

## CALIFORNIA COASTAL COMMISSION

NORTH COAST AREA

5 FREMONT, SUITE 2000

SAN FRANCISCO, CA 94105-2219

(415) 904-5260

W 3b



Filed: January 5, 1998  
49th Day: February 23, 1998  
180th Day: July 4, 1998  
Staff: Robert Merrill-E  
Staff Report: March 25, 1998  
Hearing Date: April 8, 1998  
Commission Action:

STAFF REPORT: CONSENT CALENDAR

APPLICATION NO.: 1-98-02

APPLICANTS: THOMAS & JOAN CROSSAN, WILLIAM & CHARLOTTE GREENWOOD, HARLIN & JEAN JILL, ROGERS MACHINERY CO., RAINBOW MINI STORAGE, TERRY & KIM CAMACHO, CLAUDINE BUNKER, ED GEORGE ESTATE, AND THOMAS GEORGE

PROJECT LOCATION: Along the northeast bank of Eureka Slough, off of Jacobs Avenue, Eureka, Humboldt County. APNs 14-131-02, 14-131-08, 14-131-10, 14-131-12, 14-141-01, 14-141-02, 14-141-03, 14-141-04, and 14-141-06.

PROJECT DESCRIPTION: (1) Repair an approximately 1,600-foot-long section of an eroding dike by placing rock riprap materials along the face of the dike, and (2) remove approximately 15,000 square feet of rock material from the adjacent tidal mudflat.

Plan designation: Commercial Service

Zoning: Coastal Service Commercial (CS)

LOCAL APPROVALS RECEIVED: The City of Eureka approved Coastal Development Permit No. CDP-9-97 and a Mitigated Negative Declaration for the project on September 26, 1997.

SUBSTANTIVE FILE DOCUMENTS: City of Eureka Local Coastal Program.

STAFF NOTE1. Standard of Review.

The proposed project is located within the City of Eureka. The City has a certified LCP, but portions of the proposed project are located within existing tidal areas and public trust lands within the Commission's retained jurisdiction. Therefore, the standard of review that the Commission must apply to the project is the Coastal Act.

SUMMARY OF STAFF RECOMMENDATION:

Staff recommends approval of the project with conditions. The proposed repair of an existing dike is necessary to prevent tidal inundation of an existing commercial area. The proposed project will protect the biological productivity of the marine resources of the slough as the applicants are not proposing to widen the dike to its former extent, but instead, will construct the engineered revetment along the existing face of the dike to minimize loss of mudflat habitat. The project also includes restoration of the mudflat to remove rock material placed without benefit of permits on the mudflat in the past. The special conditions recommended by staff include requirements that debris from the project be removed from the site and properly disposed of, that only material appropriate from an engineering standpoint be used in the proposed revetment, and that the revetment be maintained to ensure its structural integrity and to prevent dislodged riprap from adversely affecting habitat values. As conditioned, staff believes the project is consistent with the Coastal Act

---

STAFF RECOMMENDATION:

The staff recommends that the Commission adopt the following resolution:

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, is located between the sea and the first public road nearest the shoreline and is in conformance with the public access and public recreation policies of Chapter 3 of the Coastal Act, and will not have any significant adverse impacts on the environment within the meaning of the California Environmental Quality Act.

II. Standard Conditions: See attached

III. Special Conditions:

1. Debris Removal.

All of the material proposed to be removed from the mudflat adjacent to the levee that is not used in the repair of the levee and all construction debris shall be removed from the site and disposed of at a lawful disposal site. Any floating debris allowed to enter the waters of Eureka Slough shall be retrieved and lawfully disposed of.

2. Revetment Material.

The material to be used in construction of the proposed rock slope protection shall consist of either clean quarry rock or concrete rubble material that is free of asphalt and waste materials. The revetment material shall not be greater than 3 feet in any one direction or smaller than 1 cubic foot in size. All exposed reinforcement bar shall be removed prior to installation of any concrete rubble rip rap.

3. Implementation of Project per Approved Plans.

The repair work shall be performed in accordance with the plans submitted with the application as modified by the conditions of this permit. Any proposed changes in the design of the project, including but not limited to future expansion or reinforcement of the levee and the authorized revetment, and any changes in revetment materials or configuration, shall not occur without a Coastal Commission approved amendment to this coastal development permit unless the Executive Director determines that no amendment is required.

