

**CALIFORNIA COASTAL COMMISSION**

South Coast Area Office  
200 Oceangate, Suite 1000  
Long Beach, CA 90802-4302  
590-5071



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	5-99-005	5-99-006	5-99-007	5-99-008
Filed	08/25/99	08/25/99	08/25/99	08/25/99
49th Day	10/13/99	10/13/99	10/13/99	10/13/99
180th Day	02/21/00	02/21/00	02/21/00	02/21/00

Staff: KFS-LB  
Staff Report: August 26, 1999  
Hearing Date: September 14-17, 1999  
Commission Action:

**COMBINED STAFF REPORT: REGULAR CALENDAR**

**APPLICATION NUMBERS: 5-99-005, 5-99-006, 5-99-007, 5-99-008**

Application	Applicant(s)	Project Location: Humboldt Island, Huntington Beach, Orange County
5-99-005	Andrew Dea	16692 Wanderer Lane (Lot 157)
5-99-006	Howard & Joanne Fernbach Robert Holland	16412 Ladona Circle (Lot 108) 16411 Ladona Circle (Lot 109)
5-99-007	Pedro Aranda Betty Henry Jim & Carolyn Kloss John Charleston Bill & Sandy Booth Robert & Sharon Donald	16672 Wanderer Lane (Lot 159) 16662 Wanderer Lane (Lot 160) 16652 Wanderer Lane (Lot 161) 16642 Wanderer Lane (Lot 162) 16632 Wanderer Lane (Lot 163) 3788 Humboldt Drive (Lot 165)
5-99-008	Claude Yacoel Robert Axel Simon & Kellarice Rayhanabad	16511 Carousel Lane (Lot 127) 16521 Carousel Lane (Lot 128) 16591 Carousel Lane (Lot 135)

**AGENT:** Tetra Tech, Inc.: Ms. Marie Marston, Mr. Fernando Pagés, and Ms. Sarah McFadden

**PROJECT DESCRIPTION:** Place 5,416 square feet (322 cubic yards) of toe stone to protect 792 lineal feet of an existing bulkhead. The toe stone will extend between 5 and 9.5 feet, at a 2 to 1 slope, seaward of the existing bulkhead.

**SUMMARY OF STAFF RECOMMENDATION:**

Staff recommends **APPROVAL** of the proposed development with four special conditions: 1) requirement to submit an anchor management plan; 2) notice of construction responsibilities; 3) Submission of evidence of approval by the Regional Water Quality Control Board; and 4) evidence of legal ability to comply with special conditions. The major issue of this staff report is impacts upon the marine environment.

**LOCAL APPROVALS RECEIVED:** City of Huntington Beach approval-in-concept dated November 20, 1998, November 25, 1998, and December 22, 1998.

**SUBSTANTIVE FILE DOCUMENTS:** Documents for all subject applications titled *Humboldt Island Bulkhead Repair Project, Supplemental Information for California Coastal Commission* dated April 1999 prepared by Tetra Tech, Inc. of Pasadena, CA; *Eelgrass Survey Report conducted October 22, 1998 and November 5-6, 1998* prepared by Tetra Tech, Inc. of Pasadena, CA; Memorandum from California Department of Fish and Game to the California Coastal Commission titled *Humboldt Island Homeowners Association Bulkhead Repair* dated July 6, 1999; Letter from Tetra Tech, Inc. to California Coastal Commission titled *Response to May 12, 1999 Letter Regarding Follow-Up Notice of Incomplete Applications* dated May 24, 1999; Letter from Tetra Tech, Inc. to California Department of Fish and Game dated July 29, 1999; Letter from Tetra Tech, Inc. to California Coastal Commission titled *Coastal Development Permit Applications for Humboldt Island Bulkhead Repairs* dated August 18, 1999; Letter from Tetra Tech, Inc. to California Coastal Commission titled *Coastal Development Permit Applications for Humboldt Island Bulkhead Repairs* dated August 25, 1999; *Public Notice* for application No. 199915697-YJC from the U.S. Army Corps of Engineers; Letter from California State Lands Commission to the California Coastal Commission regarding status of applications and no objection to Coastal Commission action on subject properties dated August 25, 1999; Coastal development permit 5-97-223 (Shea/Albert).

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#### **STAFF NOTE**

The proposed project is part of a group of applications which have been submitted by various property owners for approval of bulkhead reinforcements in Huntington Harbor. The subject applications do not result in impacts to environmentally sensitive habitat areas such as eelgrass. However, other applications which the Commission may be acting on at a forthcoming hearing include impacts upon eelgrass as well as the permanent loss of vegetated and unvegetated soft bottom habitat. These applications will go forward at a future hearing pending receipt of a mitigation plan approved by the California Department of Fish and Game. It should also be noted that Commission staff anticipate a large number of applications in the future for similar repairs to bulkheads throughout Huntington Harbor. The existing bulkhead system in Huntington Harbor was constructed at approximately the same time using a similar design. Therefore, the problems with the bulkheads encountered on Humboldt Island and the proposed solution may be similar throughout the harbor.

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#### **STAFF RECOMMENDATION:**

The staff recommends that the Commission adopt the following resolution separately for each permit application:

#### **I. APPROVAL WITH CONDITIONS**

The Commission hereby **GRANTS** a permit, subject to the conditions below, for the proposed development on the grounds that the development will be in conformity with the provisions of

Chapter 3 of the California Coastal Act of 1976, will not prejudice the ability of the local government having jurisdiction over the area to prepare a Local Coastal Program conforming to the provisions of Chapter 3 of the Coastal Act, and will not have any significant adverse effects on the environment within the meaning of the California Environmental Quality Act. If located between the nearest public road and the sea, this development is in conformity with the public access and public recreation policies of Chapter 3 of the Coastal Act.

## II. STANDARD CONDITIONS (Applicable to all permits):

1. Notice of Receipt and Acknowledgment. The permit is not valid and development shall not commence until a copy of the permit, signed by the permittee or authorized agent, acknowledging receipt of the permit and acceptance of the terms and conditions, is returned to the Commission office.
2. Expiration. If development has not commenced, the permit will expire two years from the date this permit is reported to the Commission. Development shall be pursued in a diligent manner and completed in a reasonable period of time. Application for extension of the permit must be made prior to the expiration date.
3. Compliance. All development must occur in strict compliance with the proposal as set forth in the application for permit, subject to any special conditions set forth below. Any deviation from the approved plans must be reviewed and approved by the staff and may require Commission approval.
4. Interpretation. Any questions of intent or interpretation of any condition will be resolved by the Executive Director or the Commission.
5. Inspections. The Commission staff shall be allowed to inspect the site and the project during its development, subject to 24-hour advance notice.
6. 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.
7. Terms and Conditions Run with the Land. These terms and conditions shall be perpetual, and it is the intention of the Commission and the permittee to bind all future owners and possessors of the subject property to the terms and conditions.

## III. SPECIAL CONDITIONS (applicable to all permits)

### 1. Anchor Management Plan

- A. **PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT**, the applicant shall submit, for the review and approval of the Executive Director, a plan for the avoidance of adverse impacts upon eelgrass due to the placement of anchors utilized by barges

in construction of the proposed project. The plan shall be prepared by a qualified professional and shall include the following:

1. The plan shall demonstrate that the use of anchors by barges utilized in the proposed project will avoid impacts upon eelgrass beds.
  2. The plan shall include, at a minimum, the following components: a map showing the proposed location of barges and anchors with respect to existing eelgrass beds.
- B. The permittee shall undertake development in accordance with the approved final plan. Any proposed changes to the approved final plan shall be reported to the Executive Director. No changes to the approved final plan shall occur without a Commission amendment to this coastal development permit unless the Executive Director determines that no amendment is required.

**2. Construction Responsibilities and Debris Removal**

The permittee shall comply with the following construction-related requirements:

- (a) No construction materials, debris, or waste shall be placed or stored where it may be subject to wave erosion and dispersion;
- (b) Any and all debris resulting from construction activities shall be removed from the site within 10 days of completion of construction;
- (c) No machinery or construction materials not essential for project improvements shall be allowed at any time in the intertidal zone;
- (d) Sand from the beach, cobbles, or shoreline rocks shall not be used for construction material;
- (e) In order to control turbidity a geotextile fabric shall be installed in the area where the toe stone will be placed prior to placement of the toe stone;
- (f) Toe stone shall be placed, not dumped, using means to minimize disturbance to bay sediments and to minimize turbidity;
- (g) If turbid conditions are generated during construction a silt curtain shall be utilized to control turbidity.

**3. California Regional Water Quality Control Board Approval:**

**PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT**, applicant shall provide to the Executive Director a copy of a permit issued by the California Regional Water Quality Control Board, or letter of permission, or evidence that no permit or permission is required. The applicant shall inform the Executive Director of any changes to the project required by the California Regional Water Quality Control Board. Such changes shall not be incorporated into the project until the applicant obtains a Commission amendment to this coastal development permit, unless the Executive Director determines that no amendment is required.

