DEPARTMENT OF DESIGN AND CONSTRUCTION

CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 11TH FLOOR
HONOLULU, HAWAII 96813
PHONE: (808) 523-4564 • FAX: (808) 523-4567
WEB SITE ADDRESS: www.co.honolulu.hi.us

JEREMY HARRIS
MAYOR

GARY Q. L. YEE, AIA
DIRECTOR

ROLAND D. LIBBY, JR., AIA
DEPUTY DIRECTOR

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QUALITY CONTROL

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April 19, 2000

Ms. Genevieve Salmonson, Director
Office of Environmental Quality Control
235 South Beretania Street, Suite 702
Honolulu, Hawaii 96813

Dear Ms. Salmonson:

Subject: Finding of No Significant Impact (FONSI) for
Elepaio and Ulili Street Drain Outlet Improvements
TMK: 3-5-03: 39 and 3-5-04, Honolulu, Oahu, Hawaii

The City and County of Honolulu, Department of Design and Construction, has reviewed the comments received during the 30-day public comment period which began on November 23, 1999. The agency has determined that this project will not have significant environmental effects and has issued a FONSI. Please publish this notice in the May 8, 2000, OEQC Bulletin.

We have enclosed a completed OEQC Bulletin Publication Form and four copies of the final EA. Please call Tyler Sugihara at 523-4932, if you have any questions.

Very truly yours,

FOR GARY Q. L. YEE, AIA
Director

Attach.

cc: Hida, Okamoto & Associates, Inc.
Kusao & Kurahashi, Inc.

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2000-05-08-OA-FEA-

FINAL ENVIRONMENTAL ASSESSMENT FOR ELEPAIO AND ULILI STREET DRAIN OUTLET IMPROVEMENTS HONOLULU, OAHU, HAWAII

Tax Map Key 3-5-03: 39 and 3-5-04
Honolulu, Oahu, Hawaii

Proposing Agency:
Department of Design and Construction
City and County of Honolulu

Responsible Official: _____ April 20, 2000
Gary Yee **Date**
Director

Kusao & Kurahashi, Inc.
1314 S. King Street, Suite 1263
Honolulu, Hawaii 96814
(808) 538-6652

Agent

APRIL 2000

TABLE OF CONTENTS

LIST OF EXHIBITS

LIST OF APPENDICES

FINAL ENVIRONMENTAL ASSESSMENT FOR ELEPAIO AND ULILI STREET DRAIN OUTLET IMPROVEMENTS HONOLULU, OAHU, HAWAII

I. INTRODUCTION

This Final Environmental Assessment Report, for the Elepaio and Ulili Street Drain Outlet Improvements, which includes the reconstruction of an existing manhole over the existing 42-inch drain line and repair and relocation of an existing stairway (in order to meet Section 3306(c) of the Uniform Building Code related to rise and run and to have the stairs end at a point above mean sea level), both at the end of the Elepaio Street right-of-way and for the reconstruction of an existing drain manhole over the existing 54-inch Ulili Street drain line at the shoreline, is filed because the proposed improvements involve the use of City land and funds; the proposed improvements are located in the State Conservation District and the proposed improvements will occur in the Special Management Area. This report is prepared in accordance with Chapter 343, Hawaii Revised Statutes, as amended, and Title 11, Chapter 200, Sec. 11-200 et. seq., Environmental Impact Statement Administrative Rules, State Department Health, and pursuant to requirements established within Chapter 25, Revised Ordinances of Honolulu, as amended.

This final environmental assessment provides the basis for a Finding of No Significant Impact (FONSI) for the proposed project pursuant to Sec. 11-200-2 of the Department of Health (DOH) Environmental Impact Statement (EIS) Rules and Chapter 25, Revised Ordinances of Honolulu, as amended.

II. GENERAL INFORMATION

A.	APPLICANT	:	Department of Design and Construction City and County of Honolulu 650 S. King Street, 2nd Floor Honolulu, Hawaii 96813
B.	APPROVING AGENCY	:	Department of Design and Construction City and County of Honolulu 650 So. King Street, 2nd Floor Honolulu, Hawaii 96813
C.	RECORDED FEE OWNER	:	City and County of Honolulu
D.	AGENT	:	Kusao & Kurahashi, Inc. Planning and Zoning Consultants 1314 So. King Street, Suite 1263 Honolulu, Hawaii 96814 (808) 538-6652
E.	ENGINEERS	:	Hida, Okamoto & Associates, Inc. Consulting Engineers The Commerce Tower, Suite 915 1440 Kapiolani Boulevard Honolulu, Hawaii 96814
F.	TAX MAP KEY	:	3-5-03: 39 and 3-5-04
G.	LOCATION	:	Southwest (makai) of Kahala Avenue at the shoreline at the drain line extending from Elepaio and Ulili Streets at their intersection with Kahala Avenue (Exhibit 1)

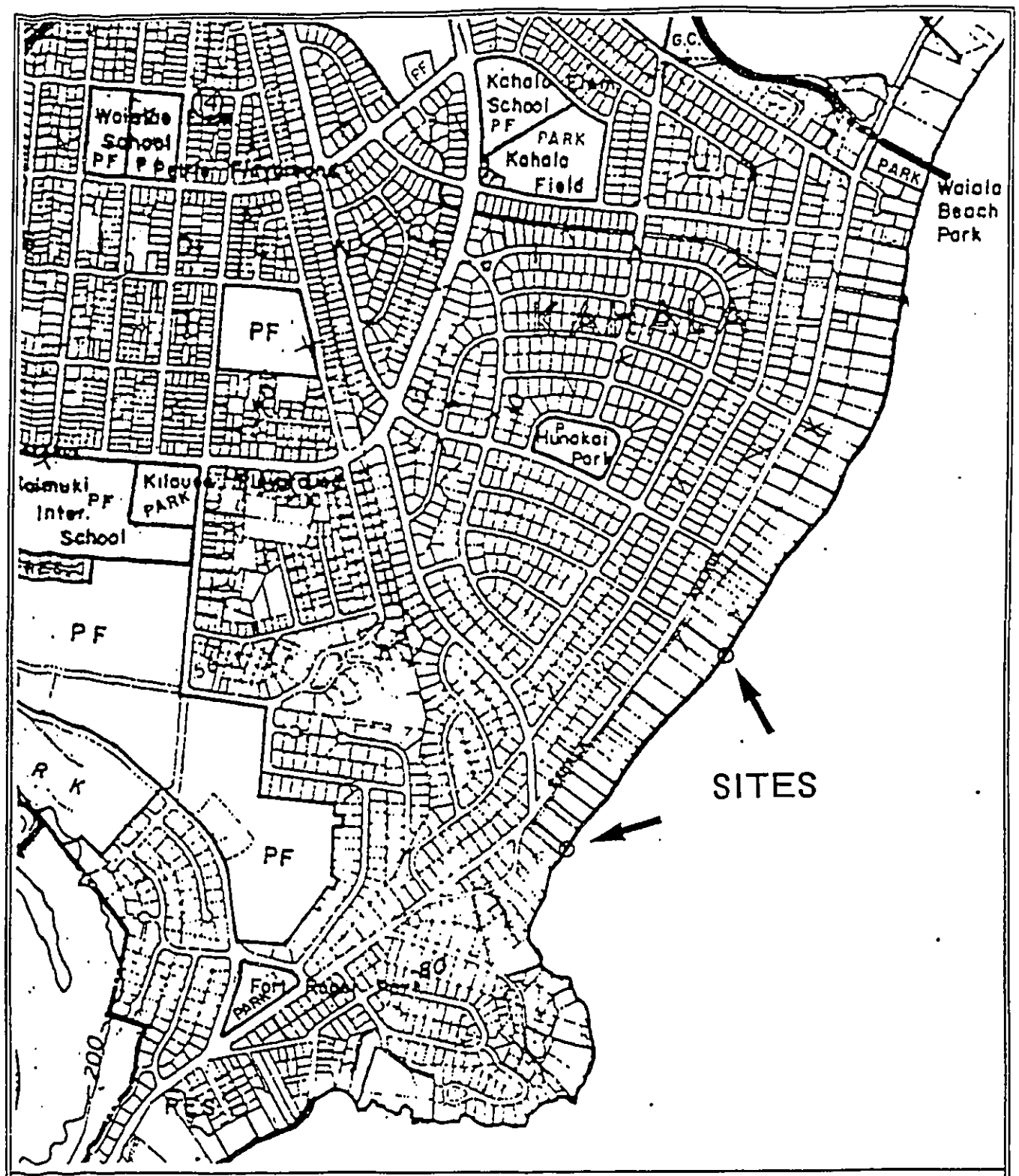


EXHIBIT 1

DEVELOPMENT PLAN
LAND USE MAP

H.	STATE LAND USE	:	Urban and Conservation
I.	DEVELOPMENT PLAN		
	LAND USE MAP	:	Residential and ocean (Exhibit 1)
	PUBLIC FACILITIES MAP	:	Publicly funded roadway improvements, within the existing right-of-way, in the beyond 6 years category for Kahala Avenue. Future roadway improvement does not affect the proposed drain line improvements (Exhibit 2)
J.	SPECIAL DISTRICT	:	Elepaio Street drain line improvement is located at the boundary of the Diamond Head Special District
K.	ZONING	:	R-7.5 Residential District (Exhibit 3)
L.	SPECIAL MANAGEMENT AREA	:	The project site is in the Special Management Area (Exhibit 4)
L.	EXISTING USE	:	Drain line, stairs and manholes (drain line)
M.	AGENCIES CONSULTED (PRECONSULTATION)	:	Department of Design and Construction Department of Planning and Permitting Department of Land and Natural Resources

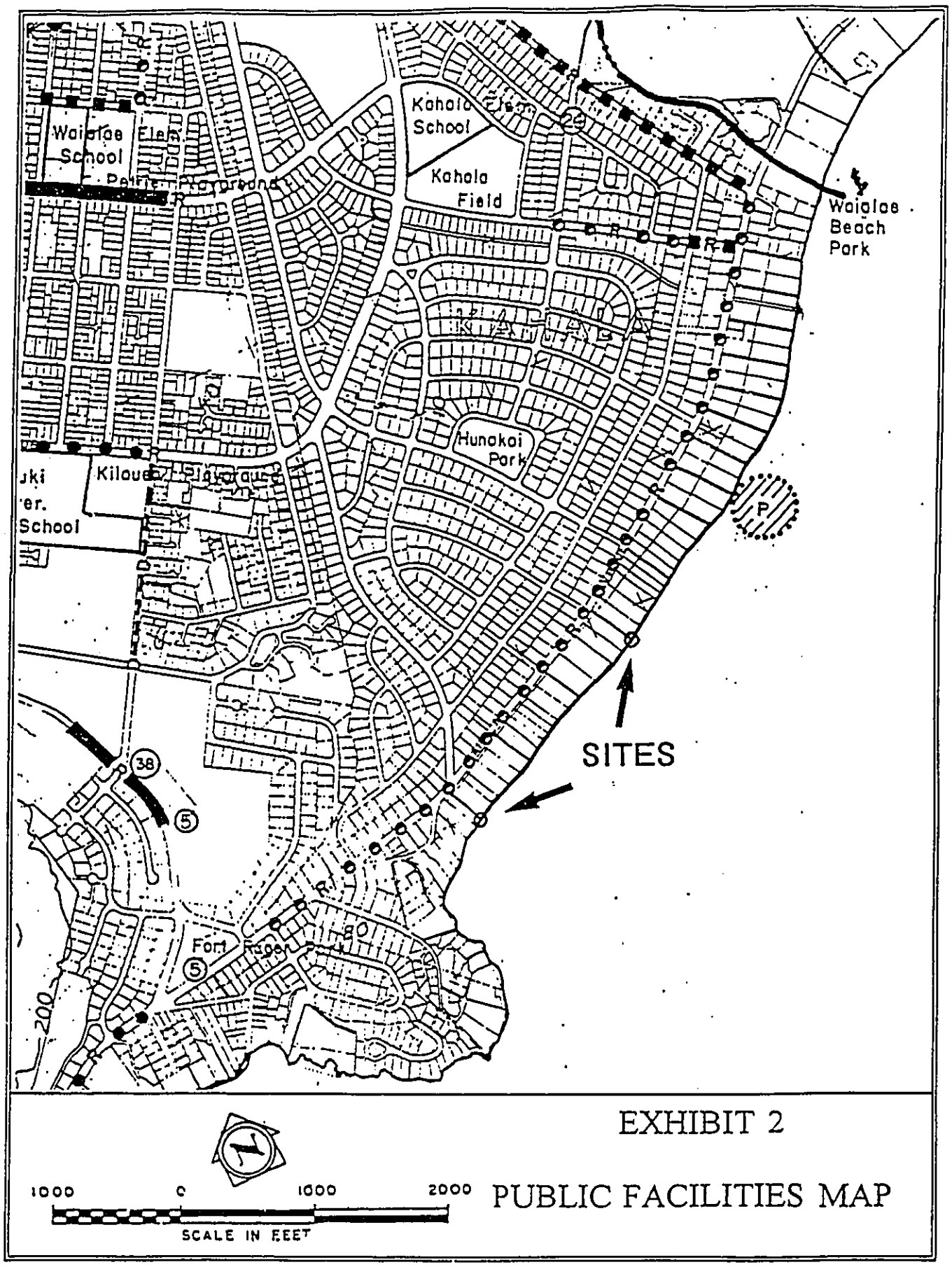


EXHIBIT 2

PUBLIC FACILITIES MAP

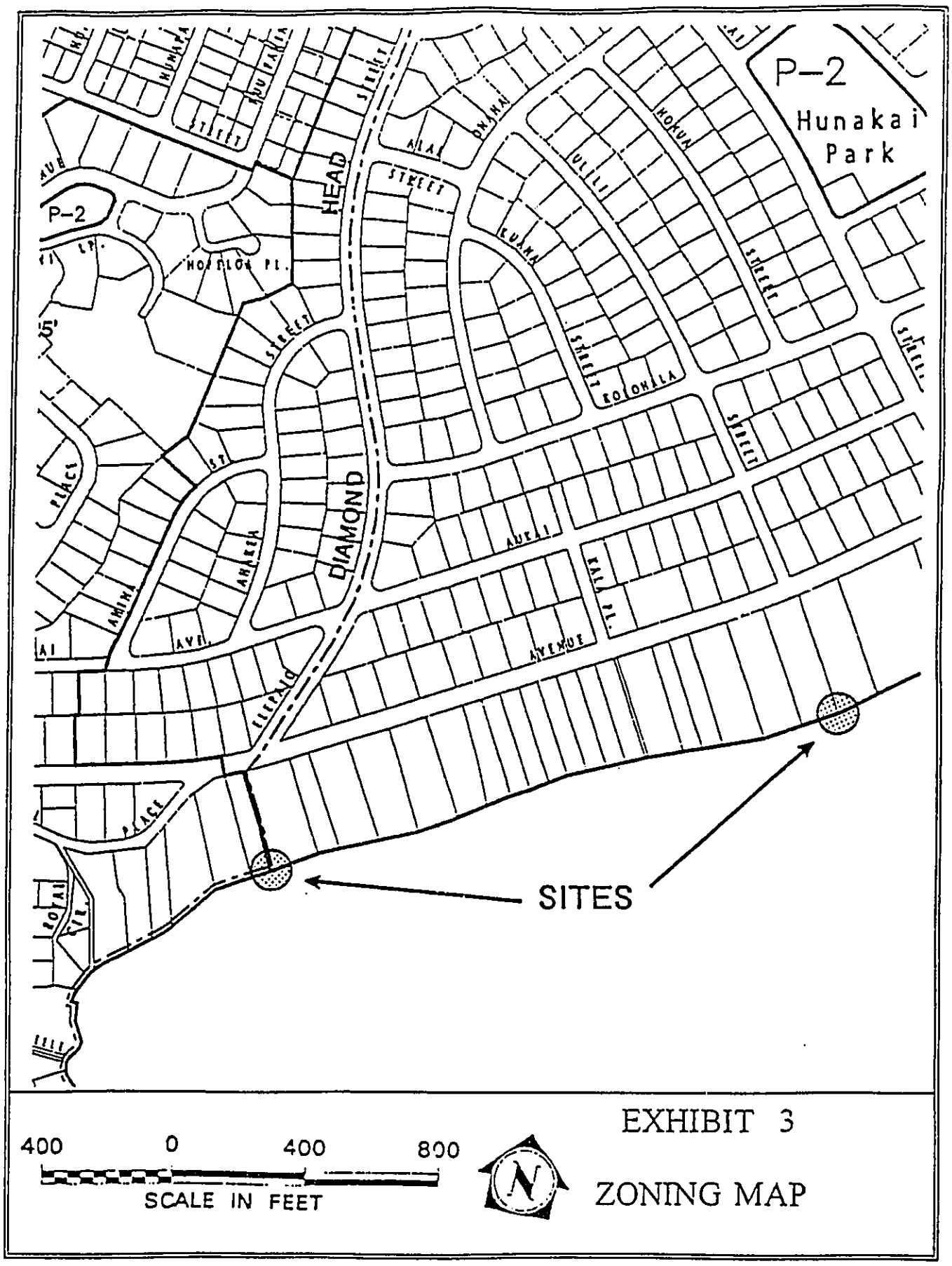


EXHIBIT 3

ZONING MAP

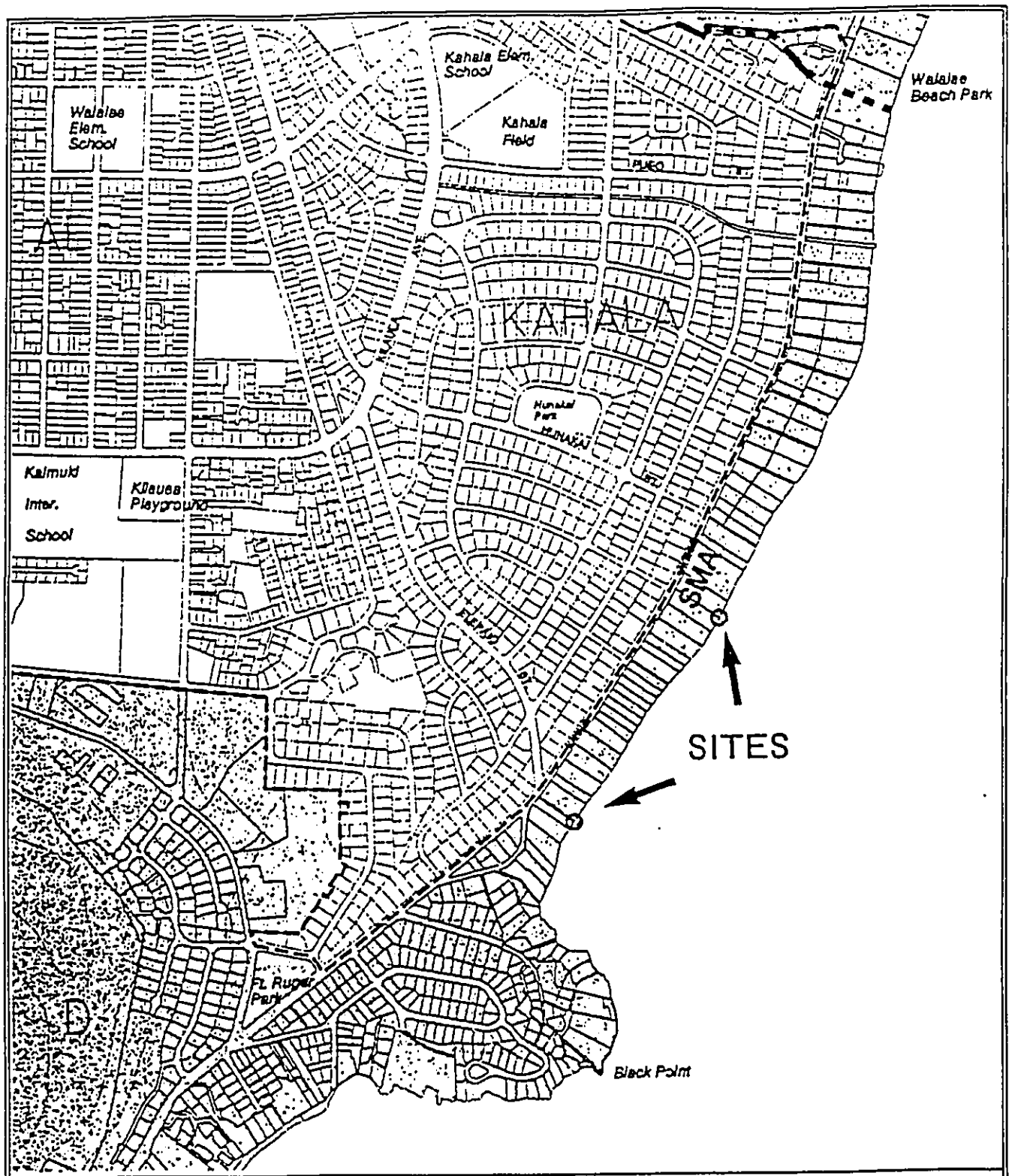


EXHIBIT 4

SPECIAL MANAGEMENT AREA

N. AGENCIES CONSULTED ON THE DRAFT EA :

Department of Design and Construction
Department of Planning and Permitting
Department of Land and Natural Resources
Department of Health
State Historic Preservation Office, Department of Land and Natural Resources
Department of Business, Economic Development and Tourism
Department of Parks and Recreation
Department of the Army
Sierra Club
City Councilmember Duke Bainum
State Representative Barbara Matsumoto
State Senator Matt Matsunaga
Waialae Kahala Neighborhood Board
Abutting Property Owners

III. DESCRIPTION OF THE PROPOSED ACTION

A. GENERAL DESCRIPTION

1. Proposed Development

In order to reduce the severity and frequency of upstream flooding, the applicant proposes to reconstruct the existing manhole over the existing 42-inch Elepaio Street drain line at the end of the Elepaio Sreet right-of-way and reconstruct the existing manhole over the 54-inch Ulili Street drain line outfall to provide access for

cleaning the storm drain lines and an overflow slot to accommodate excess flood waters when the existing offshore pipeline capacities are exceeded. The last manhole on the Ulili Street drain line, which will be improved, is located in privately owned land within a City and County Of Honolulu drainage easement and is covered with fill from site development. At present there is no access to this portion of the pipe for removing silt accumulated in the pipe. The applicant also proposes to repair and relocate an existing public access stairway that provides access from the top of the seawall to the beach area below, at the end of the Elepaio Street public right-of-way. The relocation of the public access stairway is necessary in order to comply with Section 3306(c) of the Uniform Building Code related to rise and run and to have the stairs end at a point above mean sea level. If the stairway remains in its existing location, when rise and run provisions are met, the stairway would end up in the water with the final step being below mean sea level. By relocating the stairway to follow the existing sea wall, the stairway ends at a point above mean sea level. These improvements are furthered described in the set of plans included in Appendix I and the Photographs provided in Appendix II.

