

CALIFORNIA COASTAL COMMISSION

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Coastal Development Permit Application

Application number3-03-036, Filizetti Revetment Maintenance

Applicant.....Gary Filizetti

Project location.....Beach and bluffs fronting 103 24th Avenue at Santa Maria Cliffs/26th Avenue Beach in the unincorporated Live Oak area of Santa Cruz County (APNs 028-232-28 and 028-231-01, and the 23rd Avenue "paper street" right-of-way).

Project descriptionRecognize emergency rip-rap revetment repair work from winter 2002-3, and provide for future maintenance work on a previously permitted, approximately 400 linear foot revetment.

File documents.....Santa Cruz County certified Local Coastal Program (LCP); California Coastal Commission coastal development permit (CDP) and emergency CDP files involving the revetment (including 3-83-058-G, 3-95-089-W, 3-97-027, 3-98-064-W, A-3-SCO-99-056, 3-00-137-W, and 3-02-110-G); California Coastal Commission Monterey Bay ReCAP.

Staff recommendation ...Approval with Conditions

Summary: This application is both a follow-up CDP application for an authorized emergency permit repair from winter 2002-3, and a proposal to maintain an existing permitted revetment fronting the back beach at Santa Maria Cliffs/26th Avenue Beach near Corcoran Lagoon in the unincorporated Live Oak beach area of Santa Cruz County. The project, both the emergency repair and the long-term maintenance, is designed to maintain the revetment in its permitted configuration, and is not to allow for expansion of its footprint and/or profile. This project is similar to other revetment repair/maintenance applications that the Commission has reviewed in the Santa Cruz County area in the past several years. Staff recommends approval subject to the types of conditions generally applied by the Commission in these past cases that are designed to offset coastal resource impacts while providing for long-term permitted maintenance. The recommended conditions of approval include provisions for: maintenance to take place on an as needed basis, subject to construction and restoration criteria; no further seaward encroachment in relation to the approved revetment profile; long-term monitoring; removal of non-native landscape cover and replacement with native plantings designed to cascade over the topmost portion of the revetment for screening; and assumption of risk by the property owners. Staff has worked with the Applicant on refining the recommended conditions of approval, and Staff and Applicant are in agreement on them. As so conditioned, Staff recommends approval.

**California Coastal Commission****October Meeting in San Diego**Staff: D. Carl Approved by: *DC*

3-03-036 Filizetti revetment stfprt 10.14.2004.doc

Report Contents

	page
I. Staff Recommendation on CDP Application.....	2
II. Conditions of Approval.....	3
A. Standard Conditions.....	3
B. Special Conditions	3
III. Findings and Declarations.....	12
A. Existing Conditions.....	12
B. Project Description.....	15
C. Coastal Development Permit Determination	16
IV. Exhibits	(following page) 27
Exhibit A: Project Location Maps and Photos	
Exhibit B: Project Plans	

I. Staff Recommendation on CDP Application

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 3-03-036 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. **Interpretation.** Any questions of intent or interpretation of any condition will be resolved by the Executive Director or the Commission.
3. **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.
4. **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. **Landscape Screening and Benchmark Plans.** PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the Permittee shall submit Landscape Screening and Benchmark Plans (in full-size and 11" x 17" formats with a graphic scale (two sets of each)) to the Executive Director for review and approval as follows:
 - (a) **Landscape Screening Plans.** The Landscape Screening Plans shall provide for the removal of all non-native invasive plants (e.g., iceplant) currently present in the area seaward and/or beachward of the blufftop edge, and shall provide for the planting of native species in the area between the blufftop edge and the revetment in a manner designed to provide for a dense cascading screen of native vegetation to screen the upper one-third (roughly 10 vertical feet) of the revetment from view from the beach below, to the extent reasonably feasible. The Plans 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 plants to complement this planting palette may be allowed upon written consent from the Executive Director): *Achillea millefolium* (yarrow), *Artemisia californica* (California sagebrush), *Baccharis pilularis* (prostrate greasewood), *Bromus carinatus* var. *maritimus* (seaside brome), *Ceanothus griseus* var. *horizontalis* (Carmel creeper), *Ceanothus griseus* var. *horizontalis* (Yankee Point), *Dudleya caespitosa* (live forever), *Dudleya farinosa* (live forever), *Elymus glaucus* (blue wild rye), *Erigeron glaucus* (seaside daisy), *Eriogonum latifolium* (buckwheat), *Eriogonum parvifolium* (dune buckwheat), *Eriophyllum staechadifolium* (lizard tail), *Fragaria chiloensis* (beach strawberry), *Grindelia stricta* (gumweed), *Leymus pacificus* (beach wild rye), *Mimulus aurantiacus* (sticky monkey flower), *Myrica californica* (wax myrtle), *Poa douglasii*



(maritime bluegrass), or *Rhamnus californica* (coffeeberry). The Plans shall also provide for any irrigation necessary to ensure that the landscape screening is successful. The Plan shall provide a schedule for its implementation, including expected growth to be achieved with the new plantings over time, where Plan implementation shall commence as soon as possible according to the approved Plan schedule but in no case later than six months after the completion of the first revetment maintenance episode authorized by this permit.

- (b) **Benchmark Plans.** The Benchmark Plans shall provide for the installation of one or more permanent surveyed benchmarks inland of the revetment (e.g., a permanently embedded brass cap), and identification of survey points along the inland-most top and seaward-most toe of the revetment (located at those points in site plan view where the delineation of the revetment's edge changes direction) for use in future monitoring efforts. There shall be at least 3 such survey points along the inland top edge of the revetment, and at least 3 such survey points along the seaward toe of the revetment (in each case, one at each end of the revetment, and one at the curve in the revetment). The survey points on the revetment shall be identified through permanent markers, painted markings, survey position, written description, et cetera to allow measurements to be taken at the same location in order to compare information between years. The benchmarks (and survey points) shall be installed within six-months of approval of the plan.

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

2. **As-Built Plans.** WITHIN SIX-MONTHS OF ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the Permittee shall submit As-Built Plans (in full-size and 11" x 17" formats with a graphic scale (two sets of each)) to the Executive Director for review and approval. The plans shall identify the as-built revetment, the benchmarks (and survey points), and landscape screening in site plan and cross section views substantially in conformance with the approved plans identified in special condition 1 and as augmented by the following:

- (a) **Revetment.** The portion of the As-Built Plans covering the revetment shall be prepared by a licensed civil engineer with experience in coastal structures and processes and shall be substantially in conformance with the plans submitted to the Coastal Commission (*Partial Topographic Survey and Cross Sections* by Kier & Wright dated received in the Coastal Commission's Central Coast District Office February 17, 2004), and shall include site plans and cross sections that clearly show the full extent of the revetment (including inland and seaward extents). The revetment maintenance parameters identified in special condition 6 shall be shown as plan notes. In addition, the plans shall provide that if at any time evidence indicates that rodents are living in the voids within the revetment, then the Permittee shall take reasonable action to eliminate such rodent colonization consistent with generally accepted professional pest control methods that also ensure the health and safety of the public.

- (b) **Landscape Screening.** The As-Built Plans shall require regular monitoring and remedial action



(such as replanting as necessary) to ensure success, as reasonably feasible, of the required revetment native landscape screening (where "success" means that the upper one-third (roughly 10 vertical feet) of the revetment is screened from view as seen from the beach below) for as long as a revetment exists at this location.

- (c) **Additional Elements Shown.** The As-Built Plans shall clearly identify: all property and parcel lines for the subject property (i.e., APNs 028-232-28 and 028-232-32), the 23rd Avenue right-of-way, and the upcoast beach property (i.e., APN 028-231-01); all structures seaward and/or beachward of the residence; the beach access trail (from the paved end of 23rd Avenue to the beach); all areas on the subject property that are encumbered by legal restrictions (e.g., deed restrictions, easements, etc.), and shall be accompanied by copies of any such recorded documents showing the legal restrictions.
- (d) **Benchmarks.** The As-Built Plans shall identify all benchmark locations and attributes, and shall indicate vertical and horizontal reference distances from the inland surveyed benchmark(s) to the survey points on the revetment. The benchmark elevation(s) shall be described in relation to National Geodetic Vertical Datum (NGVD).
- (e) **Photographs.** The As-Built Plans shall include clear photographs of the as-built revetment and landscape screening with the date and time of the photographs and the location of each photographic viewpoint noted on a site plan. At a minimum, the revetment and landscaping shall be photographed from upcoast and downcoast viewpoints, from the beach access trail (at 23rd Avenue), and from a sufficient number of beach viewpoints as to provide complete photographic coverage of the revetment and landscaping at a scale that allows comparisons to be made with the naked eye between photographs taken in different years from the same vantage points.