4. Legal Interest:

**PRIOR TO THE ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT**, the applicant shall submit, for the review and approval of the Executive Director, written documentation demonstrating that it has the legal ability to carry out all conditions of approval of this permit.

**IV. FINDINGS AND DECLARATIONS:**

The Commission hereby finds and declares:

A. Project Description and Location

The proposed projects are located on Humboldt Island in Huntington Harbor, City of Huntington Beach, Orange County (Exhibit 1). Humboldt Island is an artificial island surrounded by an approximately 14,000 foot long cast in place, concrete bulkhead constructed in the 1960's. The island is developed primarily with single family residences. The proposed project includes 12 non-contiguous bulkheaded properties located seaward of the first public road.

The proposed project is the placement of toe stone at the footing of the existing concrete bulkhead (Exhibit 2). The length of bulkhead involved at each property varies as does the quantity of toe stone to be placed and the width of the proposed toe stone from the existing bulkhead. These details are outlined in the following table:

Application	Site	Length of Affected Bulkhead (feet)	Quantity of Proposed Toe Stone (cubic yards)	Width of Proposed Toe Stone from Existing Bulkhead (feet)	Area of affected softbottom habitat (square feet)
5-99-005	Lot 157	80	51	9	693
5-99-006	Lot 108	90	34	7	606
	Lot 109	105	29	5	513
5-99-007	Lot 159	75	53	9.5	667
	Lot 160	55	19	7	385
	Lot 161	50	20	7.2	360
	Lot 162	50	19	7	350
	Lot 163	50	24	7.7	385
	Lot 165	46	22	7.7	325
5-99-008	Lot 127	90	19	5	450
	Lot 128	51	16	7	357
	Lot 135	50	16	6.5	325
	Total:	792	322		5416

In total, the proposed project will involve 792 lineal feet of bulkhead. Three hundred and twenty two cubic yards of toe stone will be placed at a 2(h) to 1(v) slope seaward of the existing bulkhead at widths ranging from 5 feet to 9.5 feet from the toe of the bulkhead depending upon the condition of the bay mud profile at each property. A layer of geotextile fabric will be placed beneath the proposed toe stone to prevent the toe stone from sinking into the bay mud.

The proposed toe stone is necessary to protect the existing bulkhead. The existing bulkhead is a reinforced concrete cast in place structure supported on vertical and battered timber piles built in the 1960's. The applicant has stated that this bulkhead was designed with toe stone placed seaward of the footing at a slope of 3(h) to 1(V). Due to the size and weight of the formerly present toe stone, the protective stones have either sunk into the bay mud or migrated away from the bulkhead. In absence of the toe stone, the unconsolidated fine silty and sandy sediments have easily eroded due to tidal currents, propeller wash from recreational boats, maintenance dredging, and the activity of burrowing fish (i.e. the specklefin midshipman). This erosion threatens to undermine the bulkhead footing, exposing the existing untreated timber piles which provide the primary vertical and lateral support for the existing bulkhead. Currently, the mud line at the subject properties has dropped 3 to 27 inches below design profile. If left unabated, continued erosion will undermine the bulkhead footing. On nearby properties this same type of erosion has undermined the bulkhead and exposed the untreated timber piles. Marine boring organisms have damaged those piles and threaten to destabilize the existing bulkhead. Several applications have been received for repair and reinforcement of those bulkheads, however, those applications remain incomplete at this time and will be processed at a subsequent hearing. Repair and reinforcement of bulkheads where the footing has been undermined require more extensive repairs than those proposed including the placement of a sheetpile and concrete seaward of the existing bulkhead (see Exhibit 3 for examples of these more extensive repairs and reinforcements). The proposed toe stone is designed to restore to design elevation the protective coverage of the footing and to prevent the type of more extensive repairs and reinforcements required on nearby properties.

The proposed slope protection toe stone will consist of 8-inch minus quarry waste with a mixture of particles ranging from sand to stones less than 8 inches in diameter. The coastal engineer has stated that this type of toe stone will not migrate or accrete to other areas under the hydrodynamic conditions at the subject site. Therefore, the proposed solution will not replicate the problems associated with the previous protective toe stone structure.

## **B. Marine Resources**

### **1. Shoreline Protective Devices**

Section 30235 of the Coastal Act states:

*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.*

The proposed development involves structural reinforcements to protect an existing bulkhead necessary to protect 12 existing homes. Humboldt Island is located in Huntington Harbor. On nearby properties the slope seaward of the bulkhead has eroded, creating a gap between the footing of the bulkhead and the bottom of the harbor floor. This has allowed water to enter behind (i.e. landward of) the bulkhead and undermine the bulkhead foundation. Further, the gap and erosion has exposed the bulkhead's supporting timber piles to deterioration from burrowing marine organisms. The mud line at the subject sites has dropped between 3 to 27 inches below the bottom of the footing of the existing bulkhead. However, at this stage, there are minimal voids beneath the footing of the bulkhead at the subject sites. Accordingly, the applicant has stated that the placement of protective toe stone will be adequate to prevent additional erosion and the development of voids with subsequent damage to the timber piles. If protective measures are not implemented at this stage, more extensive structural reinforcements would be necessary to protect the bulkhead.

The coastal engineer indicates that the proposed project is the least environmentally damaging feasible alternative. Other alternatives considered were: 1) soft bottom fill, 2) placement of cement slurry to form a protective concrete shield, 3) placement of course rock, 4) installation of a deepened plastic sheet pile which would extend below the depth of scour, instead of the proposed toe stone, to prevent the formation of voids underneath the bulkhead.

The applicant has stated that the first alternative is not a feasible solution because it would replicate the existing condition. Once placed against the footing, erosive forces would erode the unconsolidated fine silty and sandy sediments in the same fashion that the existing sediment has eroded.

The second alternative, placement of cement slurry for slope protection, would not be less environmentally damaging than the proposed solution. It is anticipated that the proposed toe stone will provide a suitable substrate for colonization by marine organisms. In addition, over time it is anticipated by the applicant that sediment will settle upon the proposed toe stone. Providing that there is adequate sunlight it is also anticipated by the applicant that conditions may allow colonization of the toe stone by eelgrass. However, the use of a cement slurry for slope protection would not provide a suitable substrate for colonization by marine organisms. Therefore, the proposed solution is less environmentally damaging than the second alternative.

The third alternative, placement of course rock only, would also not be less environmentally damaging than the proposed solution. The placement of course rock, instead of the proposed mixture of 8-inch minus quarry waste, would replicate the problems associated with the previous protective structure. Due to the presence of unconsolidated fine silty bay mud and existing hydrodynamic conditions, course rock would tend to sink into the bay mud or migrate from the slope targeted for protection. Accordingly, the course rock would need to be replaced over time, with the attendant construction related impacts upon the marine

environment. Therefore, the proposed solution is less environmentally damaging than the third alternative.

The fourth alternative, placement of a deepened sheet pile in place of the proposed toe stone, is not feasible for several reasons. First, deepened sheetpiles would intersect the existing battered timber piles which angle seaward under the bulkhead below the harbor floor, cutting into those support piles (see Exhibit 2, page 1 for view of existing bulkhead and timber pile configuration). To avoid this, the deepened sheetpile would have to be relocated seaward of the existing footing. The area between the footing and sheetpile would continue to be exposed to erosive forces in the harbor. Second, PVC sheetpiles are not long enough to extend deep enough into the harbor bottom. Steel sheetpiles, which are long enough, would be subject to corrosion. Therefore, the fourth alternative is not a feasible solution to the present problem.

The proposed toe stone is necessary to protect an existing bulkhead and single family residences. In addition, the proposed development is the least environmentally damaging feasible alternative. Therefore, the Commission finds that the proposed project is consistent with Section 30235 of the Coastal Act.

## 2. Marine Habitat

Section 30230 of the Coastal Act states:

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

The subject sites are located in the waters of Huntington Harbor. Except at extreme low tides, the subject sites would be underwater. The proposed project will result in the coverage of approximately 5,416 square feet of unvegetated soft bottom habitat. These softbottom areas contain infaunal clam beds consisting of wavy chione, California chione, and common littlenecks. Eelgrass, a sensitive marine plant which provides valuable, high quality habitat for a variety of sensitive species, was not present on the subject sites within the area affected by the placement of the proposed toe stone (see Exhibit 1, page 2). The applicant estimates that while the toe stone will bury the existing softbottom habitat and clam beds, the toe stone will be re-colonized by marine organisms within three to five years.

The California Department of Fish and Game (CDFG) has reviewed the proposed development. In their memorandum to Commission staff dated July 6, 1999, CDFG stated that the proposed impact will be short term and will not be significant (see Exhibit 4, page 2). Further, the subject sites are not designated in the certified local coastal program as an environmentally sensitive habitat area.



However, the proposed development will occur in areas adjacent to existing eelgrass beds. The proposed toe stone will be placed using a 40 foot by 50 foot barge mounted crane which will retrieve the material for placement from a nearby 40 foot by 60 foot barge upon which the material is staged. The applicant has stated that the anchors for these barges will be placed to avoid eelgrass. However, no anchor management plan was submitted. Therefore, special condition one requires the applicant to submit, prior to issuance of the permit, an anchor management plan for the review and approval of the Executive Director, which documents the location where anchors will be placed to avoid eelgrass beds.

