 feet from the blufftop edge (i.e., the minimum LCP setback required). This setback was premised on completing the repairs that are the subject of this CDP, and the County's CDP requires such repairs before the residential project can commence.

C. COASTAL DEVELOPMENT PERMIT DETERMINATION

Applicable Policies

Public Access and Recreation

Coastal Act Sections 30210 through 30214 and 30220 and 30221 specifically protect public access and recreation. In particular:

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*

² Note that this property was not a part of original CDP 3-83-176, but was added to it by the amendment.

³ The Applicant has also applied separately to modify the armoring fronting 4460 Opal Cliff Drive (CDP application 3-09-046). That application is pending, including because the permitting status of the concrete slabs, concrete blocks and riprap has not been established. These materials appear to have been placed sometime between April of 1972 and February of 1975. CDPs were required at this site starting in February 1973 under Proposition 20 (the Coastal Initiative).

areas from overuse.

30220. *Coastal areas suited for water-oriented recreational activities that cannot readily be provided at inland water areas shall be protected for such uses.*

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 the beach and surfing area seaward of the site. Section 30240(b) states:

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.*

Visual Resource Protection Policies

Coastal Act Section 30251 details specific public viewshed protections. Section 30251 states:

30251. *The scenic and visual qualities of coastal areas shall be considered and protected as a resource of public importance. Permitted development shall be sited and designed to protect views to and along the ocean and scenic coastal areas, to minimize the alteration of natural land forms, to be visually compatible with the character of surrounding areas, and, where feasible, to restore and enhance visual quality in visually degraded areas. New development in highly scenic areas such as those designated in the California Coastline Preservation and Recreation Plan prepared by the Department of Parks and Recreation and by local government shall be subordinate to the character of its setting.*

Shoreline Protective Devices

Section 30235 of the Coastal Act:

30235. *Riprap, 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. Existing marine structures causing water stagnation contributing to pollution problems and fish kills should be phased out or upgraded where feasible.*

Long Term Stability

Section 30253 of the Coastal Act also addresses the need to ensure long-term structural integrity, minimize future risk, and avoid additional, more substantial protective measures in the future:

30253. *New development shall:*

- (1) 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. ...

Santa Cruz County LCP Policies

Because the proposed project takes place within an area that is within the Commission's jurisdiction, the standard of review in this case is the Coastal Act. The Santa Cruz County LCP can nevertheless provide non-binding guidance. The Santa Cruz County LCP contains similar policies protecting public access and public views, and protecting against impacts of shoreline armoring. Such LCP policies do not provide significantly different guidance than the Coastal Act as applied in this case, and thus are cited only where relevant.

Repair and Maintenance Versus a Replacement Structure

The first question that must be asked and answered with proposed armoring projects like this is whether it should be treated as repair and maintenance or as a replacement structure. Per Coastal Act Section 30610(d) "Repair or maintenance activities that do not result in an addition to, or enlargement or expansion of, the object of those repair or maintenance activities" don't require a CDP unless specified in the Commission's regulations (California Code of Regulations Title 14, Division 5.5 (CCR)). 14 CCR Section 13252 explicitly requires a CDP for "Any method of repair or maintenance of a seawall revetment, bluff retaining wall, breakwater, groin, culvert, outfall, or similar shoreline work that involves: (A) Repair or maintenance involving substantial alteration of the foundation of the protective work including pilings and other surface or subsurface structures; (B) The placement, whether temporary or permanent, of riprap, artificial berms of sand or other beach materials, or any other forms of solid materials, on a beach ... (D) The presence, whether temporary or permanent, of mechanized construction equipment or construction materials on any sand area, bluff, or environmentally sensitive habitat area, or within 20 feet of coastal waters or streams." This project meets each of these criteria, so even if it is considered a repair and maintenance project, it clearly requires a CDP.

The subsequent question is whether the proposed project is so extensive that it is no longer repair and maintenance but instead a replacement project. Section 13252 of the Commission's regulations provides an explicit measure of when a repair and maintenance project is not a repair and maintenance project, but rather represents a replacement structure. It states in applicable part: "Unless destroyed by natural disaster, the replacement of 50 percent or more of a single family residence, seawall, revetment, bluff retaining wall, breakwater, groin or any other structure is not repair and maintenance under Section 30610(d) but instead constitutes a replacement structure requiring a coastal development permit." In this case, the project does not involve the replacement of 50 percent or more of the existing seawall, nor does it modify the existing seawall so extensively that it is essentially an entirely new structure. Instead, the project includes alteration to the seawall's foundation, as specifically identified as a type of repair and maintenance per 14 CCR Section 13252(1)(A). Thus, the project will be considered as a repair and maintenance project.