2. Location

The project site is located in the Primary Urban Center at two spots on the shoreline of Kahala Beach, makai of Kahala Avenue at

the drain line outfalls that are situated in line with Elepaio Street and Ulili Street. The entire project site is situated in the Special Management Area (SMA) and a portion of both sites are located in the State Conservation District situated southwest (makai) of the shoreline.

3. Surrounding Area

The project is located in a residential subdivision at the shoreline within shoreline improvements at the existing seawall and drain line at the Elepaio drain line storm outfall and within the existing seawall at the Ulili drain line storm outfall. The surrounding Kahala area includes primarily single family residences, supported by parks, schools, churches, a shopping center, a golf course and at the far end of Kahala Avenue a hotel.

4. Land Use Approvals

a. State Land Use

The project is in the State Land Use Urban and Conservation Districts. The proposed drain line improvements are consistent with the both the Urban and Conservation Districts. Based on preliminary discussions with staff at the Department of Land and Natural Resources, an administrative approval may be provided to allow for maintenance and repair of the existing drain lines and

relocation of the access stairway to meet Uniform Building Code requirements.

b. Development Plan

The Primary Urban Center Development Plan (DP) Land Use Map designates the project site as Residential and as part of the shoreline area. The Primary Urban Center Development Plan Public Facilities Map does not designate improvements at either the Elepaio or Ulili drain line sites. Kahala Avenue, however, is designated for publicly funded roadway improvements, within the existing right-of-way, in the beyond 6 years category. The proposed drain line and access stairs improvements will not affect proposed roadway improvements.

c. Zoning

The project site is zoned R-7.5 Residential District and P-1 Restricted Preservation District. The proposed drain line and access stairway improvements are consistent with these designations.

The proposed Elepaio Street drainage improvements are partially within the Diamond Head Special District. However, the proposed improvements are considered exempt from Special District Permit requirements pursuant to Land Use Ordinance Section 21-9.40-6.

d. Special Management Area

The project site is within the Special Management Area (SMA). However, the proposed project is exempt from SMA permit requirements pursuant to Section 25-1.3(2)(D) and (F) of the Revised Ordinances of Honolulu and will not require a SMA Use Permit.

B. TECHNICAL CHARACTERISTICS

1. Improvements

The following description of the existing project site and proposed improvements are summarized and/or excerpted from the report by Oceanit Laboratories, Inc., dated July 1999, on "Characterization of the Nearshore Marine Environment at the Elepaio and Ulili Street Storm Outfalls, Kahala, Oahu". This report is included in its entirety in Appendix III.

a. Elepaio Street Drain Line

The Elepaio Street stormwater outfall, constructed in 1953, consists of a 42-inch reinforced concrete pipe that extends approximately 460 feet offshore. This outfall serves a drainage area of approximately 53 acres of residential land. The pipe starts from a combined manhole and shoreline access stairway structure that provides an overflow to accommodate heavy storm discharges. The offshore portion of the drain line

is blocked with sand, and causes upland flooding during heavy rain events.

The Elepaio outfall site is accessed from a public shoreline access path which begins at the intersection of Kahala Avenue and Elepaio Street. The access begins on the makai side of Kahala Avenue and extends about 300 feet to the shoreline. The manhole structure that will be repaired consists of a rectangular, concrete, junction box with a 2.5 feet by 3 feet manhole on the top and overflow slots on the east and west faces of the box. In addition to providing the transition between onshore and offshore portions of the drainage system, the box doubles as shoreline protection. The box is part of vertical seawalls which protect the shoreline on both sides of the outfall. Adjacent to the concrete platform is a staircase running perpendicular to the shoreline providing pedestrian access to the beach.

The concrete junction box measures approximately 4.5 feet high and 6 feet wide. The eastern end of the box has a 2 feet by 6-inch overflow opening at the upper end of the box and three, 3-inch diameter holes below it. The western end of the box has a single opening 4 feet wide and 1-foot high near the top. The outfall pipe appears to be blocked near the shoreline and during storm conditions, excess storm water

overflows through the openings in the junction box and discharges into nearshore waters.

The Elepaio Street outfall consists of a 42-inch diameter pipe that extends out 430 feet into the ocean (in front of the fringing reef) almost perpendicular to the shoreline and its path can easily be identified from the shoreline as a light colored sandy linear extension in an otherwise rocky environment. The outfall is blocked with sand and when the pipe is full it discharges at the shoreline at the last manhole near the beach.

In order to reduce the severity and frequency of upstream flooding, the applicant proposes to reconstruct the existing manhole over the existing 42-inch Elepaio Street drain line at the end of the Elepaio Sreet right-of-way. The improvements consist of modifying the last manhole near the beach by demolishing the upper portion of the concrete box serving the existing manhole and replacing it with a new junction box with larger (3 feet by 4 feet) openings for overflow relief. The overflow holes will be grated with stainless steel bars to prevent entry.

b. Elepaio Public Access Stairway

The improvements will also include the demolition and removal of the existing public access stairway running

perpendicular to the shoreline and the construction of a new replacement stairway running parallel to the shoreline. This relocation is necessary in order to meet the requirements of Section 3306 (c) of the Uniform Building Code, while insuring that the last step will end above mean sea level. Improving the existing stairway to meet code at its present location would result in the last steps of the stairs occurring below mean sea level.

c. Ulili Street Drain Line

The Ulili stormwater outfall, constructed in 1955, consists of a 54-inch reinforced concrete pipe that extends 860 feet offshore. The Ulili Street outfall serves a drainage area of about 59 acres of residential land.

The Ulili Street outfall site can be reached through rights-of-ways extending to the beach from Kahala Avenue at either Hunakai Street or Kala Street. The shoreline on both sides of the Ulili Street outfall site is protected with vertical seawalls and revetments. The easement for the outfall pipe passes through privately owned property.

The nearshore portion of the existing Ulili Street outfall pipe is covered with rocks, sand, and coral. No overflow facility is available at this outfall. The existing 54-inch outfall pipe is buried and is difficult to identify. Two markers, one

approximately halfway out to the reef and the other near the end of the pipeline, were aligned to help identify the location of the outfall pipe at the shoreline.

In order to reduce the severity and frequency of upstream flooding, the applicant proposes to modify the existing manhole over the existing 54-inch Ulili Street drain line outfall to provide access for cleaning the storm drain lines and an overflow slot to accommodate excess stormwater. The top of the last manhole on this line is covered by land improvements by the owner. In the proposed improvements this manhole will be exposed and a vertical extension will be added to bring the manhole cover up to existing ground level. The new manhole cover will be constructed at about 6.5 feet above mean sea level. A new subsurface box drain will also be installed from the manhole to the shoreline to allow overflow during heavy rain events. The 3 feet by 5 feet box drain will terminate at the ocean-facing side of the existing vertical concrete seawall. The drain invert will be at an elevation of 1.95 feet above sea level. All construction work is anticipated to be performed above the high tide line and no discharge is anticipated to enter State waters. Construction of the improvements will require access along an easement through private property. The offshore portion of the pipe is

not fully functional due to inadequate design capacity and partial blocking with sand. This causes upstream flooding during heavy rain events.

As mentioned earlier, these improvements are further described in the set of plans included in Appendix I.

2. Infrastructure/Utilities/Services Details

a. Water

The proposed drainage and stairway improvements will not require water service.

b. Electricity/Telephone Services

The proposed drainage and stairway improvements will not require telephone service or electrical service.

c. Wastewater Disposal

The proposed drainage and stairway improvements will not require wastewater service.

d. Solid Waste

No new solid waste will be generated by the proposed drainage and stairway improvements.

e. Roadways

The proposed drainage and stairway improvements will not affect the roadway system in Kahala.

f. Drainage

The existing drainage patterns and system will be maintained, except that the portion of the Elepaio and Ulili Street drainage system at the shoreline will be improved with effective manholes that will allow for cleaning of certain portions of the drain line and allow for overflow as needed at the shoreline.

3. Development Schedule

The applicant hopes to complete their permit processing by August of 2000, with construction beginning shortly thereafter and completed in about two months.

C. ECONOMIC CHARACTERISTICS

1. Economic Growth

The proposed improvements to the drainage system and stairway will not affect economic growth.

2. Employment

The project will provide short-term construction jobs but no long term permanent jobs.

3. Government Revenues/Taxes

Tax revenues, including state income tax and general excise taxes will be generated by the short-term construction work.

D. SOCIAL CHARACTERISTICS

1. Residential Population

The project will not affect residential population, since no dwelling units are planned.

2. Visitor Population

The project will have no impact on the visitor population.

3. Character or Culture of the Neighborhood

The proposed drain line and stairway improvements will have no impact on the character or culture of the neighborhood.

4. Displacement

No residents will be displaced by the proposed improvements.

E. ENVIRONMENTAL CHARACTERISTICS

1. Soils

According to the United States Department of Agriculture, Soil Conservation Service's "Soil Survey of Islands of Kauai, Oahu, Maui, Molokai, and Lanai, State of Hawaii" the soils at the project site are classified as Beaches (BS). Beaches occur as sandy, gravelly, or cobbly areas on all the islands. They are washed and rewashed by ocean waves and consist mainly of light colored sands derived from coral and seashells, although a few have a darker color derived from basalt and andesite.

2. Topography

The project site includes a seawall and the area along the shoreline which is grade separated from the homes above. The surrounding area is developed with mostly residences in the Kahala area. The project site is along the shoreline, however, the proposed improvements will not adversely affect the shoreline area and in fact will improve shoreline access with a relocated stairway that will meet Uniform Building Code requirements and end at a point just above sea level.

3. Drainage

The proposed development will improve the existing drainage system along the shoreline. The drainage improvement is being developed to reduce the severity and frequency of upstream flooding.

4. Flooding

According to the Federal Flood Insurance Rate Maps (FIRM) for the City and County of Honolulu, the area mauka of the shoreline is in Zone "A", a special flood hazard area inundated by the 100-year flood, with no base flood elevation determined. The proposed drainage improvements will not adversely affect a flood hazard district. The drainage improvements will in fact help reduce the severity and frequency of upstream flooding and will have a positive, mitigating effect on upstream flooding.

5. Noise

The project will have no long term impact on noise, since the proposed drainage improvements involve stationary infrastructure with no moving parts.

Short term impact will occur from construction vehicles and equipment operating on or near the project site and other construction related noise.

6. Air Quality

The project will have no long term impact on air quality, since the proposed drainage improvements involve stationary infrastructure with no moving parts and does not involve machinery or equipment that will discharge pollutants into the air.

Short term impact on air quality will occur from construction vehicles and equipment operating on or near the project site.

IV. AFFECTED ENVIRONMENT

A. SUBJECT SITE AND SURROUNDING AREA

As mentioned earlier, the project site is located in the Primary Urban Center at two spots on the shoreline of Kahala Beach, makai of Kahala Avenue at the drain line outfalls that are situated in line with Elepaio Street and Ulili Street. The entire project site is situated in the Special Management Area (SMA) and both sites are located in the State Conservation District situated southwest (makai) of the shoreline

The project is located in a residential subdivision at the shoreline within shoreline improvements at the existing seawall and drain line at the Elepaio drain line storm outfall and within the existing seawall at the Ulili drain line storm outfall. The surrounding Kahala area includes primarily single family residences, supported by parks, schools, churches, a shopping center, a golf course and at the far end of Kahala Avenue a hotel.

B. COASTAL OR NATURAL RESOURCES

1. Public Shoreline and Recreation areas

The proposed drainage and stairway improvements will have a short-term construction impact on access to the shoreline and the beach recreation areas. The long-term effect will be improvement to the existing public access stairway.

2. Rare or Endangered Wildlife Species

The proposed drainage and stairway improvements will occur on an existing seawall and the stairway will be relocated on a beach area at the shoreline and neither of these improvements will affect any significant wildlife habitats, or rare or endangered flora and fauna.

C. HISTORIC, CULTURAL, AND ARCHAEOLOGICAL RESOURCES

The property is not listed on the Hawaii or National Registers of Historic Places and the proposed drainage and stairway improvements are not expected to have an impact on historic, cultural or archaeological resources.

We agree to abide by the following condition in order to further minimize impacts to historic, cultural or archaeological resources:

"If, during construction, any previously unidentified sites or remains (such as artifacts, shell, bone, or charcoal deposits, human burials, rock or coral alignments, pavings, or walls) are encountered, the Applicant shall stop work and contact the State Department of Land and Natural Resources Historic Sites Office at 587-0047 immediately. Work in the immediate area shall be stopped until the office is able to assess the impact and make further recommendations for mitigative activity."

This condition should provide adequate protection should unidentified sites or remains be found.

D. COASTAL VIEWS

The proposed drainage improvements will occur on existing seawalls and the proposed stairway will be profiled against an existing seawall and neither of these improvements will impact important coastal views.

E. WATER QUALITY

Water quality is described, in the "Draft Characterization of the Nearshore Marine Environment at the Elepaio and Ulili Street Storm Outfalls, Kahala, Oahu", prepared by Oceanit Laboratories, Inc. in July 1999 (Appendix III), as follows:

"Nearshore waters along the coast of Kahala are considered Class A Open Coastal Waters by Title 11, Chapter 54 of the State of Hawaii DOH Water Quality Standards

.....

"The major short-term impact to water quality will be increased turbidity during the construction resulting from trenching and moving activities. In addition to on-site construction work, turbidity in the vicinity of the site may be increased from the movement of construction equipment near the shoreline at the Elepaio site. The increase in turbidity should be of short duration and limited to the construction period and immediately after heavy rains.

The most significant long-term impact on water quality will be the discharge of fresh water near the shoreline at the Ulili site when the pipe discharges stormwater at the shoreline during heavy rain events. Changes in salinity, turbidity, and nutrient concentrations will occur when the overflow occurs. The impact, however, will be localized and limited to a short time during and after overflow discharge. The design peak discharge for the Ulili Drainage System was computed to be approximately 150 cubic feet per second, based on a 10-year storm recurrence interval (Wilson Okamoto, 1980). The discharge will occur only during heavy rainfall. Local ciruculation patterns at the site will carry the discharge of fresh water towards the east and out through the channel offshore of the

Hunakai Street outfall. The discharge will result in temporary lowering of salinity, and increases in turbidity and nutrient concentrations.

The land use in both drainage areas is mainly residential and no industrial pollutants are expected to be present in storm runoff. The impacts will be limited to an area of mixing adjacent to the outfall overflow point. Heavy discharges at Ulili is in general associated with Kona storms and during this time nearshore currents are about 1 to 1.5 feet per second. Mixing processes would generally extend about 100 feet seaward of the outfall. Under Kona storm conditions, 200 to 300 cubic feet of ocean water will move across the site in one second. For a 10-year storm discharge, the effluent will undergo a dilution of 2.3 in the immediate vicinity of the outfall. The dilution and advection of the discharge water away from the area will reduce the impact to negligible levels."

V. CONFORMANCE WITH SPECIAL MANAGEMENT AREA GUIDELINES

The City's Special Management Area (SMA) Guidelines are contained in Chapter 25, Revised Ordinance of Honolulu (ROH), as amended, and are the counterparts to the State's Coastal Zone Management Guidelines set forth in Chapter 205A, Hawaii Revised Statutes. The following discussion describes how the proposed project satisfies the City's SMA Guidelines.

A. TERMS AND CONDITIONS OF DEVELOPMENT

1. **Adequate access, by dedication or other means, to publicly owned or used beaches, recreation areas and natural reserves is provided to the extent consistent with sound conservation principles.**

The proposed drainage and stairway improvements will affect shoreline access only during the construction period for about one to two months, during which the Elepaio public right-of-way will be closed. Over the long term, access will be improved by the relocated stairway that will meet Uniform Building Code requirements and end at a point above mean sea level.

2. **Adequate and properly located public recreation areas and wildlife preserves are reserved.**

The proposed development will not impact on any wildlife preserves and will in the long term improve public access to the shoreline at the Elepaio Street public right-of-way with an improved stairway.

3. **Provisions are made for solid and liquid waste treatment, disposition and management which will minimize adverse effects upon special management area resources.**

The proposed improvements will not affect solid or liquid waste treatment, disposition or management.

4. **Alterations to existing land forms and vegetation; except crops, and construction of structures shall cause minimum adverse effect to water resources and scenic and recreational amenities and**

minimum danger of floods, landslides, erosion, siltation or failure in the event of earthquake.

As discussed earlier, the proposed project have minimal long term impact on water resources and scenic views, and will improve recreational amenities by improving the stairway access to the shoreline at the Elepaio Street public right-of-way. The proposed drainage improvements will reduce the intensity and frequency of upstream flooding.

B. REQUIRED COUNCIL FINDINGS

1. **The development will not have any substantial adverse environmental or ecological effect except as such adverse effect is minimized to the extent practicable and clearly outweighed by public health and safety, or compelling public interest.**

As discussed earlier, the proposed improvements will have minimal effect on the environment or ecological effect over the long-term as described in Appendix III. Construction impacts will be mitigated to insure that minimal adverse impact to the coastal waters will occur. There are also public health and safety considerations in that the long term effect of the proposed drainage improvements will be to reduce the severity and frequency of upstream flooding.

2. **The development is consistent with the objectives and polices set forth in the Revised Ordinances of Honolulu (ROH), Section 25-3.1 and area guidelines contained in the Hawaii Revised Statues (HRS), Section 205A-26.**

As discussed in this section, "Conformance with Special Management Area Guidelines", the development is consistent with the objectives and policies of Section 25-3.1 of the Revised Ordinances of Honolulu and the area guidelines contained in HRS Section 205A-26.

3. **The proposed project is consistent with the county general plan, development plan and zoning.**

The land use policies of the General Plan are implemented by the Development Plan land use map which is discussed in the following paragraph.

The Primary Urban Center Development Plan (DP) Land Use Map designates the property as Residential and shoreline. The proposed improvements are consistent with the site's Residential and shoreline designation and location.

The project is zoned R-7.5 Residential District and P-1 Restricted Preservation District. The proposed improvements are consistent with the site's zoning and location.

C. IMPACTS TO BE MINIMIZED

1. **Dredging, filling or otherwise altering any bay, estuary, salt marsh, river mouth, slough or lagoon.**

The proposed project is located on the shoreline, however, no dredging or filling is proposed. Projected short-term construction impacts to the shoreline and ocean environment will be mitigated by use of silt curtains, where appropriate, to isolate turbidity to areas

contained by the silt screen. In addition, a water quality monitoring plan and a Best Management Practices (BMP) plan will be followed, as required by the State of Hawaii Department of Health (DOH). No significant long-term impacts are expected.

2. **Any development which would reduce the size of any beach or other area usable for public recreation.**

The proposed project involves a relocation of an existing stairway which will not reduce or alter the size of any beach or other area usable for public recreation.

3. **Any development which would reduce or impose restrictions upon public access to tidal and submerged lands, beaches, portions of rivers and streams within the Special Management Area and the mean high tide line where there is no beach.**

As discussed earlier, the proposed project will not reduce or impose restrictions upon public access within the Special Management Area, except during the short construction phase of the project. In the long-term, public access will be improved through development of an improved stairway.

4. **Any development which would adversely affect water quality, existing areas of open water free of visible structures, existing and potential fisheries and fishing grounds, wildlife habitats, or potential or existing agricultural uses of land.**

As discussed earlier, the proposed project will have minimal impact on water quality and except for relocation of an existing

stairway which will improve public access will not have a long term effect on this shoreline area.