Thus, as conditioned, the Commission finds that the proposed project is consistent with Section 30230 of the Coastal Act.

### 3. Water Quality

Section 30231 of the Coastal Act states:

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

The proposed project will involve the placement of toe stone consisting of 8-inch minus quarry waste in coastal waters. If such materials are not placed in an appropriate manner, unconsolidated bay sediments may be disturbed causing turbidity in the water column. The applicant has stated that turbidity will be addressed by first installing the proposed geotextile fabric in the area where the toe stone will be placed and by placing, not dumping, the toe stone at the target location. The applicant has additionally stated that a silt curtain will be used in the event that turbid conditions are generated during construction. Since the proposed methods are required to assure compliance with Section 30231 of the Coastal Act, the Commission imposes special condition two.

The proposed development will occur within and adjacent to coastal waters. Construction will require the use of heavy machinery and require the stockpiling of construction materials. In order to protect the marine environment from degradation, special condition two requires that all construction materials and machinery shall be stored away from the water. In addition, no machinery or construction materials not essential for the project improvements shall be placed in coastal waters. Local sand, cobbles, or shoreline rocks, not presently used in the existing development, shall not be used for backfill or construction material.

The applicant has submitted materials for review to the Regional Water Quality Control Board (RWQCB). However, the RWQCB has not formally acted on the applicants request as of the date of this staff report. Commission staff spoke with Ms. Linda Garcia at the RWQCB

regarding the subject applications. Ms. Garcia has stated that a water quality certification waiver would likely be appropriate for the proposed project and that the RWQCB staff did not have any objection to the Commission proceeding on this matter. However, in order to ensure the proposed project has received all necessary approvals, the Commission imposes special condition three which requires that the applicant submit evidence of approval of the proposed project from the RWQCB. If the project is altered through the approval process by the RWQCB the changes shall not be incorporated into the project until the applicant obtains a Commission amendment to this coastal development permit, unless the Executive Director determines that no amendment is required.

Therefore, as the conditioned, the Commission finds the proposed development is consistent with Section 30231 of the Coastal Act.

**C. Public Access**

Section 30212 of the Coastal Act states in relevant part:

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

*(2) adequate access exists nearby, or,*

*(b) For purposes of this section, "new development" does not include:*

*(4) The reconstruction or repair of any seawall; provided, however, that the reconstructed or repaired seawall is not seaward of the location of the former structure.*

The subject site is located on Humboldt Island in Huntington Harbor. Much of Huntington Harbor consists of private communities. However, Humboldt Island is publicly accessible via a bridge from the mainland. On-street parking is the major source of public parking. In addition, the City of Huntington Beach certified LCP shows a public beach flanking Humboldt Drive at the entrance to Humboldt Island.

The proposed development involves structural reinforcements to an existing bulkhead which would result in seaward encroachment of the structure. Therefore, the proposed project is considered new development for the purposes of Coastal Act section 30212. However, the proposed project would be underwater. There is no beach area which provides lateral public access on-site upon which the proposed project would encroach. Further, there is no beach area off-site which provides public access that could be eroded as a result of changes in shoreline processes due to the proposed project.

Therefore, the Commission finds that no public access is necessary with the proposed development and that the proposed project is consistent with section 30212 of the Coastal Act.

**D. Legal Ability to Undertake Development**

Some portion of the proposed development may encroach seaward, beyond the property boundary of the subject sites, upon public trust land. The California State Lands Commission provided a letter to Commission staff dated August 25, 1999, which states that the proposed development is under review and that State Lands Commission staff intend to recommend approval of protective structure leases to the State Lands Commission. However, State Lands Commission staff have requested that the Coastal Commission proceed with reviewing the subject applications (see Exhibit 5).

Section 30601.5 of the Coastal Act requires states in part,

*...prior to the issuance of a coastal development permit, the applicant shall demonstrate the authority to comply with all conditions of approval.*

Therefore, the Commission imposed special condition four which requires that, prior to issuance of the permit, the applicant shall submit evidence of their legal ability to undertake development at the subject site, including where necessary approval of a protective structure lease from the California State Lands Commission. As conditioned the Commission finds the proposed project is consistent with Section 30601.5 of the Coastal Act.

**E. Local Coastal Program**

The City of Huntington Beach local coastal program ("LCP") is effectively certified. However, the proposed project is located seaward of the mean high tide line and thus is within the Coastal Commission's original permit jurisdiction area. Therefore, pursuant to Section 30519 of the Coastal Act, the LCP does not apply to the proposed project. However, the certified LCP may be used for guidance in evaluating the proposed project for consistency with the Chapter 3 policies of the Coastal Act.

**F. California Environmental Quality Act**

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

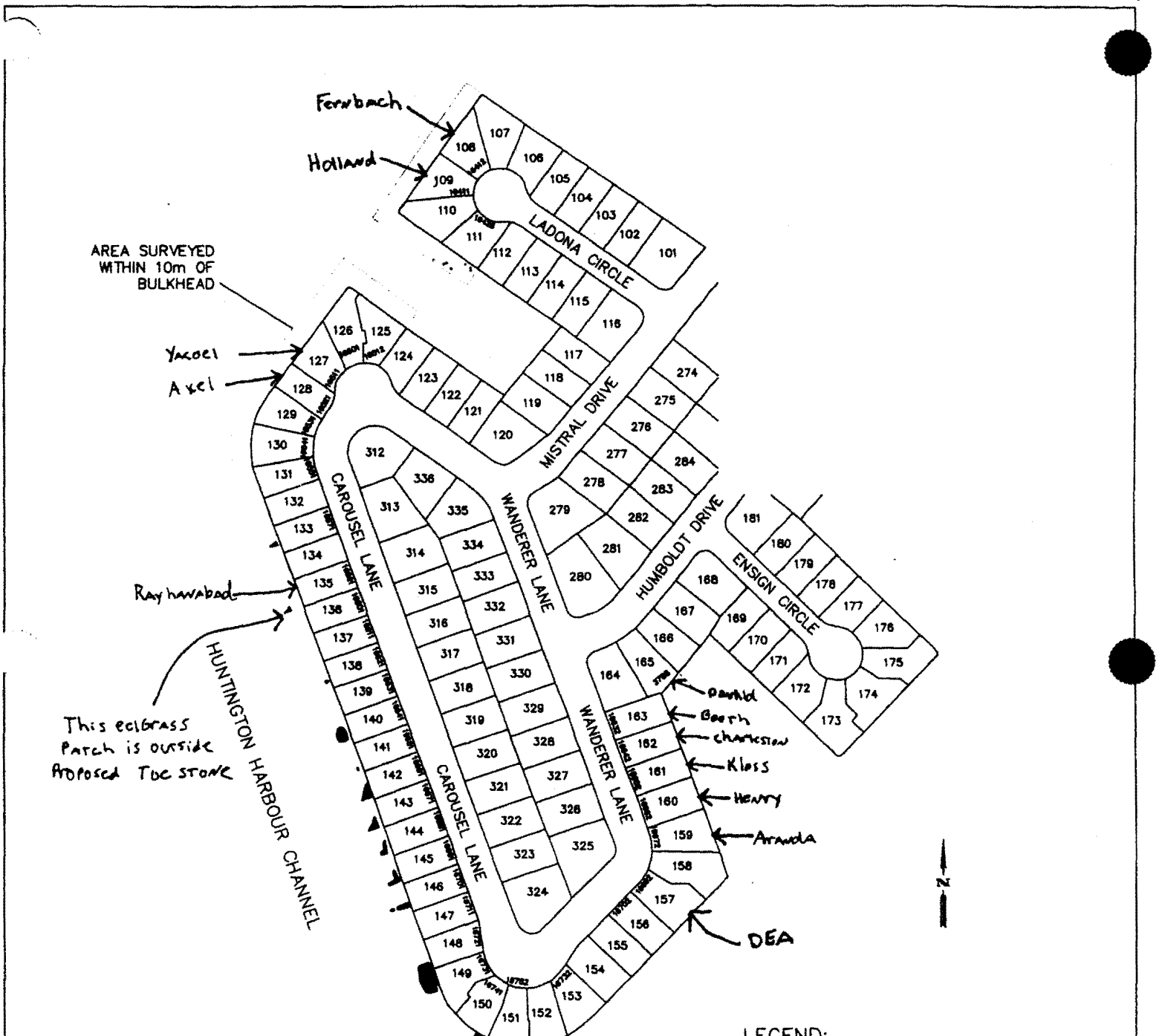
The project is located in an existing harbor in an urbanized area. Development already exists on the subject site. The project site does not contain any known sensitive marine resources, therefore the impacts arising from the proposed project will be minimal. In addition, the proposed development has been conditioned, as follows, to assure the proposed project is consistent with the resource protection policies of the Coastal Act: requirement for an anchor management plan, an outline of construction responsibilities including requirements to use

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Regular Calendar  
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5-99-007, 5-99-008  
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turbidity control measures and restrictions on the placement of construction materials and use of on-site resources as construction material, requirement for approval from the RWQCB, and requirement to submit evidence of legal ability to comply with the conditions of this permit. There are no other feasible alternatives or mitigation measures available which will lessen any significant adverse impact the activity would have on the environment. Therefore, the Commission finds that the proposed project is consistent with CEQA and the policies of the Coastal Act.