CDP Consistency Analysis

As detailed previously, the beach area at the project site has been degraded over time by the

presence of shoreline armoring structures fronting the majority of the recreational beach area. This degradation includes the unnatural back beach character defined by armoring, the loss of beach area due to armoring footprint as well as migrating riprap boulders, concrete blocks, and other such materials, and the fixing of the back beach and its relation to overall loss of beach as the shoreline continues to erode and the sea level continues to rise. All of these impacts are caused by the armoring at the subject site. The Opal Cliff Recreation District's beach area is a popular beach for both residents and visitors and supports an offshore surfing area that is well known throughout the Santa Cruz community and beyond. The Monterey Bay National Marine Sanctuary is located directly offshore. It is within this context, and in light of the Coastal Act parameters established because of it, that individual projects must be understood and evaluated for their effect on the recreational beach experience.

In this case, the proposed project would add roughly three cubic yards of cement grout to the base of the seawall platform. Such a project raises Coastal Act issues because: recreational beach area will be impacted for the duration of the repair and maintenance construction time frame; failure and deterioration of the seawall could adversely affect recreational resources; and continued erosion response could lead to more substantive hard armoring in the future.

The project includes significant mitigations that will reduce existing coastal resource impacts at this location including: removal of migrated rock riprap and concrete blocks from the portion of beach seaward of the seawall and making this area available for beach recreational access; camouflaging the seawall structure to better blend into the back beach environment; removing significant amounts of invasive nonnative species at the blufftop and the surrounding bluff area and replacing such species with native vegetation appropriate to the area, which should result in both enhanced bluff stability from long-rooted native species, as well as public viewshed enhancement associated with returning the bluff to a natural vegetation state; directing all blufftop drainage inland; and incorporating appropriate construction BMPs to protect coastal resources in a difficult construction environment. As explained in detail below, these project components help to address coastal resource concerns and are made conditions of approval to ensure their implementation.

Construction Impacts

The project would involve the mobilization of equipment, materials and workers that would access the recreational beach area and the main beach entrance point (back and forth through the public beach accessway) to the project site, occupy a construction zone of recreational beach area, potentially intrude on Sanctuary waters (depending on tides), and generally intrude and negatively impact the aesthetics, ambiance, serenity, and safety of the recreational beach experience. These impacts can be reduced through a construction plan that limits the width of construction corridors, limits the times when work can take place, clearly fences off the minimum construction area necessary, keeps equipment out of Sanctuary waters, more appropriately stores equipment off of the public beach at night, and clearly delineates and avoids to the maximum extent feasible public use areas (see Special Condition 2). Even with these restrictions, however, the public will bear the burden of the negative construction impacts associated with roughly 5 to 10 days of construction on this very popular beach. Although the beach accessway, beach area, and coastal access stairway can and must be restored to their original configuration immediately following construction to limit these impacts (see Special

Condition 7), the impact to beach and accessway use associated with the 5-10 days of construction requires some form of compensatory mitigation. Unfortunately, there is no existing program in this area for addressing such impacts in a systematic way (e.g., an in-lieu fee to be applied to beach access enhancements in the area). That said, the project involves the removal of large stones and concrete blocks that are located on the beach seaward of the seawall, and this is a public access enhancement. Given that the public access impacts from the project will be temporary, and have been limited through imposition of Special Condition 7, mitigation in the form of removal of old riprap, rocks and concrete that are or will be located on the beach area seaward of the seawall is adequate in this case.