VI. COASTAL ZONE MANAGEMENT

A. OBJECTIVES

1. Recreational Resources

The project will have a positive impact on coastal recreational opportunities accessible to the public, by improving the stairway access to the shoreline at the Elepaio Street public right-of-way over the long-term and will have only temporary construction impact (closure) for about two months.

2. Historic Resources

The property is not listed on either the Hawaii or National Registers of Historic Places. With no previous record of historic or archaeological discoveries, the proposed development is not expected to have an impact on archaeological resources.

During the construction of the project, should any previously unidentified archaeological resources such as artifacts, shell, bone, or charcoal deposits, human burial, rock or coral alignments, pavings or walls be encountered, the applicant will stop work and contact the Historic Preservation Office for review and approval of mitigation measures.

3. Scenic and Open Space Resources

The construction of the drainage and stairway improvements will have only short term effect on existing scenic, open space or recreational amenities within the surrounding area. As mentioned earlier, upon completion, the relocated stairway will be profiled against the existing sea wall and will not affect scenic views of or from the shoreline and beach.

4. Coastal Ecosystems

As discussed earlier, coastal water quality will not be significantly affected by the proposed improvements. The impact to coastal waters and the coastal ecosystem is more fully discussed in the report by Oceanit Laboratories, Inc., dated July 1999, on "Characterization of the Nearshore Marine Environment at the Elepaio and Ulili Street Storm Outfalls, Kahala, Oahu" (Appendix III).

5. Economic Uses

The project will boost the State's economy with the provision of short-term construction employment and related tax impacts.

6. Coastal Hazards

As discussed earlier, according to the Federal Flood Insurance Rate Maps (FIRM) for the City and County of Honolulu, the area mauka of the shoreline is in Zone "A", a special flood hazard area inundated by the 100-year flood, with no base flood elevation determined. The proposed drainage improvements will not adversely

affect a flood hazard district. The drainage improvements will in fact help reduce the severity and frequency of upstream flooding and will have a positive, mitigating effect on upstream flooding.

7. Managing Development

This project will not affect the development review process, communication, or public participation in the management of coastal resources and/or hazards.

8. Public Participation

This project will not affect public awareness, education or participation in coastal management.

9. Beach Protection

As discussed earlier, the proposed project will not adversely affect the beach and access to the shoreline, except during the short construction phase. Long term access will be improved with the planned improvement to the existing stairway.

10. Marine Resources

As discussed earlier, the proposed project is not anticipated to have a significant impact on marine resources, as further described in Appendix III.

B. POLICIES

1. Recreational Resources

The project will affect coastal recreational opportunities accessible to the public during the short construction phase when the

Elepaio Street public right-of-way will be closed. However, these improvements are necessary to reduce the severity and frequency of upstream flooding and to improve the stairway access leading to the beach area at the end of the Elepaio Street public right-of way.

2. Historic Resources

The property is not listed on either the Hawaii or National Registers of Historic Places. With no previous record of historic or archaeological discoveries, the proposed development is not expected to have an impact on archaeological resources.

During the construction of the project, should any previously unidentified archaeological resources such as artifacts, shell, bone, or charcoal deposits, human burial, rock or coral alignments, pavings or walls be encountered, the applicant will stop work and contact the Historic Preservation Office for review and approval of mitigation measures.

3. Scenic and Open Space Resources

The construction of the drainage and stairway improvements will have only short term effect on existing scenic, open space or recreational amenities within the surrounding area. As mentioned earlier, upon completion, the relocated stairway will be profiled against the existing sea wall and will not affect scenic views of or from the shoreline and beach.

4. Coastal Ecosystems

As discussed earlier, coastal water quality will not be significantly affected by the proposed improvements. The impact to coastal waters and the coastal ecosystem is more fully discussed in the report by Oceanit Laboratories, Inc., dated July 1999, on "Characterization of the Nearshore Marine Environment at the Elepaio and Ulili Street Storm Outfalls, Kahala, Oahu" (Appendix III).

5. Economic Uses

The project will boost the State's economy with the provision of short-term construction employment, and related tax impacts.

6. Coastal Hazards

As discussed earlier, according to the Federal Flood Insurance Rate Maps (FIRM) for the City and County of Honolulu, the area mauka of the shoreline is in Zone "A", a special flood hazard area inundated by the 100-year flood, with no base flood elevation determined. The proposed drainage improvements will not adversely affect a flood hazard district. The drainage improvements will in fact help reduce the severity and frequency of upstream flooding and will have a positive, mitigating effect on upstream flooding.

7. Managing Development

This project will not affect the development review process, communication, or public participation in the management of coastal resources and/or hazards.

8. Public Participation

This project will not affect public awareness, education or participation in coastal management.

9. Beach Protection

As discussed earlier, the proposed project will not adversely affect the beach and access to the shoreline, except during the short construction phase. Long term access will be improved with the planned improvement to the existing stairway.

10. Marine Resources

As discussed earlier, the proposed project is not anticipated to have a significant impact on marine resources, as further described in Appendix III.

VII. MITIGATION MEASURES

Cumulative or other long-term adverse impact to nearshore water quality are not expected upon completion of the proposed drainage improvements and relocation of the stairway.

During the construction period, impacts will be mitigated by use of silt curtains, where appropriate, to isolate turbidity to areas contained by the silt screen. In addition, a water quality monitoring plan and a Best Management Practices (BMP) plan will be followed, as required by the State of Hawaii Department of Health (DOH).

As requested by the State Historic Preservation Division, the applicant agrees to abide by the following condition, in order to mitigate any potential for disturbance of unidentified Historic sites:

"In the unlikely event that historic sites, including human burials, are uncovered during routine construction activities, all work in the vicinity must stop and the State Historic Preservation Division must be contacted at 692-8015."

VIII. ALTERNATIVES CONSIDERED

A. *NO ACTION*

The no action alternative was not acceptable, since this would result in the Elepaio and Ulili outfalls continuing to be blocked with sand and/or sediment causing recurrent upstream flooding.

B. REPAIR AND REPLACE

The Elepaio and Ulili storm outfalls could be repaired and replaced which would eliminate impacts on nearshore water quality from the discharge of fresh water at the shoreline during overflow events. This option was rejected for the following reasons.

1. Initially, the ocean outfall may be relatively free of sand and terrestrial silt deposits. In the long-run, however, the ocean outlet may encounter problems of sand intrusion and blockage similar to that experienced at the present time.
2. The impacts from construction under this alternative would be much greater than the proposed action. Extensive in-water construction and

specialized off-shore construction would be required. These impacts would be greater than the occasional discharge of storm water near the shoreline as projected under the proposed action.

3. This alternative would have an extremely high construction cost with no significant improvement over the proposed action.

C. INJECTION WELL ALTERNATIVE

The total surplus flow from the Elepaio and Ulili outfalls could be diverted into a series of injection wells and the existing Elepaio and Ulili drains could be diverted to the Hunakai drain so that all surplus flow would be discharged through a single outfall. This alternative would reduce the number of ocean outfalls from three to one, but was rejected because the Hunakai drain cannot accommodate additional storm runoff and it would result in high construction costs and operating costs to maintain the injection wells. In addition, percolation tests would need to be conducted to verify well capacities. Combining the three outfalls will incur extensive construction of new collection lines in the Kahala area and a very large new ocean outfall. This option is very expensive due to the dense development in these areas.

IX. BASIS FOR A FINDING OF NO SIGNIFICANT IMPACT FOR THE PROPOSED COMMERCIAL DEVELOPMENT

A. DESCRIPTION OF THE PROPOSED ACTION

In order to reduce the severity and frequency of upstream flooding, the applicant proposes to reconstruct the existing manhole and stairs at the end of the Elepaio Sreet right-of-way and modify an existing manhole for the Ulili

Street drain line outfall to provide access for cleaning the storm drain lines and an overflow slot to accommodate excess stormwater. The applicant also proposes to repair and relocate an existing public access stairway at the Elepaio drain that provides access from the top of the seawall to the beach area below. The relocation of the public access stairway is necessary in order to comply with Section 3306(c) of the Uniform Building Code related to rise and run and to have the stairs end at a point above mean sea level. If the stairway remains in its existing location, when rise and run provisions are met, the stairway would end up in the water with the final step being below mean sea level. By relocating the stairway to follow the existing sea wall, the stairway ends at a point above mean sea level. These improvements are furthered described in the set of plans included in Appendix I.

B. DETERMINATION AND REASONS SUPPORTING DETERMINATION

The proposed project would not have a significant effect on the environment and therefore preparation of an environmental impact statement is not required. Based on the "Significance Criteria", Section 12 of Hawaii Administrative Rules Title 11, Chapter 200, "Environmental Impact Statement Rules", which were reviewed and analyzed, we have come to the following conclusions:

1. **No irrevocable commitment to loss or destruction of any natural or cultural resource would result.**

The property is not listed on either the Hawaii or National Registers of Historic Places. With no previous record of historic or

archaeological discoveries, the proposed development is not expected to have an impact on archaeological resources.

During the construction of the project, should any previously unidentified archaeological resources such as artifacts, shell, bone, or charcoal deposits, human burial, rock or coral alignments, pavings or walls be encountered, the applicant will stop work and contact the Historic Preservation Office for review and approval of mitigation measures.

The construction of the drainage and stairway improvements will have only short term effect on existing scenic, open space or recreational amenities within the surrounding area. As mentioned earlier, upon completion, the relocated stairway will be profiled against the existing sea wall and will not affect scenic views of or from the shoreline and beach.

2. **The action would not curtail the range of beneficial uses of the environment.**

The project will not curtail the range of beneficial uses of the environment. Long term access to the beach area will be improved with the planned improvement to the existing stairway.

3. **The proposed action does not conflict with the state's long-term environmental policies or goals and guidelines.**

The State's environmental policies and guidelines are set forth in Chapter 344, Hawaii Revised Statutes, "State Environmental Policy". The broad policies set forth include conservation of natural resources

and enhancement of the quality of life. As discussed earlier, the project does not adversely affect significant natural resources. It is the objective of the City and County of Honolulu to improve access to the beach area with a relocated and improved stairway, and to reduce the severity and frequency of upstream flooding with the proposed drainage improvements.

4. **The economic or social welfare of the community or state would not be substantially affected.**

The project will give a temporary boost to the State's economy with the provision of short-term construction employment and related tax impacts.

The social welfare of the community would be positively affected by the drainage improvements which will reduce the severity and frequency of upstream flooding and the improved beach access provided by the relocated stairway.

5. **The proposed action does not substantially affect public health.**

The proposed action will have a positive effect on public health by reducing the severity and frequency of upstream flooding.

6. **No substantial secondary impacts, such as population changes or effects on public facilities, are anticipated.**

The proposed drainage and stairway improvement project will not affect the island's population growth or other existing public facilities.

7. **No substantial degradation of environmental quality is anticipated.**

The project will not result in a substantial degradation of the environment. Only minimal impact is projected during the construction phase and upon completion of the drainage and stairway improvements.

8. **The proposed action does not involve a commitment to larger actions, nor would cumulative impacts result in considerable affects on the environment.**

The proposed project does not involve a commitment to larger actions nor will it result in cumulative impacts to the environment. The proposed drainage and stairway improvements will not generate future projects, creating a cumulative impact.

9. **No rare, threatened or endangered species or their habitats would be affected.**

No rare, threatened, or endangered species or their habitats would be affected in the proposed improvements to the drainage system and relocation of the stairway.

10. **Air quality, water quality or ambient noise levels would not be detrimentally affected.**

Cumulative or other long-term adverse impact to nearshore water quality are not expected upon completion of the proposed drainage improvements and relocation of the stairway.

During the construction period, impacts will be mitigated by use of silt curtains, where appropriate, to isolate turbidity to areas contained by the silt screen. In addition, a water quality monitoring plan and a Best Management Practices (BMP) plan will be followed, as required by the State of Hawaii Department of Health (DOH).

11. **The project would not affect environmentally sensitive areas, such as flood plains, tsunami zones, erosion-prone areas, geologically hazardous lands, estuaries, fresh waters or coastal waters.**

Impacts to the shoreline area will be minimal during construction and will be mitigated through use of silt screens as needed and through following Best Management Practices.

12. **Substantially affects scenic vistas and viewplanes identified in county or state plans or studies.**

The proposed improvements will not impact on important coastal views, since the proposed relocated stairway will be profiled against an existing sea wall.

13. **Requires substantial energy consumption.**

The proposed drainage improvements and relocated stairway, except during construction, will not require energy consumption.

X. AGENCY COMMENTS

Agency and community comments on the Draft Environmental Assessment are included in Appendix IV, along with our point by point response to those comments.

XI. CONCLUSION

Based on the foregoing Final Environmental Assessment, the applicant respectfully requests your consideration of a Finding of No Significant Impact (FONSI). The project will be developed and constructed in a fashion that will be sensitive to the environment.

APPENDIX I

PLANS

DEPARTMENT OF DESIGN & CONSTRUCTION

DIVISION OF INFRASTRUCTURE DESIGN AND ENGINEERING

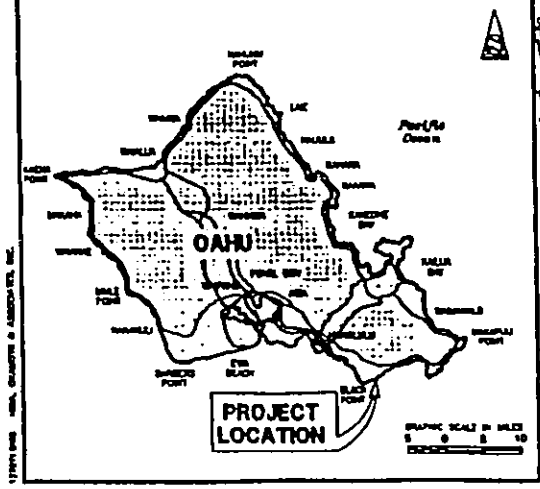
CITY & COUNTY OF HONOLULU

JOB NO. 98-505

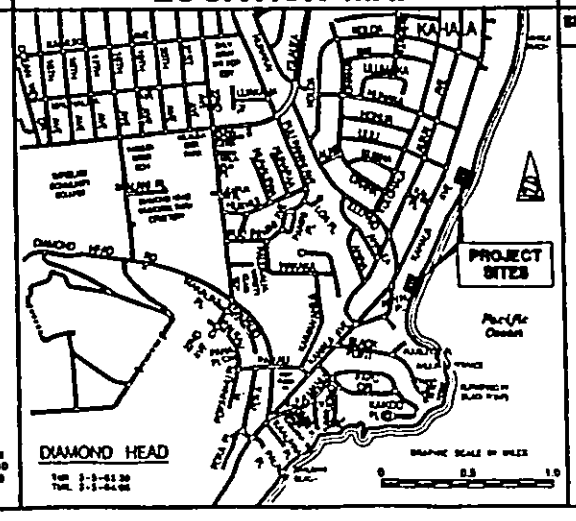
ELEPAIO AND ULILI STREETS DRAIN OUTLET IMPROVEMENTS

HONOLULU, OAHU, HAWAII

VICINITY MAP



LOCATION MAP



INDEX TO DRAWINGS

SHEET NO.	DWG NO.	DESCRIPTION
1	T-1	TITLE SHEET
2	C-1	SITE PLAN ELEPAIO STREET DRAIN OUTLET & NOTES
3	C-2	SITE PLAN ULILI STREET DRAIN OUTLET & NOTES
4	C-3	SITE PLAN A & B
5	C-4	DRAIN MANHOLE DETAILS (ELEPAIO STREET)
6	C-5	STAIR & RIP-RAP DETAILS
7	C-6	CONCRETE STAIR DETAILS (ELEPAIO STREET)
8	C-7	DRAIN MANHOLE DETAILS (ULILI STREET)

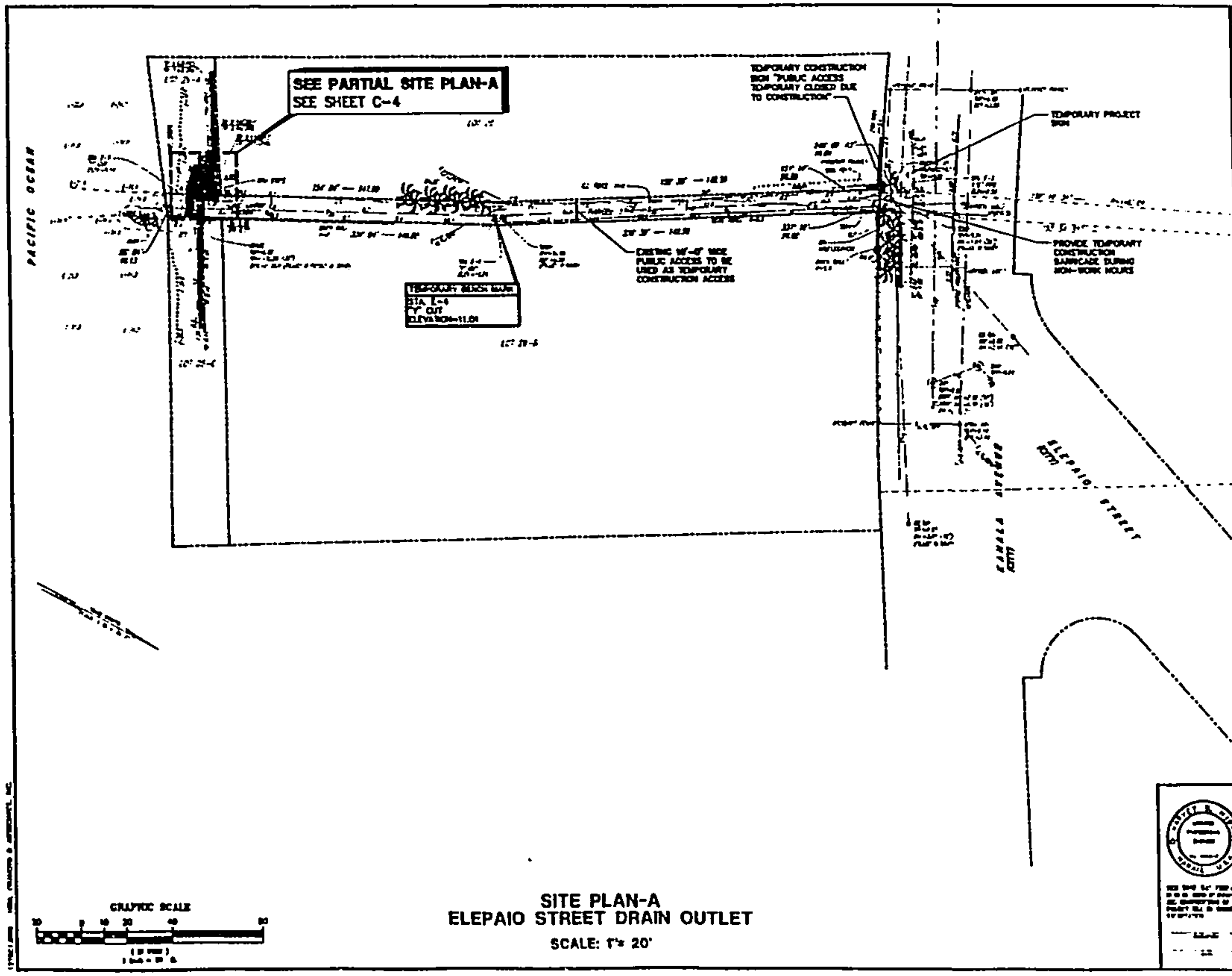
APPROVALS

DIRECTOR, DEPARTMENT OF DESIGN & CONSTRUCTION — DATE

DIRECTOR, DEPARTMENT OF PLANNING AND PERMITTING — DATE

T-1

SHEET 1 OF 8 SHEETS



SITE PLAN-A
ELEPAIO STREET DRAIN OUTLET

SCALE: 1"= 20'