5-99-005.5-99-006.5-99-007.5-99-008 sfrpt RC





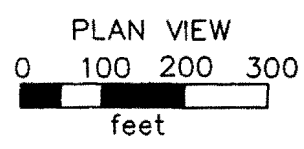
**LEGEND:**

Area not surveyed

■ Eelgrass (*Zostera marina*)

**TETRA TECH**  
 800 The City Parkway West, Suite 300  
 Orange, CA 92668  
 (714)456-0166, Fax (714)456-0161

PURPOSE: Repair Existing Seawall



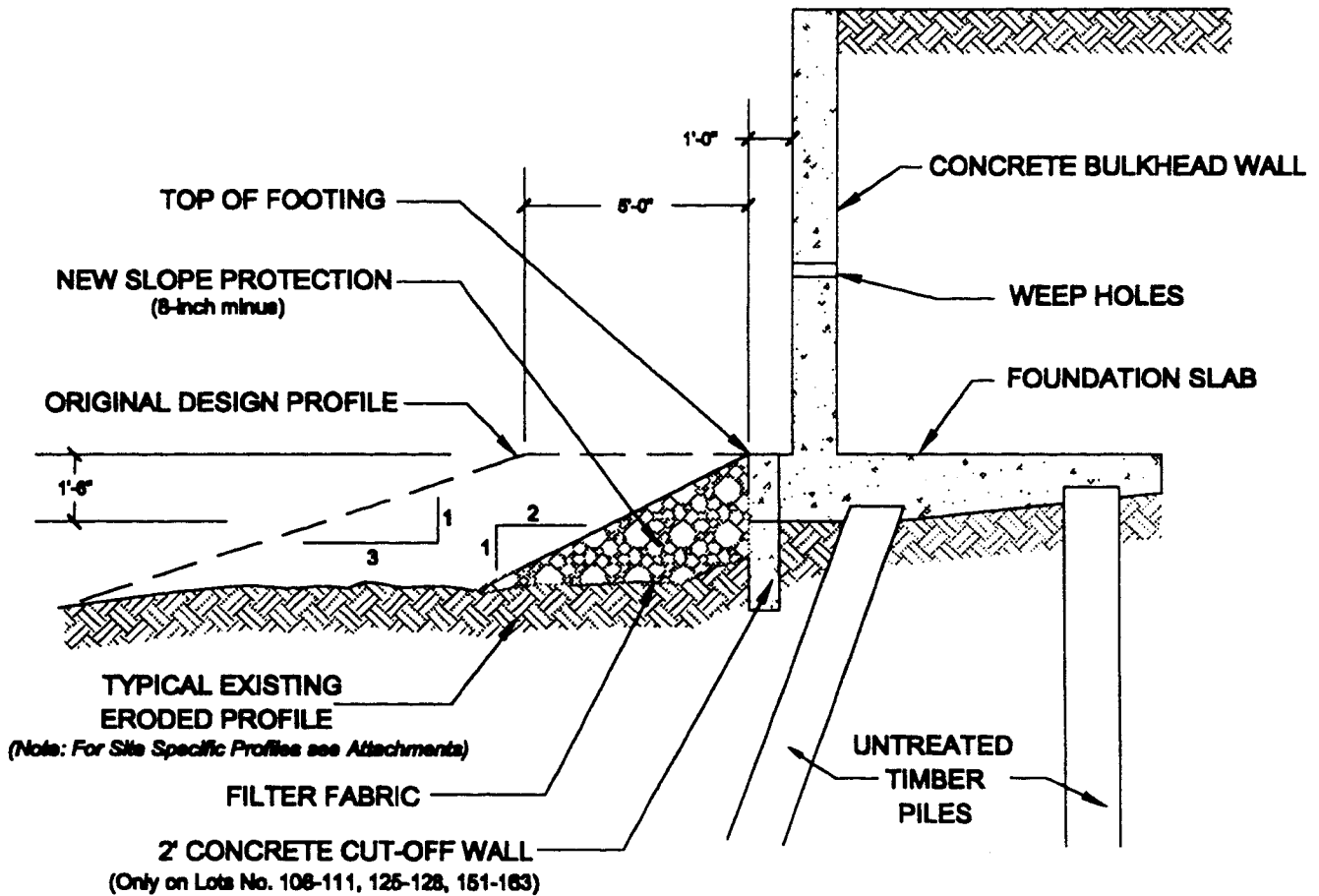
datum: MLLW = 0  
 Adj. Property Owners:  
 1. See Attached List  
 2.  
 3.

Humboldt Island  
 Huntington Harbour  
 Huntington Beach, CA 92649

Figure 2  
 Eelgrass Survey Results  
 Survey Conducted:  
 10/22/98, 11/5/98 & 11/6/98  
 IN: Huntington Harbour  
 AT: Huntington Beach  
 County of Orange State: CA  
 Application By: Homeowners

PROJECT # 1

DETAIL OF LOCATION OF Subject Properties  
 And General Location of Eelgrass



PROJECT NO. 10000.1

FIGURE 1  
PAGE 1 OF 6



800 The City Partnership West, Suite 300  
Orange, CA 92668  
(714)468-0188, Fax (714)468-0181

Scale 1/4" = 1'-0"

[Project:humboldtbulkhead.org](http://projects.humboldtbulkhead.org)

PURPOSE: Repair Existing Seawall

FIGURE 1.  
ORIGINAL BULKHEAD DESIGN  
With Proposed Toe Stone Show

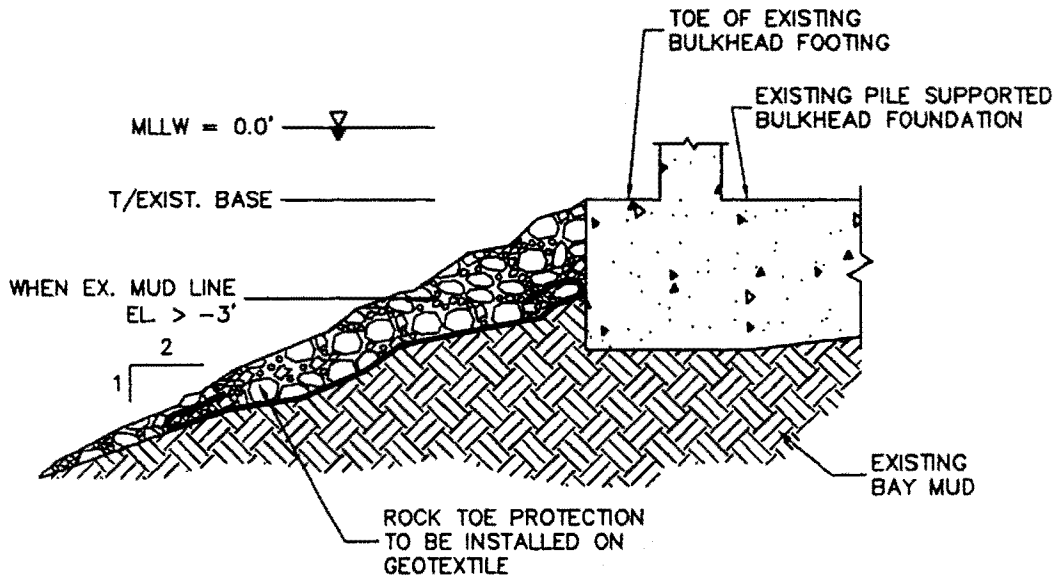
Proposed Repair of Existing  
Seawall

Datum: MLLW = 0  
Adj. Property Owners:  
1. See Attached List

Humbolt Island  
Huntington Beach, CA 92649

California Coastal Commission

Date: 10/7/98



**SECTION AT FOOTING TOE: CASE IV**  
**SCALE: 3/8" = 1'-0" (FOR ROCK BACK FILL ONLY)**

1

DETAIL OF TYPICAL  
 TOE SLOPE PROTECTION

5-99-005 → 008



**TETRA TECH**

600 The City Parkway West, Suite 300  
 Orange, CA 92668  
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DATE: 2  
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**PURPOSE: Repair Existing Seawall**

