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Th15j

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COASTAL DEVELOPMENT PERMIT APPLICATION

Application number.....**3-02-013, O'Neill Revetment Repair**

Applicant.....Patrick O'Neill

Project location.....Coastal bluff seaward of 2-2720 East Cliff Drive (APN 028-242-08) along 26th Avenue Beach in the Live Oak beach area of unincorporated Santa Cruz County.

Project description.....Fill gaps and voids in an existing revetment (with no seaward encroachment).

File documents.....Santa Cruz County Certified Local Coastal Program; California Coastal Commission Monterey Bay ReCAP.

Staff recommendation ...**Approval with Conditions**

Summary: The Applicant proposes to fill a series of gaps and voids that have developed in an existing permitted revetment fronting the popular 26th Avenue Beach in coastal Live Oak. Although such a repair project is fairly routine, Coastal Act issues are engendered nonetheless because: recreational beach area will be impacted for the duration of the construction time frame; additional rock massing will be present in the public viewshed in the long-term; failure of the revetment could adversely affect recreational resources; and future erosion response could lead to more substantive hard armoring in the future.

These Coastal Act issues are readily addressed by conditions that require the Applicant: to restore the beach and bluff area after construction; to remove the non-native ice plant landscape cover and replace it with native plantings designed to cascade over the topmost portion of the revetment; to commit to no further seaward encroachment in relation to the approved revetment profile; to commit to long-term monitoring and maintenance of the revetment and the bluff plantings; and to assume all risks for developing in light of the known hazards present at this bluff location.

As so conditioned, Staff recommends approval.

Staff Report Contents

I. Staff Recommendation on CDP Application

The staff recommends that the Commission, after public hearing, **approve** a coastal development permit for the proposed development subject to the standard and special conditions below.

Motion. I move that the Commission approve Coastal Development Permit Number 3-02-013 pursuant to the staff recommendation.

Staff Recommendation of Approval. Staff recommends a **YES** vote. Passage of this motion will result in approval of the coastal development 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 a Coastal Development Permit. The Commission hereby approves the coastal development permit on the grounds that the development as conditioned, will be in conformity with the policies of Chapter 3 of the Coastal Act. Approval of the coastal development 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 feasible mitigation measures or alternatives that would substantially lessen any significant adverse effects of the development on the environment.

II. Conditions of Approval

A. 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.

B. Special Conditions

1. **Approved Repair.** This approval allows for the repair of the revetment present on the bluff seaward of 2-2720 East Cliff Drive (APN 028-242-08) to a 1.5:1 slope as measured inland from the existing toe of the subject revetment. Placement of rock seaward of the existing toe of the revetment or seaward of the 1.5:1 slope profile at any point on the revetment is prohibited. All private stairways, railings, and associated structures present in the revetment shall be removed in their entirety.

2. **Construction Plan.** PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the Permittee shall submit a Construction Plan to the Executive Director for review and approval. The Construction Plan shall identify the specific location of all construction areas, all staging areas, all construction access corridors (to the construction sites and staging areas), and all public pedestrian access corridors in site plan view. 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 and to have the least impact on public access. The Plan shall specify all construction methods to be used, including all methods to be used to keep the construction areas separated from beach recreational use areas (including using the blufftop space available inland of the revetment for staging, storage, and construction activities to the maximum extent feasible) and shall include a final construction schedule. All erosion control/water quality best

management practices to be implemented during construction and their location shall be noted. 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. The Construction Plan shall, at a minimum, include the follow required criteria specified via written notes on the Plan:

(a) All construction materials and equipment shall be removed in their entirety from the beach area by sunset each day that work occurs. The only exception shall be for erosion and sediment controls (e.g., a silt fence at the base of the revetment) as necessary to contain rock and/or sediments at the revetment site; such controls to be placed as close to the toe of the revetment as possible, and to be minimized in their extent.

(b) All work shall take place during daylight hours. Lighting of the beach area is prohibited.

(c) 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.

(d) Grading of intertidal areas is prohibited with one exception as follows: existing rock that has migrated seaward of the revetment, that is naturally exposed, and that can be retrieved without substantial excavation of the surrounding sediments, shall be retrieved and reused or removed to an appropriate disposal site offsite. Any existing rock retrieved in this manner shall be recovered by excavation equipment positioned landward of the waterline (i.e., excavator equipment with mechanical extension arms).

(e) Any construction materials and equipment that cannot be delivered to the site from the blufftop above, shall be delivered to the beach area by rubber-tired construction vehicles. 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.

(f) All construction materials placed on the beach during construction shall be stored beyond the reach of tidal waters. Use of sandy beach outside of the defined construction and staging areas is prohibited.

(g) No work shall occur on the beach during the summer peak months (start of Memorial Day weekend to Labor day).

(h) Equipment washing, refueling, and/or servicing shall not take place on the beach.

(i) The construction site shall maintain good construction housekeeping (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).

(j) All erosion and sediment controls shall be in place prior to the commencement of construction as

well as at the end of each work day.

The Permittee shall notify planning staff of the Coastal Commission's Central Coast District Office at least 3 working days in advance of commencement of construction, and immediately upon completion of construction.

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

3. **Beach Restoration.** WITHIN THREE (3) DAYS OF COMPLETION OF REVETMENT CONSTRUCTION, the Permittee shall restore all beach areas and all beach access points impacted by construction activities to their pre-construction condition. Any beach sand impacted shall be filtered as necessary to remove all construction debris from the beach. The beach access ramp, providing pedestrian access from the crosswalk on East Cliff Drive to the sandy beach opposite Moran Lake, shall be reestablished. The Permittee shall notify planning staff of the Coastal Commission's Central Coast District Office upon completion of beach restoration activities to arrange for a site visit to verify that all beach restoration activities are complete. If planning staff should identify additional reasonable measures necessary to restore the beach and beach access point, such measures shall be implemented immediately. The beach and beach access point shall be considered restored, and this condition satisfied, upon written indication of same from planning staff of the Coastal Commission's Central Coast District Office.

4. **Upper Bluff Plan.** WITHIN ONE (1) MONTH OF COMPLETION OF REVETMENT CONSTRUCTION, the Permittee shall submit an Upper Bluff Plan to the Executive Director for review and approval. The Upper Bluff Plan shall have three related and overlapping elements: a revegetation plan, an irrigation plan, and a drainage plan. These are more specifically described as follows:

   (a) Revegetation Plan. The revegetation plan shall provide for the removal of all the non-native invasive iceplant currently present on the upper bluff area above the revetment, and the planting of native species along the full linear extent of the bluff area above the revetment in a manner designed to provide for a dense cascading screen of vegetation to completely cover the upper one-third (roughly 10 vertical feet) of the revetment. Soils, soil composites (e.g., a mixture of sandy loam soil and cement), and support for same (such as filter fabric or equivalent), may be placed in and/or on top of the upper portion of the revetment to provide adequate planting pockets as necessary to ensure effective and successful screening. The revegetation plan shall clearly identify in site plan view the type, size, extent and location of all native plant materials to be used as chosen from the following native planting palette (substitutions of appropriate native bluff edge plants to complement this planting palette may be allowed upon written consent from the Executive Director):

- Dudleya farinosa – live forever
- Dudleya caespitosa – live forever
- Erigeron glaucus – seaside daisy
- Eriophyllum staechadifolium – lizard tail
- Mimulus aurantiacus – sticky monkey flower
- Artemisia californica – California sagebrush
- Achillea millefolium – yarrow
- Eriogonum latifolium – buckwheat
- Elymus glaucus – blue wild rye
- Ceanothus griseus var. horizontalis – "Carmel creeper"
- Ceanothus griseus var. horizontalis – "Yankee Point"

The revegetation plan shall include maintenance and monitoring parameters, and shall require that all plants are replaced as necessary to maintain the dense cascading screen of vegetation to completely cover the upper one-third (roughly 10 vertical feet) of the revetment over the life of the revetment.

(b) **Irrigation Plan.** The irrigation plan shall provide for irrigation (e.g., drip emitters) as necessary to ensure that the revegetation plan is successful. All irrigation elements necessary for planting success shall be clearly identified in site plan view. All other irrigation elements present in the blufftop area shall be identified.