CONSTRUCTION NOTES

PUBLIC HEALTH, SAFETY & CONVENIENCE NOTES

DEPARTMENT OF DESIGN AND CONSTRUCTION
CITY AND COUNTY OF HONOLULU

ELEPAIO AND ULILI STREETS
DRAIN OUTLET IMPROVEMENTS

SITE PLAN ELEPAIO STREET
DRAIN OUTLET & NOTES

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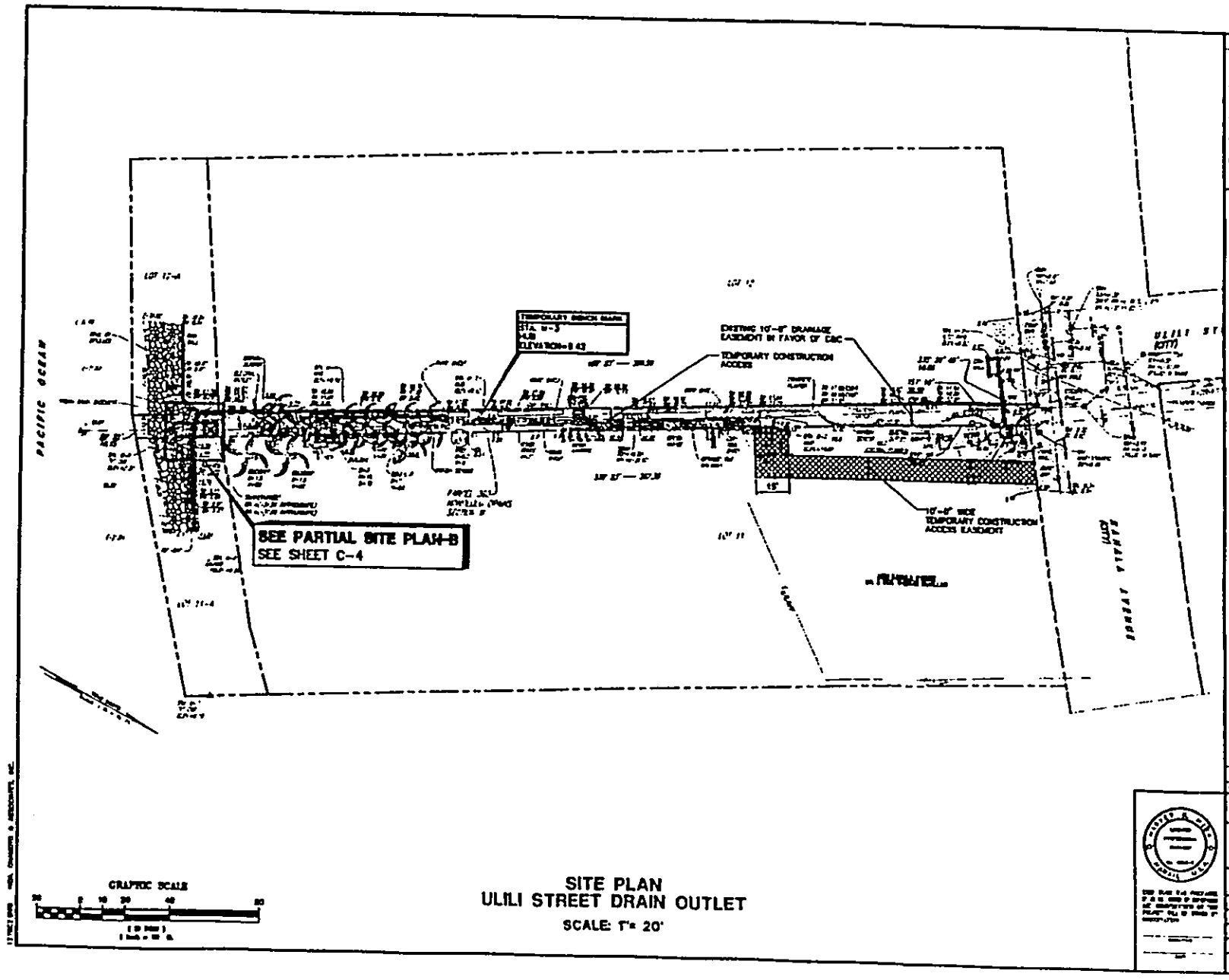
PROJECT NO. 98-505		



SITE PLAN
ULILI STREET DRAIN OUTLET
SCALE: 1"= 20'

SPECIAL CONSTRUCTION NOTES (ULILI STREET)

1. CONSTRUCTION WORK HOURS SHALL BE RESTRICTED BETWEEN 7:30AM TO 4:30PM WITHOUT ANY PRIOR APPROVAL. CONTRACTOR SHALL RESTRICT HIS CONSTRUCTION ACTIVITIES AND ACCESS TO WITHIN THE LIMITS INDICATED ON THE PLANS.
2. CONTRACTOR SHALL TAKE EXTREME MEASURES TO PROTECT EXISTING PLANTS, LANDSCAPING, IRRIGATION SYSTEMS, ALARM SYSTEMS (MOTION ALARMS) AND STRUCTURES FROM DAMAGE DUE TO CONSTRUCTION ACTIVITIES.
3. TEMPORARY POWER, WATER, PHONE AND TOILET FACILITIES ARE NOT AVAILABLE ON-SITE.
4. CONTRACTOR SHALL TAKE EXTREME MEASURES TO BE ECONOMICAL IN USE OF THE HOMEOWNER'S PROPERTY DURING CONSTRUCTION.
5. CONTRACTOR TO CONTACT BURGLAR ALARM (808-) AND SPRINKLER HEAD LANDSCAPE/SPRINKLER (808-) PRIOR TO START OF CONSTRUCTION TO COORDINATE TEMPORARY AND LASTING ANY SYSTEMS WHICH MAY BE IN THE WORK AREA. SYSTEMS SHALL BE MADE TO ENSURE EXISTING SYSTEMS ARE NOT DISTURBED.

DEPARTMENT OF DESIGN AND CONSTRUCTION
CITY AND COUNTY OF HONOLULU

ELEPAIO AND ULILI STREETS
DRAIN OUTLET IMPROVEMENTS

SITE PLAN ULILI STREET
DRAIN OUTLET & NOTES

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CONSULTING CIVIL ENGINEERS
HONOLULU, HAWAII

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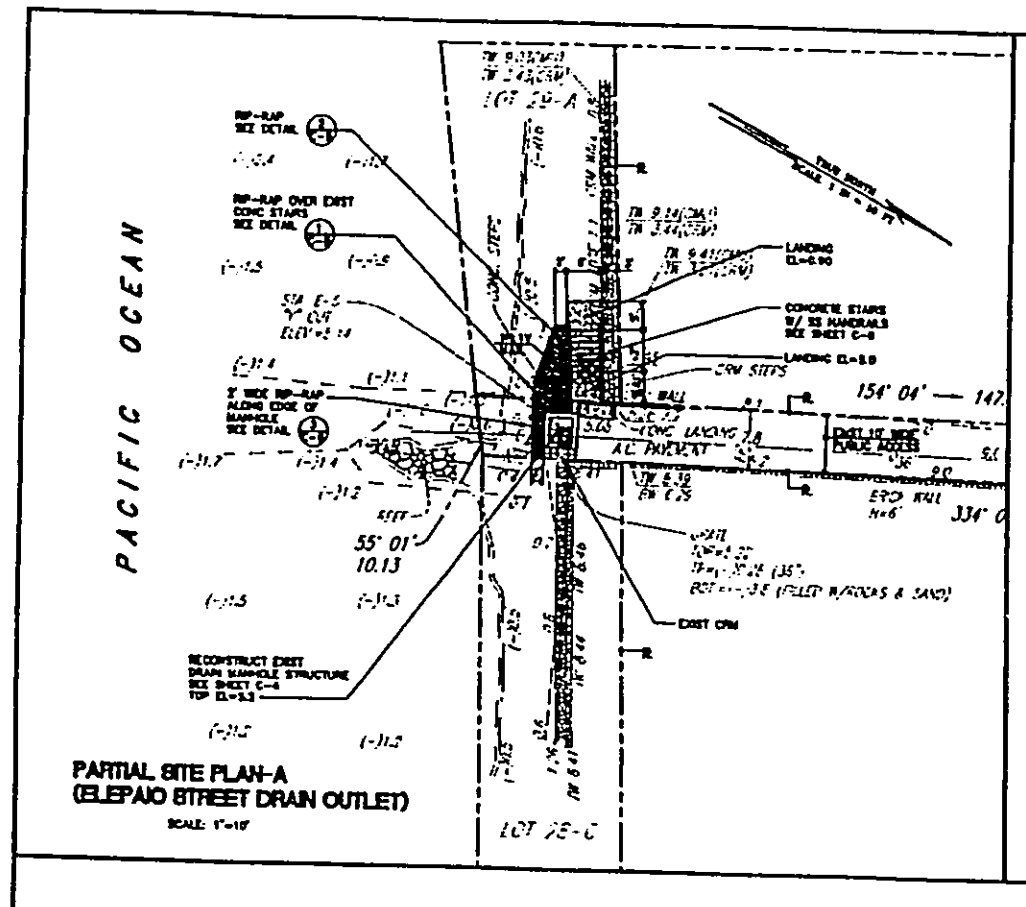
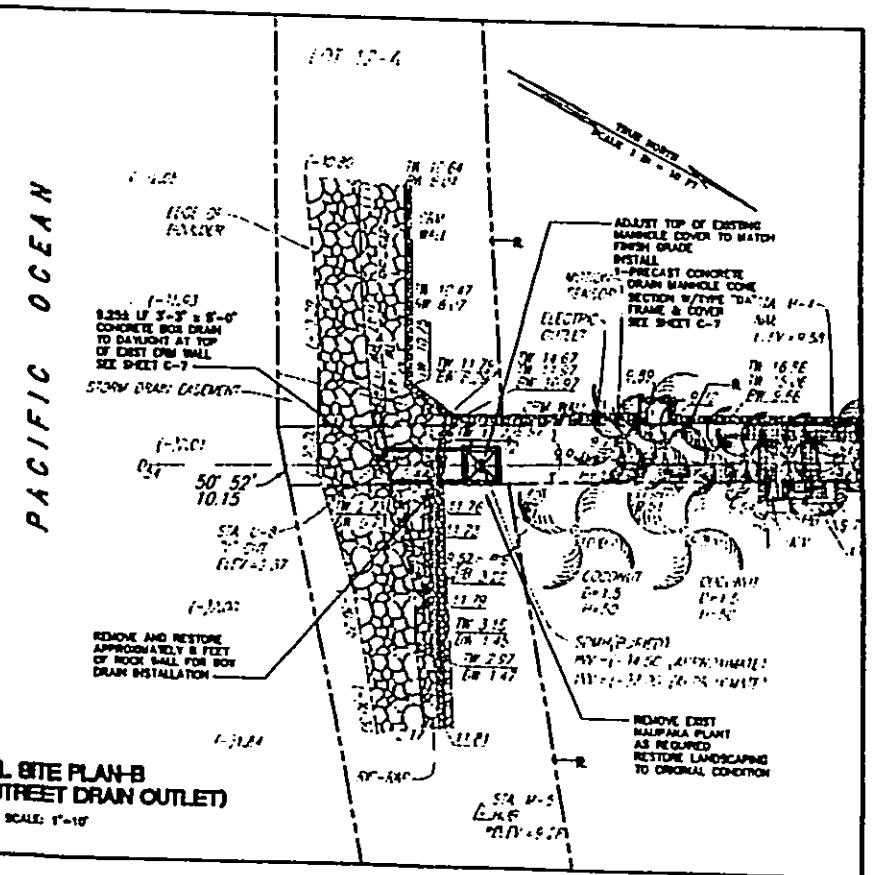


PARTIAL SITE PLAN-A
(ELEPAIO STREET DRAIN OUTLET)
SCALE: 1"=10'



PARTIAL SITE PLAN-B
(ULILI STREET DRAIN OUTLET)
SCALE: 1"=10'

DEPARTMENT OF DESIGN AND CONSTRUCTION
CITY AND COUNTY OF HONOLULU

ELEPAIO AND ULILI STREETS DRAIN OUTLET IMPROVEMENTS

PARTIAL SITE PLAN A & B

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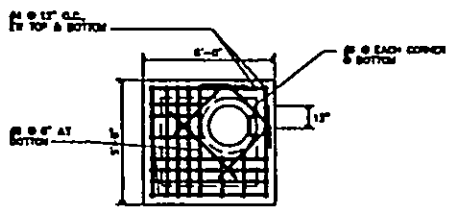

REINFORCING ● TOP SLAB

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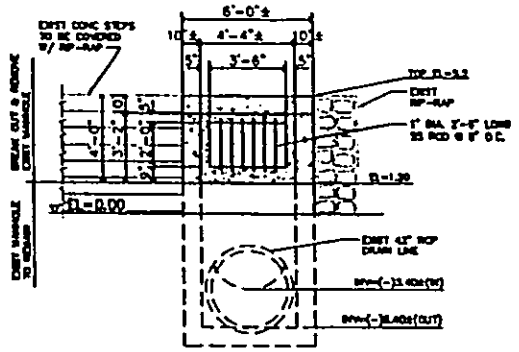
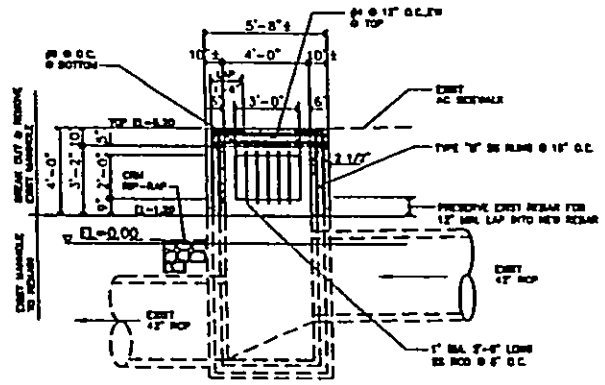
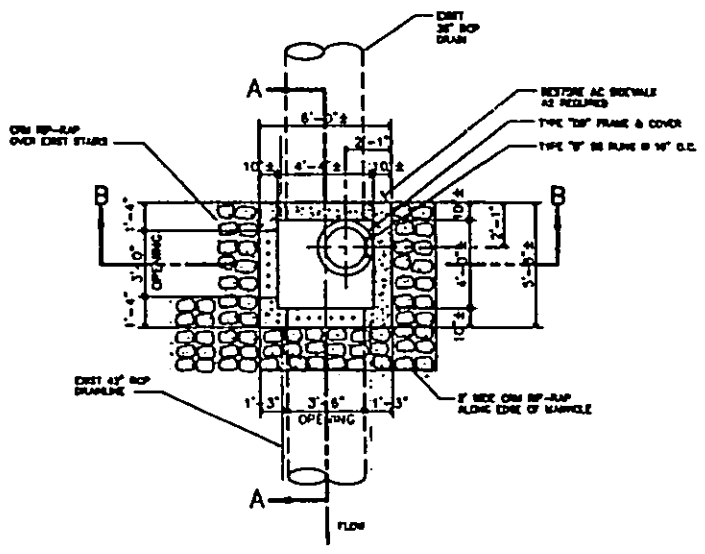


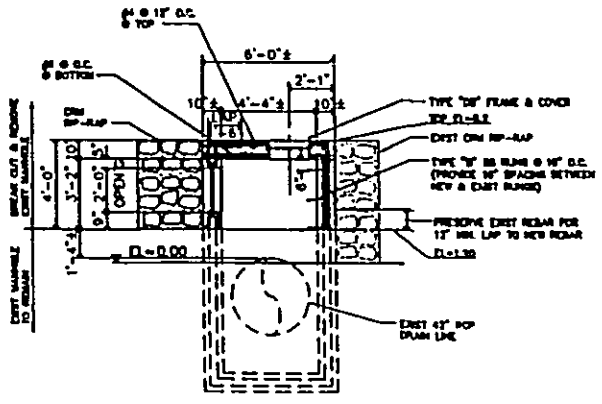
FRONT VIEW



SECTION A-A



PLAN VIEW



SECTION B-B

NOTE: 1. ALL REINFORCING SHALL BE FIBER REINFORCED PLASTIC (FRP) REBARS

DRAIN MANHOLE ● ELEPAIO STREET

SCALE: 3/8"=1'-0"

DEPARTMENT OF DESIGN AND CONSTRUCTION
CITY AND COUNTY OF HONOLULU

ELEPAIO AND ULILI STREETS
DRAIN OUTLET IMPROVEMENTS

DRAIN MANHOLE DETAILS-ELEPAIO ST.

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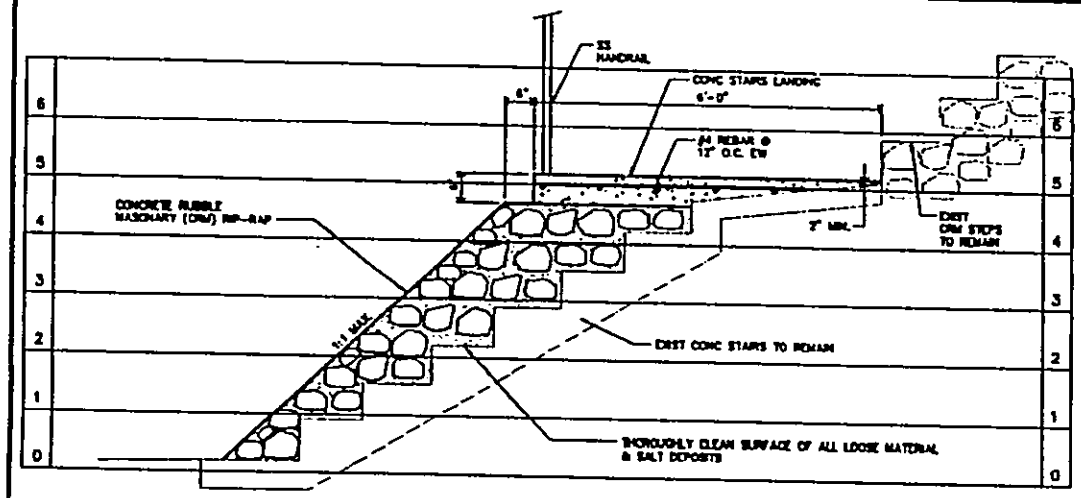
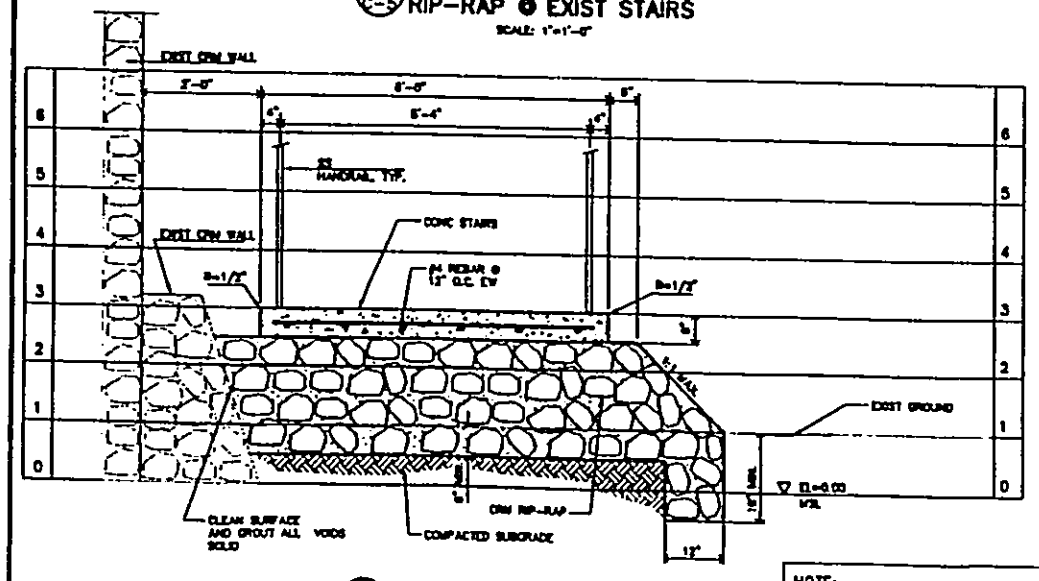


1 / C-5 ELEPAIO DRAIN MANHOLE RIP-RAP @ EXIST STAIRS

SCALE: 1"=1'-0"



2 / C-5 ELEPAIO DRAIN MANHOLE RIP-RAP @ NEW STAIRS

SCALE: 1"=1'-0"

NOTE:
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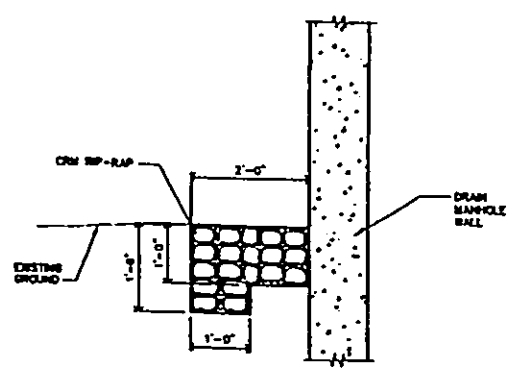

3 / C-5 RIP-RAP APRON @ MANHOLE

SCALE: 1"=1'-0"

DEPARTMENT OF DESIGN AND CONSTRUCTION
CITY AND COUNTY OF HONOLULU

ELEPAIO AND ULILI STREETS
DRAIN OUTLET IMPROVEMENTS

STAIR & RIP-RAP DETAILS

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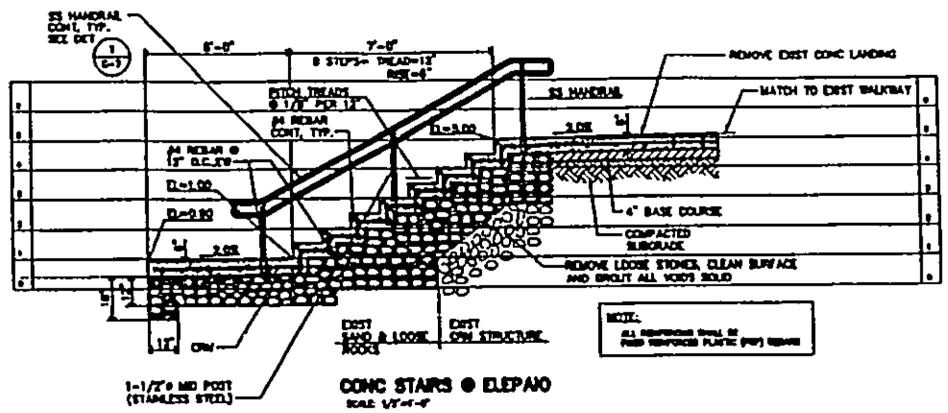
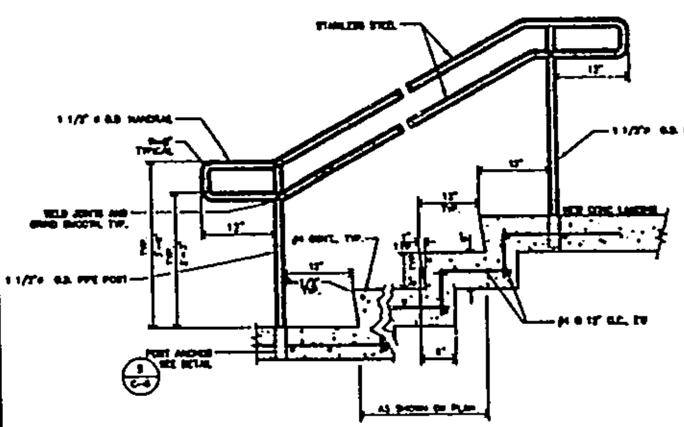
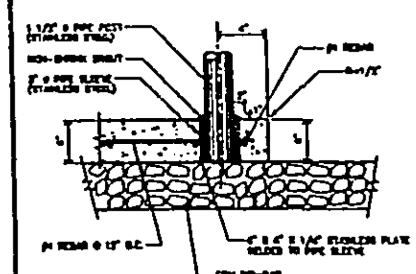


CONC STAIRS @ ELEPAIO



1 / C-6 SS HANDRAIL
NO SCALE



2 / C-6 POST ANCHOR
NO SCALE

DEPARTMENT OF DESIGN AND CONSTRUCTION
CITY AND COUNTY OF HONOLULU

ELEPAIO AND ULILI STREETS DRAIN OUTLET IMPROVEMENTS

CONC STAIR DETAILS-ELEPAIO ST.