**SECTION VIEW**

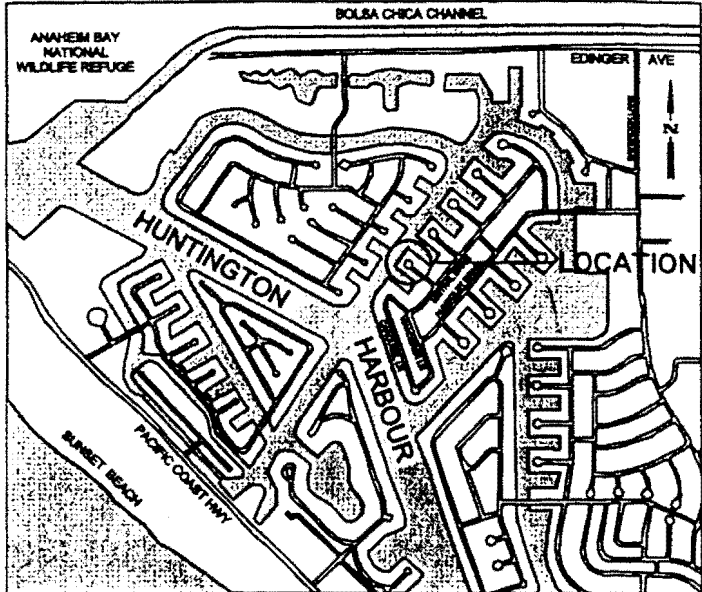
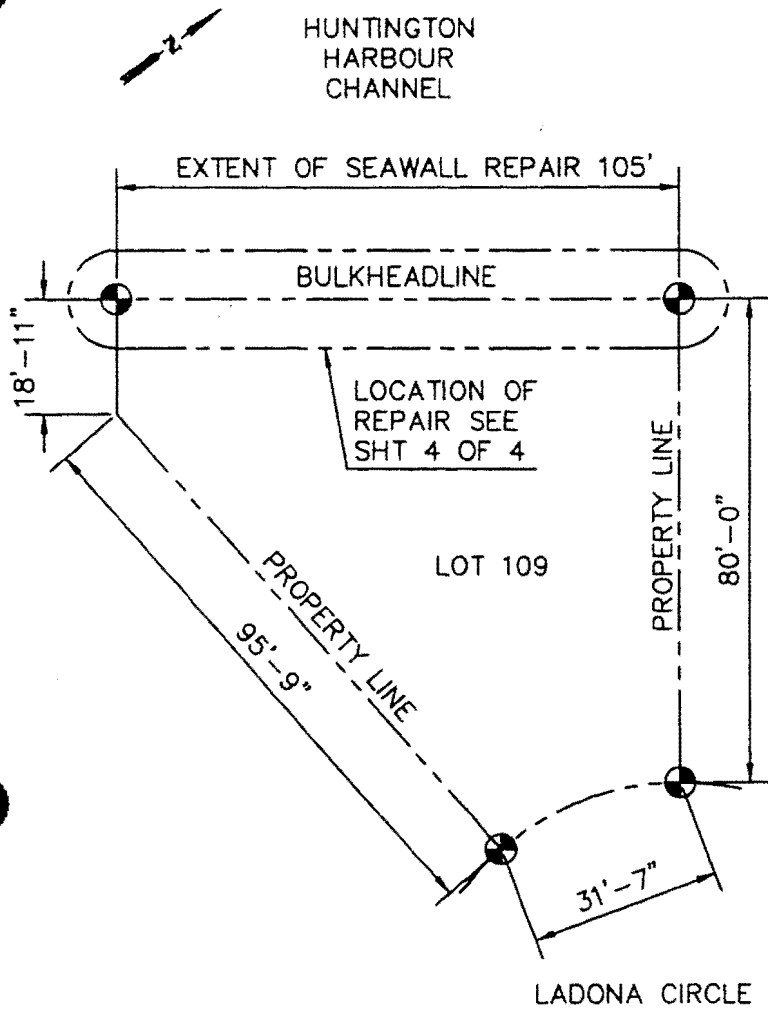
**Proposed Repair of Existing Seawall**

**Datum: MLLW = 0**  
**Adj. Property Owners:**  
 1. See Attached List  
 2.  
 3.

Robert B. Holland  
 16411 Lodona Circle  
 Huntington Beach, CA 92649

IN: Huntington Harbour  
 AT: Huntington Beach  
 County of O.C. State: CA  
 Application By: Robert B. Holland  
 Sheet 4 of 4 Date: 2/25/99





VICINITY MAP

FROM U.S.G.S. SEAL BEACH QUADRANGLE CALIFORNIA SCALE 1:24000

NOTE: ALL DEPTHS BASED ON MLLW = 0.00 FT.

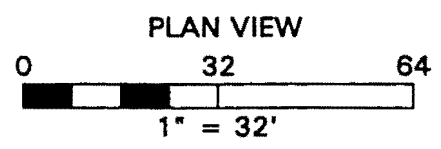
Typical Location of Repair Along Bulkhead  
 5-99-005 → 008

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**Tt TETRA TECH**  
 800 The City Parkway West, Suite 300  
 Orange, CA 92668  
 (714)456-0188, Fax (714)456-0181

PURPOSE: Repair Existing Seawall

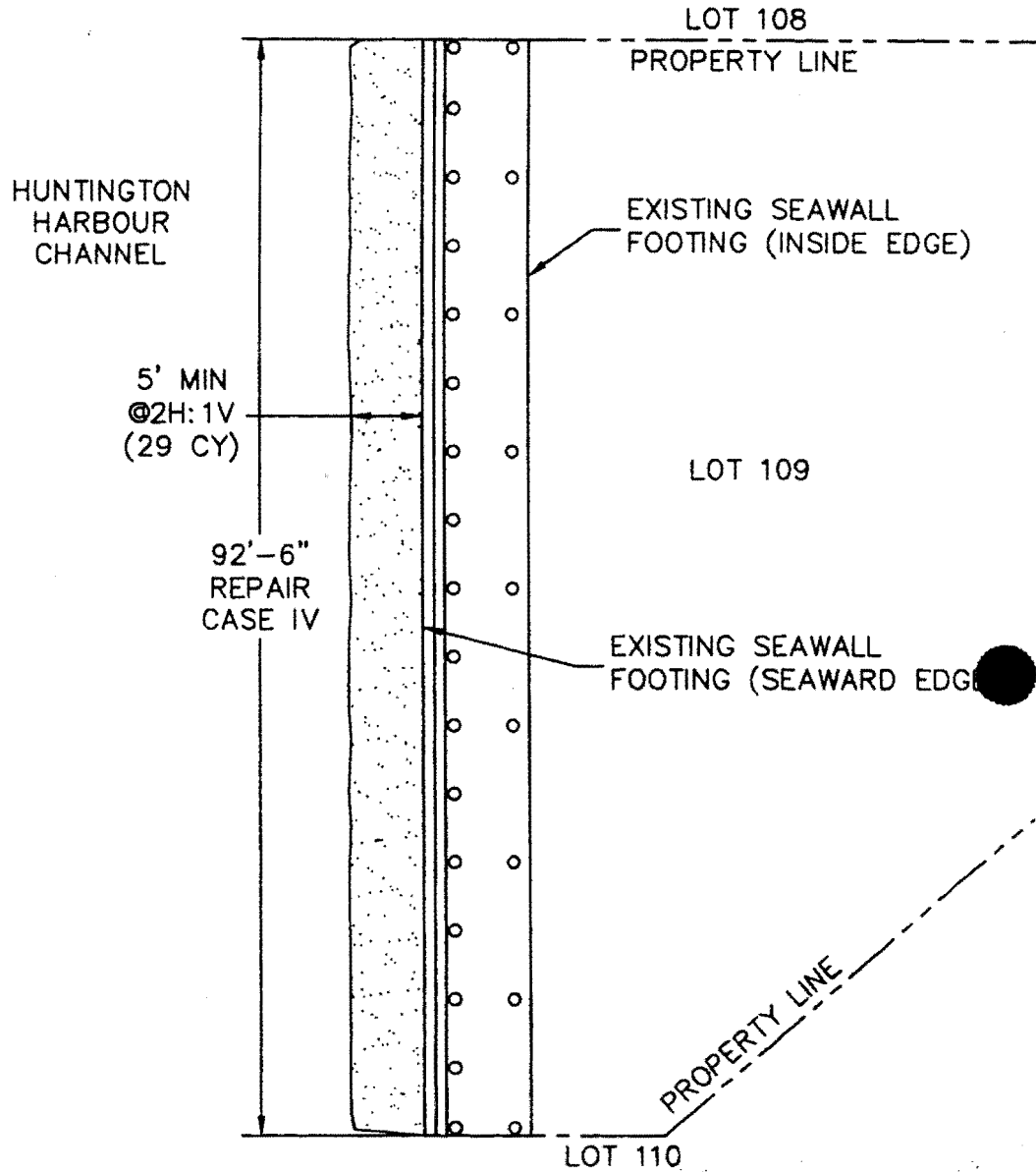
- datum: MLLW = 0  
 Adj. Property Owners:  
 1. See Attached List  
 2.  
 3.