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

3. **Revetment Maintenance Construction Plan.** PRIOR TO COMMENCEMENT OF THE FIRST REVETMENT MAINTENANCE EPISODE (pursuant to special condition 6), the Permittee shall submit a Revetment Maintenance Construction Plan (in full-size and 11" x 17" formats with a graphic scale (two sets of each)) to the Executive Director for review and approval. The Plan is intended to be the base construction plan for multiple individual revetment maintenance episodes; as such, it is intended to be reviewed and approved once, where minor modifications to it can be submitted separately with the future maintenance notifications identified in special condition 6. The Plan shall identify the parameters that will apply to revetment maintenance construction (for the first and any subsequent revetment maintenance episodes), and shall include, at a minimum, the following:

- (a) **Construction Areas.** The Plan shall identify the specific location of all construction areas, all staging areas, all storage 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, Corcoran Lagoon, the pathway, and all beach access points, and to have the least impact on public access. Unobtrusive fencing (or equivalent) shall be provided to enclose the construction area in a closed polygon.

- (b) **Construction Methods and Timing.** The Plan shall specify the construction methods to be used, including all methods to be used to keep the construction areas separated from public recreational use areas to the extent reasonable feasible (including using the blufftop space available on the Permittee's property inland of the revetment for staging, storage, and construction activities to the maximum extent feasible). All erosion control/water quality best management practices to be implemented during construction and their location shall be noted.
- (c) **Property Owner Consent.** The Plan shall be submitted with 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 for each potential maintenance episode.
- (d) **Construction Requirements.** The Plan shall include the following construction requirements specified via written notes on the Plan. Minor adjustments to the following construction requirements may be allowed by the Executive Director if such adjustments: (1) are deemed necessary due to extenuating circumstances; and (2) will not adversely impact coastal resources.
- All work shall take place during daylight hours and lighting of the beach area is prohibited unless, due to extenuating circumstances, the Executive Director authorizes non-daylight work and/or beach area lighting.
 - Construction activities are prohibited in the areas within 50 feet of the waters of Corcoran Lagoon, and are prohibited if snowy plover are present.
 - 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 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).
 - Only rubber-tired construction vehicles are allowed on the beach, except track vehicles may be used if 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 (e.g., a silt fence at the base of the revetment) as necessary to contain rock and/or sediments at the revetment site, where such controls are placed as close to the toe of the revetment as possible, and are minimized in their extent.
- Construction (including but not limited to construction activities, and materials and/or equipment storage) is prohibited outside of the defined construction, staging, and storage areas.
- No work, except in the case of emergency, 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, refueling, and/or servicing shall not take place on the beach.
- 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).
- 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. 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.
- 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.

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

4. Construction Site Documents and Construction Coordinator. DURING ALL REVETMENT CONSTRUCTION:

(a) Construction Site Documents. Copies of each of the following shall be maintained in a



conspicuous location at the construction job site at all times (where such copies shall be available for public review) and all persons involved with the construction shall be briefed on the content and meaning of each prior to commencement of construction: (a) the signed coastal development permit; (b) the approved as-built plans (see special condition 2); and (c) the approved construction plan (see special condition 3); and

- (b) **Construction Coordinator.** A construction coordinator to be contacted during construction should questions arise regarding the construction (in case of both regular inquiries and in emergencies) shall be designated, and their 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 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.

5. **Monitoring and Reporting.** The Permittee shall ensure that the condition and performance of the as-built revetment is 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 as-built revetment profile. 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, 2009, and subsequent reports due May 1, 2014, May 1, 2019, and so on) for as long as the revetment exists at this location. The reports shall identify the existing configuration and condition of the revetment and the required screening, recommend actions necessary to maintain these project elements in their approved and/or required state, and include photographs taken from each of the vantage points required in the as-built plans (see special condition 2) with the date and time of the photographs and the location of each photographic viewpoint noted on a site plan.

6. **Future Revetment Maintenance Authorized.** This coastal development permit authorizes future revetment maintenance 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: (1) to reestablish or place rock within the permitted footprint and/or profile of the approved revetment structure; (2) to retrieve any rocks that move seaward of the approved revetment footprint and/or profile; and/or (3) to remove any debris that accumulates in or on the revetment or seaward of it.

- (b) **Maintenance Parameters.** Maintenance shall only be allowed subject to the approved



construction plan required by special condition 3. Any proposed modifications to the approved construction plan associated with any maintenance event shall be reported to planning staff of the Coastal Commission's Central Coast District Office with the maintenance notification (described below), and such changes shall require a coastal development permit amendment unless the Executive Director deems the proposed modifications to be minor in nature (i.e., the modifications would not result in additional coastal resource impacts).

- (c) **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.
- (d) **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; identification of a construction coordinator and their contact information (i.e., address, phone numbers, etc.); any proposed changes to the parameters of the approved construction plan (per special condition 3); 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 received a response within 30 days of submitting the notification, 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.
- (e) **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's 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.
- (f) **Restoration.** The Permittee shall restore all beach areas and all beach access points 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 immediately

- (g) **Non-compliance Proviso.** If the Permittee is not in compliance with the conditions of this permit 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 this permit.
- (h) **Emergency.** In addition to the emergency provision set forth in subsection (d) 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 revetment maintenance under this coastal development permit is allowed subject to the above terms for ten (10) years from the date of permit approval (i.e., until October 14, 2014). Maintenance can be carried out beyond the 10-year period if the Permittee requests an extension prior to October 14, 2014 and the Executive Director extends the maintenance term in writing. The intent of this permit is to regularly allow for 10-year extensions of the maintenance term unless there are changed circumstances that may affect the consistency of this revetment maintenance authorization with the policies of Chapter 3 of the Coastal Act and thus warrant a re-review of this permit.

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) **Maintenance Required.** It is the Permittee's responsibility (1) to maintain the approved revetment in a structurally sound manner and its approved state; (2) to retrieve rocks that move seaward of the revetment and either restack them (within the approved revetment footprint and profile) or dispose of them at a suitable inland disposal location as soon as is feasible after discovery of the rock movement; and (3) to remove all debris that may accumulate in or on the revetment or seaward of it.
- (b) **No Further Seaward Encroachment.** Any future development, as defined in Section 30106 ("Development") of the Coastal Act, including but not limited to modifications to the revetment, shall be constructed inland of, and shall be prohibited seaward and/or beachward of, the seaward/beachward plane of the revetment with the following development excepted from this prohibition: (1) appropriately permitted construction activities associated with construction, maintenance, or repair of the revetment and landscaping approved by this coastal development permit; (2) standard beach maintenance activities; and (3) other development as may be permitted by the California Coastal Commission. The seaward/beachward plane of the revetment is defined by the revetment footprint and profile as shown on the approved as-built plans (see



special condition 2).

- (c) **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 extreme coastal hazards including but not limited to episodic and long-term shoreline retreat and coastal erosion, high seas, ocean waves, storms, and coastal flooding; (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.
- (d) **Future Shoreline Planning.** The Permittee agrees, on behalf of itself and all successors and assigns, to participate in future shoreline armoring planning efforts that involve the revetment which is the subject of this coastal development permit. Such planning efforts may involve consideration of a shoreline armoring management entity meant to cover the larger shoreline that includes the revetment, and may involve consideration of potential modifications and/or programs designed to reduce public viewshed and beach access impacts due to shoreline armoring. Agreeing to participate in no way binds the Permittee (nor any successors and assigns) to any particular outcome of such planning efforts nor to any financial commitment; and in no way limits his/her ability to express his/her viewpoint during the course of such planning efforts.
- (e) **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 nor should any public rights be deemed admitted or accepted by the Permittee by virtue of this permit and the conditions set forth in this permit.
8. **MBNMS Review.** PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the Permittee shall submit to the Executive Director written evidence that all necessary permits, permissions, approvals, and/or authorizations for the project as approved by this coastal development permit have been granted by the Monterey Bay National Marine Sanctuary. Any changes to the approved project required by the Sanctuary 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 necessary.
9. **24th Avenue Frontage - Property Ownership.** PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the Permittee shall submit to the Executive Director written evidence establishing: (a) that the Permittee owns the property, or a portion of the property, underlying that



part of the revetment seaward of the 24th Avenue right-of-way; and (b) for any portion of the underlying property not owned by the Permittee, that the owners of the property consent to the project as approved by this coastal development permit. In the event that the Permittee cannot obtain consent from the other property owners (if there are any), then this coastal development permit shall not apply to that portion of the revetment located on lands not owned by the Permittee, and the requirement for these property owners' consent shall not be required for this purpose.