4. Maintenance.

Maintenance of the rip rap armor shall be the responsibility of the applicant. Any rocks which become dislodged after construction completion shall be resecured in place. Any rocks which migrate from the rip rap installation shall be retrieved as possible and repositioned, or replaced by equivalent rock, in place.

IV. Findings and Declarations.

The Commission hereby finds and declares:

1. Site Description:

The applicants propose to repair an approximately 1,600-foot-long section of the Jacobs Avenue Dike along the northeast bank of Eureka Slough, a tributary of Humboldt Bay, by constructing a rock slope protection revetment along the face of the dike.

The Jacobs Avenue Dike is located between properties fronting on Jacobs Avenue and Eureka Slough, within the City of Eureka. The proposed repair work involves the repair of a relatively small portion of the approximately mile-long dike. The Jacobs Avenue Dike was constructed in the early 1900's to reclaim low-lying tidelands. The area has since been developed with commercial development. The dike continues to protect these lands from tidal inundation. Jacobs Avenue is located in the northern part of the city, off of Highway 101 between the Eureka Slough Bridge and Murray Field, a general aviation airport.

The portion of the dike to be repaired borders nine separate adjoining parcels. These parcels are occupied by a variety of commercial enterprises including among other things, a mini-storage facility and a machinery company.

The earthen dike has suffered erosion mainly from tidal action along Eureka Slough, and is much narrower now than when it was originally constructed. According to an aerial photo analysis conducted by the applicants' consultant, in the 1930s the width of the dike extended approximately 15 to 25 feet sloughward of the current toe of the dike. Continued erosion threatens to breach the dike and inundate the applicants' commercial development and other property in the vicinity with tidal waters.

According to a biological study submitted as part of the application for the proposed project (SHN, June 1997), no state or federal listed species, or species considered to be rare or endangered by the California Native Plant Society are present at the site. In addition, no sensitive eelgrass is growing on the mudflat adjacent to the dike. However, the site does contain sensitive habitat, including mudflat on the slough side of the levee, scattered salt marsh vegetation along the toe and lower face of the dike, and wetland vegetation immediately adjacent to the inboard side of the dike. Grasses and other non-sensitive vegetation covers the top and sides of the dike.

An approximately 6 to 14-foot-wide band of the mudflat adjacent to the dike is covered by scattered small-diameter rock material. The rock material had originally been placed as backfill material against the face of the dike in 1990 as a prelude to placing larger-diameter armor rock revetment over the backfill material. The development occurred without benefit of a coastal development permit approved by the Commission and without the necessary authorization from the U.S. Army Corps of Engineers. The work was halted by the Corps prior to the placement of the armor rock, and during the intervening years while the matter was being resolved, the rock fill slumped and tidal action spread the material over the adjacent band of the adjoining mudflat.

The overall dike repair project proposed by the applicants is only partially within the Commission's jurisdiction. The lower portions of the dike that are touched by tidal action, as well as the adjoining mudflat are within the Commission's retained jurisdiction. The upper portions of the dike and the rest of the site between the dike and Jacobs Avenue is within the coastal development permit jurisdiction of the City of Eureka. Although all of the portion of the project site currently within the City's permit jurisdiction consists of former tidelands, the Commission has delegated its original permit jurisdiction over these areas to the City of Eureka as an area that is potentially subject to the public trust but which has been filled, developed, and committed to urban uses. The City of Eureka approved a coastal development permit for the portion of the project within its coastal development permit jurisdiction on September 26, 1997.

## 2. Project Description.

The proposed development consists of (1) repairing an approximately 1,600-foot-long section of the dike by constructing a rock revetment along the

face of the dike and (2) removing approximately 15,000 square feet of the rock material placed without benefit of a coastal development permit in 1990 from the adjacent tidal mudflat.

The proposed dike repair work involves filling voids in the dike with granular fill material to create a uniform slope (approximately 1-1/2 to 1), placement of a filter fabric over the slope, excavating a 2-foot-wide toe at the base of the dike face to support the proposed rock slope protection, and placing an approximately 3-foot-wide engineered layer of rock slope protection over the filter fabric, consisting of either quarry rock or broken concrete.

The rock fill to be removed from the mudflat will either be used as part of the backfill material or hauled off the site for disposal at a suitable location.

Construction vehicles and equipment will access the section of dike to be repaired via Jacobs Avenue and the applicants' property. Work using heavy equipment will be performed from on top of the existing dike rather than from locations within the mudflat or slough.