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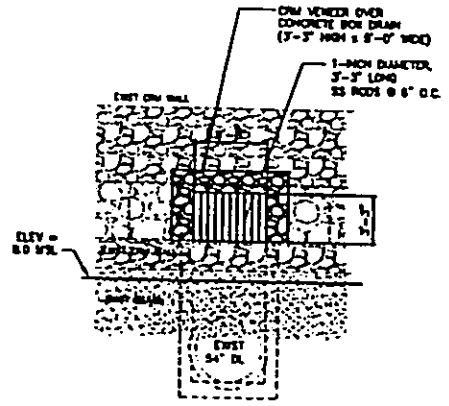
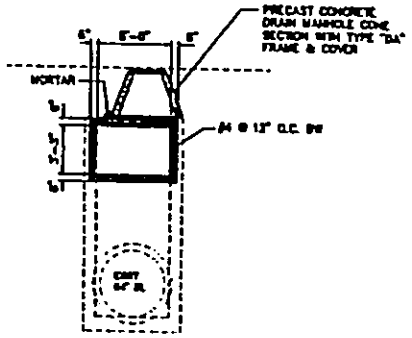
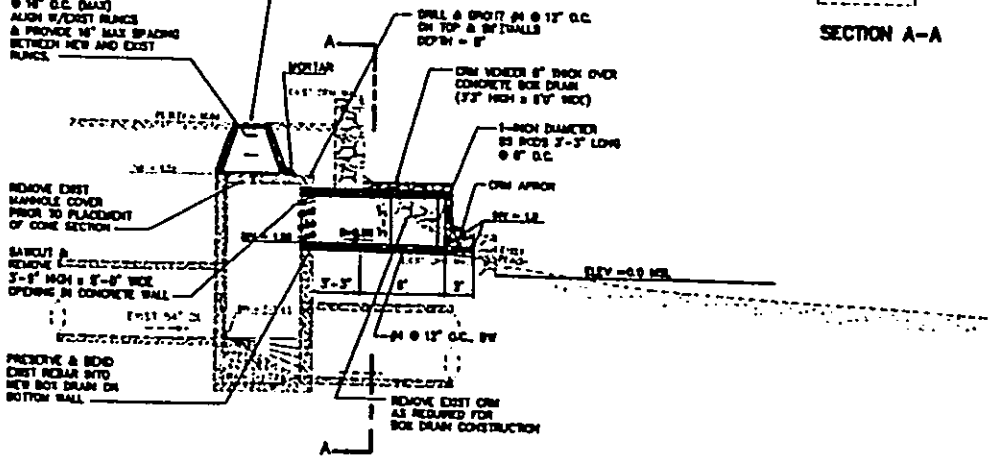


FRONT VIEW



SECTION A-A



ELEVATION VIEW

NOTE: 1. ALL REINFORCING SHALL BE FIBER REINFORCED PLASTIC FPR REBARS.

DRAIN MANHOLE @ ULILI STREET

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

DEPARTMENT OF DESIGN AND CONSTRUCTION
CITY AND COUNTY OF HONOLULU

ELEPAIO AND ULILI STREETS
DRAIN OUTLET IMPROVEMENTS

DRAIN MANHOLE DETAILS-ULILI ST.

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NISHI, ELLIOTT & ASSOCIATES, INC.
CONSULTING CIVIL ENGINEERS

C-7

SHEET 6 OF 8 SHEETS

FILE DRAWN FOLDER

APPENDIX II

PHOTOGRAPHS

SITE PHOTOGRAPHS

ELEPAIO AND ULILI STREET
DRAIN OUTLET IMPROVEMENTS
HONOLULU, OAHU, HAWAII

TAX MAP KEY: 3-5-03:39 & 3-5-04

Prepared for

Division of Engineering
Department of Public Works
City and County of Honolulu

Prepared by

HIDA, OKAMOTO & ASSOCIATES, INC.
Consulting Engineers
The Commerce Tower, Suite 915
1440 Kapiolani Boulevard
Honolulu, Hawaii 96814

June 1998

Photo No. 1 *Hunakai Street Public Access*

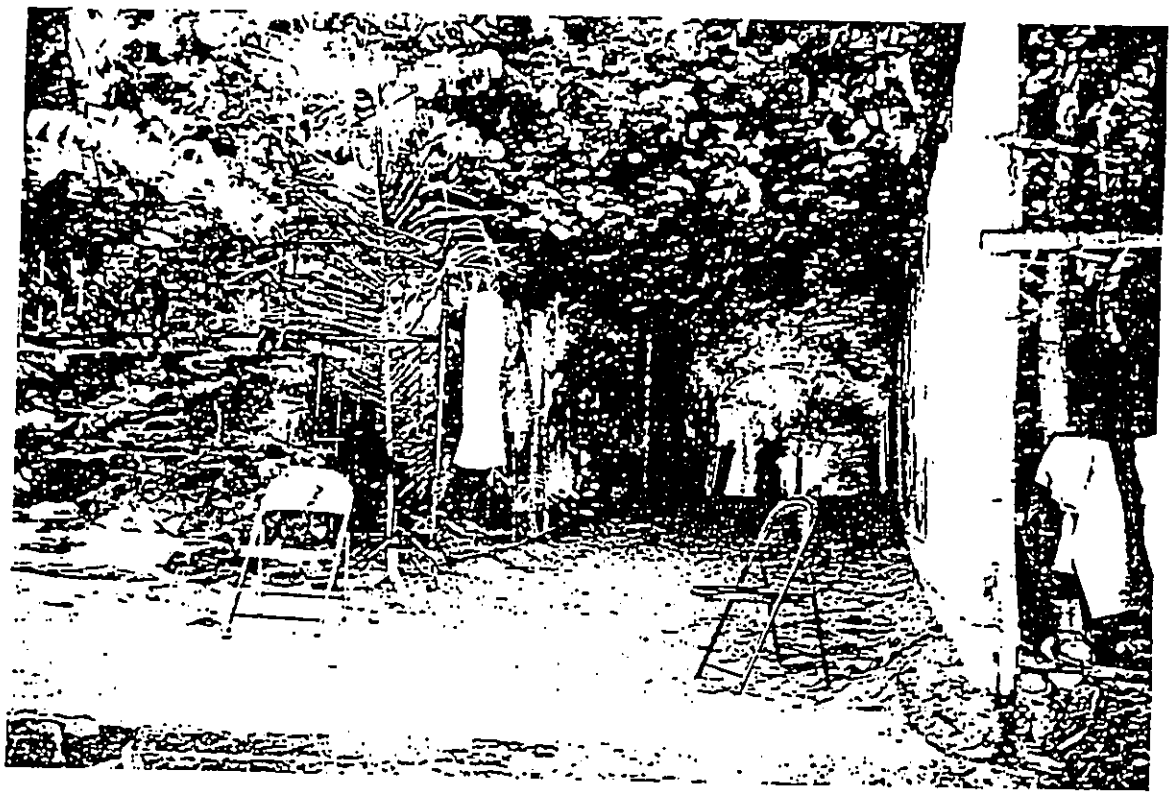

Photo No. 2 *Hunakai Street Public Access*

Photo No. 3 *Shoreline Access from Hunakai Street*

Photo No. 4 *Shoreline Access from Hunakai Street*

Photo No. 5 *Location for Ulili Street Drain Manhole*

Photo No. 6 *Location of Buried Ulili Street Drain Manhole*

Photo No. 7 *Ulili Street Drain Easement*
(View Towards Ocean)

Photo No. 8 *Ulili Street Drain Easement*
(View Towards Kahala Avenue)

Photo No. 9 *Ulili Street Drain Easement*
(View Towards Kahala Avenue)

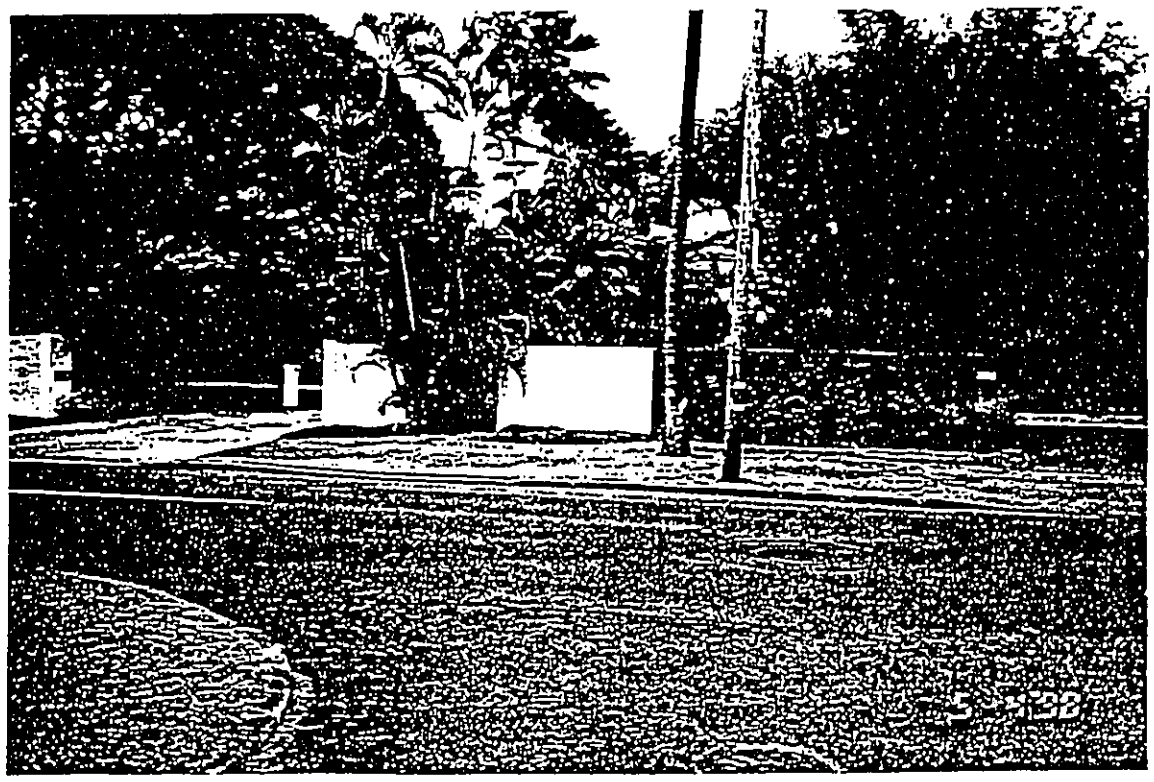

Photo No. 10 *Intersection at Ulili Street & Kahala Avenue*

Photo No. 11 *Elepaio Street Drainage Easement*
(View from Kahala Avenue)

Photo No. 12 *Elepaio Street Drainage Easement*
(View toward the Ocean)

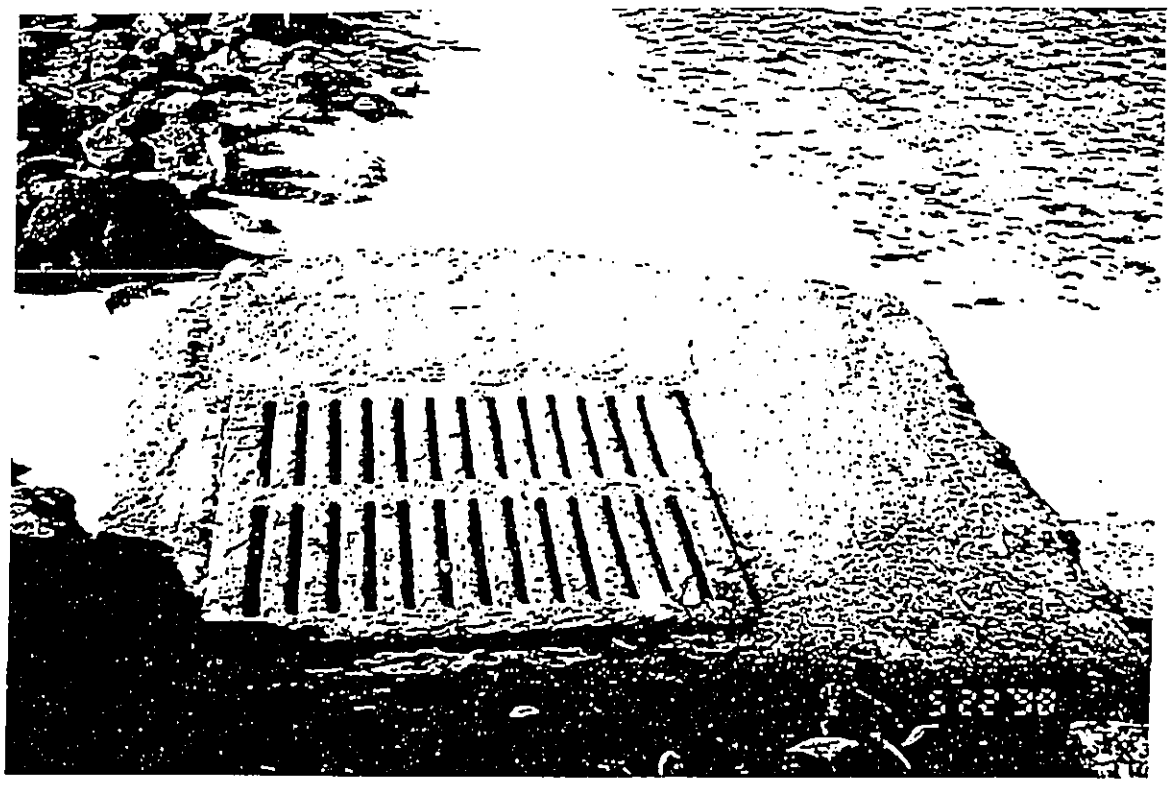

Photo No. 13 *Drain Manhole Top Existing*

Photo No. 14 *Existing Drain Manhole*

Photo No. 15 *Existing Drain Manhole at Stairs*

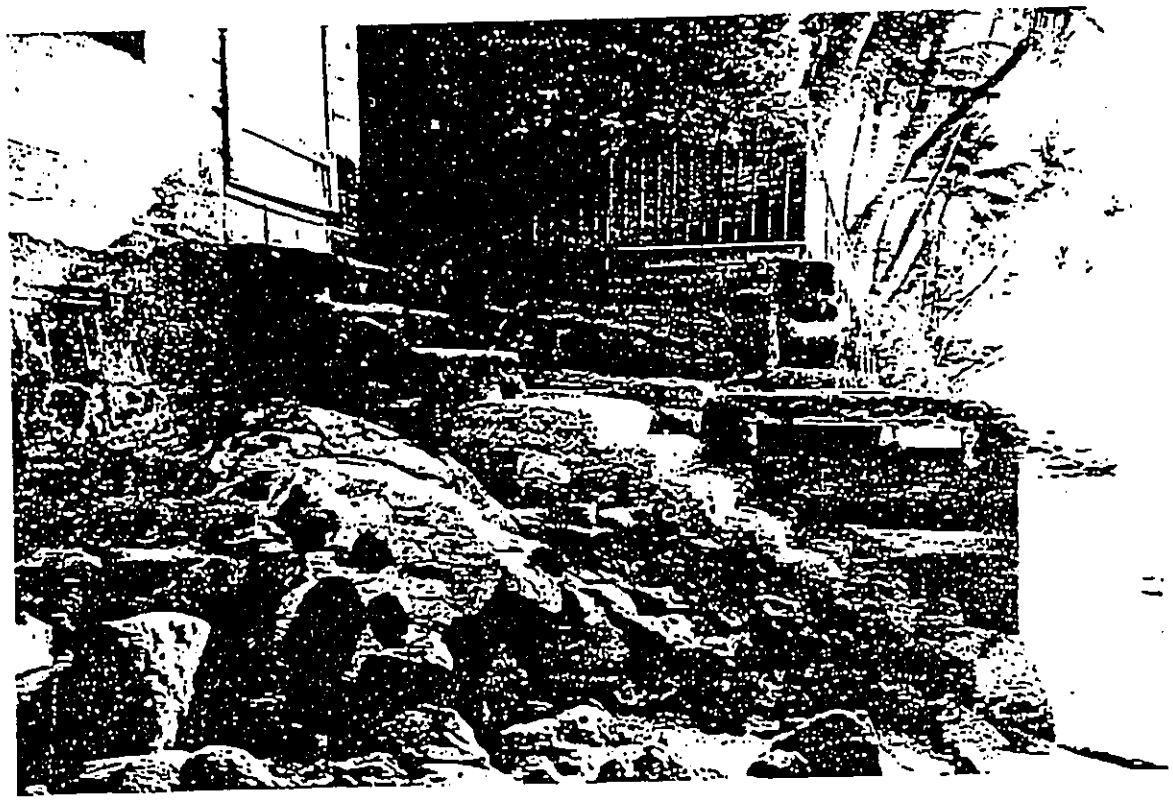

Photo No. 16 *Existing Drain Manhole at Stairs*

APPENDIX III

CHARACTERIZATION OF THE NEARSHORE MARINE ENVIRONMENT AT THE ELEPAIO AND ULILI STREET STORM OUTFALLS, KAHALA, OAHU

Oceanit Laboratories, Inc.
environmental & coastal engineering services • research & development

CHARACTERIZATION OF THE NEARSHORE MARINE ENVIRONMENT AT THE ELEPAIO AND ULILI STREET STORM OUTFALLS, KAHALA, OAHU

Prepared for:

HIDA, OKAMOTO & ASSOCIATES, INC.

Prepared by:

OCEANIT LABORATORIES, INC.

JULY 1999

1100 Alakea Plaza • 1100 Alakea Street, 31st Floor • Honolulu, Hawaii 96813
TEL: (808) 531-3017 • FAX: (808) 531-3177 • E-MAIL: oceanit@oceanit.com • URL: http://www.oceanit.com

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

I. INTRODUCTION

A. Background

Oceanit Laboratories, Inc. (Oceanit) was contracted to prepare the marine environmental assessment for the proposed improvements to the Elepaio and Ulili street stormwater outfalls in Kahala, Oahu (see Figure 1). The project sites are located in east Oahu on the southern end of the island, east of Diamond Head. Kahala Beach extends from Black Point (Kupikipikio Point) on the west to Waialae Beach Park to the east. The proposed construction work at the Elepaio and Ulili street outfalls are located at the shoreline of Kahala Beach in line with Elepaio Street and Ulili Street, respectively.

Constructed in 1953, the Elepaio stormwater outfall consists of a 42-inch reinforced concrete pipe that extends approximately 460 feet offshore from the shoreline. The pipe starts from a combined manhole/shoreline access stairway structure that provides an overflow to accommodate heavy storm discharges. The offshore portion of the drain line is blocked with sand, and causes upland flooding during heavy rain events.

The Ulili outfall was constructed in 1955 and consists of a 54-inch reinforced concrete pipe that extends 860 feet offshore from the shoreline. The nearest manhole is approximately 30 feet upstream from the shoreline and is inaccessible for line cleaning and maintenance due to improvements made along the easement. The offshore portion of the pipe is not fully functional due to inadequate design capacity and partial blocking with sand. This causes upstream flooding during heavy rain events.