(c) **Drainage Plan.** The drainage plan shall clearly identify all permanent measures to be taken to collect and direct blufftop area drainage. Such drainage may be used for landscape irrigation, including for the native planting revegetation, 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 inland to East Cliff Drive. Drainage shall not be allowed: to pond at the bluff edge; sheet flow over the bluff seaward; or otherwise be directed seaward. Drainage pipes are prohibited in, under, over, or through the revetment.

The Upper Bluff Plan shall be developed with input from a landscape professional experienced in iceplant eradication and native bluff planting efforts, and shall be submitted with evidence of the review and approval of an licensed engineering geologist or licensed geotechnical engineer to ensure that the Plan is consistent with promoting bluff stability.

The Upper Bluff Plan shall be implemented immediately upon its approval by the Executive Director. WITHIN ONE (1) MONTH OF APPROVAL OF THE UPPER BLUFF PLAN BY THE EXECUTIVE DIRECTOR, all native species identified in the Plan shall be planted and all drainage

and irrigation facilities shall be installed and shall be in working order.

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

The Permittee shall notify planning staff of the Coastal Commission's Central Coast District Office when all native species identified in the Plan have been planted and all drainage and irrigation facilities have been installed and are in working order consistent with the approved Plan. Initial implementation of the Upper Bluff Plan shall be considered complete, and this condition satisfied, upon written indication of same from planning staff of the Coastal Commission's Central Coast District Office.

5. **As-Built Revetment Plans.** WITHIN TWO (2) MONTHS OF COMPLETION OF REVETMENT CONSTRUCTION, the Permittee shall submit to the Executive Director for review and approval As-Built Plans of the revetment structure that include one or more permanent surveyed benchmarks inland of the revetment for use in future monitoring efforts. The As-Built Plans shall identify the extent of the revetment structure in site plan and cross-section views. The benchmark elevation(s) shall be described in relation to National Geodetic Vertical Datum (NGVD). The As-Built Plans shall indicate vertical and horizontal reference distances from the surveyed benchmark(s) to at least 3 survey points along the top edge of the revetment (one at each property line and one in between), and to at least 3 survey points along the toe of the revetment (one at each property line and one in between) for use in future monitoring efforts. The survey points shall be identified through permanent markers, benchmarks, survey position, written description, et cetera to allow measurements to be taken at the same location in order to compare information between years.

   The As-Built Plans shall be submitted with certification by a licensed geotechnical engineer, acceptable to the Executive Director, verifying that the shoreline structure has been constructed in conformance with the approved repair project described by special condition 1 above.

6. **Monitoring.** The Permittee shall ensure that the condition and performance of the as-built revetment is regularly monitored by a licensed engineering geologist or licensed geotechnical engineer. Such monitoring evaluation shall at a minimum address whether any significant weathering or damage has occurred that would adversely impact its future performance, and identify any structural damage requiring repair to maintain the as-built revetment profile. At a minimum, the Permittee shall submit to the Executive Director for review and approval a monitoring report once every five years by May 1st (with the first report due May 1, 2007) for as long as the revetment exists at this site. Each such report shall be prepared by a licensed engineering geologist or licensed geotechnical engineer and shall cover the monitoring evaluation described in this condition above. Each report shall contain recommendations, if any, for necessary maintenance, repair, changes or modifications to the as-built revetment.

7. **Shoreline Development Stipulations.** By acceptance of this permit, the Permittee acknowledges and agrees, on behalf of itself and all successors and assigns that:

   (a) **No Further Seaward Encroachment.** Any future response to shoreline erosion requiring the placement of any type of protective structure, including, but not limited to, modifications to the as-built revetment, shall be constructed inland of the seaward plane of the as-built revetment located at the seaward edge of APN 028-242-08. The seaward plane of the as-built revetment is defined by the as-built revetment footprint and profile. An As-Built Revetment Plan has been approved pursuant to coastal development permit 3-02-013 that defines the profile and footprint of the as-built revetment.

   (b) **Revetment Screening.** The upper one-third (roughly 10 vertical feet) of the revetment located at the seaward edge of APN 028-242-08 shall be completely screened from view (as seen from the beach) by a dense cascading screen of native vegetation. To allow for initial growth, the required screening shall be initially achieved by at least May 1, 2004, with an interim standard that at least the top 5 vertical feet of the revetment shall be screened by May 1, 2003. After May 1, 2004, the 10 vertical feet of revetment screening shall be maintained for the life of the revetment. An Upper Bluff Plan has been approved pursuant to coastal development permit 3-02-013 that specifies the allowed native planting palette and the required vegetation maintenance parameters. All native plantings shall be maintained in good growing conditions and shall be replaced as necessary to maintain the dense cascading screen of vegetation to completely cover the upper one-third (roughly 10 vertical feet) of the revetment over the life of the revetment.

   (c) **Maintenance.** It is the Permittee's responsibility to maintain the as-built revetment and vegetative screening in a structurally sound manner and its approved state. An As-Built Revetment Plan has been approved pursuant to coastal development permit 3-02-013 that defines the profile and footprint of the as-built revetment. The approval of coastal development permit 3-02-013 does not obviate the need to obtain future permits for any future maintenance and/or repair episodes. The Permittee agrees to apply for a coastal development permit, and any and all other permits required, for any proposed future maintenance and/or repair episodes.

   (d) **Rock Retrieval.** Any rocks that move seaward of the as-built revetment shall be immediately retrieved and either: (1) restacked within the approved as-built revetment footprint and profile; or (2) removed off the beach to a suitable disposal location. An As-Built Revetment Plan has been approved pursuant to coastal development permit 3-02-013 that defines the profile and footprint of the as-built revetment. The Permittee agrees to apply for a coastal development permit, and any and all other permits required, prior to initiating any rock retrieval episode. Any existing rock retrieved in this manner shall be recovered by excavation equipment positioned landward of the waterline (i.e., excavator equipment with mechanical extension arms).

   (e) **Debris Removal.** The Permittee shall immediately remove all debris that may fall from the blufftop area inland of the revetment onto the revetment or the beach below.

(f) **Assumption of Risk, Waiver of Liability and Indemnity Agreement.** The Permittee acknowledges and agrees, on behalf of itself and all successors and assigns: (i) that the site is subject to hazards from episodic and long-term bluff retreat and coastal erosion; (ii) 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; (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; (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; and (v) that any adverse effects to property caused by the permitted project shall be fully the responsibility of the landowner.

WITHIN SIX (6) MONTHS OF COMPLETION OF REVETMENT CONSTRUCTION, the Permittee shall execute and record a deed restriction, in a form and content acceptable to the Executive Director incorporating all of the above terms of this condition. The deed restriction (Deed Restriction) shall affect the entire parcel (APN 028-242-08) and shall include a legal description and a site plan of the as-built revetment footprint (per special condition 5) and the Permittee's entire parcel (APN 028-242-08). The Deed Restriction shall run with the land, binding all successors and assigns, and shall be recorded free of prior liens that the Executive Director determines may affect the enforceability of the restriction. This Deed Restriction shall not be removed or changed without a Commission amendment to coastal development permit 3-02-013.

8. **Public Rights.** The Coastal Commission's approval of this permit shall not constitute a waiver of any public rights which may exist on the property. The Permittee shall not use this permit as evidence of a waiver of any public rights which may exist on the property.

III. Findings and Declarations

The Commission finds and declares as follows:

A. Project Location and Description

The proposed project is located on the bluffs seaward of East Cliff Drive along 26th Avenue Beach in the unincorporated Live Oak beach area of Santa Cruz County.

Regional Setting

Situated on the northern shore of the Monterey Bay, Santa Cruz County is bordered to the north and south by San Mateo and Monterey Counties. Santa Cruz County is characterized by a wealth of natural resource systems ranging from mountains and forests to beaches and the Monterey Bay itself. The Bay has long been a focal point for area residents and visitors alike providing opportunities for surfers,

fishermen, divers, marine researchers, kayakers, and boaters, among others. The unique grandeur of the region and its national significance was formally recognized in 1992 when the area offshore became part of the Monterey Bay National Marine Sanctuary – the largest of the 12 such federally protected marine sanctuaries in the nation.