### 3. Repair and Maintenance Activity.

Applicants proposing to repair and maintain a seawall, revetment, bluff retaining wall, breakwaters, groins, and similar protective works such as dikes may have a right to repair and maintain their protective structure per Section 30610(e) of the Coastal Act and Section 13252 of Title 14 of the California Code of Regulations if the proposed repair and maintenance activity will not result in an addition to, or enlargement or expansion of, the object to be repaired, and will not include reconstruction of 50 percent or more of the existing revetment. In this case the reconstruction of the dike will only affect a small percentage of the overall width and bulk of the dike on each parcel. Therefore, the owners of each parcel may have the right to repair the portion of the dike on their property. However, Section 13252(a) states that such projects involving certain extraordinary methods of repair and maintenance shall require a coastal development permit because they involve a risk of substantial adverse environmental impact. Among the extraordinary methods of repair and maintenance listed under Section 13252(a)(3) of the regulations are those repair and maintenance activities within any sand area and areas within 20 feet of coastal waters that include the placement or removal of riprap or the use of mechanized equipment. As the proposed project would be conducted within 20 feet of coastal waters, include the placement of riprap, and would involve the use of mechanized equipment, the proposed project requires a coastal development permit.

### 4. Consistency With Shoreline Protective Works Policy.

Section 30235 provides, in applicable part:

Revetments, breakwaters, groins, harbor channels, seawalls, cliff

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

The above policy sets forth a couple of limitations on what shoreline protective work fill projects may be allowed in coastal waters.

- a. that the purpose of the seawall fill is to serve coastal dependent uses, or to protect existing structures or public beaches in danger from erosion; and
- b. that the project is designed to eliminate or mitigate adverse impacts on local sand supply.

The proposed project meets the first limitation regarding the project purpose as the purpose of the project is to protect existing structures from erosion. The dike upon which the revetment will be constructed has eroded significantly over the years and is in danger of breaching. Continued erosion of the dike and subsequent breaching would also lead to tidal inundation of the various commercial buildings located on the applicants' property. Therefore, the revetment is needed to protect existing structures.

The proposed project also meets the second limitation regarding the protection of local shoreline sand supply because there is no evidence the project will have any effect on existing local shoreline sand supplies. The waterway adjoining the dike is a tidal slough tributary to Humboldt Bay and not the ocean itself. There are no beaches along the slough. Instead, the edges of the slough are tidal mudflats. The sand supplies for the sandy beaches along the ocean shoreline several miles west of the site across Humboldt Bay and the North Spit are strongly affected by ocean wave dynamics, and not primarily by tidal action along sloughs within Humboldt Bay. In addition, the proposed revetment will armor an earthen dike, rather than the face of a coastal bluff. Thus, the revetment will not seal off a major sand supply source as a revetment along an eroding coastal bluff might.

Therefore, the Commission finds that the proposed project is consistent with Section 30235 of the Coastal Act as the proposed shoreline protective work is required to protect existing structures and will not create adverse impacts on local shoreline sand supplies.

##### 5. Flood Hazards.

Section 30253 of the Coastal Act provides in applicable part that development minimize risks to life and property in areas of high geologic or flood hazard and that the development assure stability and structural integrity and not result in the destruction of the site or the surrounding area.

The proposed project is necessary to maintain the existing dike, which serves to protect a large commercial area from flooding. In addition, the proposed revetment has been engineered to ensure that it will be structurally sound and not result in the destruction of the site or the surrounding area. The revetment project includes (1) constructing the revetment at a suitable slope to better ensure stability, (2) backfilling of voids in the face of the dike to increase structural integrity, (3) placing a filter fabric to retain the soil of the earthen dike from the erosive tidal waters that penetrate through the gaps in the riprap, (4) excavation of a toe for the revetment to better anchor the revetment in place, (5) and the use of larger armor rock for the revetment to better withstand erosive tidal action.

However, three additional measures are needed to ensure stability and structural integrity over time. First, certain limits need to be set on the choice of armor material. Suitable protection can best be provided by the use of appropriately sized quarry rock. Concrete rubble, if properly sorted and screened to ensure only the use of rubble that is appropriately sized and free of miscellaneous debris and protruding reinforcement bar, has also been used effectively on various dikes lining Humboldt Bay and its tributaries. Other material that are sometimes proposed for use as revetment material, such as general construction debris, car bodies, or inappropriately sized rock does not provide dependable stable protection. Therefore, the Commission attaches Special Condition No. 2 which requires that the material to be used in construction of the proposed rock slope protection shall consist only of either clean quarry rock or concrete rubble material of an appropriate size that is free of asphalt, waste materials, or protruding reinforcement.