Monitoring, Maintenance, and Long-Term Stability

It has been the Commission's experience that the expected lifespan of shoreline armoring projects is often substantially less than applicants indicate at the inception of a project due to the need for major maintenance or modifications, or entire redevelopment of an armoring structure within a much shorter timeframe. If the seawall that is repaired through this project is damaged in the future (e.g., as a result of wave action, storms, landsliding, etc.) it could threaten the stability of the site, which could lead to need for more bluff alteration and/or additional or more substantive armoring. Therefore, in order to find the proposed seawall repair consistent with the Coastal Act, the Commission finds that seawall must be properly maintained in its approved state. 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 over the long term. The monitoring will ensure that the Permittee and the Commission are aware of any damage to seawall and can determine whether repairs or other actions are necessary to maintain the structure in its approved state before such repairs or actions are undertaken. In addition, as evidenced by the difficulties in reviewing such applications without clear as-built plans, such future monitoring and maintenance activities must be understood in relation to a clear as-built seawall profile. Finally, the upper bluff soils must be adequately stabilized with vegetation, and upper bluff drainage controlled, to ensure overall stability, and this proposed aspect of the project can be best implemented through conditions of approval.

Therefore, special conditions are imposed to implement the revegetation and drainage plan (Special Condition 1); to require the submittal of as-built plans (to define the profile of the permitted structure) with surveyed reference points to assist in evaluation of future proposals at this site and vegetation parameters for the proposed planting plan in the upper bluff area (see Special Condition 5); for monitoring, the Applicant is responsible for ensuring adequate monitoring of the seawall and is required to submit a monitoring report at five year intervals that evaluates the condition and performance of the seawall, and to submit the report with recommendations, if any, for necessary maintenance, repair, changes or modifications to the project (see Special Condition 6); the Applicant is also responsible for promptly retrieving and removing any rocks, riprap or concrete blocks that migrate seaward of the existing seawall (see Special Condition 7); all monitoring and maintenance commitments must be recorded as property restrictions to ensure long-term compliance and to ensure that any future landowners are clearly notified of these commitments (Special Condition 10).

Assumption of Risk

The experience of the Commission in evaluating the consistency of proposed developments with Coastal Act policies regarding development in areas subject to problems associated with geologic instability, flood, wave, or erosion hazard, has been that development has continued to occur despite periodic episodes of heavy storm damage, landslides, or other such occurrences. Oceanfront development is susceptible to bluff retreat and erosion damage due to storm waves and storm surge conditions. Past occurrences statewide have resulted in public costs (through low interest loans, grants, subsidies, direct assistance, etc.) in the millions of dollars. As a means of allowing continued development in areas subject to these hazards while avoiding placing the economic burden on the people of the state for damages, the Commission has regularly required that Applicants acknowledge site geologic risks and agree to waive any claims of liability on the part of the Commission for allowing the development to proceed.

There are inherent risks associated with development and repair and maintenance on and around seawalls and eroding bluffs in a dynamic coastal bluff environment. The project site, and all development on it, is likely to be affected by shoreline erosion in the future. Although the Commission has sought to minimize the risks associated with the repair and maintenance work proposed in this application, the risks cannot be eliminated entirely. Given that the Applicant has chosen to pursue the repair and maintenance work despite these risks, the Applicant must assume these risks. Accordingly, this approval is conditioned for the Applicant to assume all risks at this location (see Special Condition 9). In addition, Special Condition 10 requires the Applicant to record a deed restriction that evidences their acknowledgment of these risks.

Public Rights

The Applicant does not propose to install any material seaward of the existing seawall footprint, as discussed above. As such, the only direct removal of beach recreational space due to the project is confined to the construction impacts that are addressed by conditions described above. That said, the seawall and the beach area directly seaward of it, appears to occupy an area of beach sand that may be contained at least partially within APN 33-151-10; a parcel owned in fee-title by the Applicant. Because of the transitory nature of the mean high tide line, the exact seaward extent of APN 33-151-10 is difficult to verify with any certainty. There has, however, been a long and steady history of public use of the beach area here. Since the Applicant hasn't proposed any seaward encroachment, and there are no artificial impediments (such as signs, fences, etc.) to the ongoing recreational public use of the beach area seaward of the seawall, the issue of the exact extent of APN 33-151-10 or of any public rights established on this property need not be resolved here. To ensure that this CDP action does not prejudice any future evaluations on this topic, however, and so as to avoid a situation where this seawall repair and maintenance approval could be described as resolving this ownership-public use issue, a condition is attached stating that the Commission's approval of this project does not constitute a waiver of any public rights which may exist on the property, and that the Applicant cannot use this approval as evidence of a waiver of same (see Special Condition 8).