Santa Cruz County's rugged mountain and coastal setting, its generally mild climate, and its well-honed cultural identity combine to make the area a desirable place to both live and visit. As a result, Santa Cruz County has seen extensive development and regional growth over the years since the California Coastal Management Program has been in place. In fact, Santa Cruz County's population has more than doubled since 1970 alone with current census estimates indicating that the County is currently home to over one-quarter of a million persons.[1] This level of growth not only increases the regional need for housing, jobs, roads, urban services, infrastructure, and community services, but also the need for parks and recreational areas. For coastal counties such as Santa Cruz where the vast majority of residents live within a half-hour of the coast, coastal recreational resources are a critical element in helping to meet these needs. Furthermore, with coastal parks and beaches themselves attracting visitors into the region, an even greater pressure is felt at coastal recreational systems such as that found in Live Oak. With Santa Cruz County beaches providing arguably the warmest and most accessible ocean waters in all of Northern California, and with the vast population centers of the San Francisco Bay area and the Silicon Valley nearby, this type of resource pressure is particularly evident in coastal Live Oak.

Live Oak is part of a larger area including the Cities of Santa Cruz and Capitola that is home to some of the best recreational beaches in the Monterey Bay area. Not only are north Monterey Bay weather patterns more conducive to beach recreation than the rest of the Monterey Bay area, but north bay beaches are generally the first beaches accessed by visitors coming from the north of Santa Cruz. With Highway 17 providing the primary access point from the north (including San Francisco and the Silicon Valley) into the Monterey Bay area, Santa Cruz, Live Oak, and Capitola are the first coastal areas that visitors encounter upon traversing the Santa Cruz Mountains. As such, the Live Oak beach area is an important coastal access asset for not only Santa Cruz County, but also the entire central and northern California region.

See exhibit A for project location information.

Live Oak Beach Area

Live Oak represents the unincorporated segment of Santa Cruz County located between the City of Santa Cruz (upcoast) and the City of Capitola (downcoast). The Live Oak coastal area is well known for excellent public access opportunities for beach area residents, other Live Oak residents, other Santa Cruz County residents, and visitors to the area. Walking, biking, skating, viewing, surfing, fishing, sunbathing, and more are all among the range of recreational activities possible along the Live Oak shoreline. In addition, Live Oak also provides a number of different coastal environments including

[1] Census data from 1970 shows Santa Cruz County with 123,790 persons; California Department of Finance estimates for the 2000 census indicate that over 255,000 persons reside in Santa Cruz County.

sandy beaches, offshore surfing areas, rocky tidal shelves, blufftop terraces, and coastal lagoons. These varied coastal characteristics make the Live Oak shoreline unique in that a relatively small area can provide different recreational users a diverse range of alternatives for enjoying the coast. By not being limited to one large, long beach, or solely an extended stretch of rocky shoreline, the Live Oak shoreline accommodates recreational users in a manner that is typical of a much larger access system.

Primarily residential with some concentrated commercial and industrial areas, Live Oak is a substantially urbanized area with few major undeveloped parcels remaining. Development pressure has been disproportionately intense for this section of Santa Cruz County. Because Live Oak is projected to absorb the majority of the unincorporated growth in Santa Cruz County, development pressure will likely continue to tax Live Oak's public infrastructure (e.g., streets, parks, beaches, etc.).[2] Given that the beaches are the largest public facility in Live Oak, this pressure will be particularly evident in the beach area.

Proposed Development Site

The project would take place on the bluffs and back beach area of 26th Avenue Beach, an extremely popular recreational beach and surfing destination.[3] 26th Avenue Beach is a narrow stretch of recreational sand area almost entirely backed by rip-rap revetments extending from Corcoran Lagoon upcoast through to the first outcroppings of Pleasure Point downcoast.

Due to the revetments fronting the bluffs, the beach here is in most cases less than 100 feet wide in summer to completely disappearing during parts of the winter. The Commission's 1995 Monterey Bay ReCAP project, or Regional Cumulative Assessment Project, estimated that over an acre of beach at 26th Avenue Beach was covered by rock revetments.[4] Since such armoring fixes the bluff location and prevents beach replenishment from eroding bluffs, and in light of sea level rise and continuing shoreline erosion, it is expected that the usable beach areas here will continue to narrow over time.

The subject site is developed with a residence fronted by a revetment stacked against the bluffs below. The Commission was unable to locate any coastal permit history for this site, including the subject revetment. From permit files for adjacent sites,[5] it appears that the subject revetment was initially installed in the 1960s, prior to Proposition 20 and Coastal Act coastal permitting requirements. A review

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2 The LCP identifies Live Oak at buildout with a population of approximately 29,850 persons; based on the County's recreational formulas, this corresponds to a park acreage of 150-180 acres. Though Live Oak accounts for less than 1% of Santa Cruz County's total acreage, this projected park acreage represents nearly 20% of the County's total projected park acreage.

3 Historic County analyses identified an estimated average daily use of this beach of 848 persons, showing it to be the second highest beach use area in Live Oak after Twin Lakes State Beach (Technical Appendix; Live Oak General Plan; Planning Analysis and EIR, October 1977). Background LCP reports completed in 1980 estimated annual visitor counts for this beach segment at 195,393 (1980 Public Access Working Paper for the County LCP). Given the doubling of the County's population since 1970, and the increase in recreational use associated with that and population increases in surrounding areas, these historic figures appear to undercount the current level of use at this location.

4 ReCAP estimated approximately 2,700 linear feet of revetment between Corcoran Lagoon and Pleasure Point at 26th Avenue Beach. Based on a conservative footprint estimate of 20 feet of sand beach coverage for such structures, this translates to approximately 54,000 square feet of beach covered by rock (roughly 1¼ acres).

5 CDP files P-1554 and P-77-947 for Cermak.

of 1972 oblique air photos is inconclusive on this point. In 1983, the subject revetment was refurbished and extended slightly upslope and inland using roughly 450 tons of rock in response to the 1982-83 El Nino storms.[6] This inland revetment refurbishment per the 1983 County permit can be seen in a comparison of historical site photos from 1978 (for the adjacent Cermak development in 1978, P-77-947) as compared to 2002 that show additional rock massing against the bluff at this location. In any case, lacking a coastal permit history, as-built plans of the revetment are not available from coastal permit files.

See exhibits A and B for location maps and photos of the site and surrounding area.

Proposed Revetment Repair Project

The Applicant proposes to fill the voids and gaps that have developed in the revetment at the subject site. The project here would be to place roughly 630 cubic yards of two-ton to four-ton rock in the voids and depressions that have formed in the existing revetment. The existing deteriorated private stairway and rusted metal railing present in the revetment would be removed.

The revetment would not be extended seaward, rather rock would only be placed inland of the existing seaward extent of the rock. The Applicant proposes to commence the repair in April 2002 to take advantage of expected low tides and calm weather. The repair would take roughly 7 to 10 days, depending on the tides (it may take less time than that since the 7 to 10 day estimate is based on a conservatively estimated 4 hour workday should tides dictate). The project would require construction access from East Cliff Drive onto the beach and to the subject site (roughly 150 yards downcoast); the rock to be used would be staged at the access ramp area along East Cliff Drive above the beach for the duration of the project. The project would be coordinated to take place at the same time as a similar repair project fronting the adjacent property.[7] Although the Applicant is exploring other options as of the date of this staff report, the Applicant proposes to park the rubber tired bobcat tractor (to be used to transport rock on the beach) on the backbeach area nearest East Cliff Drive.

See exhibit B for proposed project plans.

B. Coastal Development Permit Determination

1. Applicable Policies

Public Access, Recreation, and Views

Coastal Act Sections 30210 through 30214 and 30220 through 30224 specifically protect public access and recreation. This includes protecting public visual access as well. In particular:

30210. In carrying out the requirement of Section 4 of Article X of the California Constitution,

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[6] Per a Santa Cruz County grading permit issued in April 1983.

[7] Coastal development permit application 3-02-012 (Cermak), item Th15i on the April 2002 Commission agenda.

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.