Second, the revetment needs to be maintained over time to insure structural integrity. With most rip rap revetments, individual pieces of rip rap rock eventually become dislodged and roll off of the revetment. Any such migration of rock from the revetment construction could adversely affect the structural integrity of the revetment and diminish its ability to protect the site against flooding and erosion hazards. Additionally, migrating rocks could adversely impact aquatic life and habitat. The Commission therefore attaches Special Condition No. 4, which requires that the rip rap armor be maintained over time to prevent such adverse impacts from migrating rock.

Finally, to ensure that the Commission would have the opportunity to review any proposed changes to the design of the revetment that might affect its structural stability or integrity, the Commission attaches Special Condition No. 3 which requires that the repair work be performed in accordance with the plans submitted with the application as modified by the conditions of this permit unless the applicants submit a request to amend the permit.

As conditioned, the Commission finds that the proposed project is consistent with Section 30253 of the Coastal Act as the development will minimize risks to life and property, assure stability and structural integrity, and not result in the destruction of the site or the surrounding area.

## 6. Protection of Marine Resources.

Section 30230 of the Coastal Act provides, in applicable part that marine resources shall be maintained, enhanced, and where feasible, restored. Section 30231 of the Coastal Act provides, in applicable part that the biological productivity and the quality of coastal waters, streams, wetlands, and estuaries shall be maintained and where feasible, restored.

According to the biological study prepared for the project (SHN, June 1997), no state or federal listed species, or species considered to be rare or endangered by the California Native Plant Society are present at the site and the tidal mudflat does not contain any sensitive eelgrass. However, the portion of the project site within the Commission's jurisdiction does contain sensitive habitat, including the mudflat itself and scattered salt marsh vegetation growing along the toe and lower face of the dike.

The toe of the new revetment will be excavated at the foot of the existing dike within an area that is now tidal mudflat. The sparse salt marsh vegetation growing in this area and along the lower portions of the dike face will be eliminated by the revetment. The biological study also concludes that because the spatial transition from revetment to mudflat will be rather abrupt at the base of the dike, no significant revegetation of the toe can be expected to occur.

However, the loss of biological productivity associated with the removal of the sparse salt marsh vegetation and coverage of a small strip of tidal mudflat will be offset in other ways. First, instead of reconstructing the dike to its former width, which extended approximately 15 to 25 feet beyond the current face of the dike, the proposed project will permanently fix the face of the slough side of the dike in its current location. The dike will thus be much narrower than it has been even in the relatively recent past. As a result, the tidal mudflat along this portion of the slough will be much wider than it was in the past. Second, the biological study concludes that the proposed removal of the 15,000 square feet of rock material from the band of tidal mudflat adjacent to the dike will provide for rapid natural restoration of mudflat habitat as silts are deposited and fill in the excavated area to natural contours.

To ensure that the proposed project does not result in any additional impact on estuarine habitat values of the slough, the Commission attaches Special Condition No. 1 which requires that all of the material proposed to be removed from the mudflat adjacent to the levee that is not used in the repair of the levee and all construction debris be removed from the site and disposed of at a lawful disposal site, rather than within the slough or elsewhere at the project site. In addition, the condition requires that any floating debris allowed to enter the waters of Eureka Slough shall be retrieved and lawfully disposed of.

Thus, the project as conditioned will result in improved mudflat habitat that



will provide for greater biological productivity than the existing habitat. Therefore, the Commission finds that the proposed project is consistent with Sections 30230 and 30231 of the Coastal Act as the marine resources of the site will be enhanced and the biological productivity of the estuary will be maintained and restored.

7. Public Access and Recreation.

Section 30210 of the Coastal Act requires in applicable part that maximum public access and recreational opportunities be provided when consistent with public safety, private property rights, and natural resource protection. Section 30211 of the Coastal Act requires in applicable part that development not interfere with the public's right of access to the sea where acquired through use. Section 30212 of the Coastal Act requires in applicable part that public access from the nearest public roadway to the shoreline and along the coast be provided in new development projects, except in certain instances, as when adequate access exists nearby. In applying Sections 30210, 30211, and 30212, the Commission is limited by the need to show that any denial of a permit application based on those sections, or any decision to grant a permit subject to special conditions requiring public access, is necessary to avoid or offset a project's adverse impact on existing or potential public access.