In order to reduce the severity and frequency of upstream flooding, the City and County of Honolulu Department of Public Works (Public Works) plans to improve the existing manholes at the Elepaio and Ulili outfalls to provide an overflow channel from the manholes to the ocean to accommodate excess flood waters when the existing offshore pipeline capacities are exceeded.

B. Description of Project Site

The Ulili and Elepaio outfall sites are located approximately 2,200 feet apart along Kahala Beach (see Figure 2). The prevailing winds in the vicinity of the project site are northeast tradewinds with speeds averaging 10-20 miles per hour (mph) during summer months. During the winter, the trade winds are generally supplanted with southerly and westerly Kona winds accompanied by strong winds and increased wave action.

The Elepaio outfall site is most easily accessed from a public shoreline corridor near the intersection of Elepaio Street and Kahala Avenue. The access path begins at the *makai* end of Kahala Avenue and runs approximately 300 feet before terminating at the last

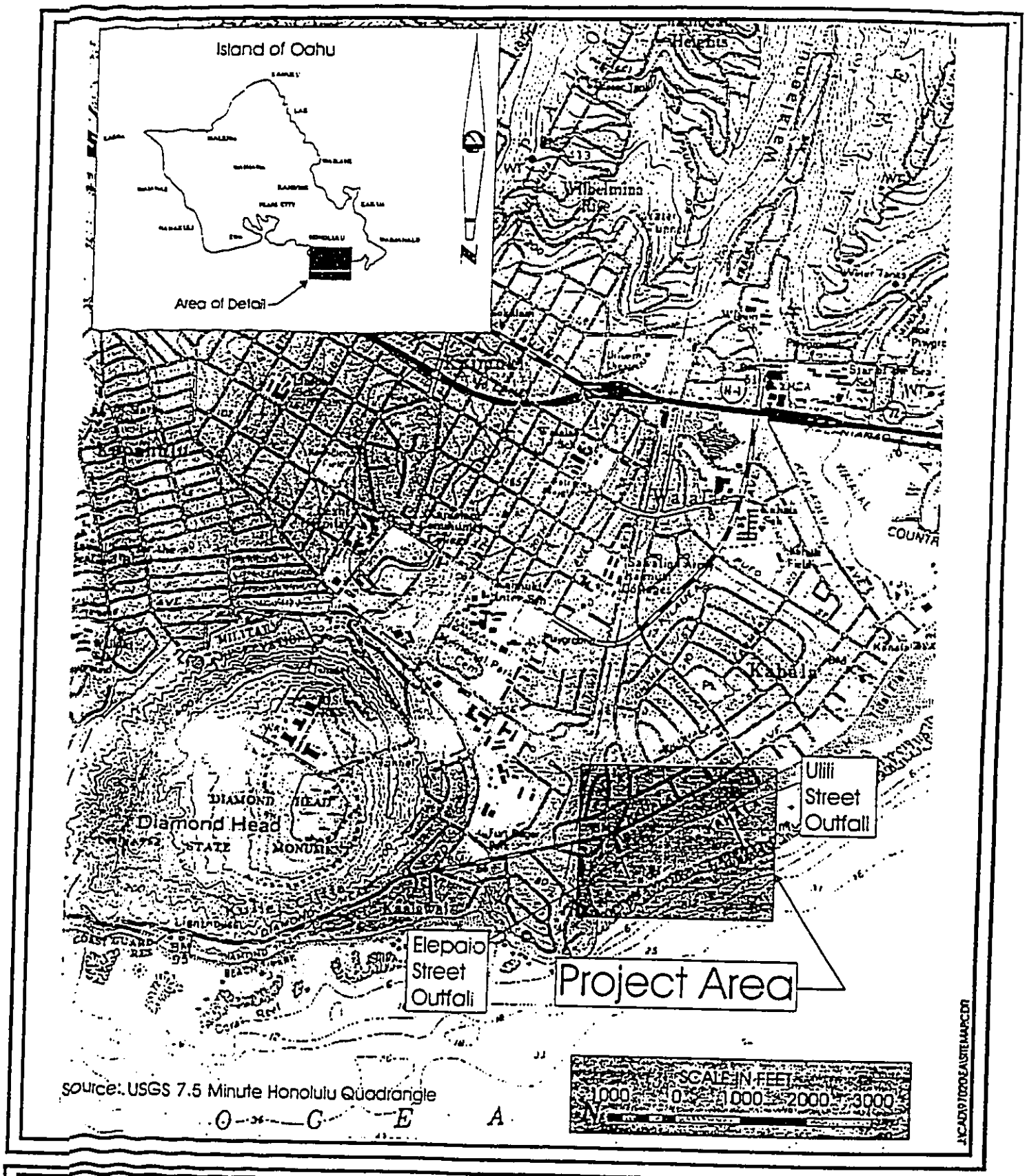

FIGURE 1. LOCATION MAP

ELEPAIO & ULILI MARINE EA

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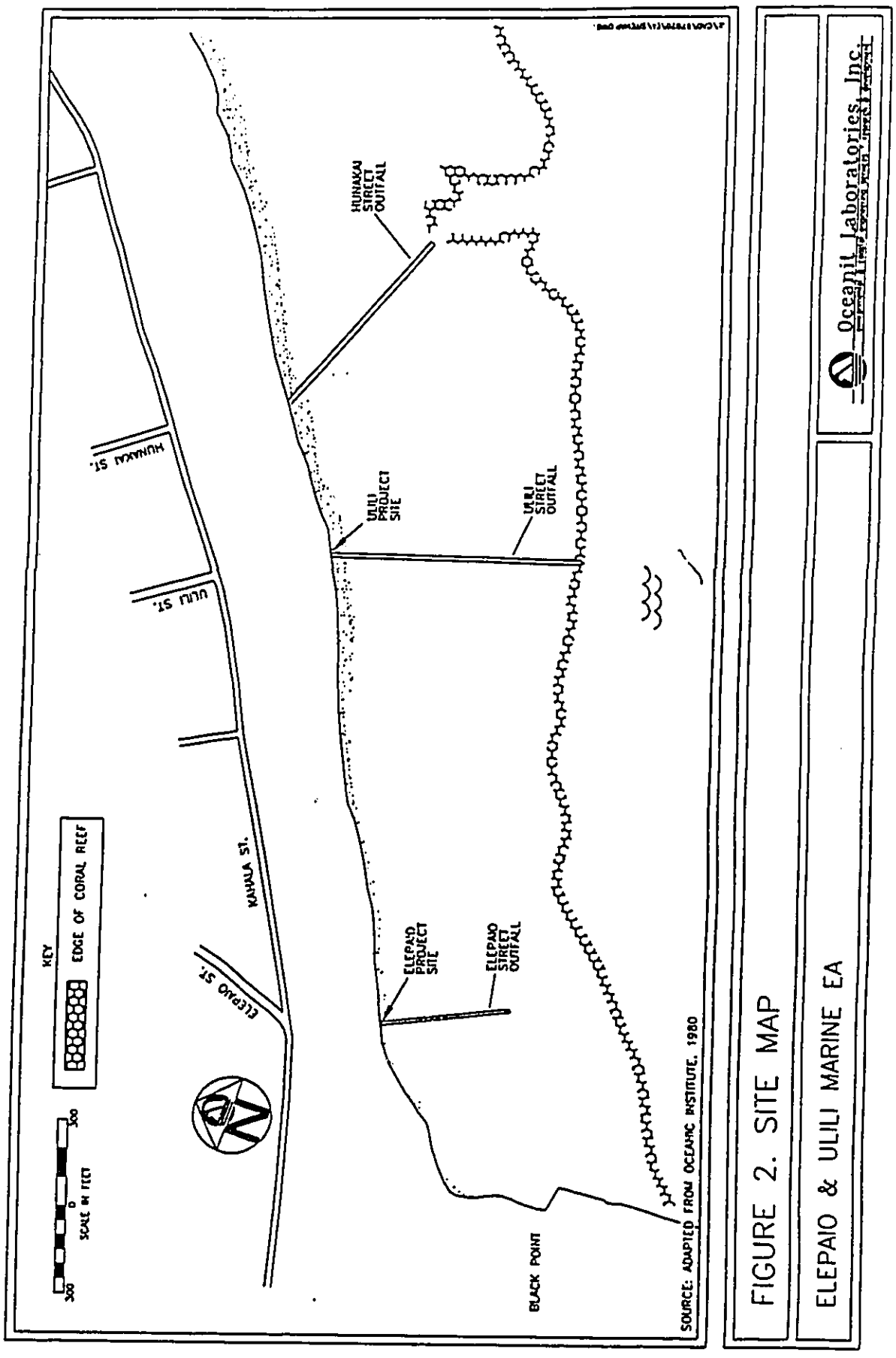

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FIGURE 2. SITE MAP

ELEPAIO & ULILI MARINE EA

manhole of the Elepaio drain line. The manhole structure consists of a rectangular concrete junction box with a 2.5 feet by 3 feet manhole on the top and overflow slots on the east and west faces (see Figure 3). In addition to joining the onshore and offshore portions of the drainage system, this box doubles as shoreline protection. Adjacent to the concrete platform, a staircase running perpendicular to the shoreline provides access to the beach (see Figure 3). Vertical seawalls armor the shoreline on both sides of the outfall.

The concrete junction box measures approximately 4.5 feet high and 6 feet wide. The eastern end of the box has a 2 feet by 6-inch overflow opening at upper end of the box and three, 3-inch diameter holes below it (see Figure 3). The western side of the box has a single opening 4 feet wide and 1-foot high near the top (see Figure 3). The outfall pipe appears to be blocked near the shoreline and during storm conditions, excess storm water overflows through the openings in the junction box and discharges into nearshore waters.

The Elepaio outfall consists of a 42-inch diameter pipe that extends out 430 feet into the ocean (in front of the fringing reef) almost perpendicular to the shoreline and its path can be easily identified from the shoreline as a light colored sandy linear extension in an otherwise rocky environment. The pipe is presently blocked with sand and does not function as designed.

The Ulili Street outfall site can be reached through rights-of-ways extending to the beach from Hunakai Street or Kala Street. The shoreline on both sides of the Ulili Street outfall site is armored with vertical seawalls and revetments. The site can also be accessed via the easement for the outfall pipe, which passes through privately owned property. The last manhole on this drain line is located in privately owned land and is covered with fill from site development. At present, there is no access to this portion of the pipe for removing silt accumulated in the pipe.

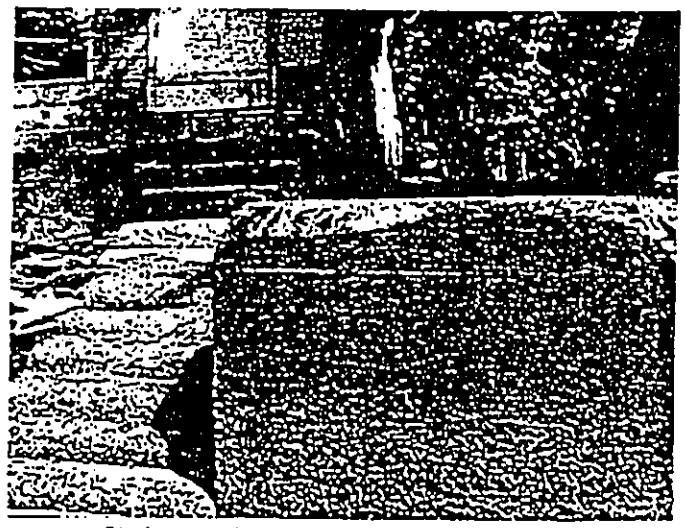
The nearshore portion of the existing Ulili outfall pipe is covered with rocks, sand, and coral. No overflow facility is available at this outfall. The existing 54-inch diameter outfall pipe is buried and is not readily discernible from the shoreline (see Figure 4). Two markers, one approximately half way out to the reef and the other near the end of the pipeline, were aligned to help identify the location of the outfall pipe at the shoreline.

C. Description of Proposed Action

The Elepaio Street outfall terminates in a 42-inch diameter line that discharges approximately 430 feet offshore and serves a drainage area of approximately 53 acres of residential land. The outfall is blocked with sand and when the pipe is full it discharges at the shoreline at the last manhole near the beach. The improvements at the Elepaio outfall consist of modifying the last manhole near the beach and the shore access stairway. The upper portion of the concrete junction box serving the existing manhole will be demolished and replaced with a new junction box with larger (3'x 4') openings for overflow relief. The overflow holes are grated with stainless steel bars to prevent entry. The improvements will also include the demolition and removal of the existing

Manhole Junction Box Showing
Overflow Outlet and Weepholes

View of Ocean from Top of Manhole



Staircase Leading to Shoreline

Shoreline Looking West

Shoreline Looking East

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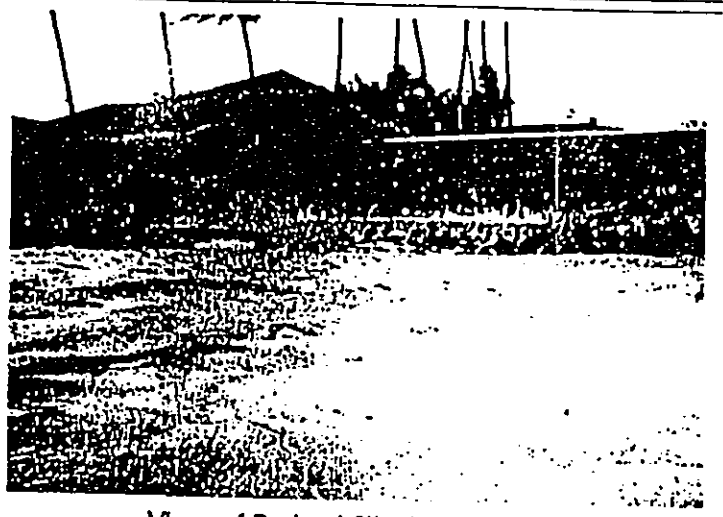
FIGURE 3. PHOTOGRAPHS OF ELEPAIO SITE

Ulili Project Site



View of Project Site from Ocean

Shoreline Looking West

Shoreline Looking East

FIGURE 4. PHOTOGRAPHS OF ULILI SITE

ELEPAIO & ULILI MARINE EA

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stairway running perpendicular to the shoreline and the construction of a new staircase running parallel to the shoreline. The last steps of the stairs will be below the high water line and in-water construction with small discharge into nearshore waters is expected.

The Ulili Street outfall terminates in a 54-inch diameter line that discharges approximately 860 feet offshore. The outfall serves a drainage area of approximately 59 acres. The top of the last manhole on this line is covered by land improvement by the owner. In the proposed improvements, this manhole will be exposed and a vertical extension will be added to bring the manhole cover up to existing ground level. The new manhole cover will be constructed at about 6.5 feet above mean sea level. A new subsurface box drain will also be installed from the manhole to the shoreline to allow overflow during heavy rain events. The 3 feet by 5 feet box drain will terminate at the ocean-facing side of the existing vertical concrete seawall. The drain invert will be at an elevation of 1.95 feet above sea level. All construction work is anticipated to be performed above the high tide line and no discharge is anticipated to enter State Waters. Construction of the improvements will require access along an easement through private property.

D. Objectives

The purpose of this study is to characterize the nearshore marine environment in the vicinity of the project site to evaluate and assess potential direct, indirect, and cumulative impacts from the proposed project. This study will investigate the following:

- Characterize water quality, physical characteristics, and marine life in the vicinity of the project site.
- Recommend measures to mitigate any adverse impacts resulting from the project.

E. Acknowledgements

Oceanit would like to acknowledge contributions made in the preparation of this study by the following: Dr. Dayananda Vithanage, Mr David Takeyama, Mr. Robert Bourke, Mr. Ian Wasnich, and Mr. Phillip Lui.

II. METHODOLOGY

Field data were collected and analyzed to supplement historical data on the project site. Data on water quality, bathymetry, and currents were collected on April 16, 1998. On May 20, 1998 additional current data was collected to help characterize tidal influence at both flood and ebb stages. A benthic survey was performed on May 10, 1998.

A. Water Quality

Water quality measurements were taken in the nearshore area of the Elepaio and Ulili project sites. Four stations were established at each outfall as indicated in Figure 5. Water quality measurements included temperature, salinity, turbidity, dissolved oxygen, nitrite plus nitrate, total nitrogen, total phosphate, and orthophosphate. Water sample collection and insitu water quality measurements were made at a depth of 6" below the surface of the water.

Physical parameters including temperature, salinity, pH, and dissolved oxygen were measured in-situ utilizing a Hydrolab multiparameter water quality instrument. Turbidity samples were collected and measured in a laboratory. Water samples analyses for nutrients including nitrate plus nitrite, total nitrogen, total phosphorus, and orthophosphorus were performed at a State of Hawaii certified laboratory. Quality Assurance and Quality Control (QA/QC) and chain of custody procedures were followed to ensure the proper sampling , sample handling protocols.

B. Bathymetry

Bathymetry is a measurement to determine the topography of the submerged substrate. Bathymetry of the nearshore area in the vicinity of the project site was measured using a level and staff. Five bottom profiles from the shoreline to a distance of 150 feet offshore were measured at each site. Bottom contours were developed from the measurements. The bathymetric measurements were related to mean sea level by using benchmarks established by a topographic survey performed by Controlpoint Surveying, Inc. (1998).

C. Currents and Waves

Wind, waves, and tidal conditions contribute to and modify nearshore current patterns. Nearshore currents were measured on two occasions: on April 16, 1998 during flood tide and on May 21, 1998 during ebb tide.

Surface drogues with line attachments were utilized to estimate current speed. The drogues were designed to be slightly positively buoyant and were maintained at the same level as the water surface to minimize wind effects. The drogues were released approximately 50 feet offshore of where the Elepaio and Ulili outfalls intersect with the shoreline (see Figure 5). The water current speed was obtained by measuring the time taken by the drogue to travel a known distance.

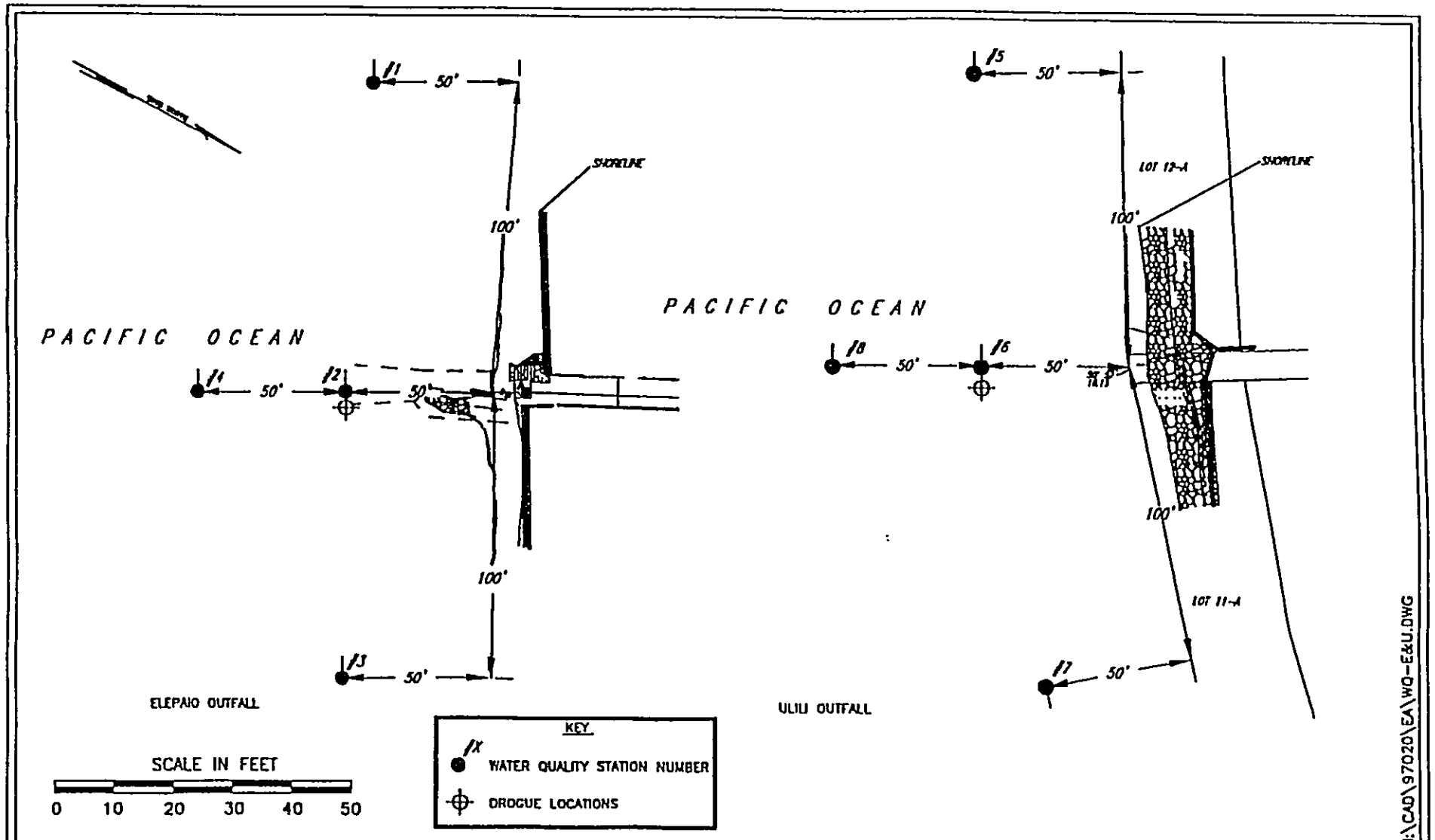

FIGURE 5. WATER QUALITY AND CURRENT DROGUE STATIONS

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The extensive nearshore reef formation at both sites modify deep water waves that are incident at the project sites. Wave height and direction changes from refraction and diffraction due to shallow bottom effects are dominant at the site. Deep water wave data statistics for the North Pacific was combined with the wave exposure window for the project site to calculate nearshore wave conditions, and nearshore wave patterns were obtained from aerial photographs.