- 10. Deed Restriction.** PRIOR TO ISSUANCE OF THE 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 Permittee's parcel(s) governed by this permit (i.e., APNs 028-232-28 and 028-232-32) a deed restriction, in a form and content acceptable to the Executive Director: (1) indicating that, pursuant to this permit, the California Coastal Commission has authorized development on the subject property, subject to terms and conditions that restrict the use and enjoyment of that property; and (2) imposing the special conditions of this permit as covenants, conditions and restrictions on the use and enjoyment of the property. The deed restriction shall include a legal description and site plan of the Permittee's entire parcel or parcels governed by this permit. The deed restriction shall also indicate that, in the event of an extinguishment or termination of the deed restriction for any reason, the terms and conditions of this permit shall continue to restrict the use and enjoyment of the subject property so long as either this permit or the development it authorizes, or any part, modification, or amendment thereof, remains in existence on or with respect to the subject property.

III. Findings and Declarations

The Commission finds and declares as follows:

A. Existing Conditions

The proposed project is located on the beach and bluffs at Santa Maria Cliffs/26th Avenue Beach near Corcoran Lagoon, roughly between the seaward ends of 23rd and 24th Avenues in the unincorporated Live Oak beach area of Santa Cruz County.

Santa Cruz County Regional Setting

Santa Cruz County is located on California's central coast and is bordered to the north and south by San Mateo and Monterey Counties, respectively. The County's shoreline includes the northern half of the Monterey Bay extending upcoast from the Pajaro River through the rugged north coast to San Mateo County along the Pacific Ocean. The County's coastal zone includes a wealth of natural resource systems ranging from mountains and forests to beaches and lagoons 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 of the



County became part of the Monterey Bay National Marine Sanctuary – the largest of the twelve 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 have combined to make the area a desirable place both to live and to visit. As a result, the County has seen extensive development and regional growth over the years that the California Coastal Management Program has been in place. In fact, Santa Cruz County's population has more than doubled since 1970 with recent census estimates indicating that the County is 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 park areas, recreational facilities, and visitor-serving amenities. For coastal counties such as Santa Cruz where most residents live within a half-hour of the coast, and most significantly closer than that, coastal zone 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 and destinations like Santa Maria Cliffs/26th Avenue Beach. With the Santa Cruz County shoreline and beaches providing arguably the warmest and most accessible ocean waters in all of Northern California, and with the large population centers of the San Francisco Bay area, San Jose, and the Silicon Valley nearby, this type of resource pressure is particularly evident in coastal Santa Cruz County.

See exhibit A for a locational map of Santa Cruz County.

Live Oak Beach Area

Live Oak is part of a larger urbanized area (along with 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 reached by visitors coming from the north of Santa Cruz. With Highway 17 providing the primary access point from the north (including from the San Francisco Bay Area, San Jose 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 (see exhibit A). 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.

Live Oak is 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, skimboarding, bodysurfing, 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 sandy beaches, rocky tidal areas, blufftop terraces, and coastal lagoons. Live Oak also includes

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



a number of defined neighborhood and special communities within it. These varied coastal characteristics make the Live Oak shoreline unique in that a relatively small area (roughly three miles of shoreline) 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.) as the remaining vacant parcels are developed and developed residential lots are re-developed with larger homes.² Given that the beaches are the largest public facility in and out of the Live Oak coastal zone, this pressure will be particularly evident along the shoreline.

Proposed Development Site

The proposed project is located on the bluffs and beach between the seaward ends of 23rd and 24th Avenues (see exhibit A, including photos). The beach upcoast of this location is known locally as Santa Maria Cliffs Beach or Corcoran Lagoon Beach. This broad beach extends from a narrow tidal shelf area adjacent to Sunny Cove (upcoast) through to the bluff promontory supporting the Applicant's residence above the beach. Corcoran Lagoon is located directly inland of this beach (across East Cliff Drive), and sometimes is also extends onto the beach itself between East Cliff and the ocean below the Applicant's residence (depending on water level fluctuations).³ In contrast to this wide sandy beach/lagoon area directly upcoast of the project site, the beach configuration changes quite drastically along the project's seaward frontage and downcoast. This other beach area is extremely narrow, extending all the way down to the westernmost outcroppings of rock at Soquel (aka Pleasure) Point about a half-mile downcoast of the project site. This narrow beach is almost entirely backed by rip-rap revetments, including the Applicant's, on its inland edge and is most often referred to as 26th Avenue Beach. 26th is an extremely popular recreational beach,⁴ and a prime bodysurfing, skimboarding and surfing destination (see photos

² Live Oak is currently home to some 20,000 residents, and the LCP indicates that build-out would add approximately 10,000 Live Oak residents, and would require 150 to 180 acres of park acreage. Although Live Oak accounts for less than 1% of Santa Cruz County's total land acreage, this projected park acreage represents nearly 20% of the County's total projected park acreage.

³ Historically, the lagoon formed a natural tidal estuary at the beach. The fill for East Cliff Drive partially severed this connection, and the lagoon does not always meander onto the ocean side of the fill.

⁴ Historic County analyses estimated average daily use of this beach at 848 persons, making it the second highest beach use area in Live Oak (after Twin Lakes State Beach located upcoast near the Santa Cruz Harbor) (Technical Appendix; Live Oak General Plan; Planning Analysis and EIR, October 1977). Similarly, 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, and the development of a parking area, restrooms, showers, and other park amenities inland at (just downcoast) Moran Lake County Park in the time since these surveys, these historic figures likely underestimate the current level of use at this location.



in exhibit A).⁵ Although this beach has been impacted over time by rip-rap,⁶ it remains a significant public access and recreation area.

The Applicant's site is prominently visible in seaward views from East Cliff Drive (the first through public road) heading downcoast at the bridge over Corcoran Lagoon, and is also visible, albeit less so, from inland Portola Drive across Corcoran Lagoon proper. These peek-a-boo views are all the more important in the Live Oak beach area given that the pattern of residential development seaward of the first through public road (and only through lateral trail route) has been such that the majority of through coastal views from it have been blocked other than at this site, the other coastal lagoon outlet locations,⁷ and at the Pleasure Point surfing area.

See exhibit A for a location map and an air photo of the project area.

B. Project Description

The Applicant proposes to have the emergency permit repair from winter 2002-03 recognized, and to maintain on an as needed basis (in the future) the permitted revetment configuration (with no expansion of its footprint and/or profile). At least part of the reason for this application is to pro-actively permit such work in order to avoid a continuing cycle of emergency and other permit processes on a nearly annually basis at this site.⁸ The revetment extends around a bluff promontory, starting out almost perpendicular from East Cliff Drive toward the Monterey Bay and then wrapping downcoast almost 90 degrees extending parallel to the shoreline and forming a rip-rapped headland of sorts. The revetment ranges from about 20 to 30 feet in height, is sloped at a 1.5 to 1 slope, and extends a bit over 400 linear feet along the shoreline here (see project plans in exhibit B).

⁵ Along with Aliso and Tenth Street Beaches in Laguna Beach, and the Wedge in Newport Beach, 26th Avenue Beach is known as one of the best skimboarding and bodysurfing locations in California. Professional and amateur contests are often held here, and recreational users pack the nearshore area at the project site. It is also home to a well-known surfing break that provides a high energy, if somewhat abrupt, rolling beach break known for its Pipeline-esque (but smaller scale) barrels often delivering surfers right to the sandy shore ("26th Avenue"), as well as other breaks such as "Little Wind-n-Sea" just downcoast where rolling waves form off of the first outcroppings of Soquel Point (better known as "Pleasure Point"), and such as "Santa Maria" coming off the back (downcoast) side of Black's Point and the rocky tidal shelves surrounding the Sunny Cove inlet upcoast.