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.*

30213. *Lower cost visitor and recreational facilities shall be protected, encouraged, and, where feasible, provided. Developments providing public recreational opportunities are preferred. ...*

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.*

30223. *Upland areas necessary to support coastal recreational uses shall be reserved for such uses, where feasible.*

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.*

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.*

Finally, Section 30253 protects special recreational destination points such as that at 26th Avenue Beach. Section 30253 states, in part:

30253(5). *New development shall: where appropriate, protect special communities and neighborhoods which, because of their unique characteristics, are popular visitor destination points for recreational uses.*

Shoreline protective devices
Section 30235 of the Coastal Act:

> *30235. 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. 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 alos 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. ...*

Policy Summary
In sum, while repair of existing permitted shoreline protective structures is clearly within the established parameters of the Coastal Act, and fairly routine projects in the Commission's experience, Coastal Act policies protecting the adjacent recreational beach, its offshore surf area, the beach area public viewshed, and the overall shoreline visitor experience must be respected in that process.

2. Consistency Analysis

As detailed previously, the beach area at the project site has been degraded over time by the presence of revetments fronting the majority of the recreational beach area. This degradation includes the unnatural back beach character defined by large piles of boulders, the loss of beach area given over to the boulders, 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. The 26th Avenue Beach recreational area is one of the most popular for visitors in all of unincorporated Santa Cruz County, and supports an offshore surfing area that is extremely well known both locally and around the world. 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 630 cubic yards of rock to the back beach environment. Such a project raises Coastal Act issues because: recreational beach area will be impacted

for the duration of the construction time frame; additional rock massing will be present in the public viewshed in the long-term; failure of the revetment could adversely affect recreational resources; and future erosion response could lead to more substantive hard armoring in the future. Fortunately, these issues can be readily rectified to ensure Coastal Act consistency as follows:

Construction Impacts

The project would involve large equipment that would drive over the recreational beach area and the main beach entrance point (back and forth from East Cliff Drive to the project site), occupy a construction zone of recreational beach area (at the immediate project area), potentially intrude on Sanctuary waters (depending on tides), include a rock staging area along East Cliff Drive covering the main beach entrance, include overnight storage of large equipment on the beach, and generally intrude and negatively impact the aesthetics, ambiance, serenity, and safety of the recreation beach experience. These impacts can be contained through a construction plan that limits the width of construction corridors (from East Cliff Drive to the project area), 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 (e.g., parked along East Cliff Drive or in the Moran Lake parking lot), and clearly delineates and avoids to the maximum extent feasible public use areas (see special condition 2). Even with these containment provisions, however, the public will bear the burden of the negative construction impacts associated with roughly 10 days of construction on this very popular beach. Although the beach area and the beach access point can and must be restored to their original configuration immediately following construction to limit these impacts (see special condition 3), the loss of beach use associated with the 10 days of construction requires some form of compensatory mitigation. Unfortunately, there doesn't currently exist a formal 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, there are other project impacts for which direct mitigation is required (see below). When the impacts are considered together, an appropriate roughly proportional mitigation can be applied (see revegetation requirements below).

Additional Rock Massing in the Public Viewshed

In addition to the direct construction impacts to the public recreational beach and surfing area, the proposed project would also adversely affect the overall public viewshed and aesthetic over the long term by introducing 630 additional cubic yards of large rock into the back beach area. The long-term result would be an ever more imposing and unnatural (compared to the natural bluff landforms in this area) rock boulder facade in the back beach area. Absent some form of effective camouflaging, this would be a significant long-term burden borne by the public, with the benefit from the rock all to the private landowner.

Of course, there currently exists some landscape cover along the upper bluffs that provides some visual relief. However, the existing landscape cover is a non-native invasive species (iceplant), that while providing some greenery, also contributes to the incremental alteration of the natural bluff landform and vegetation. Furthermore, iceplant is a landscape species with a shallow root system that can lead to bluff instability when the weight of the plant matter above grade becomes too heavy (for example, during

storm events) and causes the plant material to topple over the bluffs (bringing with it bluff soils). A better vegetative solution for promoting the natural back beach aesthetic, and for enhancing upper bluff stability altogether, is to plant long-rooted native species that can help to better hold together the upper bluff materials and can better cascade over the revetment.

Therefore, to mitigate for the direct negative construction impacts, to mitigate for the long-term impact of additional rock massing in the viewshed, and to enhance the natural landform and bluff stability, the applicant must remove the existing top of revetment ice-plant, create planting pockets as necessary in the upper revetment voids, replant with appropriate native species, and achieve and maintain vegetation performance standards for a long-term cascading planting screen to cover the upper third (roughly 10 vertical feet) of the bluffs and revetment for the life of the project (see special conditions 4 and 7). Given that the bluff is roughly 30 feet tall in a winter scour condition, and roughly 20 feet tall in a summer beach condition, such screening should provide effective upper bluff camouflaging. Extending the screening further down slope does not appear feasible at this time due to the lack of available soil areas for plantings, and the potential for the loss of materials in the lower revetment area during winter storm events.

As discussed, almost the entire stretch of back beach area at 26th Avenue Beach is covered in rock revetments. Some of these revetments include a vegetative cap with native plants, some a vegetative cap with iceplant, and others none at all. Given that these revetments require fairly regular maintenance, over time it is anticipated that the straggly non-native invasive vegetation atop the revetments in the public viewshed can be replaced by a cascading screen of native species through similar coastal permit conditions as additional repair projects are forwarded. In fact, in addition to this repair application, there are two additional repair applications in front of the Commission at the April 2002 hearing for revetments fronting 26th Avenue Beach for which similar revegetation conditions are identified.[8]

No Seaward Encroachment

The plans submitted indicate that the 630 cubic yards of rock would be placed inland of the existing seaward edge of the revetment. The plans submitted include one cross section defining the edge of the existing revetment, but do not include a corresponding site plan; important in this case because the bluffs are not straight-line linear at this location. Since the plans include photographs describing the areas in which the rock would be placed, this omission is not critical. However, to ensure that there is no confusion on this point, and since the revetments and underlying natural bluffs here undulate, the Commission considers the seaward edge of the revetment to be the seaward most location of the bulk of the existing rock currently located here. In other words, individual boulders, or clumps of several boulders, that may have migrated seaward from the main revetment do not extend the seaward edge of the revetment to encompass them.

Pursuant to Coastal Act Section 30253, development is to be designed, sited, and built to allow the natural shoreline processes to occur without creating a need for additional more substantive armoring.

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[8] Application numbers 3-83-200-A2 (Gibson) and 3-02-012 (Cermak); item numbers Th16a and Th15i respectively.

Coastal development permittees for new shorefront development thus are essentially making a commitment to the public (through the approved action of the Commission, and its local government counterparts) that, in return for building their project, the public will not lose public beach access, sand supply, visual resources, and natural landforms, and that the public will not be held responsible for any future stability problems. Thus, Coastal Act Section 30253 requires that the proposed project assure structural stability without the need for additional armoring.

The proposed revetment refurbishment (to re-stack at a 1.5:1 slope) is consistent with the general practice for such armoring along 26th Avenue Beach. The existing armoring structure here has basically fixed the back beach at the revetment location and halted bluff retreat. Thus, it is not anticipated that additional rock seaward of the revetment profile will be necessary in the future due to the fact that the blufftop residence is being protected consistent with the general standards for armoring along this stretch of coast. Such potential seaward encroachment would give rise to another level of potential Coastal Act inconsistency inasmuch as it would occupy recreational sandy beach and intensify the amount of rock within the beach area public viewshed. Further, to allow a project that would itself require additional armoring seaward of that existing revetment would not be consistent with Section 30253 because stability and structural integrity must be assured without reliance on future armoring.