Robert B. Holland  
 16411 Lodona Circle  
 Huntington Beach, CA 92649

Proposed Repair of Existing Seawall

IN: Huntington Harbour  
 AT: Huntington Beach  
 County of Orange State: CA  
 Application By: Robert B. Holland  
 Sheet 1 of 4 Date: 2/25/99



**LEGEND:**

- PILES TO BE REPAIRED
- EXISTING PILES
- ▨ GROUTED VOID
- ROCK TOE PROTECTION



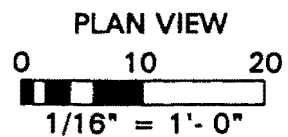
**TETRA TECH**  
 800 The City Parkway West, Suite 300  
 Orange, CA 92668  
 (714)456-0168, Fax: (714)456-0181

5-99-005 → 008

2  
 4 of 6

**PURPOSE:** Repair Existing Seawall

**Datum:** MLLW = 0  
**Adj. Property Owners:**  
 1. See Attached List  
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 3.



Robert B. Holland  
 16411 Lodona Circle  
 Huntington Beach, CA 92649

**Proposed Repair of Existing Seawall**

IN: Huntington Harbour  
 AT: Huntington Beach  
 County of O.C. State: CA  
 Application By: Robert B. Holland  
 Sheet 2 of 4 Date: 2/25/99

**1. GENERAL CONDITIONS & EXISTING CONSTRUCTION:** Contractor shall verify the existing conditions shown on the drawings prior to installation of the work and shall notify the engineer immediately of any discrepancies between the existing conditions and the conditions shown on the drawings.

Dimensions of the existing construction shown on the drawings are for information and estimating purposes only. Contractor is responsible for field verification of all dimensions relating to the existing construction prior to the installation of the work. Existing construction shall not be drilled, cut, or altered in any way except as specifically shown on the drawings. Contractor shall protect the existing construction from damage during the installation of the work shown. Contractor shall be responsible for the repair of any damage to the existing construction which may occur during the installation of the work shown, and shall restore any damaged area, at his expense, to its original condition.

It shall be the contractor's responsibility to obtain and pay for all necessary permits and approvals prior to commencement of the work. The contractor shall comply with all applicable requirements of the State Safety Orders and OSHA, and all work shall conform to the applicable requirements of the current edition of the Uniform Building Code (UBC).

Contractor shall supply, transport to the site, and install all items required for completion of the work shown in accordance with the drawings and the manufacturer's written recommendations.

**2. SLOPE PROTECTION:** Slope protection shall be 8 inch minus quarry waste piled at a slope of 2H:1V as shown. Contractor shall submit certified gradation curves from material supplier. Slope protection shall be installed in accordance with CALTRANS placement method B (section 72) from a distance not exceeding 2 ft.

**3. GEOTEXTILE:** Shall be MIRAFL 700X woven polypropylene fabric with 135lb. or better puncture rating or approved equivalent.

**4. CONSTRUCTION SEQUENCE:** Construction shall be completed and inspected in accordance with the following:

1. Prior to start of construction, a diver certified in the state of California will inspect the existing foundation and piles and determine repair requirements.
2. Contractor shall place the appropriate width of geotextile for the slope protection at a 2:1 slope with an additional 2 ft. min overhang at each side. Overhang to be folded back over first layer of rock and covered by subsequent layers of rock until specified slope is achieved. All sheet splices shall have a min. 18 inches of overlap and shall be secured together by staples or other approved means.
3. Contractor shall locate all existing weep holes in bulkhead walls, remove marine growth and clean out weep holes from the water side to the earth side of the wall.

In order to avoid construction delays, contractor shall coordinate activities and schedule diver inspections. Divers shall be certified and approved by Tetra Tech. Contact Fernando Pages, (Tetra Tech, Inc. ) @ (626) 351-4664.



**TETRA TECH**

600 The City Parkway West, Suite 300  
Orange, CA 92668  
(714)456-0166, Fax (714)456-0181

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2  
5 6

**PURPOSE:** Repair Existing Seawall

**SPECIFICATIONS**

Proposed Repair of Existing Seawall

- Datum: MLLW = 0  
 j. Property Owners:  
 1. See Attached List  
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Robert B. Holland  
 16411 Ladona Circle  
 Huntington Beach, CA 92649

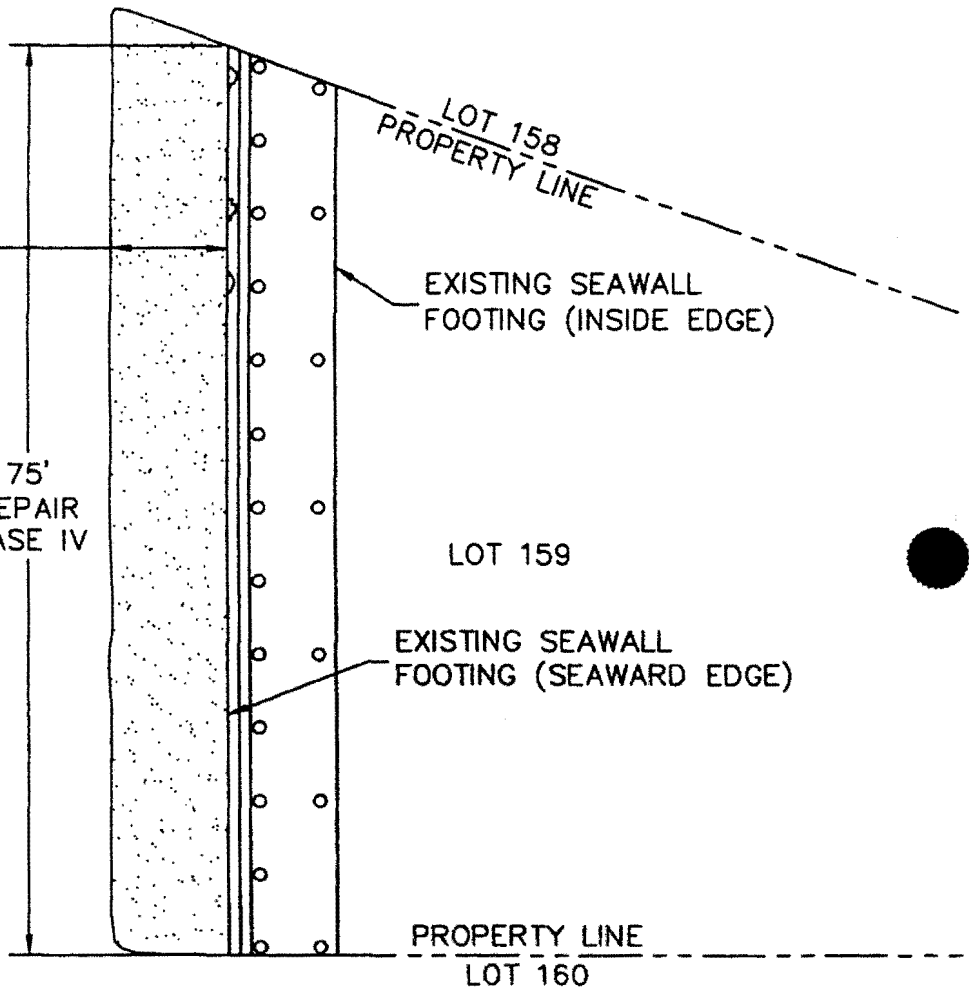
IN: Huntington Harbour  
 AT: Huntington Beach  
 County of O.C. State: CA  
 Application By: Robert Holland  
 Sheet 3 of 4 Date: 2/25/99



HUNTINGTON HARBOUR CHANNEL

9.5' MIN  
@2H:1V  
(53 CY)

75'  
REPAIR  
CASE IV



**LEGEND:**

- PILES TO BE REPAIRED
- EXISTING PILES
- ▒ GROUTED VOID
- ROCK TOE PROTECTION



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(714)456-0166, Fax (714)456-0161

Typical Maximum  
Width (9.5 feet)  
OF TOE STONE

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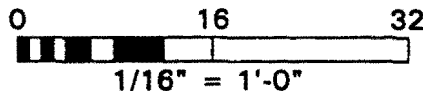
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6 OF 6