Other Agency Approval

The project is proposed in an area that may be subject to Monterey Bay National Marine Sanctuary (MBNMS) and California State Lands Commission oversight. Thus, the project is

conditioned for evidence of MBNMS and State Lands approval (see Special Condition 4).

Coastal Act Consistency Conclusion

Although the project is in some ways a fairly straight forward seawall repair and maintenance project, it includes impacts to beach recreational resources that must be properly mitigated, and it must not itself require additional more substantive armoring. Thus, special conditions are included to define construction parameters, to require removal of old riprap, concrete blocks, and concrete rubble from the beach area, to restore the beach area after construction, to ensure the project is properly monitored and maintained over time, to provide for a native plant vegetated screen on the bluff and across the top of the revetment, to ensure that there will be no current or future seaward encroachment of rock, riprap and concrete blocks and to record these restrictions on the property to ensure that any future landowners are made aware of the requirements applicable to the seawall.

D. CALIFORNIA ENVIRONMENTAL QUALITY ACT

Section 13096 of the California Code of Regulations requires that a specific finding be made in conjunction with CDP applications showing the application to be consistent with any applicable requirements of 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 that the activity may have on the environment.

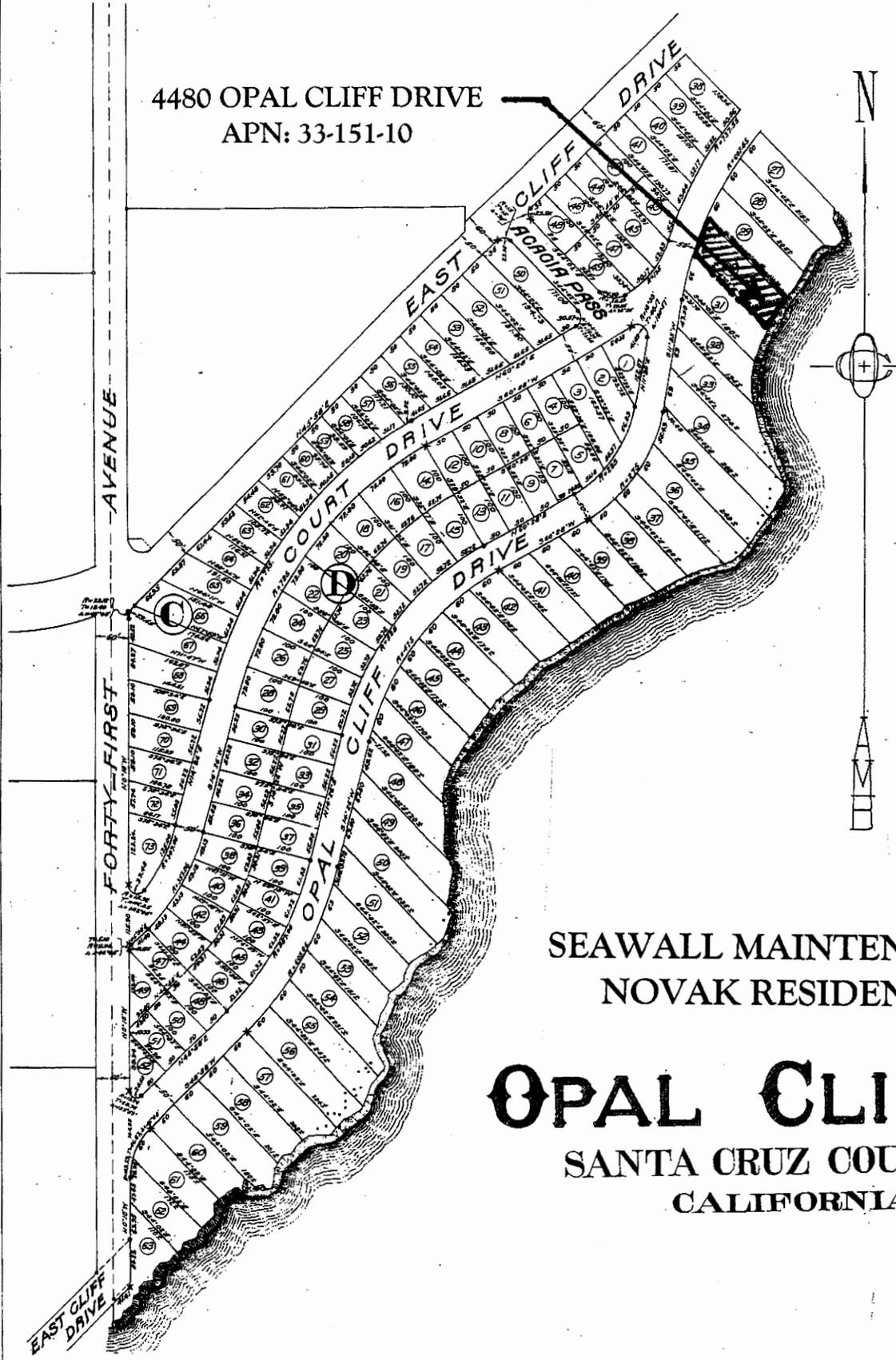
Santa Cruz County, acting as lead agency, found that the project was exempt from CEQA requirements. The Coastal Commission's review and analysis of land use proposals has been certified by the Secretary of Resources as being the functional equivalent of environmental review under CEQA. The preceding CDP findings discuss the relevant coastal resource issues with the proposal, and the permit conditions identify appropriate modifications to avoid and/or lessen any potential for adverse impacts to said resources. All public comments received to date have been addressed in the findings above, which are incorporated herein in their entirety by reference.