D. Sand Transport and Erosion

Shoreline dynamics can have a profound impact on nearshore environmental conditions. Sediments and nutrients from the eroded shoreline can impact ecosystems downstream of the erosion. Previous studies and analyses of aerial photographs were reviewed to help characterize sand transport and erosion at the project site.

E. Benthic Survey

A marine biological survey was conducted to characterize the existing marine environment in the vicinity of the project site and identify potential short and long term impacts to marine environment and habitats as a result of the proposed action.

Benthic environmental investigations were conducted by a single diver using snorkel gear. The nearshore area 100 feet to either side of the centerline of the outfall pipe and out to the inner edge of the reef was observed from the surface. Observations at the site were noted and an underwater camera was used to photograph selected areas of the benthic habitat.

III. RESULTS

A combination of field studies, aerial photographs, and a literature review of previous studies in the vicinity of the project area were used to determine the physical, chemical, and biological characteristics of the marine environment at the proposed project sites.

Previous studies reviewed include an ocean engineering report by Sea Engineering Services, Inc. (Sea Engineering, 1981), Coastal Zone Atlas prepared by Aecos, Inc in 1981, and the Drainage Report for Elepaio, Ulili and Hunakai Streets Relief Drain prepared by Wilson Okamoto & Associates in 1980.

The Sea Engineering study found that the Elepaio Street outfall was completely blocked with sand and sediment and that no water was observed draining from the end of the pipeline. During heavy rains, the drain discharges at the shoreline through overflow apertures and possibly through the manhole cover grating. The Ulili Street outfall was also found to be completely blocked with sand and sediment. Presently, there is no discharge outlet at the shoreline.

The Sea Engineering report noted that the marine biological communities in the vicinity of the storm drain pipelines were poorly developed and that species diversity and abundance was very low. Coral coverage was found to be almost negligible and only a few fishes were observed. The lack of live corals on the reef was hypothesized to be the result of strong wave surge forces that dislodge and break up coral in the reef ridge zone and the periodic transport of sand across the reef top, which may abrade and kill small coral colonies (Sea Engineering, 1981).

A. Water Quality

Nearshore waters along the coast of Kahala are considered Class A Open Coastal Waters by Title 11, Chapter 54 of the State of Hawaii DOH Water Quality Standards.

Water quality measurements by Sea Engineering indicated that salinity was generally uniform and typical of nearshore coastal waters. The water temperature was found to be slightly higher near the shoreline in the vicinity of the Elepaio Street drain where circulation is poorer. Dissolved oxygen concentrations were above the saturation for all of the samples taken, reflecting the transport of "super-saturated" water onto the reef by breaking waves. The pH values measured were typical for seawater in this type of environment. Turbidity was found to vary in the study area depending upon wind conditions, displaying the highest readings during strong tradewind conditions (Sea Engineering, 1981).

Water quality data collected during the present phase of the project was analyzed using log-normal statistical methods adopted by the State DOH. As previously mentioned, four water quality samples were taken by Oceanit in the vicinity of the Elepaio site and four at the Ulili site. Results of the water quality analyses are shown in Table 1.

Table 1.
Summary of Water Quality Results

Sample #	pH	Temp °C	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Total Suspended Solids TSS (mg/L)	Salinity (ppt)	Nitrate + Nitrite (ug N/L)	Total Nitrogen (ug N/L)	Total Phosphorus (ug P/L)
Elepaio 1	8.28	24.6	0.62	8.40	1.3	35.24	2	110	14
" " 2	8.27	25	1.44	8.10	2.7	35.00	4	119	12
" " 3	8.32	24.3	2.41	9.40	4.2	32.72	19	141	8
" " 4	8.29	24.6	1.25	8.00	2.3	35.14	3	140	11
Geometric Mean	8.29	24.6	1.28	8.46	2.4	34.51	5	127	11
Standard Deviation	0.02	0.29	0.74	0.64	1.20	1.21	8	16	3
Maximum	8.32	25.0	2.4	9.4	4.2	35.24	19	141	14
Minimum	8.27	24.3	0.6	8.0	1.3	32.72	2	110	8
Ulili 5	8.38	25.3	0.62	7.75	1.7	35.24	2	573	38
" " 6	8.38	25.1	1.29	7.67	4.3	35.23	1	119	10
" " 7	8.35	25.1	1.90	7.77	3.7	35.23	1	110	9
" " 8	8.39	24.7	1.19	7.39	4.0	35.23	1	120	7
Geometric Mean	8.37	25.1	1.16	7.64	3.2	35.23	1	173	12
Standard Deviation	0.02	0.26	0.52	0.18	1.18	0.01	0.50	228.38	14.72
Maximum	8.39	25.3	1.9	7.77	4.3	35.24	2	573	38
Minimum	8.35	24.7	0.62	7.39	1.7	35.23	1	110	7
State of Hawaii Water Quality Standards - Open Coastal (Wet)	N/A	N/A	0.50	N/A	N/A	N/A	5.0	150.00	20.0

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Water quality measurements were made during fair weather conditions with no rain in the preceding 24 hours. Water temperature between stations at the Elepaio site displayed little variation (standard deviation = 0.29) and ranged from 24.3 °C to 25.0 °C. Water temperature at the Ulili site was slightly higher than the Elepaio site and averaged 25.1 °C (77 °F).

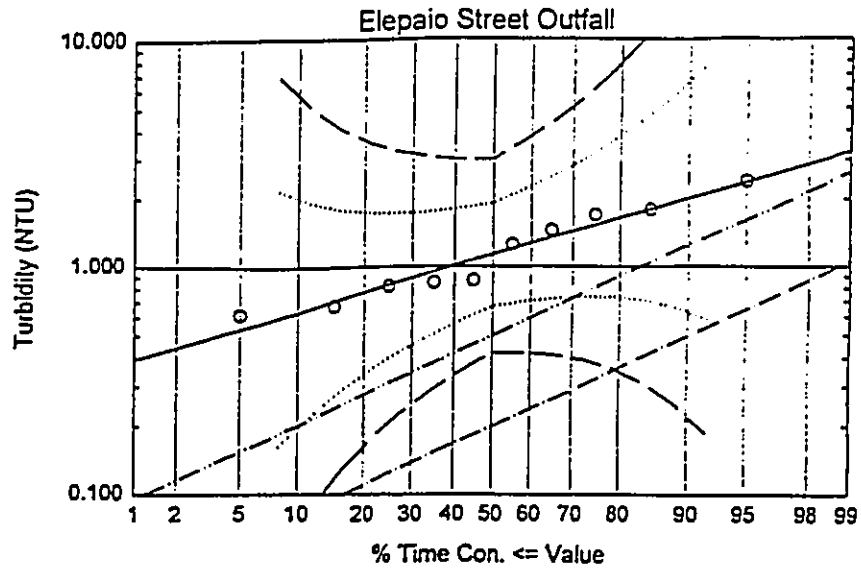
Salinity values were slightly lower at the Elepaio site (34.5 ppt) compared to the Ulili site (35.2 ppt). A single low salinity measurement of 32.72 ppt at sample location 3 at the Elepaio site accounted for most of this variation (standard deviation = 1.21). This unusually low salinity was accompanied by high nitrate plus nitrogen concentrations, low total phosphorus concentration, high turbidity, high total suspended solids, and high dissolved oxygen concentration. This would indicate high turbulence by waves and input of fresh water.

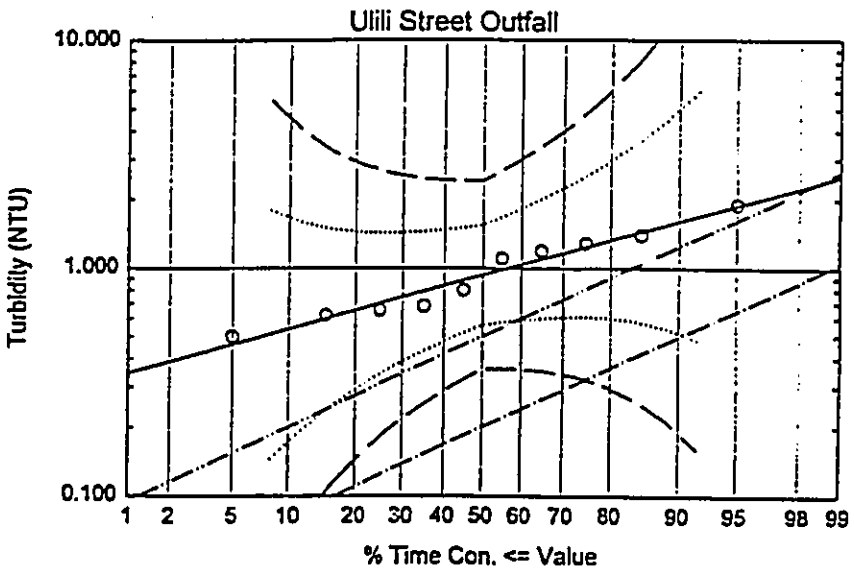
pH values were slightly lower at the Elepaio site 8.29 pH units compared to the Ulili site 8.37 pH units. These values are within the expected range for nearshore water.

Dissolved oxygen (DO) measurements ranged from 8.0 to 9.4 mg/L at the Elepaio site and from 7.39 to 7.77 mg/L at the Ulili site. Measurements at the Elepaio site displayed more variation (standard deviation = 0.64) primarily due to a high reading (9.4 mg/L) at station 3 compared to the Ulili site (standard deviation = 0.18). In general, average DO readings were higher at the Elepaio site (8.46 mg/L) compared to the Ulili site (7.64 mg/L). DO concentrations are above the saturation value and indicate good nearshore circulation at the two sites.

Turbidity values ranged from 2.4 to 0.6 NTU at the Elepaio site and 1.9 to 0.6 NTU at the Ulili site. The average turbidity at the Elepaio site was 1.28 NTU compared to 1.16 NTU for the Ulili site. The higher turbidity readings at the Elepaio site may be due to the single high measurement at station #3. This could have occurred from wave turbulence and fresh water input as mentioned earlier. The State DOH classifies the waters at the project sites as Class A open coastal waters (Water Quality Standards Department of Health, 1993). In these waters, the geometric mean turbidity should not exceed 0.50 NTU under the "wet" criteria and 0.20 NTU under the "dry" criteria. Moreover, turbidity is not to exceed 1.25 NTU more than 10 percent of the time when "wet" criteria apply and 0.50 NTU when "dry" criteria apply. Figure 6 displays log-normal statistical plots for both sites combining historical data from Sea Engineering with the most recent data from Oceanit. It is evident from the analysis that the turbidity readings at both sites exceed the State Standard for both the "wet" and "dry" criteria (see Figure 6). Measured turbidity characteristics are compared with the State Standards in Table 2.

Sufficient data for statistical analysis was available for turbidity when the historical data was pooled with the recent data. Sufficient data was not available at either site for the other water quality parameters.





70% Confidence Interval
95% Confidence Interval
State Standard for Wet Open Coastal Waters
State Standard for Dry Open Coastal Waters

FIGURE 6. LOG NORMAL PLOTS FOR TURBIDITY

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Table 2.
Comparison of Turbidity Characteristics at the Project Sites with DOH Water Quality Standards

Criteria/location	50% Exceedance	90% Exceedance	98% Exceedance
DOH std. dry	0.20 NTU	0.50 NTU	1.00 NTU
DOH std. wet	0.50 NTU	1.25 NTU	2.00 NTU
Elepaio site	1.10 NTU	2.00 NTU	2.90 NTU
Ulili site	0.90 NTU	1.80 NTU	2.40 NTU

50 percent exceedance indicates the geometric mean and 90 percent and 98 percent exceedance indicates the turbidity that will be exceeded 90 and 98 percent of the time respectively.

Total suspended solids (TSS) measurements averaged 2.4 mg/L at the Elepaio site, ranging from 1.3 to 4.2 mg/L. TSS measurements at the Ulili site were higher than the Elepaio site and averaged 3.2 mg/L ranging from a low of 1.7 mg/L to a high of 4.3 mg/L. The TSS readings had a relatively high degree of variation; the standard deviation was 1.20 at the Elepaio site and 1.18 at the Ulili site.

Nitrate + Nitrite nitrogen averaged 5 ug /L at the Elepaio site and displayed great variation ranging from 2 to 19 ug /L (standard deviation = 8). Nitrate + Nitrite nitrogen at Ulili displayed less variation and averaged 1 ug /L. The high nitrate +nitrite concentration at Elapaio is further skewed by the very high value measured at station 3. These high averages may be due to a higher influx of fresh water at this site compared to Ulili.

Total Nitrogen (TN) averaged 127 ug N/L at the Elepaio site, slightly lower than the State Standard criteria for "wet" areas. TN at the Ulili site averaged 228 ug N/L, exceeding the State Standard for "wet" areas. A single high reading of 573 ug N/L at station 5 skewed the average upward at Ulili. The high total nitrogen and phosphorus measured at station 5 may be due to presence of organic nitrogen in the water. Low nitrite + nitrate concentration precludes presence of fertilizer laden fresh water source at the site. Decaying vegetative or animal matter could be the reason for the high reading since other water quality parameters do not indicate presence of fresh water.

Total phosphorous averaged 11 ug /L at the Elepaio site and 12 ug /L at the Ulili site. With the exception of a single high reading of 38 ug P/L at the Ulili site, total phosphorous readings displayed little variation at both sites. The high phosphorus value coincides with high organic nitrogen values at station 3. This may be due to decaying organic matter.

Table 3 displays Oceanit water quality data versus historical data. The variation in the data is primarily attributable to natural variations in the area and conditions during the sampling episodes.

Table 3.
Oceanit Versus Historical Water Quality

Parameter	Sea Engineering '81 - Elepaio	Oceanit '98 - Elepaio	Sea Engineering '81 - Ulili	Oceanit '98 - Ulili
Temperature (°C)	24.7	24.6	24.4	25.1
Salinity (ppt)	33.81	34.5	33.98	35.2
pH	8.2	8.3	8.2	8.4
Turbidity (NTU)	1.12	1.28	0.86	1.16

B. Bathymetry

The seabed in the vicinity of the project site was found to be a hard reef-rock substrate dominated by a classic fringing reef extending about 600-800 feet offshore. Waves break on this reef and spill over onto the inner back reef area where they deposit bits of broken coral, coraline algae, and sand. This back reef area also receives sediment from direct land erosion and runoff through the intermittent storm drainage streams. The shoreline is dominated by a line of seawalls eight to twelve feet high. This general pattern is disrupted about a quarter of a mile to the east of the Elepaio Street outlet where a geologically recent (300,000 years ago) lava flow crossed the shoreline and the reef forming Black Point. (Interestingly, it is thought that the source of the Black point eruption was seaward of the present coast, so the lava crossed the coastline from the ocean onto the land (Volcanoes in the Sea: Macdonald, et.al. 1983). The fringing reef does not extend out around Black Point but ends on its eastern flank.

The bathymetry in the vicinity of both project sites, extending 150 feet out from the shoreline, is basically flat ranging from 1.5 to 2.5 feet MSL (see Figure 7 a and b). During low tide, it is possible to walk out to the shallow (1-2 feet MSL) fringing reef where the waves break. Water depth over the back reef area increases very gradually from the shoreline out to the inner edge of the reef. Beyond the fringing reef, the depth immediately drops to around 6-12 feet and continues to increase offshore.

C. Waves, Currents and Circulation

The coral reef formation about 600-800 feet offshore prevents large waves from reaching the shoreline. Waves at the project site are generally tradewind generated, south swell, or Kona Storm waves. Existing data indicate that nearshore waves were controlled by water depth and do not exceed 4 feet on the reef flat fronting the Elepaio and Ulili sites (Sea Engineering, 1981).

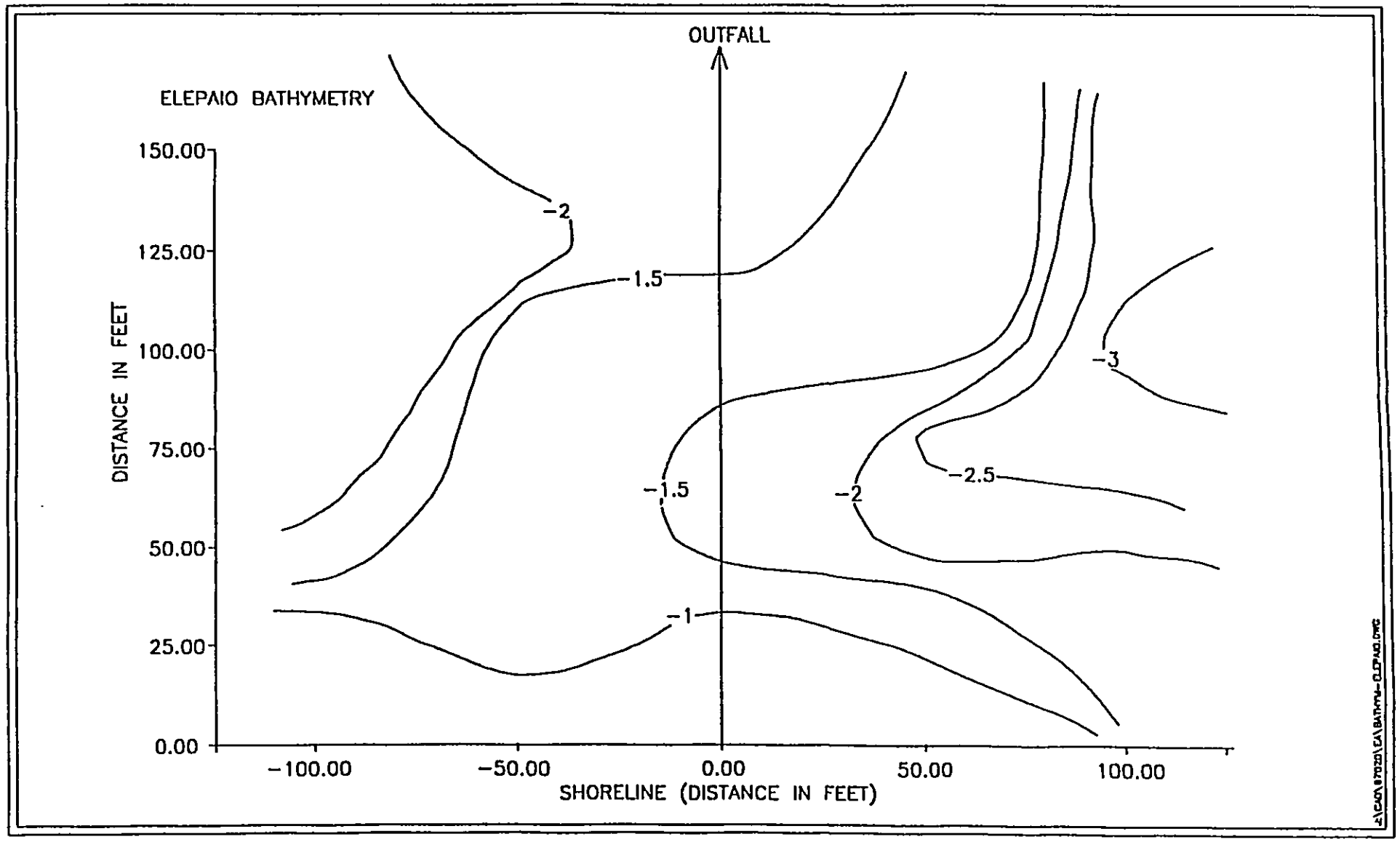

FIGURE 7A. BATHYMETRY AT ELEPAIO

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Oceanit Laboratories, Inc.