**PURPOSE:** Repair Existing Seawall

- Datum:** MLLW = 0  
**Adj. Property Owners:**  
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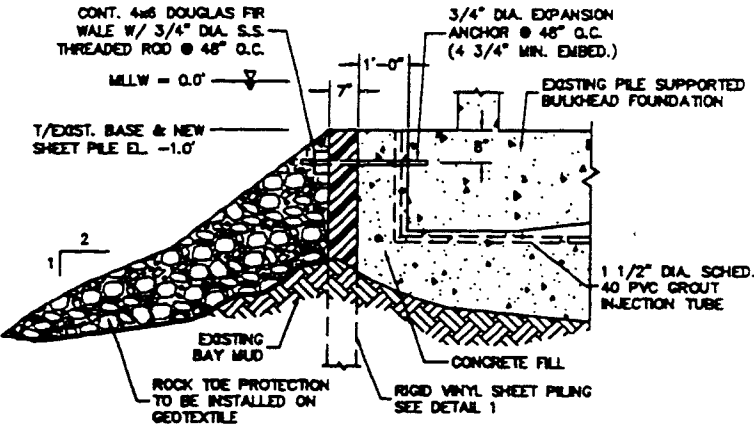
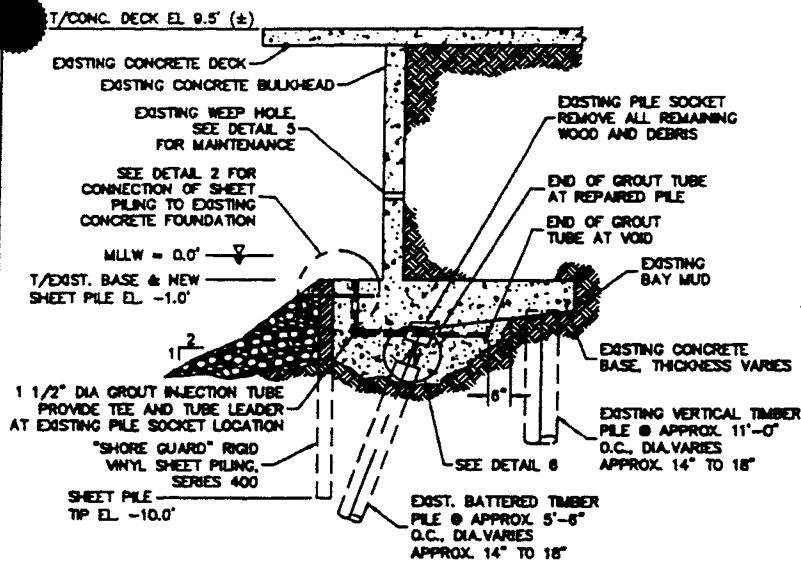
**PLAN VIEW**



Pedro Aranda  
16672 Wanderer Lane  
Huntington Beach, CA 92649

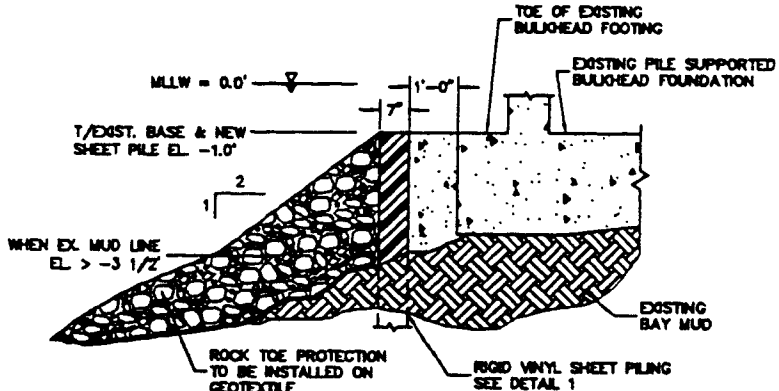
**Proposed Repair of Existing Seawall**

IN: Huntington Harbour  
AT: Huntington Beach  
County of O.C. State: CA  
Application By: Pedro Aranda  
Sheet 2 of 4 Date: 2/25/99

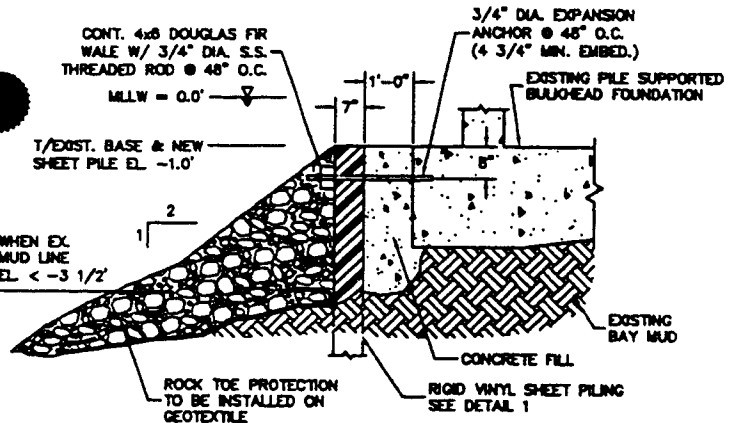


**SECTION AT WALE: CASE I**  
 SCALE: 1/4" = 1'-0" (FOUNDATION UNDERMINED) 2

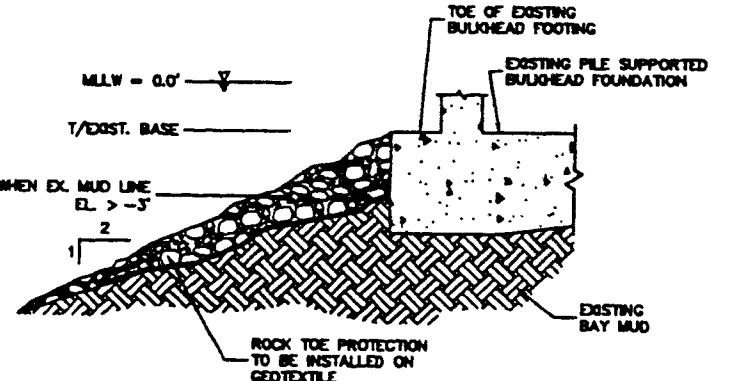
**SECTION AT TIMBER PILE REPAIR**  
 SCALE: 1/8" = 1'-0" 1



**SECTION AT SHEET PILE: CASE III**  
 SCALE: 1/4" = 1'-0" (FOR CANTILEVERED SPANS OF 30" OR LESS SUPPORT WALE NOT REQUIRED) 4



**SECTION AT WALE: CASE II**  
 SCALE: 1/4" = 1'-0" (FOR CANTILEVERED SPANS OF 30" OR MORE SUPPORT WALE REQUIRED) 3



**SECTION AT SHEET PILE: CASE IV**  
 SCALE: 1/4" = 1'-0" (RIP-RAP TOE PROTECTION ONLY) 5

COASTAL COMMISSION  
 5-99-005 → 008



**TETRA TECH**  
 800 The City Parkway West, Suite 300  
 Orange, CA 92668  
 (714)456-0166, Fax (714)456-0161

EXHIBIT # 3  
 PAGE 1 OF 2

**PURPOSE: Repair Existing Seawall**

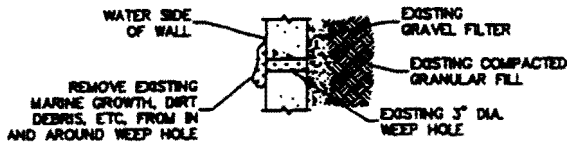
**SECTION VIEW**

**Proposed Repair of Existing Seawall**

datum: MLLW = 0  
 Adj. Property Owners:  
 1. See Attached List  
 2.  
 3.

Examples of Required Repairs  
 and Reinforcements on Nearby  
 Properties.  
 Anselmo Pineda  
 16571 Carousel Lane  
 Huntington Beach, CA 92649

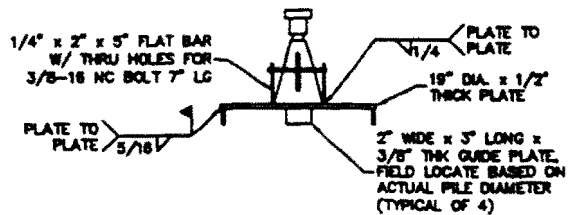
IN: Huntington Harbour  
 AT: Huntington Beach  
 County of O.C. State: CA  
 Application By: Anselmo Pineda  
 Sheet 6 of 8 Date: 2/25/99



**WEEP HOLE DETAIL**

SCALE: 1/4" = 1'-0"

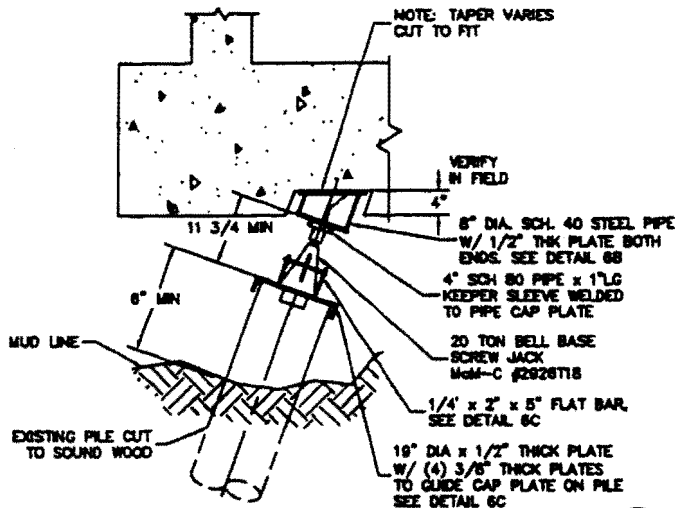
6



**PILE CAP PLATE DETAIL**

SCALE: N.T.S.