As such, there are no additional feasible alternatives or feasible mitigation measures available which would substantially lessen any significant adverse environmental effects which approval of the proposed project, as conditioned, would have on the environment within the meaning of CEQA. Thus, if so conditioned, the proposed project will not result in any significant environmental effects for which feasible mitigation measures have not been employed consistent with CEQA Section 21080.5(d)(2)(A).

APPENDIX A – SUBSTANTIVE FILE DOCUMENTS

1. Seawall Maintenance Plan Review by Rogers E. Johnson and Associates (February 13, 2012)
2. Santa Cruz County CDP Application File 111122
3. Santa Cruz County Certified LCP

4480 OPAL CLIFF DRIVE
APN: 33-151-10



SEAWALL MAINTENANCE
NOVAK RESIDENCE

OPAL CLIFFS

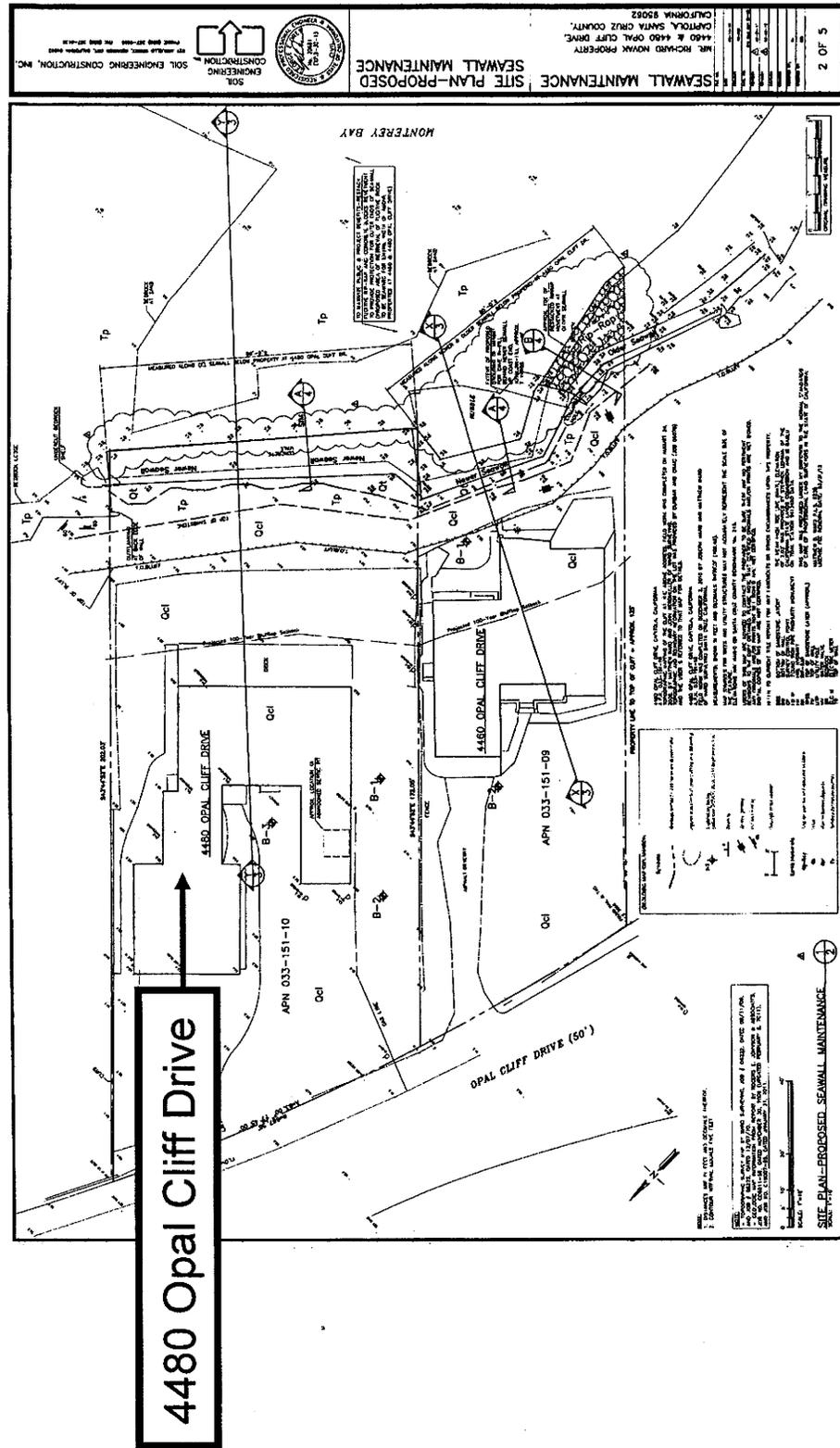
SANTA CRUZ COUNTY,
CALIFORNIA.