Therefore, to protect the beach area seaward of the revetment consistent with the Coastal Act, and in order to find this project consistent with Coastal Act Section 30253 requiring that development not require additional armoring in the future, the Commission finds that no further seaward encroachment is allowed by either this repair or any future repairs (see special conditions 1, 5, and 7). This applies to the wedge of rock in a 1.5:1 slope making up the revetment profile as well as the seaward toe itself. In other words, at no time shall additional rock be allowed seaward of any point on the revetment profile.[9]

Monitoring, Maintenance, and Long-Term Stability

If the revetment was 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. In addition, any boulders that separate themselves from the main revetment would adversely affect beach recreational and surfing access here. The upper bluff soils must be adequately stabilized with vegetation, and upper bluff drainage controlled, to ensure overall stability. Therefore, in order to find the proposed revetment repair consistent with the Coastal Act, the Commission finds that the condition of the revetment in its approved state must be maintained for the life of the revetment. Any boulders that migrate seaward of the seaward most edge of the revetment must be promptly retrieved and restacked or removed off-site. 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 revetment over the long term. The monitoring will ensure that the Permittee and the Commission are aware of any damage to revetment and can determine whether repairs or other actions

[9] This point is made so as to avoid any future confusion should it be argued that the toe of the revetment in site plan view by itself defines the line past which rock cannot be placed. Using this incorrect interpretation, an applicant could argue that additional armoring could be placed on top of the approved revetment slope so long as it didn't go seaward of the toe. Such placement would lead to even more substantive armoring in the back beach placed at a steep and unstable slope (i.e., in excess of the 1.5:1 slope approved).

are necessary to maintain the revetment in its approved state before such repairs or actions are undertaken. Finally, 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 revetment footprint and profile.

Therefore, special conditions are attached to this approval for the submittal of as-built plans (to define the footprint and profile of the permitted structure) with surveyed reference points to assist in evaluation of future proposals at this site (see special condition 5) and drainage and vegetation parameters for the upper bluff area (see special condition 4). For monitoring, the Applicant is responsible for ensuring adequate monitoring of the revetment and is required to submit a monitoring report on five year intervals that evaluates the condition and performance of the revetment, 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 responsible for promptly retrieving and restacking (or removing off-site) any boulders that migrate seaward of the existing revetment (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 (see special condition 7).

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 on and around revetments and eroding bluffs in a dynamic coastal bluff environment; this applies to the repair proposed as well as for the development landward of the bluffs themselves. 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 development proposed in this application, the risks cannot be eliminated entirely. Given that the Applicant has chosen to pursue the development despite these risks, the Applicant must assume these risks. Accordingly, this approval is conditioned for the Applicant to assume all risks for developing at this location (see special condition 7). Specifically, special condition 7 requires the Applicant to record a deed restriction that evidences their acknowledgment of the risks and that indemnifies the Commission against claims for damages that may

be brought by third parties against the Commission as a result of its approval of this permit.

Public Rights

The Applicant does not propose to install any rock seaward of the existing revetment 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 revetment, 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 028-242-08; 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 028-242-08 is difficult to verify with any certainty. 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 revetment, this issue need not be resolved here. That said, however, there has been a long and steady history of public use of the beach area here. So as not to prejudice any future evaluations on this topic, and so as to avoid a situation where this revetment repair approval were 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).

Coastal Act Consistency Conclusion

Although the project is in some ways a fairly straight forward revetment repair, it includes impacts to beach recreational resources that must be properly mitigated, and it must not itself require additional more substantive armoring for the Commission to find the project consistent with the Coastal Act policies cited herein. Thus special conditions are included to define construction parameters, 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 across the top of the revetment, to ensure that there will be no current or future seaward encroachment of rock, and to record these restrictions on the property to ensure that any future landowners are made aware of the requirements applicable to the revetment (see special conditions).

In terms of condition timing, it is noted that the Commission typically requires conditions to be complied with prior to issuance of the permit. In this case, to minimize beach recreational impacts, the project is to take place in early April to take advantage of low tides, mild weather, and to avoid peak summer beach use times (i.e., starting around Memorial Day). Therefore, so as to allow the project to timely commence, only the construction plan has been conditioned for completion prior to issuance of the coastal development permit. In this way, the direct construction impacts can be contained before any work can commence under this approval. The final plan for the upper bluff elements must then be completed within one month of construction completion, and initial implementation must be verified within 2 months. After 2 months, the as-built plans must be completed as well. All legal instruments must be complete within 6 months. These timing parameters allow the project to commence in April and provide ample time within which the Applicant can prepare the follow-up documentation required.

Finally, the mitigations imposed here will alleviate, but cannot completely eliminate, the long-term impacts to the public both as a result of this individual project and the overall cumulative effect of it together with all the other armoring along this stretch of coast. Some of this long term impact was "inherited" by the people of the state due to the fact that much of this stretch of coast was already armored to a certain degree when the coastal permitting requirements of Proposition 20 and the Coastal Act were instituted in the early 1970s. Ultimately, additional regional planning (e.g., a specific plan for addressing armoring needs and impacts along 26th Avenue Beach) and regional planning mechanisms (e.g., an in lieu-fee program within which individual project impacts can be more systematically quantified and addressed by a fee that could be applied to beach recreational enhancements in the area) are necessary.

The Commission notes that the County has begun preliminary efforts toward developing these types of regional planning tools to address the issue of shoreline armoring with a case study focusing on the nearby Opal Cliffs area (just downcoast of Pleasure Point from the 26th Avenue Beach area). As the Commission currently understands it, the Opal Cliffs project would focus on the removal of the rubble and rock revetments that block much of the beach access in this area, and would develop measures to sculpt and camouflage any armoring that is allowable under the Coastal Act in such a way as to mimic the natural bluff topography and vegetation. Options for building in pedestrian platforms in permitted armoring that allow for lateral access at even higher tides would also be evaluated.[10]

The 26th Avenue Beach area shares some of the same armoring issues as are present along nearby Opal Cliffs, most notably the large area of recreational sandy beach currently occupied by revetments. In the 26th Avenue Beach case, the tension between armoring on the beach and recreational use is heightened due to the fact that the beach at 26th Avenue is much more widely used than that at Opal Cliffs. Thus, 26th Avenue Beach would appear ripe for a similar specific planning exercise. Of course, and as the Commission has already observed with respect to the Opal Cliffs effort,[11] such a plan must be premised within the context of avoiding armoring to the absolute extent feasible consistent with the Coastal Act, and ensuring that the public is adequately compensated for any burden borne over the long term by armoring that fully meets the applicable LCP and Coastal Act policy tests.[12]

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[10] It appears at this time that the vehicle for such a regional solution would be a specific plan for Opal Cliffs that would be an amendment into the LCP. The specific plan approach has the benefit of allowing decision makers at the County and Commission levels to develop appropriate regional planning standards based upon the unique regional geology and existing situation of a specific stretch of coast rather than being limited by the piecemeal approach of individual permit applications. A specific plan also has the added advantage of providing an increased level of certainty in the permitting process since individual applications would then simply need to fit within the regional guidelines so established and agreed upon. Alternatively, if course, there is the potential for some type of larger project by multiple applicants or through some type of special district and/or County-sponsored arrangement. In either case, planning is completed ahead of any associated permitting and the same level of certainty is provided.

[11] In adopted findings for the March 2002 denials of 3 armoring proposals in Opal Cliffs: A-3-SCO-01-109 (Adams), A-3-SCO-01-117 (Banman), and A-3-SCO-01-118 (Black).

[12] The Commission, through the 1995 Monterey Bay ReCAP project, has previously recommended such a regional shoreline planning approach for the Monterey Bay area where it was estimated that approximately 25 acres of sandy beach had been covered with shoreline armoring in the study region by 1993, most of that in Santa Cruz County. In fact, the Commission's ReCAP analysis focused on the Opal Cliffs area as a case study to illustrate the coastal resource problems associated with project-by-project review of armoring

3. California Environmental Quality Act (CEQA)

Section 13096 of the California Code of Regulations requires that a specific finding be made in conjunction with coastal development permit 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 which the activity may have on the environment.

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. This staff report has discussed the relevant coastal resource issues with the proposal, and has recommended appropriate suggested 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. All above Coastal Act findings are incorporated herein in their entirety by reference.

As such, there are no additional feasible alternatives nor feasible mitigation measures available which would substantially lessen any significant adverse environmental effects which approval of the proposed project, as modified, would have on the environment within the meaning of CEQA. Thus, if so modified, 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).