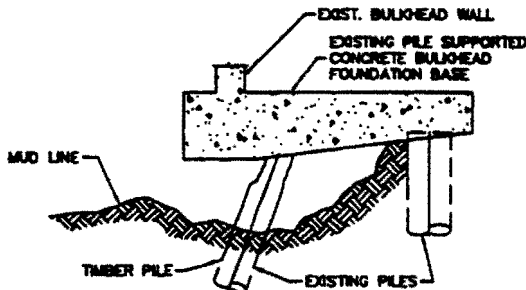
7C



**JACKING DETAIL**

SCALE: 3/4" = 1'-0"

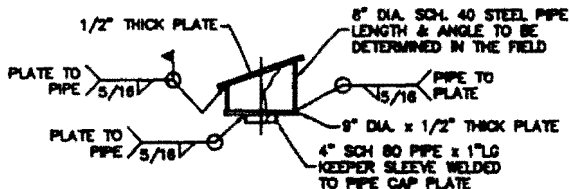
7



**SECTION 25% OR LESS PILE DETERIORATION**

SCALE: N.T.S. PILE REPAIR NOT REQUIRED SEE DETAIL 2

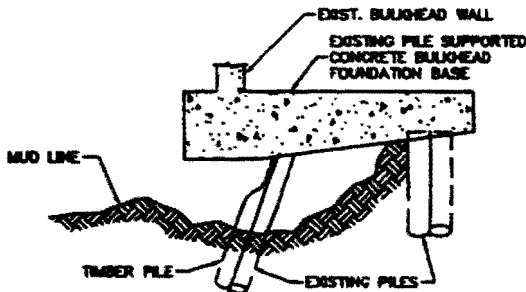
8



**JACKING ASSEMBLY DETAIL**

SCALE: N.T.S.

7B



**SECTION 25% OR MORE PILE DETERIORATION**

SCALE: N.T.S. PILE REPAIR REQUIRED SEE DETAILS: 1 & 2

9

NOTES: FIELD MEASURE EXISTING PILE SOCKET IN CONCRETE BASE SLAB AND CUT TOP PLATE TO FIT SOCKET.  
 CENTERLINE TOP PLATE = CENTERLINE PIPE  
 CENTERLINE PIPE = CENTERLINE JACK



**TETRA TECH**

800 The City Parkway West, Suite 300  
 Orange, CA 92668  
 (714)488-0188, Fax (714)488-0181

5-99-005 → 008  
 EXHIBIT # 3

**PURPOSE: Repair Existing Seawall**

SECTION VIEW

**Proposed Repair of Existing Seawall**

Datum: MLLW = 0  
 Adj. Property Owners:  
 1. See Attached List  
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 3.

Anselmo Pineda  
 16571 Carousel Lane  
 Huntington Beach, CA 92649

IN: Huntington Harbour  
 AT: Huntington Beach  
 County of O.C. State: CA  
 Application By: Anselmo Pineda  
 Sheet 7 of 8 Date: 2/25/99

# Memorandum

To : Mr. Karl Schwing  
California Coastal Commission  
200 OceanGate Avenue Suite 1000  
Long Beach, California 90802

RECEIVED  
SOUTH COAST REGION

Date : July 6, 1999

JUL 14 1999

CALIFORNIA  
COASTAL COMMISSION

From : Department of Fish and Game

Subject : Humboldt Island Homeowners Association Bulkhead Repair

This memo is in response to a request from Ms. Sarah McFadden, Tetra Tech Inc., representing the Humboldt Island Homeowners Association, concerning proposed project plans to repair and renovate existing bulkheads for 36 residences on southern Humboldt Island, Huntington Harbor, Huntington Beach, Orange County, California. Damaged piles will be removed and/or repaired at three properties. At 19 properties, vinyl sheet-pile will be installed 1 foot 7 inches seaward of the bulkheads. At all 36 properties a protective rip-rap footing, comprised of quarry waste material ranging from sand to 8 inch fragments, will be placed at the bulkheads. The footing will extend a maximum of 11 feet from the bulkheads.

The proposed project will impact hardscape, the water column, and soft bottom habitat. Impacts to hardscape (i.e., existing bulkheads and structures) and the water column are considered temporary, as the water quality will return to pre-construction conditions and the new structures will eventually be colonized by attachment organisms. However, impacts to soft bottom habitat will not be temporary. Based on information provided to the Department by Tetra Tech Inc., "expansion" of 19 bulkheads will result in a permanent loss of approximately 1,581 square feet of marine soft bottom bay habitat. In addition, approximately 17,700 square feet of soft bottom habitat will be buried by placement of rip-rap. Approximately 780 square feet of this soft bottom substrate is eelgrass (*Zostera marina*) habitat.

The permanent loss of marine soft bottom bay habitat is of concern to the Department. The Department strongly recommends that bulkhead projects be designed to eliminate or minimize loss of marine bay habitat. To accomplish this goal, we recommend that each property owner strive to construct its bulkhead either in place of the existing bulkhead or immediately in front of the existing bulkhead so that installation results in no net loss of intertidal habitat when measured at the Mean Higher High Water line. The Humboldt Island Homeowners' project has proposed sheet piling to be placed 1 foot 7 inches seaward of those bulkheads in need of repair. The sheet piling retains concrete and grout which is pumped in to fill existing voids in the bulkhead. Presumably the 1 foot 7 inch distance is necessary to allow sufficient clearance for concrete and grout piping, and to enable a pneumatic hammer to clear the bulkhead footing. It is the Department's position that bulkhead projects be constructed in such a manner to be the least environmentally damaging practicable alternative. Thus, we recommend the project proponent investigate alternative methodologies for filling voids in bulkheads. If this is deemed structurally unfeasible, then any incurred loss of marine soft bottom bay habitat should be mitigated.

5-99-005 → 008  
FISH + GAME LETTER

4  
1 2

Mr. Karl Schwing  
July 6, 1999  
Page Two

The Department recognizes that placement of rip-rap at the bulkheads would result in an initial loss of ecological benefits to species associated with soft bottom habitat. However, in the case of unvegetated soft bottom habitat this loss would likely be short-term, as different organisms would recolonize the rip-rap. Thus, we believe that placement of rip-rap on unvegetated soft bottom habitat would not have a significant impact on the environment.

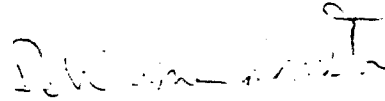
COMMENTS  
RELEVANT  
TO SUBJECT  
APPLICATION

In contrast, impacts to vegetated soft bottom habitat, i.e., eelgrass, from placement of rip-rap are significant. It is well documented that eelgrass habitat provides forage, cover, reproductive opportunities, and other benefits to various fish species, and may be used by these species as permanent residence or nursery habitat. Impacts to eelgrass habitat have significant impacts on the environment, and eelgrass loss must be mitigated.

The project proponents plan to offset the loss of eelgrass in a manner consistent with the Southern California Eelgrass Policy, as amended. However, a specific eelgrass mitigation plan identifying the mitigation site has not been detailed at this time. In addition, the project proponent has not proposed a mitigation plan, nor recognized the necessity to compensate for the loss of 1,581 square feet of marine soft bottom bay habitat. The location and plans for mitigation sites are the responsibility of the project proponent. Therefore, until appropriate mitigation plans both for eelgrass loss and loss of soft bottom habitat have been developed and provided to the Department for review and approval, we cannot support this project.

As always, Department personnel are available to discuss our comments, concerns, and recommendations in greater detail. To arrange for a discussion, please contact Ms. Marilyn Fluharty, Environmental Specialist, California Department of Fish and Game, 4949 Viewridge Avenue, San Diego, California 92123, or by telephone at (619) 467-4231.

Sincerely,



DeWayne Johnston  
Regional Manager  
Marine Region

cc: Ms. Marilyn Fluharty  
Department of Fish and Game  
San Diego, California

CALIFORNIA COMMISSION  
5-99-005 → 008

# 4  
2 OF 2



STATE OF CALIFORNIA

GRAY DAVIS, Governor

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



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

Contact Phone: (916) 574-1892  
Contact FAX: (916) 574-1925

August 25, 1999

File Ref: W 25524

Karl Schwing  
California Coastal Commission  
200 Oceangate, Suite 1000  
Long Beach, CA 90802-4302

Dear Mr. Schwing:

SUBJECT: Bulkhead Repairs to Various Properties on Humboldt Island,  
Huntington Harbour, Orange County

Staff of the California State Lands Commission (CSLC) is aware that the California Coastal Commission (CCC) is preparing to schedule approximately 12 of the 38 subject projects for approval at its September meeting. As you may be aware, the 18 lots located on Carousel Lane are adjacent to sovereign lands under the jurisdiction of the CSLC. An application for bulkhead repairs adjacent to those lots has been submitted by Tetra Tech and is currently being processed by CSLC staff.

It is our intention to recommend that the CSLC authorize the issuance of protective structure leases for these 18 lots. Therefore, we have no objection to the CCC's proceeding with consideration of this matter. Upon approval of the projects by the CCC, we will schedule them for consideration by the CSLC at its next available meeting.

If you have any questions, please feel free to call me at (916) 574-1892.

Sincerely,

A handwritten signature in cursive script that reads "Jane E. Smith".

Jane E. Smith  
Public Land Management Specialist  
Southern California Region

cc: Marie Marston, Tetra Tech

5-99-005 → 008

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1 of 1