⁶ The beach here is in most cases less than 50 feet wide in summer and completely disappears during parts of the winter. Rip-rap revetments armor the backshore and encroach onto areas that otherwise would provide sandy beach access. The Commission's 1995 Monterey Bay ReCAP project, or Regional Cumulative Assessment Project, estimated that roughly 1¼ acres of sandy beach at 26th Avenue Beach was covered by rock revetments (based on a conservative footprint width estimate of 20 feet of sand beach coverage for such structures). This ReCAP revetment footprint estimate was a general estimate for revetment size over the entire ReCAP area. Because most of the revetments along this portion of the Santa Cruz coast have a footprint that is bigger than the assumed 20-foot width, the actual area of revetment coverage may actually be higher than that estimated in ReCAP.

⁷ Schwan Lagoon located upcoast, and Moran Lake located downcoast.

⁸ For example, CDPs and emergency CDPs 3-83-058-G, 3-95-089-W, 3-97-027, 3-98-064-W, A-3-SCO-99-056, 3-00-137-W, and 3-02-110-G.



C. 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. 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 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. ...

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.

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 the beach fronting the revetment. 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 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. ...*

Policy Summary

The proposed project is designed to maintain an existing recognized revetment that serves to protect a residential structure immediately inland of it. It is not designed to augment, realign, restructure, or otherwise change the revetment that exists, nor its relationship to the inland development that it continues to protect. In that sense, the proposed project doesn't raise issues per se with respect to the application of Section 30235 to armoring projects because it is not considered a "new" (or different) shoreline armoring project, it has already been recognized, and it already protects a residence immediately inland of it from erosion. That said, and in sum, although the maintenance and repair of existing permitted shoreline protective structures is meant to assure stability and structural integrity



pursuant to the Act, Coastal Act policies protecting the adjacent recreational beach, the offshore recreational area, the beach area viewshed, and the overall shoreline visitor experience must be respected in that process.

2. Consistency Analysis

The beach area at the project site has been impacted over time by the presence of the rock revetment fronting the subject residence, as well as the cumulative impact from this revetment when considered in the context of the other armoring along this stretch of this highly-used beach, as well as along the overall Live Oak beach area coastline. These impacts include the unnatural back beach character defined by large piles of boulders, the loss of beach area given over to the boulders, the loss of beach (and beach safety) when boulders migrate, the loss of beach (and beach ambiance) when inevitable repair episodes take place, and the fixing of the back beach and its relation to overall loss of beach in the long term as the shoreline continues to erode and the sea level continues to rise over time.⁹ The beach recreational area here is one of the most popular for visitors in all of unincorporated Santa Cruz County. As previously detailed, the project site fronts the extremely popular and 26th Avenue Beach that is highly used, and is a prime bodysurfing, skimboarding and surfing destination (see "Existing Conditions" section of this report preceding). Just upcoast is the wide expanse of beach that is sometimes occupied by Corcoran Lagoon waters. 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 beach, near shore, and offshore public access and recreational experience.

In this case, the proposed project will recognize the rock refurbishment from a past winter (done to reestablish the profile of the permitted revetment). The project will also provide for subsequent episodes of additional rock placement – some potentially larger and some potentially smaller in scope than the rock placed in winter 2002-3.

Such a project raises Coastal Act issues because: recreational beach area will be (and was for the latest emergency work) impacted by construction activities on the beach for the duration of each construction time frame; rock movement from the revetment will adversely affect recreational resources; and future erosion response could lead to more substantive hard armoring in the future.¹⁰ Fortunately, these issues can be readily rectified to ensure Coastal Act consistency as follows:

⁹ In other words, the phenomenon of "passive erosion." See also cumulative impact section that follows.

¹⁰ The project also raises issues regarding unnatural rock massing in the beach viewshed and the long term loss of beach due to armoring at this location (due to the fact that the revetment has covered a portion of beach and fixed the back beach on an actively eroding shoreline, and beach area will be lost as the shoreline continues to erode and the sea level continues to rise over time). However, a revetment at this location pre-dates the coastal permitting requirements of Proposition 20 and the Coastal Act, and thus the shoreline at this location was "fixed" since before the Coastal Management Program came into effect. It has also been repaired and maintained under Commission authorization many times since, including the rock massing in the viewshed. As a result, while issues related to these overall viewshed impacts and those related to passive erosion and retention of bluff materials are still relevant here, their relation to the proposed maintenance project before the Commission in this application is more one of background context. In short, although clearly relevant, and important to understand, these are not impacts of this project.



A. Construction Issues

The project will: require the movement of large equipment, workers, materials, and supplies through the public beach and public beach access point off of East Cliff Drive to gain access to the revetment; include large equipment operations on the recreational beach area fronting the site; result in the loss of recreational beach area to a construction zone (at the immediate project area); potentially encroach on Sanctuary waters (depending on tides); potentially impact Corcoran Lagoon (depending on where it has migrated); and generally intrude and negatively impact the aesthetics, ambiance, serenity, and safety of the recreational beach experience. These types of impacts already occurred during the most recent winter 2002-3 construction episode covered by this application. These beach recreational use impacts can be contained through construction parameters that limit the area of construction, limit the times when work can take place (to avoid both weekends and peak summer use months when recreational use is highest), clearly fence off the minimum construction area necessary, keep equipment out of Sanctuary waters, avoid Corcoran Lagoon, avoid any snowy plovers,¹¹ require off-beach equipment and material storage during non-construction times, and clearly delineate and avoid to the maximum extent feasible beach use areas. A construction plan is required for this purpose (see special condition 3). In addition, to provide maximum information to the beach-going public during all construction, the Applicant must maintain copies of the CDP and approved plans available for public review at the construction site, as well as provide a construction coordinator whose contact information is posted at the site to respond to any problems and/or inquiries that might arise (see special condition 4).

Although the required construction conditions can minimize the impacts of this project on beach goers, the conditions cannot completely compensate for the unavoidable degradation of the usual beach recreational experience available at this location, including the overall diminution of aesthetics and ambiance, due to the proposed project. Because this project will allow for multiple such construction episodes, some potentially more involved than the most recent episode, these impacts will be correspondingly multiplied. To offset these impacts to the recreational beach, an appropriate mitigation is to require that the upper half to third (roughly 10 vertical feet) of the revetment be screened from view by native vegetation (see special conditions 1 and 2), where the natives¹² replace any invasive and non-native species (like iceplant),¹³ and that this required screening be monitored and maintained over time (see also special condition 5). Given the height of the revetment, such screening should provide effective revetment camouflaging during most times of the year, particularly in the summer months when the

¹¹ Note that although the large beach area upcoast of the revetment is located within a fairly urban area, snowy plovers have been known to nest here historically (though not in recent years). The condition specifies that construction is prohibited if snowy plovers are present (generally speaking, plovers could be present between March and October).

¹² In general, non-native invasive plants invade native habitat areas and vastly alter the ecological landscape by out-competing and excluding native plants and animals; altering nutrient cycles and hydrology; and hybridizing. Rare species are particularly vulnerable to the changes brought about by non-native invaders. The most effective and efficient way to deal with weedy species is to prevent invasions. Preventing invasion is of greater conservation benefit in the long run than the far more costly and difficult efforts to control a widespread pest species. This is particularly relevant at the subject site given its proximity to Corcoran Lagoon.

¹³ Such long-rooted native species will also help enhance bluff stability by better holding soils together. Some invasive non-natives, like iceplant which is shallow rooted, are notorious for undermining bluff stability inasmuch as large sections of plant mass can come loose, particularly in storm events and particularly on slopes, taking with it portions of bluff.



sandy beach elevation is higher.¹⁴ The required screening will enhance the beach recreational experience by improving beach area aesthetics with a more natural looking back-beach bluff area.