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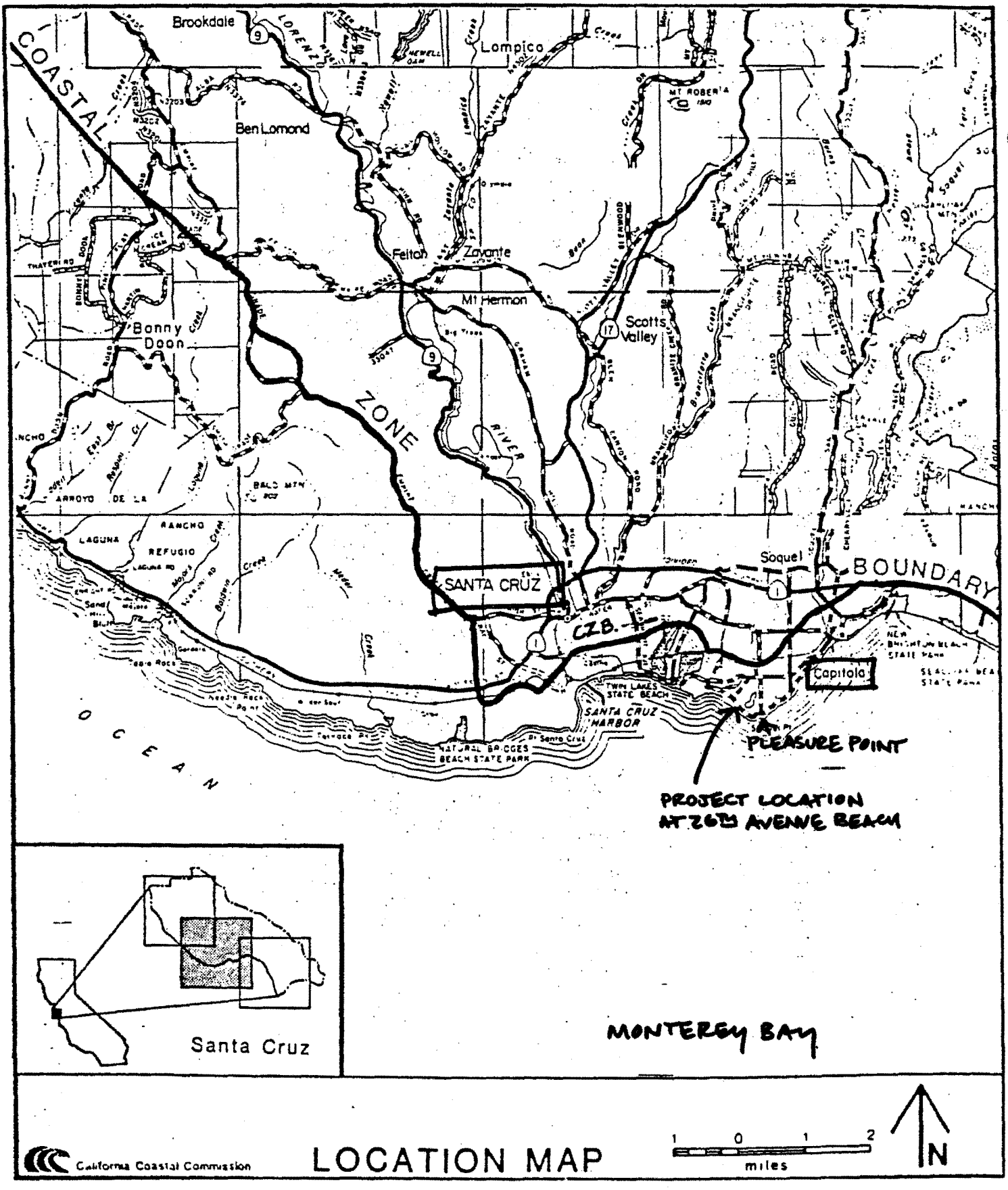
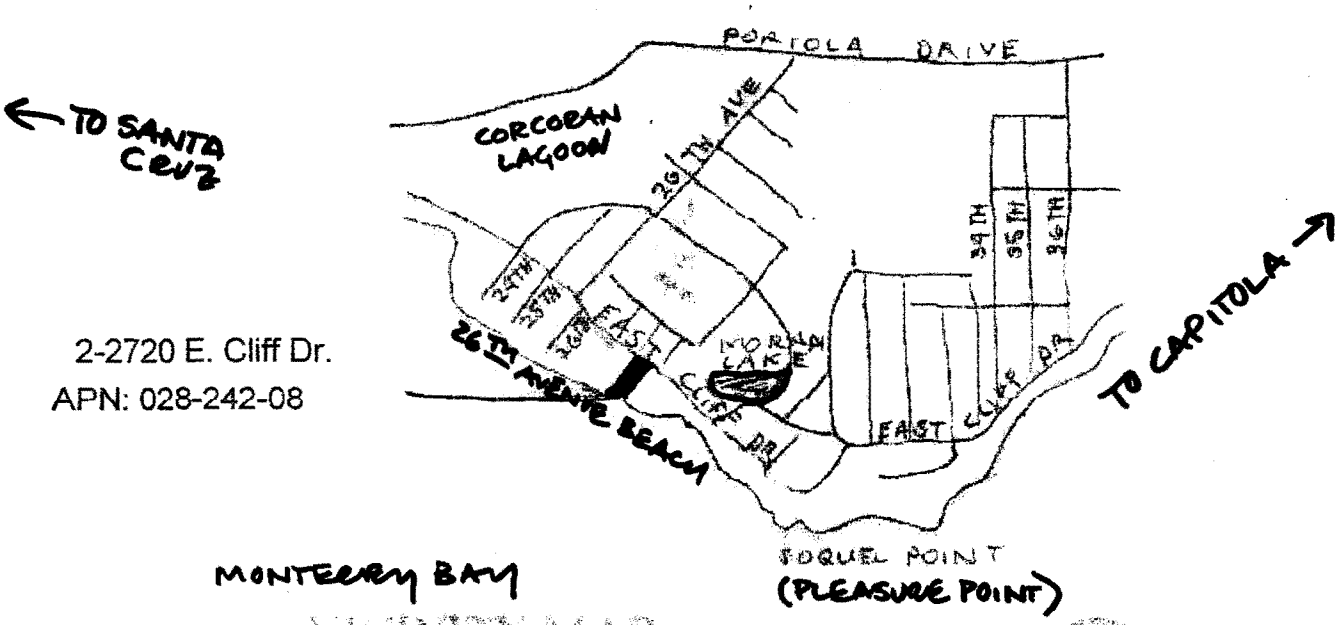
proposals as opposed to long-term planning. Most of Opal Cliffs, like 26th Avenue Beach, is currently armored in some way, and much (if not most) of the armoring appears to pre-date Proposition 20 and the Coastal Act.