The proposed project will not have any adverse impacts on existing or potential public access. Rather, the project will serve to protect a levee which is sometimes used informally by the public for hiking along the slough, wildlife viewing, and similar passive public access pursuits. The proposed levee repairs will not block or otherwise interfere with use of the top of the dike for such public access purposes. The mudflat at the base of the dike is not suitable for walking as it is subject to inundation at higher stages of the tides and the surface of the mudflat is difficult to walk on. Nonetheless, to the extent that the mudflat does receive any public use, the proposed rock slope protection for the levee would not interfere with this use as the revetment will not encroach significantly sloughward from the present face of the dike and the toe of the finished slope will be 15 to 20 feet landward of where the toe of the dike used to exist before erosion pared the face of the dike back to its current position. Furthermore, the proposed project does not create any demand for additional public access. Therefore, the Commission finds that the proposed project, which includes no new public access, is consistent with the public access policies of the Coastal Act as the project will not adversely affect public access and will help maintain existing public access uses of the site.

8. Public Trust. The project is located on existing tidelands and public trust lands. These lands have been legislatively granted to the City of Eureka which approved the project on September 26, 1997.

9. U.S. Army Corps of Engineers Review.

The applicants have obtained approval for the project from the U.S. Army Corps of Engineers. A 1997 settlement agreement entered into by the applicants, the Corps, and the City of Eureka stipulates that all work associated with the development that would or might require authorization under the Rivers and Harbor Act of 1899 and the Clean Water Act is administratively authorized by the Corps under Nationwide Permit No. 32.

#### 10. Alleged Violation.

Part of the proposed project includes removing rock material from an approximately 15,000-square-foot area of the mudflat adjoining the levee. The small-diameter rock material had been placed as backfill material in 1990 in anticipation of armor rock revetment being placed on top of the backfill material. The development occurred without benefit of a coastal development permit approved by the Commission and without the necessary authorization from the U.S. Army Corps of Engineers. The work was halted by the Corps prior to the placement of the armor rock, and during the intervening years while the matter was being resolved, the rock fill slumped and tidal action spread the material over a 6 to 14-foot-wide band of the adjoining mudflat. The applicants now propose to remove the rock backfill material from the mudflat and use a portion in the repair of the levee and remove the rest of it off-site. Although development in the form of the initial placement of the rock backfill material occurred without a necessary coastal development permit, consideration of the application by the Commission has been based solely upon the Chapter 3 policies of the Coastal Act. Approval of the permit does not constitute a waiver of any legal action with regard to the alleged violation nor does it constitute an admission as to the legality of any development undertaken on the subject site without a coastal permit.

#### 11. California Environmental Quality Act (CEQA).

Section 13096 of the Commission's administrative regulations requires Commission approval of Coastal Development Permit applications to be supported by a finding showing the application, as modified 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.

As discussed above, the project has been conditioned to be found consistent with the resource protection policies of the Coastal Act. The attached mitigation measures will minimize all adverse environmental impacts. As conditioned, there are no feasible alternatives or feasible mitigation measures available which would substantially lessen any significant adverse impact which the activity may have on the environment. Therefore, the Commission finds that the proposed project, as conditioned to mitigate the identified impacts, can be found consistent with the requirements of the Coastal Act to conform to CEQA.

## ATTACHMENT A

### Standard Conditions

1. Notice of Receipt and Acknowledgment. The permit is not valid and development shall not commence until a copy of the permit, signed by the permittee or authorized agent, acknowledging receipt of the permit and acceptance of the terms and conditions, is returned to the Commission office.
2. Expiration. If development has not commenced, the permit will expire two years from the date on which the Commission voted on the application. Development shall be pursued in a diligent manner and completed in a reasonable period of time. Application for extension of the permit must be made prior to the expiration date.
3. 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 of 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 development during construction, 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.