B. Other Recreational Beach and Facility Issues

Revetments are notoriously unstable, particularly when they are placed directly atop sand and not keyed into more stable bedrock as is the case here. They are prone to slumping, and individual rock movement. This can be exacerbated by storm events. As evidenced by the rock that was stacked in the most recent emergency repair episode to recreate the permitted profile, the rock that is placed oftentimes moves away from the revetment. Sometimes this movement is obvious, as in the case when a rock boulder is separated from the remainder of the engineered stack and is resting atop the beach sand. Other times this movement is less obvious, as when boulders migrate under sand into beach recreational areas and even offshore. Revetments that have not been keyed into the underlying bedrock, such as this one, are relatively more likely to have such rock migration problems.¹⁵ Although there are long-term structural stability issues associated with this (see also findings below), rocks that migrate can negatively impact beach recreational use and facilities. This impact can be due simply to displacement (where rocks occupy beach space), or increased danger to recreation (such as a rock submerged just below the surface or in the recreational surf zone), or increased danger to recreational structures (such as the beach accessway, the County's restroom at East Cliff Drive, and/or East Cliff Drive itself) when such rocks are thrown landward in storm events, or combinations of each. In each case, the loose rock also negatively impacts beach area aesthetics. These impacts are magnified at this location because the fact that this is a prime public recreational beach destination, particularly for active recreational pursuits like skimboarding and body surfing that take place in the near shore environment where the rock would be expected to make its way. Individual rocks that migrate can sometimes be retrieved, and other times cannot be located. In both cases, the rocks lead to negative impacts depending on their location relative to beach uses areas, the length of time they are located in areas that detract from recreational use, and their potential for causing damage in a storm event (particularly given that such storms typically scour away beach sand and expose strewn rocks otherwise hidden). Prior to the restacking in winter 2002-3, the revetment had slumped into the beach area and led to these types of impacts for an indeterminate period of time.

Unfortunately, these beach recreational impacts, though clear analytically (and obvious due to the fact that rock is continually brought in to restore revetments to their permitted configuration, including this one), are difficult to quantify. It is unknown, for example, where the rocks that have been replaced in past actions here are currently located. These rocks are likely in the beach area, under the sand or in the surf zone, but this is not known for certain.¹⁶ Nor is it easily determined.¹⁷ The same goes for the

¹⁴ 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 increased potential for the loss of materials in the lower revetment area during winter storm events.

¹⁵ As the beach profile changes and scouring takes place, and as regular wave attack takes its toll, revetments placed directly atop beach sands (and not "keyed" into bedrock) are relatively more likely to "float" around somewhat on the sand, and individual constituent rocks are relatively more likely to migrate away from the revetment.

¹⁶ Anecdotal evidence suggests that at least some rip-rap boulders along 26th Avenue Beach have found their way offshore to the area under the surfing break.



potential for displaced rocks to adversely impact beach area structures. This impact is both difficult to measure, and difficult to mitigate. In the case where such a facility were damaged in a storm, it can be difficult to know for sure whether it was damaged by rock or some other debris, or by the storm itself. Even if such damage were conclusively shown to be from a large rock, it would be difficult to determine with certainty what percentage of the damage was due to the rock, and where the rock came from (e.g., from this revetment or other rock historically placed nearby).

That said, it can be assumed that some portion of the rocks associated with this revetment, including rocks placed to maintain its profile per this proposed maintenance permit, will lead to the types of negative impacts described above as they are exposed and/or moved by gradual settlement and/or individual events (like a winter storm). Because this project will allow for multiple such augmentation episodes, some potentially larger than the most recent episode, these impacts will be correspondingly multiplied over time. Such impacts can be minimized by ensuring that the revetment is monitored and maintained over time, including requiring retrieval of displaced rocks (see special conditions 5, 6, and 7). However, these requirements cannot offset the fact that such impacts will degrade beach recreational use as described above. To offset these impacts to beach area recreation, an appropriate mitigation is the above-described revetment screening (again, see special conditions 1, 2 and 5).

C. Long-Term Stability Issues

If this revetment was damaged in the future (e.g. as a result of wave action, storms, landsliding, etc.) it could threaten the stability of the inland residential site, which could lead to the 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 use, and potentially beach recreational facilities (as described above). Loose boulders could also act to damage either the revetment or the inland home or other structures and facilities if they are moved around during storm events.

The permitted revetment proposed to be maintained in this case is located at the base of the coastal bluff, is about 30-feet tall, is generally composed of well-sized granite boulders that appear to have been placed with engineered care, and has a slope that is approximately 1.5 to 1. This configuration is consistent with the general practice for such revetments along Santa Cruz County's shoreline (including this stretch of coast in particular), and is consistent with generally accepted engineering principals for revetments.¹⁸ Thus, there is little to indicate that this revetment will require augmentation, or that it will

¹⁷ There has been some discussion of requiring CDP permittees to track individual boulders placed in some way to both ease retrieval, and to quantify (for mitigation purposes) permittees' contribution to large rock in recreational beach environments. These discussions have not yet resulted in any programmatic tools for addressing this issue.

¹⁸ As noted previously, un-keyed revetments such as this are expected to be relatively less stable generally than keyed structures. In addition, although all rock revetments require substantial maintenance, an un-keyed revetment is expected to require relatively more maintenance than a keyed revetment, and thus have more of an impact to beach recreational use over time (see also construction issues section preceding). That said, keyed and un-keyed revetments are both used and accepted in Santa Cruz County. To key the revetment in this case would require extending its footprint seaward and/or removing a portion of the bluff to minimize seaward encroachment. It would also require substantial construction in the beach area as the revetment was taken apart and then put back together again. Based on the facts of this case, including the general configuration and composition of this revetment, the benefits of keying the revetment appear to outweigh the costs at this time in this case.



pose undue stability problems at this site. Even so, its long-term stability is dependent upon equally long-term monitoring and maintenance to ensure that it continues to function as intended with a minimum of stability problems, and with a minimum of repair necessary during emergency situations. To ensure this, the revetment must be monitored regularly by engineers with experience in coastal structures and processes, and must be maintained in a structurally sound manner and its approved state, including retrieval of displaced rock and maintenance of the landscape screening¹⁹ (see special conditions 1, 5, 6, and 7). To ensure that maintenance does not result in any further seaward encroachment of the revetment into the beach area, development (including maintenance per this permit and any other future development) is prohibited seaward of the existing permitted footprint and profile of the permitted revetment (see special condition 7).²⁰ To ensure the Commission is kept informed of the status of the project, detailed monitoring and maintenance reports must be submitted every five years (see special condition 5). For clarity in permit implementation and monitoring, and to avoid undue interpretation, future monitoring and maintenance activities must be understood in relation to inland surveyed benchmarks, property lines, key adjacent features (like 23rd Avenue), and clear as-built plans (including photographs) (see special conditions 1, 2, and 5). Future maintenance events are allowed consistent with all other requirements of this approval for a ten-year period, and this ten-year period can be extended as long as there aren't any changed circumstances that may affect the consistency of the development with the policies of Chapter 3 of the Coastal Act and thus warrant a re-review of the permit (see special condition 6).

D. Long-Term Risk Issues

There is a certain amount of risk in maintaining development along a California coastline that is actively eroding and can be directly subject to violent storms, large waves, flooding, earthquakes, and other hazards. The subject revetment is located within a dynamic and sometimes hazardous shoreline environment. This environment shows no signs of becoming less hazardous. On the contrary, increased wave heights and wave energy are expected over time due to global warming and sea level rise.²¹ For

¹⁹ As describe earlier, the native plant screening also serves to enhance bluff – and, in turn, revetment – stability at this location. Long-rooted non-invasive native plant species can help to stabilize bluff soils, minimize the need for irrigation of the bluff (again helping to stabilize the bluff), and can help to avoid failure and sloughing in some cases.

²⁰ Note that “seaward” in the case means both seaward and beachward because the revetment wraps around the bluff promontory at this location and back inland slightly. Thus, a portion of the area in which expansion would be prohibited is actually upcoast, and not technically seaward (although the implication is the same). Note, too, that this development prohibition applies to the wedge of rock in a 1.5:1 slope making up the revetment profile (in cross-section) as well as the seaward toe itself (in site plan). In other words, at no time shall additional rock and/or other development be allowed seaward of any point on the revetment profile. 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, it could be argued that additional armoring and/or other development 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 and/or other development in the back beach placed at a steep and unstable slope (i.e., in excess of the 1.5:1 slope approved). Such incorrect interpretation could also lead to a scenario where a vertical seawall is proposed at the toe, with the area inland of the wall (i.e., the existing revetment area) backfilled for private use. Neither are allowed here.