PROJECT LOCATION MAP

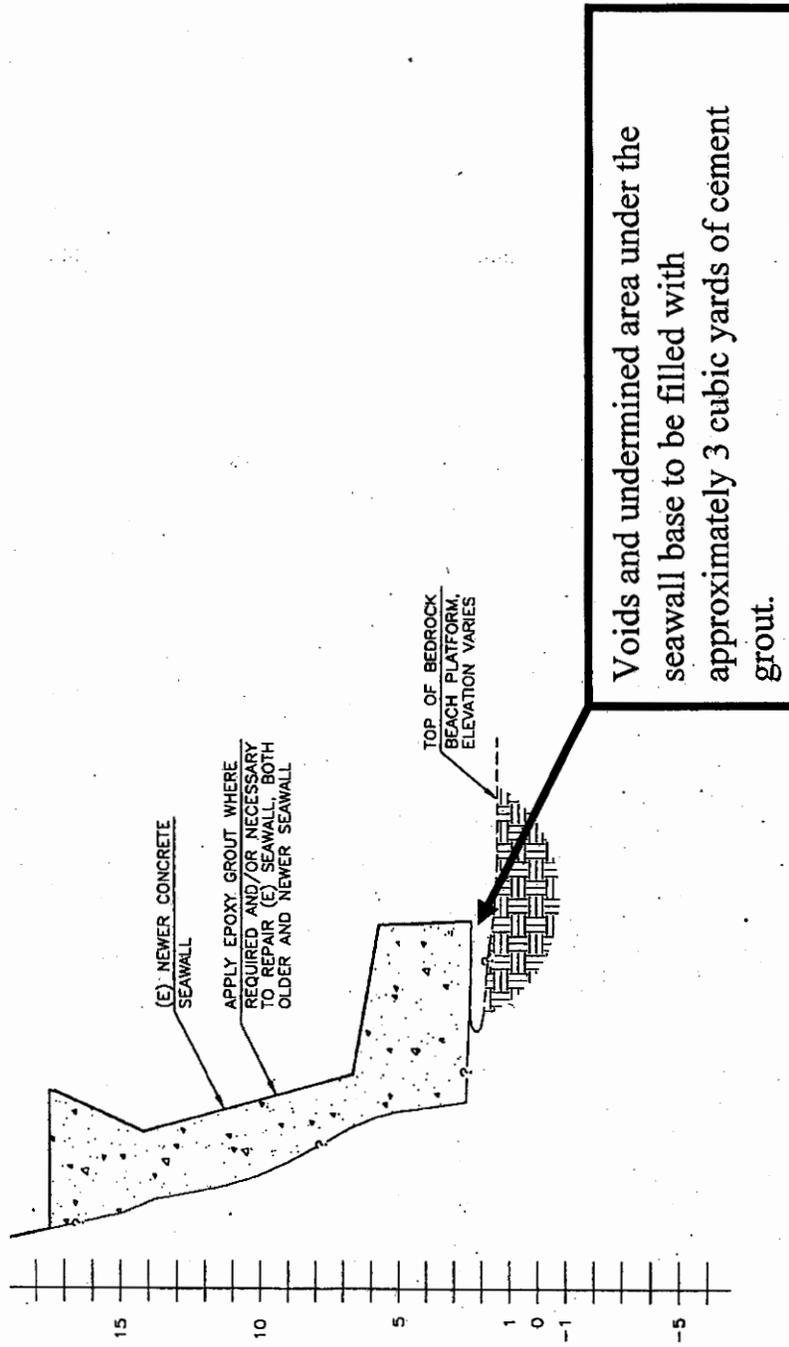
The parcel is on the south/east (coast) side of Opal Cliff Drive in Santa Cruz County.