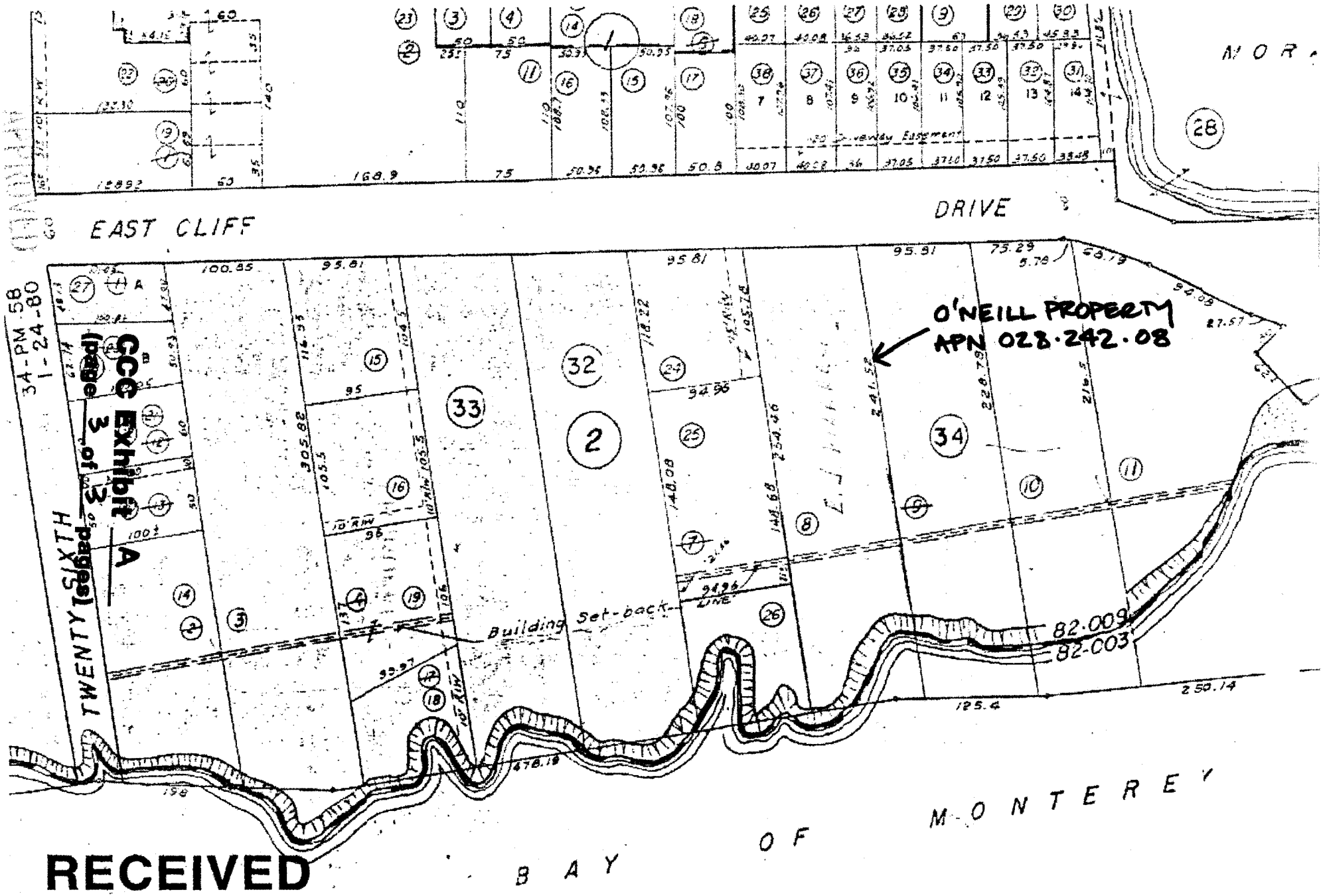
CCC Exhibit A
(page 1 of 3 pages)



2-2720 E. Cliff Dr.
APN: 028-242-08

VICINITY MAP
NO SCALE

CCC Exhibit A
(page 2 **of** 3 **pages)**



MONTEREY BAY

028-241-08

2-2720 E. Cliff Drive
Santa Cruz, Ca. 95062
Santa Cruz County

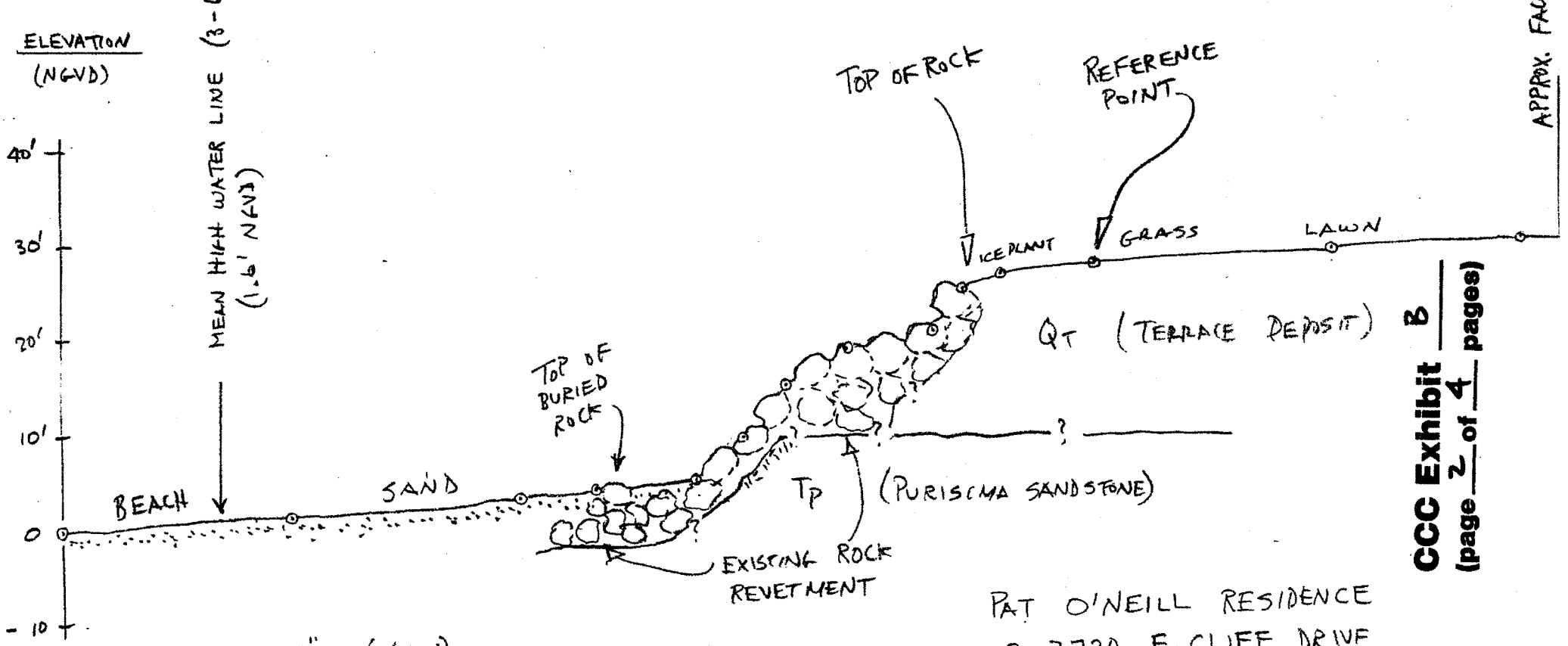
Access to O'Neill Parcel via East Cliff Drive at Moran Lake.

CONSTRUCTION ACCESS PROPOSED

CCC Exhibit B
(page 1 of 4 pages)

EXISTING

BEACH PROFILE – O'NEILL RESIDENCE



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REF POINT 28.4' NGVD
FROM TBM BENCH MARK
BLOCK WALL – BLANCHARD
PROPERTY (APN 028-242-10)
@ 27.7' NGVD (IFLAND ENGRS)

HARO, KASUNICH & ASSOC.
116 E. LAKE AVE.
WATSONVILLE, CA 95076.