²¹ There is a growing body of evidence that there has been a slight increase in global temperature and that an acceleration in the rate of sea level can be expected to accompany this increase in temperature. According to the *Third Assessment Report - Climate Change 2001*, by the International Panel on Climate Change (IPCC) global sea level is predicted to rise by 0.09 to 0.88 meters (0.3 to 2.88 feet) from the 1990 level by 2100, with significant regional variability. Monterey Bay was not included in the estimates of sea level rise through the



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

In addition, global warming and sea level rise could cause changes to the storm patterns and wave climate for the entire coast. As water elevations change, the transformation of waves from deep water will be altered, and points of energy convergence and divergence could shift. The new locations of energy convergence would become the new erosion "hot spots" while the divergence points may experience accretion or stability. It is highly likely that portions of the coast will experience more frequent storms and the historic "100-year storm" may occur more often. Historically in the Monterey Bay, the frequency of major storm events has been documented to be roughly two every three years, with the frequency of such storms causing significant damage roughly one every 5 years.²²

The Commission's experience with proposed projects such as this that are located in areas subject to significant coastal hazards has been that development has continued to occur despite periodic episodes of heavy storm damage, landslides, and other such problems. Oceanfront development is susceptible to bluff retreat and erosion damage particularly due to storm waves and storm surge conditions. Past occurrences statewide have resulted in public costs (through low- and no-interest loans, grants, subsidies, direct assistance, etc.) in the multi-millions of dollars. As a means of allowing continued development in areas subject to these hazards while avoiding to the extent feasible placing the economic burden on the people of the state for damages, the Commission has regularly required that Applicants acknowledge a site's coastal hazard risks, assume the risks for developing in the face of these 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 revetment maintenance proposed as well as to the

year 2100. The closest tidal stations with an adequate record to use for a 100-year projection were San Francisco and Santa Monica. Both those locations could, by the year 2100, have a rise in sea level approaching 3 feet, with a 10% probability that it would be higher than that, based on estimates of historic and future sea level change provided by the U.S. Environmental Protection Agency in Titus and Narayanan (1995) "The Probability of Sea Level Rise" (EPA 230-R-95-008). In the Monterey Bay area, the trend for sea level rise for the past 25 years has been an increase resulting in an historic rate of nearly 1 foot per 100 years (NOAA, National Ocean Service), significantly higher than the average historic change recorded at either San Francisco or Santa Monica. This deviation in historic trends between Monterey Bay and both San Francisco and Santa Monica is very likely due to the short duration of the tidal record at Monterey; however, it can also suggest that the localized rise in sea level in Monterey Bay may be higher than what was experienced at either San Francisco or at Santa Monica. Thus the future 100 year-change in mean sea level for Monterey Bay may be higher than the estimated 2.7 feet (for San Francisco) or the estimated 2.85 feet (for Santa Monica), for both of which there is a 10% probability of being exceeded.

²² See, for example, *Geologic Investigation Chambers Property* by Rogers E. Johnson & Associates, dated March 31, 2003.



development landward of the revetment. The subject site is likely to be affected by shoreline hazards 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 and maintain development at this land-sea interface despite these risks, the Applicant must assume these risks. Accordingly, this approval is conditioned for the landowner to assume all risks for developing at this location and to indemnify the Commission against any claims for damages (see special condition 7).

E. Cumulative Impact Issues

Coastal Act Section 30250(a) addresses cumulative impacts, stating in part as follows:

New residential, commercial, or industrial development, except as otherwise provided in this division, shall be located...where it will not have significant adverse effects, either individually or cumulatively, on coastal resources. ...

As indicated previously, the beach between Corcoran Lagoon and Moran Lake is in most cases less than 50 feet wide in summer to completely disappearing during parts of the winter, and over an acre of the beach had been covered by rock revetments by 1995.²³ Because such armoring fixes the bluff location and prevents natural bluff materials from replenishing the beach, 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 due in large part to the rip-rapped bluffs. This is the phenomenon known as passive erosion.

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, including the subject site, when the coastal permitting requirements of Proposition 20 and the Coastal Act were instituted in the early 1970s. With the sea level continuing to rise, and the shoreline continuing to erode, it is expected that the beach fronting this revetment, like all California beaches on which armoring is located and on which the back-beach has thus been effectively "fixed" in location, will eventually disappear over time. The State has not to date completely come to grips with this phenomenon, particularly as it relates to existing permitted and pre-Prop. 20/Coastal Act armoring such as this.

At a minimum, additional regional planning (e.g., a specific plan for addressing armoring needs and impacts along this stretch of coastline), regional planning mechanisms (e.g., a shoreline armoring management entity meant to cover the larger shoreline that includes the revetment here), and/or implementation tools (e.g., a systematic approach for identifying and addressing specific armoring impacts, like boulders migrating from revetments) may be necessary. To address cumulative impact issues, the Applicant is required to participate in future planning efforts that involve the revetment here (see special condition 7). Participation in no way binds the property owner to a certain outcome, but

²³ Ibid (1995 ReCAP Monterey Bay).



ensures that the affected property owner is part of any such future discourse. At this time, the Commission is unaware of any such efforts for this area of Live Oak, although efforts are underway in the Opal Cliffs area of Live Oak just downcoast,²⁴ at least partially due to the Commission's findings in the 1995 ReCAP project.²⁵

In addition, this Applicant has indicated that he may be interested in a project to replace the existing revetment with a concrete seawall designed to mimic the natural bluffs at this location (similar to the Opal Cliffs methodology noted). Such a project could result in returning sandy beach area to recreational use, and improved aesthetics, and is worthy of consideration. This is particularly the case because this Applicant's revetment is at one end of a longer stretch of rip-rapped coast and could be a catalyst for such change overall (and whereas such a change may make less coastal resource sense at a site in the middle of such a large stretch of rip-rap where it could lead to stability problems at either end of such a faux-bluff seawall, or at the site itself).

F. Other Issues

Beach Ownership

The property ownership pattern at this location is such that a portion of the sandy beach area seaward of the revetment, as well as that under the revetment, is held in fee-title by the Applicant.²⁶ The State Lands Commission has not made a formal determination for this stretch of coast, but has indicated in the past that it doesn't appear that state lands are involved with this revetment.²⁷

In any case, there has been a long and steady history of public use of the beach area here. The revetment is also often inundated with tidal waters. In addition, on the upcoast side of the revetment, the beach area in question was historically the mouth of Rodeo Creek and Corcoran Lagoon until East Cliff Drive artificially severed this connection sometime in the 1940s or thereabouts. Thus, it appears that there may be both implied dedication and State public trust land issues on the beach. A portion of the project is

²⁴ Property owners and the County have 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 Opal Cliffs portion of the Live Oak beach area just upcoast of the City of Capitola. 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.

²⁵ In the 1995 Monterey Bay ReCAP project, the Commission recommended such a regional shoreline planning approach (i.e., by defined geographic units) 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. The Opal Cliffs area was used as a ReCAP case study, and thus explicitly referenced in this regard.

²⁶ The underlying property was historically the right-of-way for East Cliff Drive before East Cliff was moved inland. As of the date of this staff report, it is unclear whether the property underlying that portion of the revetment fronting 24th Avenue is clearly owned by the Applicant. It may be owned by the downcoast owners of that portion of former East Cliff Drive. To address this issue, a condition has been added requiring proof of ownership and/or other property owner consent for that portion of the project fronting 24th Avenue (see special condition 9).

²⁷ As usual, State Lands has not waived any right, title, or interest of the State with regard to this property, and reserves the right to conclude differently should further facts and evaluation dictate.



also located on the 23rd Avenue "paper street" right-of-way.²⁸ This application proposes no development outside of the existing revetment footprint and profile, and thus these issues need not be addressed, nor decided explicitly one way or the other right now. That said, so as not to prejudice any future evaluations on this topic, and so as to avoid a situation where this revetment maintenance approval were described as resolving any ownership/public use issues, 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 properties involved, and that the Applicant cannot use this approval as evidence of a waiver of same (and, conversely, nor can the Commission use this permit to as evidence of public rights being admitted or accepted by the Applicant) (see special condition 7).

MBNMS Approval

The project area is sometimes occupied by waters of the Monterey Bay and may require Monterey Bay National Marine Sanctuary approval. The project is conditioned for Sanctuary approval. See special condition 8.