The map shows the city of Eureka, California, with a focus on the project site. Key features include:

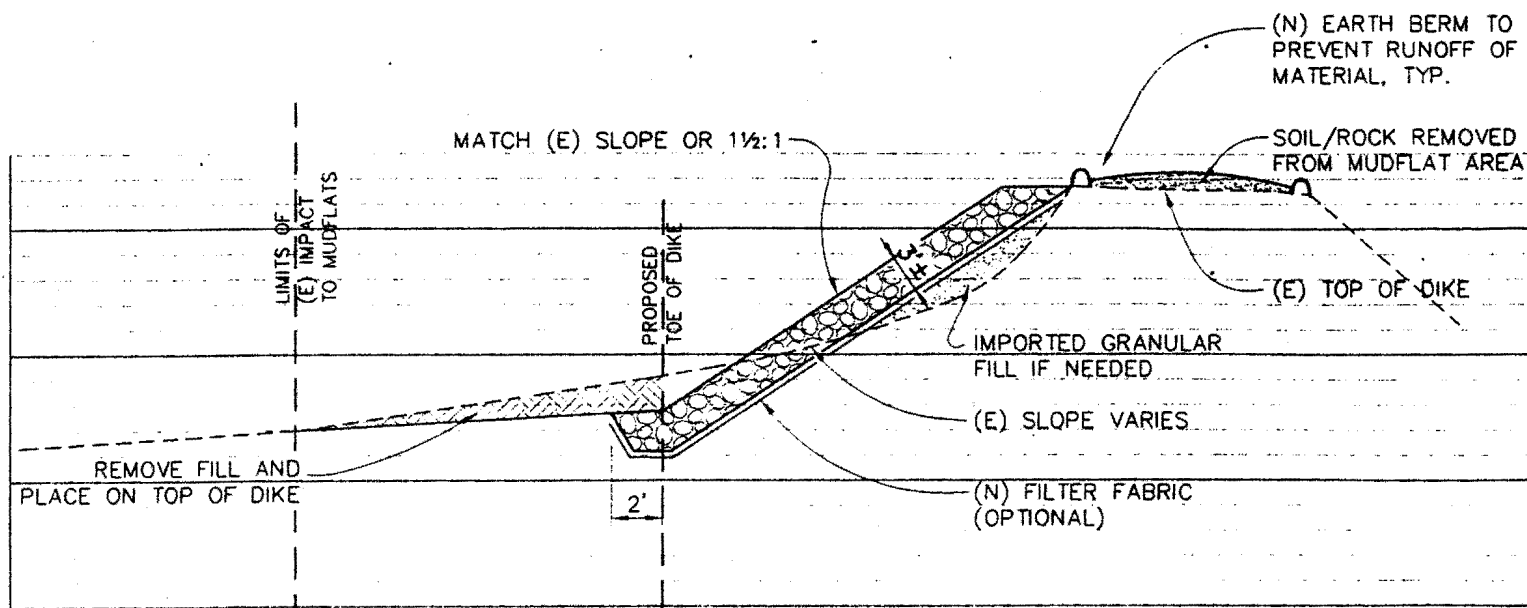
- Geography:** Humboldt Bay at the top, Eureka Slough running through the city, and Daby Island to the northwest.
- Transportation:** US Highway 101 running horizontally across the middle. A railroad line runs diagonally from the top right towards the center.
- Streets:**
  - North-South: Front St, 1st St, 2nd St, 3rd St, 4th St, 5th St, 6th St, 7th St, 8th St, 9th St, 10th St, 11th St, 12th St, 13th St, 14th St, 15th St, 16th St, 17th St, 18th St, 19th St, 20th St, 21st St, 22nd St, 23rd St.
  - East-West: Front St, 1st St, 2nd St, 3rd St, 4th St, 5th St, 6th St, 7th St, 8th St, 9th St, 10th St, 11th St, 12th St, 13th St, 14th St, 15th St, 16th St, 17th St, 18th St, 19th St, 20th St, 21st St, 22nd St, 23rd St.
- Landmarks and Areas:**
  - Cooper Gulch Park & Recreation Center:** Located in the lower left.
  - Eureka City Limits:** A dashed line indicating the city boundary.
  - Project Site:** A red arrow points to a location near the intersection of US 101 and Eureka Slough.
  - Mitchell Heights:** Located in the lower right.

PROJECT SITE

### Vicinity Map







## TYPICAL RSP SECTION

HORIZ. 1"=5'

EXHIBIT NO. 4
APPLICATION NO. 1-98-02
CROSSAN, ET.AL.
Typical RSP Section