The proposed SFD will be set back 25-feet to address the 100-year bluff retreat requirement.

At the rear portion of the parcel (top of the coastal bluff), the property drops vertically, approx. 45-50 feet to the beach below.



Construction Detail for the maintenance and repair of the seawall



SECTION -(E) NEWER SEAWALL
SCALE: 1/4"=1'-0"

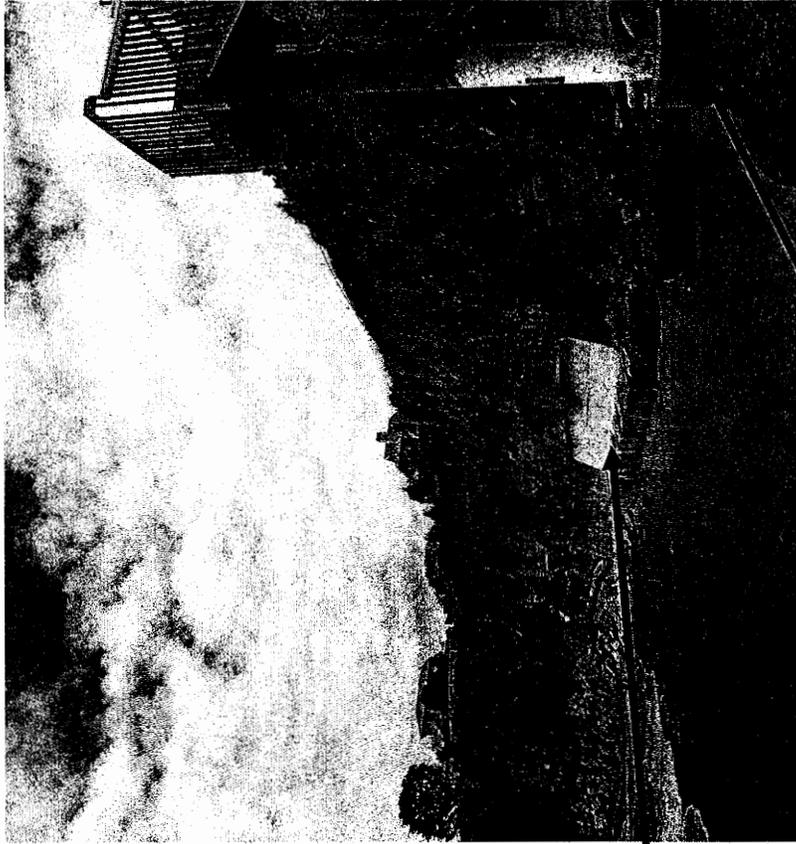
Existing 17-foot tall reinforced concrete vertical seawall
85-linear feet at the base of the bluff at
4480 Opal Cliff Drive



Beach Area at the base of the Opal Cliffs Recreation District Stairway
(2011)



Existing Seawall at
4480 Opal Cliff Drive



Existing Coastal Access Stairway