Other Land Owners

Intervening and/or adjacent landowners (like Santa Cruz County in the case of the East Cliff Drive right-of-way) may need to consent to construction access. The project is conditioned for the consent of other involved land owners in the case of a revetment maintenance episode. See special conditions 3 and 6.

Rodents

Revetments are known to harbor rodents; this is particularly the case for revetments fronting popular beach areas (due to visitors' food and garbage). In the Live Oak area of Santa Cruz County, rodent colonization within revetments is common. Such rodents negatively impact the beach recreational experience, and can lead to serious public health problems. Rodents have historically been present in revetments in this area, although it is not known whether they are still present, or whether they are currently present in the subject revetment. This approval is conditioned to require that the Applicant take reasonable action to eliminate any such rodent colonization (to the degree it exists or is otherwise discovered) consistent with generally accepted professional pest control methods that also ensure the health and safety of the public so as to protect beach recreational users and the Applicant in this regard. See special condition 2.

Future Notice

The terms and conditions of this approval are meant to be perpetual. In order to inform future owners of the requirements of the permit, and add a level of legal implementation of this fact, this approval is conditioned for a deed restriction designed to record the project conditions against the affected property. See special condition 10.

²⁸ The right-of-way extends seaward onto the beach and is considered by the Commission to be a public right-of-way (see, for example, application files 3-97-027 and A-3-SCO-99-056).



3. Coastal Act Consistency and CDP Determination Conclusion

Although the proposed project in some ways provides for 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 or other development, 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).

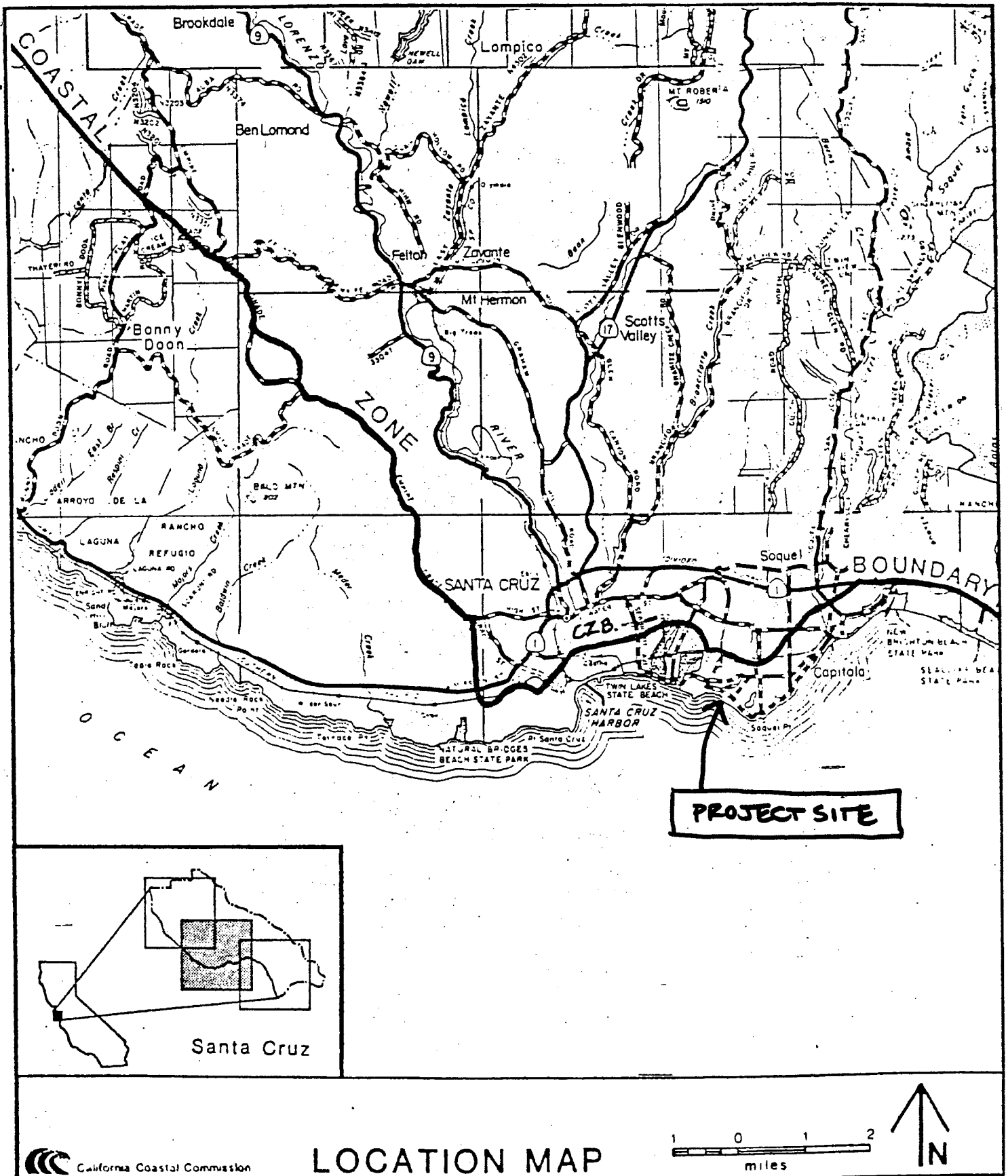
4. California Environmental Quality Act (CEQA)

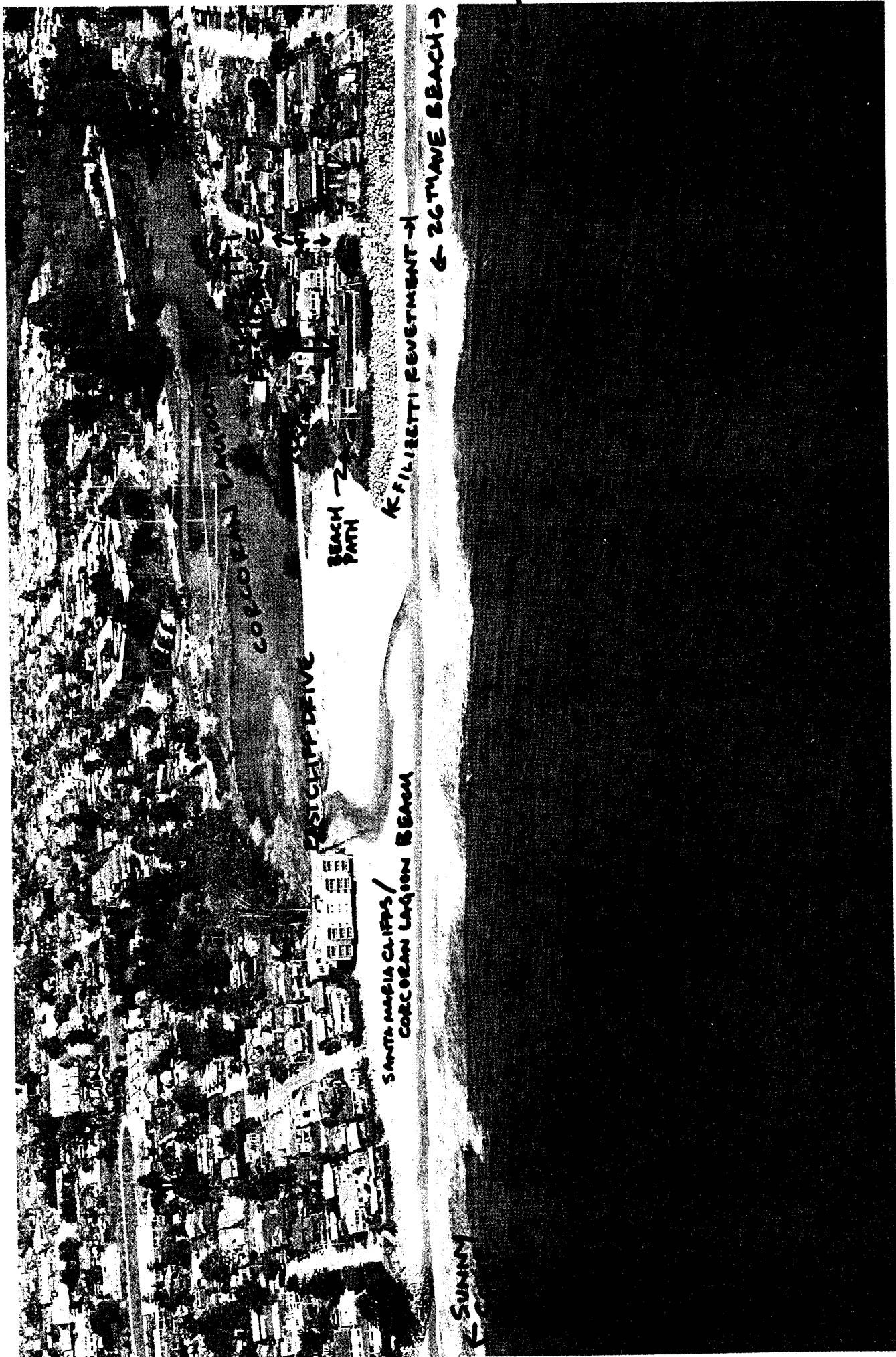
Section 13096 of the California Code of Regulations requires that a specific finding be made in conjunction with coastal development permit applications showing the application to be consistent with any applicable requirements of CEQA. Section 21080.5(d)(2)(A) of CEQA prohibits a proposed development 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).