PAT O'NEILL RESIDENCE
2-2720 E. CLIFF DRIVE
APN 28-242-08
SANTA CRUZ COUNTY

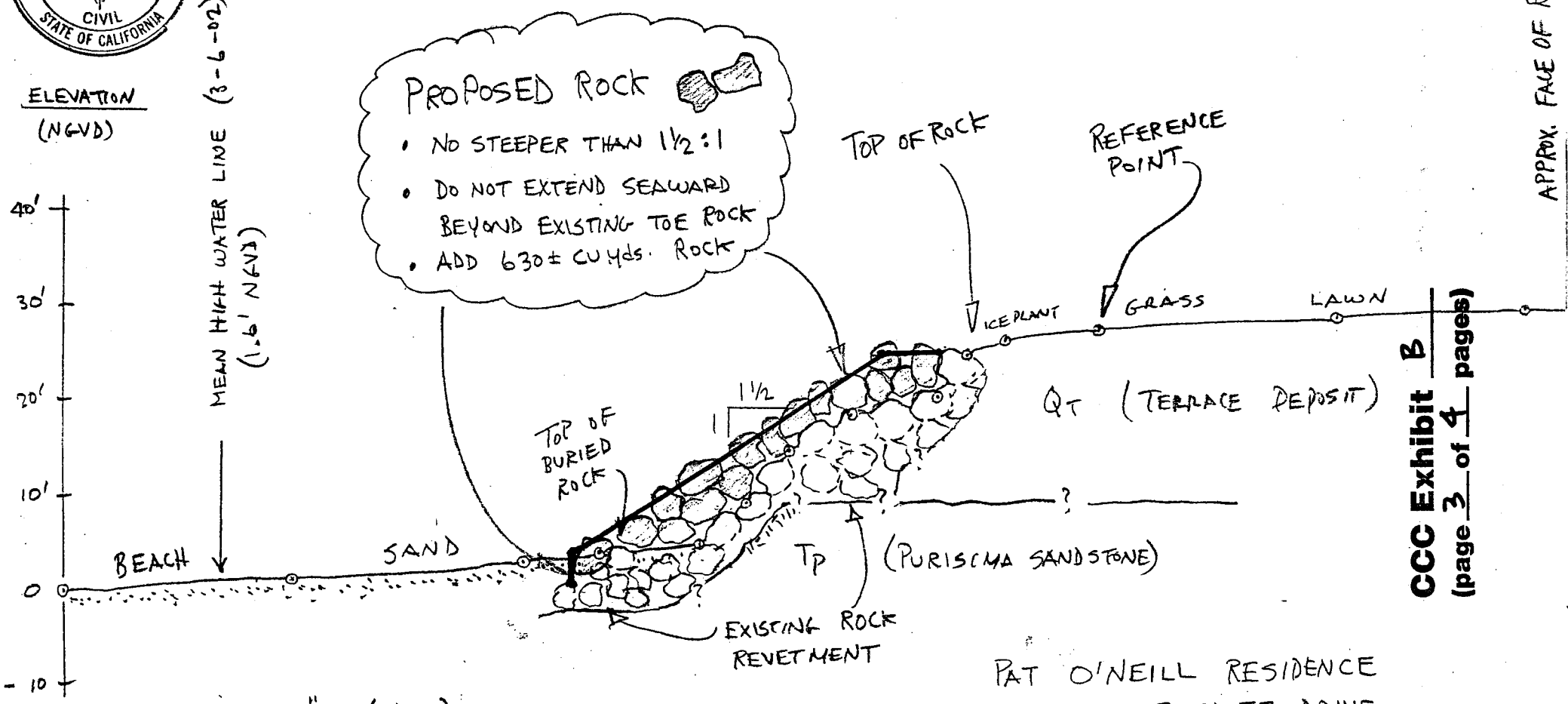
REGISTERED PROFESSIONAL ENGINEER
JOHN E. KASUNICH
No 33177
Exp 6-02
CIVIL
STATE OF CALIFORNIA

CCC Exhibit B
(page 2 of 4 pages)

PROPOSED

BEACH PROFILE – O'NEILL RESIDENCE

REGISTERED PROFESSIONAL ENGINEER
JOHN E. KASUNICH
No 33177
Exp 6/02
CIVIL
STATE OF CALIFORNIA

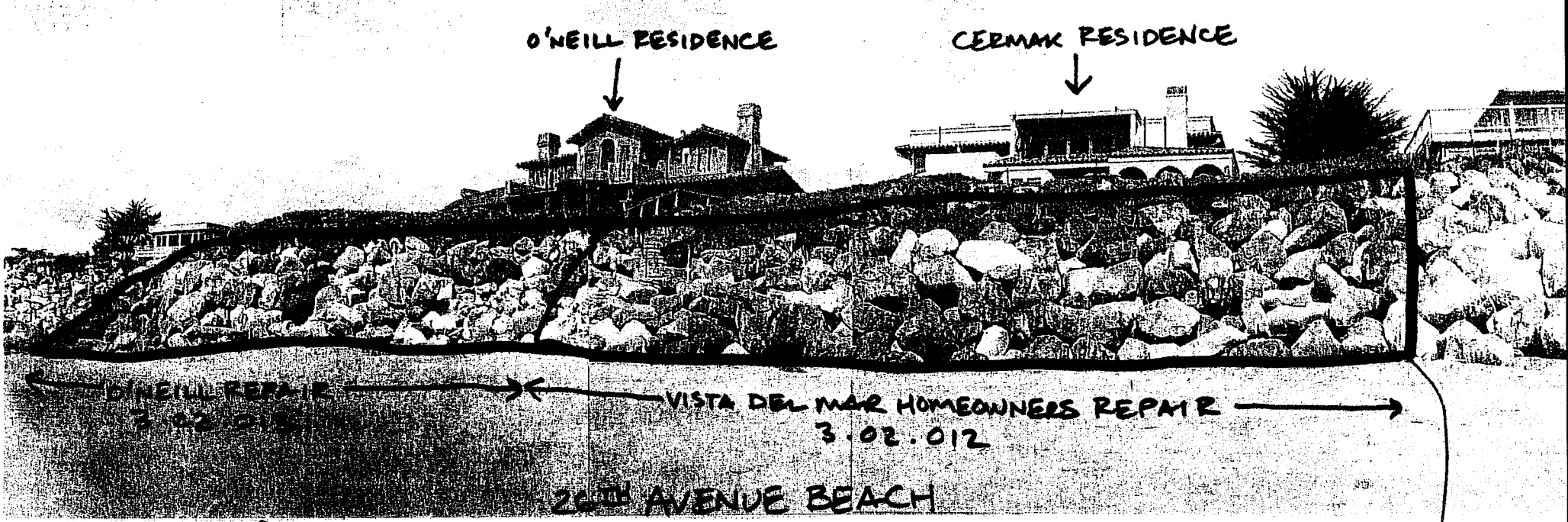


SCALE 1" = 10' (H=V)
REF POINT 28.4' NGVD
FROM TBM BENCH MARK
BLOCK WALL – BLANCHARD PROPERTY (APN 028-242-10)
@ 27.7' NGVD (IFLAND ENGRS)

HARO, KASUNICH & ASSOC.
116 E. LAKE AVE.
WATSONVILLE, CA 95076

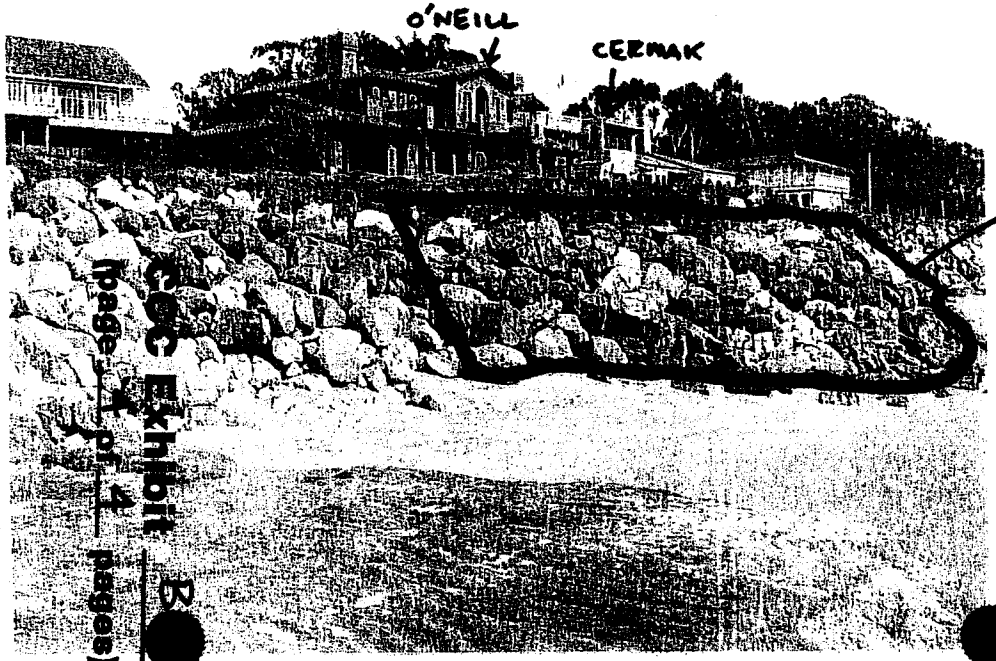
PAT O'NEILL RESIDENCE
2-2720 E. CLIFF DRIVE
APN 28-242-08
SANTA CRUZ COUNTY

CCC Exhibit B
(page 3 of 4 pages)



VIEW UPCOAST ↗

VIEW DOWNCOAST ↘



APPROXIMATE LIMITS OF REPAIR WORK PROPOSED*

*NOTE THAT THERE ARE TWO RELATED BUT SEPARATE CDP APPLICATIONS FOR REVETMENT REPAIR: 3.02.012 (VISTA DEL MAR HOMEOWNERS) AND 3.02.013 (O'NEILL). THIS GRAPHIC SHOWS LIMITS OF WORK FOR BOTH.

Exhibit 5 (page 1 of 4 pages)