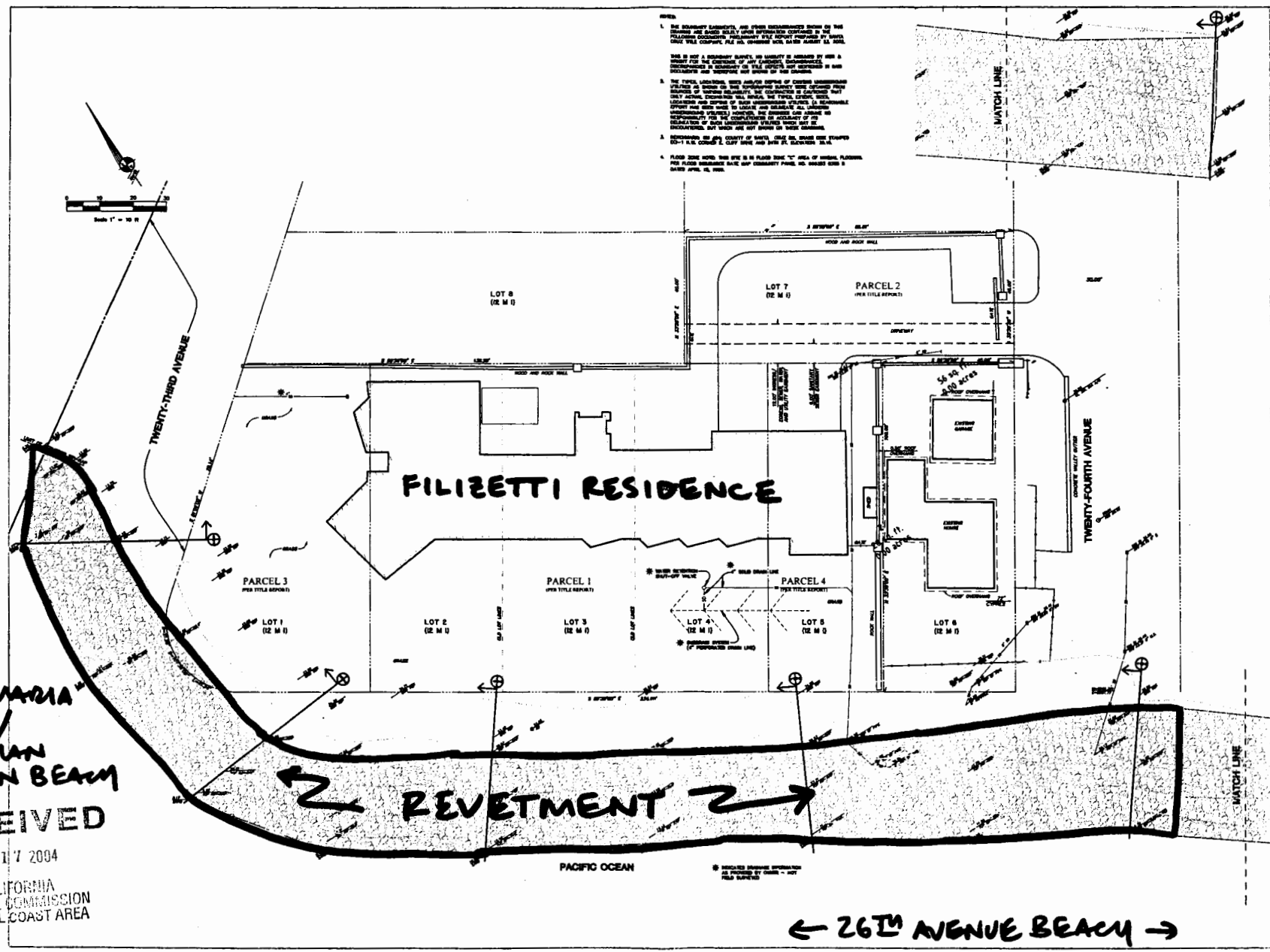


Source: California Coastal Records Project (Image 628, March 16, 2002)

CCC Exhibit B
(page 1 of 2 pages)

SANTA MARIA
CLIFFS/
CORCORAN
LAGOON BEACH
RECEIVED

FEB 17 2004
CALIFORNIA
COASTAL COMMISSION
CENTRAL COAST AREA



NOTES:
1. THE EXISTING ELEVATIONS AND OTHER INFORMATION SHOWN ON THIS MAP ARE BASED ON THE DATA PROVIDED BY THE CLIENT. THE SURVEYOR HAS CONDUCTED A VISUAL INSPECTION OF THE PROPERTY AND HAS FOUND THE DATA TO BE REASONABLY ACCURATE. THE SURVEYOR HAS NOT CONDUCTED A FIELD SURVEY OF THE PROPERTY AND HAS NOT BEEN ADVISED OF ANY CHANGES TO THE DATA SINCE THE DATE OF THE SURVEY.
2. THE DATA PROVIDED BY THE CLIENT IS BASED ON A SURVEY CONDUCTED BY THE CLIENT IN 1998. THE SURVEYOR HAS CONDUCTED A VISUAL INSPECTION OF THE PROPERTY AND HAS FOUND THE DATA TO BE REASONABLY ACCURATE. THE SURVEYOR HAS NOT CONDUCTED A FIELD SURVEY OF THE PROPERTY AND HAS NOT BEEN ADVISED OF ANY CHANGES TO THE DATA SINCE THE DATE OF THE SURVEY.
3. THE DATA PROVIDED BY THE CLIENT IS BASED ON A SURVEY CONDUCTED BY THE CLIENT IN 1998. THE SURVEYOR HAS CONDUCTED A VISUAL INSPECTION OF THE PROPERTY AND HAS FOUND THE DATA TO BE REASONABLY ACCURATE. THE SURVEYOR HAS NOT CONDUCTED A FIELD SURVEY OF THE PROPERTY AND HAS NOT BEEN ADVISED OF ANY CHANGES TO THE DATA SINCE THE DATE OF THE SURVEY.
4. THE DATA PROVIDED BY THE CLIENT IS BASED ON A SURVEY CONDUCTED BY THE CLIENT IN 1998. THE SURVEYOR HAS CONDUCTED A VISUAL INSPECTION OF THE PROPERTY AND HAS FOUND THE DATA TO BE REASONABLY ACCURATE. THE SURVEYOR HAS NOT CONDUCTED A FIELD SURVEY OF THE PROPERTY AND HAS NOT BEEN ADVISED OF ANY CHANGES TO THE DATA SINCE THE DATE OF THE SURVEY.

KIER & WRIGHT CIVIL ENGINEERS & SURVEYORS, INC. 350 Scott Boulevard, Building 22 (408) 727-6665 SANTA CLARA, CALIFORNIA 95051 FAX (408) 727-3641	
PARTIAL TOPOGRAPHIC SURVEY FOR: GARY FILIZETTI TWENTY-FOURTH AVENUE SANTA CLARA, CALIFORNIA	
DATE: 02/17/2004	SCALE: 1" = 10'
DRAWN BY: J. WRIGHT	CHECKED BY: J. WRIGHT
DATE: 02/17/2004	DATE: 02/17/2004
1	

MBNMS