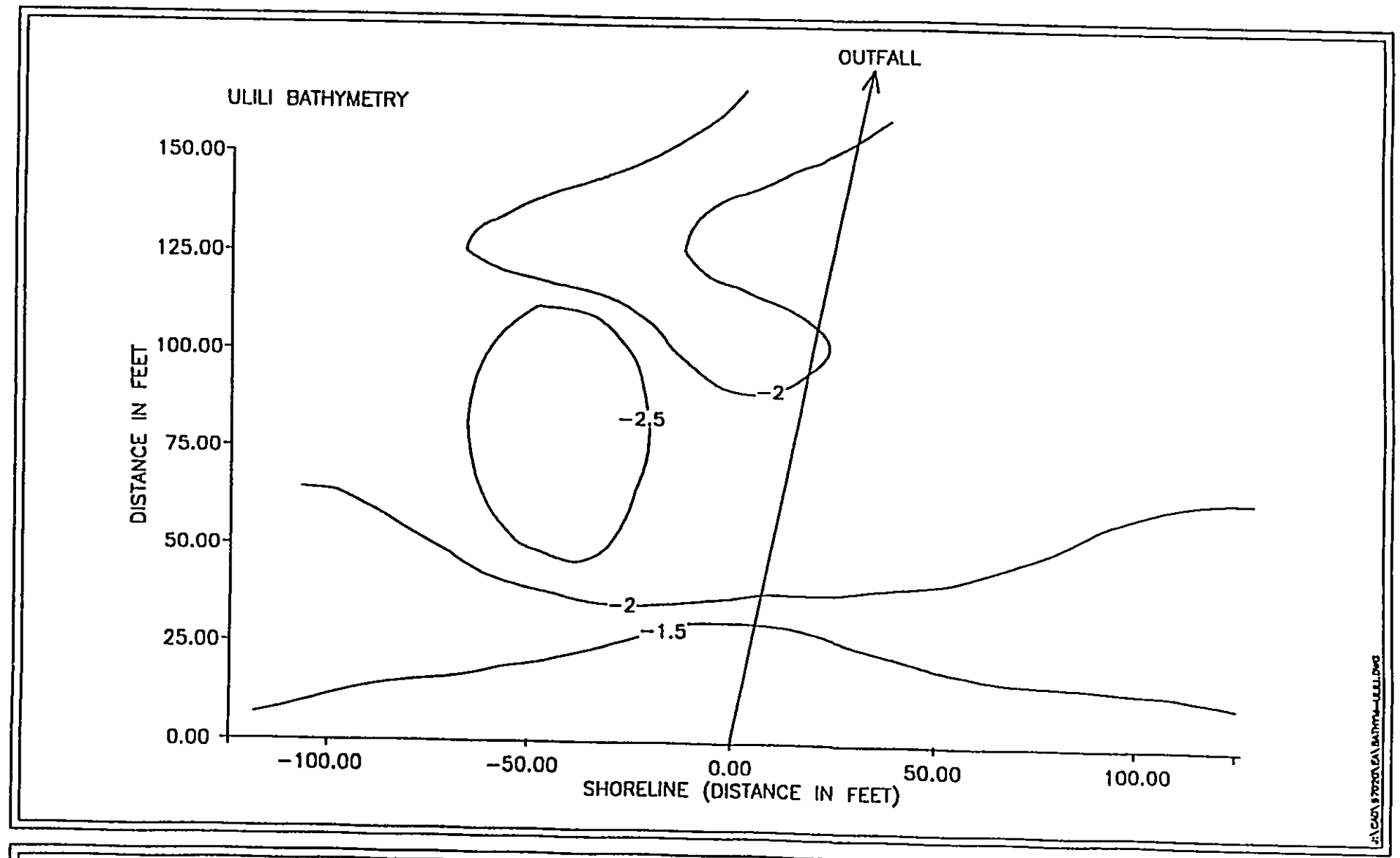


FIGURE 7B. BATHYMETRY AT ULILI

ELEPAIO & ULILI MARINE EA

Oceanit Laboratories, Inc.

The circulation system in the area between the Hunakai Street Outfall and the Ulili Street Outfall is driven by wave setup on the shallow reef flat and is independent of wind direction and tide stage (Sea Engineering, 1981). Existing data indicate that currents at the project site are virtually independent of tide and wind conditions. Currents move southwesterly at the Elepaio site and northeasterly at the Ulili Street site at tradewind, Kona wind, and light and variable conditions. Current speeds ranged from 0.5 to 0.8 fps during 20 to 25 mph ENE tradewinds and 1.0 to 1.2 fps during 10 to 15 mph Kona winds.

Aerial photographs and earlier data show that there is a considerable amount of sand on the reef flat. Sand is transported in a west to east direction over the shallow reef.

On April 16, 1998 and on May 21 1998, Oceanit conducted current studies using surface drogues. On April 16, the winds were trades from the west averaging 10-20 mph. On May 21 winds were trades ranging from 25-35 mph originating from the west. Currents at the Elepaio site were found to move in a westerly direction and averaged in speed from 0.1 fps during flood tide conditions to 0.07 fps during ebb tide conditions.

Currents at the Ulili site moved to the east almost parallel to the shore and averaged in speed from 0.40 fps during flood tide to 0.36 fps during ebb tide.

Figure 8 displays currents measured during this study and from historical studies.

D. Sand Transport and Erosion

The shoreline at both Elepaio and Ulili sites are dominated by seawalls constructed during the outfall construction or earlier. The walls are founded on the existing reef. Small amounts of sand is available adjacent to the seawalls and near the shoreline in localized pockets as shown in Figure 9. A few of the sand pockets are a result of man-made alterations in the reef, which can be seen from aerial photographs as geometric cuts in the reef.

The shoreline formation and wave climate indicate that there is a littoral water transport towards the west. However, the amount of sand available for transport is small.

The seawalls have stabilized the shoreline during the last few decades and little recession has occurred during this time because of the seawalls. The shoreline has been relatively stable with most of the change due to the movement in the position of *naupaka* on the beach face. The beach width in front of the seawalls at the northern end of Kahala Beach appears to have decreased slightly, but it is unclear if the apparent change is due to seasonal variations or an erosive trend (Sea Engineering, 1988).

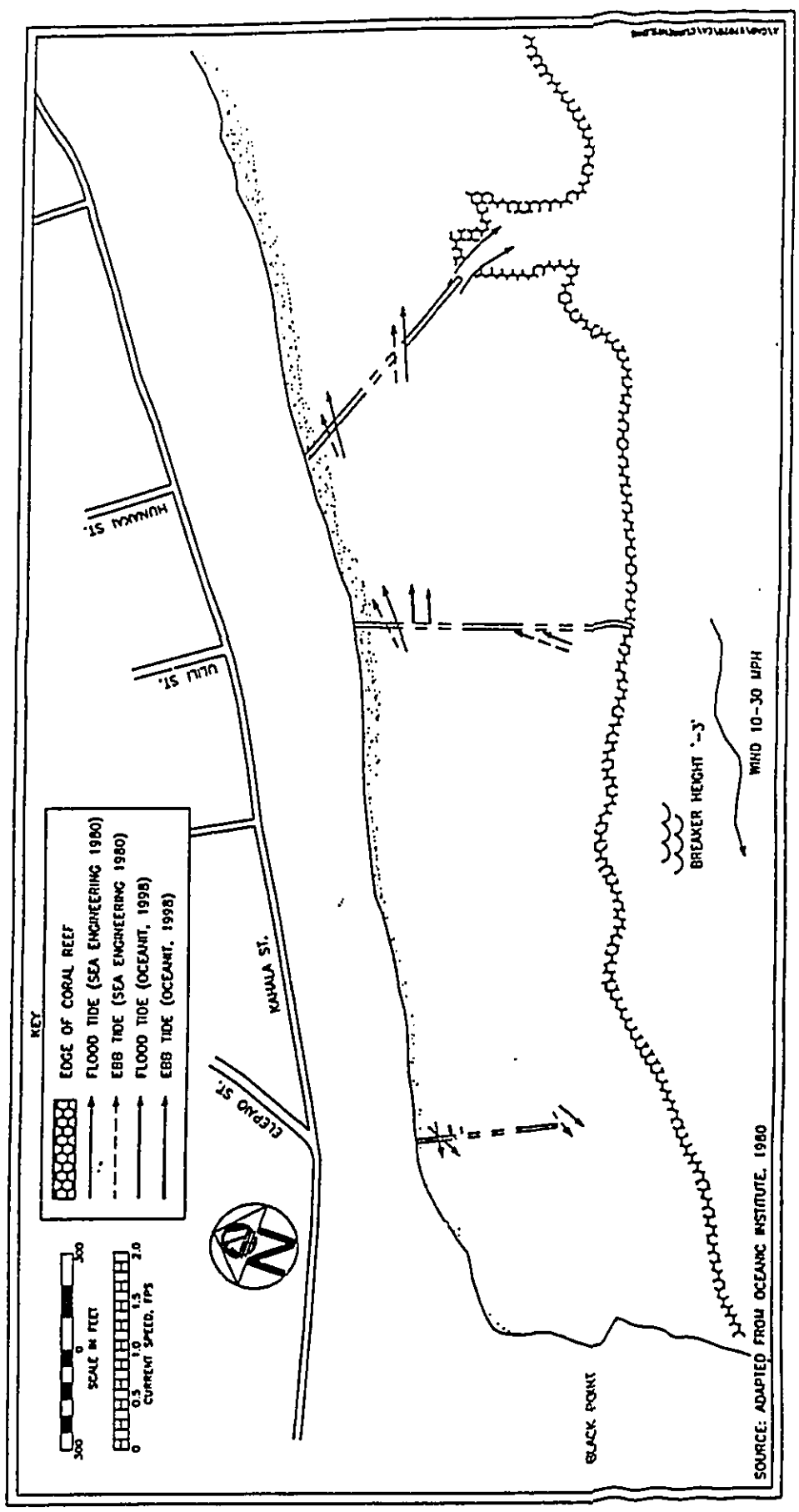


FIGURE 8. CURRENTS AT PROJECT SITES

ELEPAIO & ULILI MARINE EA

Oceanit Laboratories, Inc.

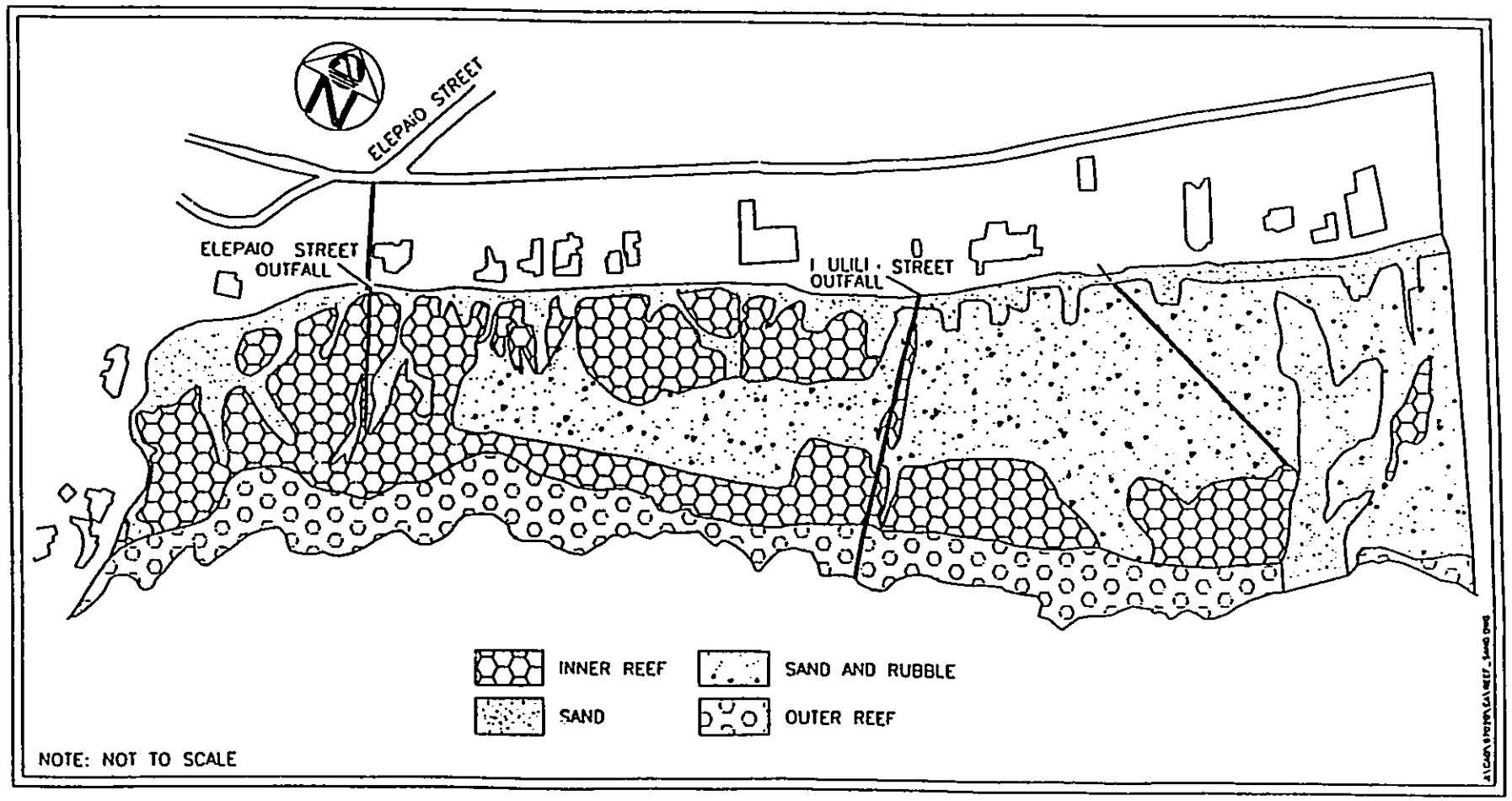


FIGURE 9. REEF AND SAND LOCATIONS

ELEPAIO & ULILI MARINE EA

Oceanit Laboratories, Inc.

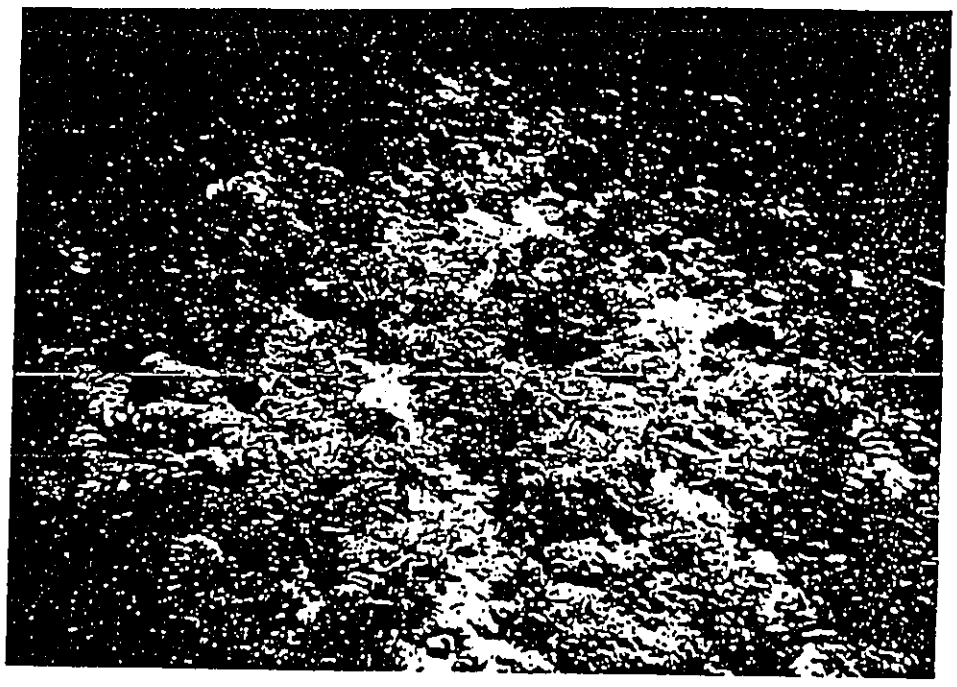
E. Benthic Survey

At the time of the survey the tide level was about 1.2 feet above mean lower low water (MLLW) and the bases of all of the seawalls were awash in up to a foot of water. Brisk (15-25 mph) northeast tradewinds were blowing parallel to the shore creating a strong (~0.5 ft/sec) long-shore westerly current. The depth of the water over the back reef area increases very gradually from the shoreline out to the inner edge of the reef. Substrate in the back-reef area is loosely consolidated coral rubble fragments, and unconsolidated sand and rubble. Underwater visibility at the time of the survey was estimated at 15 feet with significant suspended particulate matter in the water column.

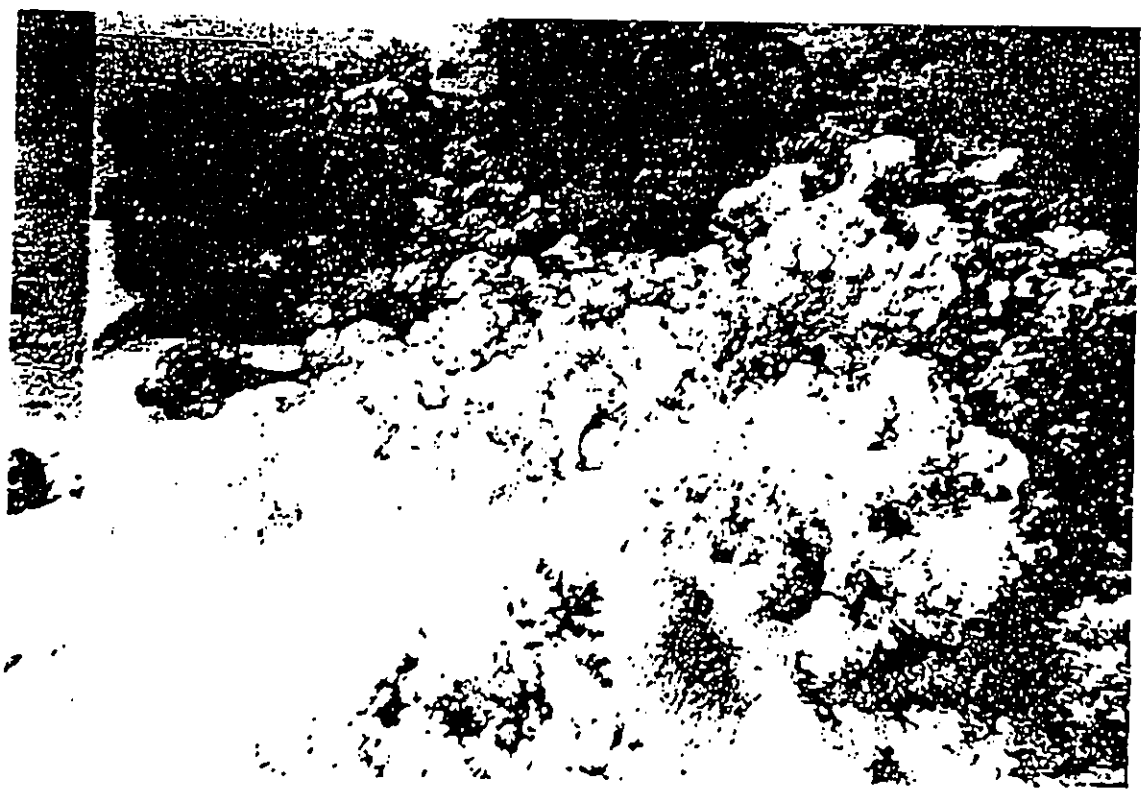
1. Benthic Environment at Elepaio

The initial 100 feet of the offshore pipeline is buried in a trench cut through the back-reef substrate. The substrate on the sides of the trench line is semi-consolidated with rubble and heavy algae coverage. Sand covers most of the top of the pipe. The sand was fine, but did not appear to contain a significant quantity of silt or mud. In aerial photographs, the trench line is seen as a distinct white swath across the back-reef area. The pipe begins to emerge from the substrate about 100 feet from the shore and is essentially on grade at its terminus. The end of the pipe is filled with sand about one-third of the way up.

The rubble and semi-consolidated benthic substrate on either side of the pipeline path was covered with benthic algae. Numerous species of small macro-algae, diatoms, and invertebrate fauna form a very fine short (1/4 inch) mat over almost 100 percent of the semi-consolidated rubble (non-sand) substrate (see Figure 10). This survey made no attempt to catalogue the probable several dozen species of algae present in this mat, but rather to note the dominant and ecologically significant species. The dominant large macro-algae is *Acanthophora spicifera*. This non-indigenous algae is the most common along the length of the pipe, but is definitely most abundant nearest the shoreline where the water is only a foot or two deep and may be exposed at very low tides. Also near the shoreline, the green *Ulva fasciata* or sea-lettuce is common. *Ulva* grows most commonly in areas with fresh water input, particularly if the fresh water carries additional nutrients. Small quantities of *Hypnea, musciformis*, and *Dictyosphaeria cavernosa* or bubble-algae that thrive under conditions of lowered salinity and nutrient input, were also noted near the shoreline.



Typical Seaweed
Cover Over Rubble Bed



Large Rubble
at Edge of Sand
Channel

FIGURE 10. ELEPAIO BENTHIC PHOTOS

ELEPAIO & ULILI MARINE EA

Oceanit Laboratories, Inc.

Further out along the pipeline at a depth of about 2-3 feet, other algae were prevalent including: *Dictyota acutiloba*, *Padina santiae-crusis (*ex- japonica), and *Sargassum sp(s)*. Near the end of the pipeline, a number of completely overgrown metal I-beams litter the substrate. These beams and the pipeline itself, support a slightly different array of seaweeds, including *Chnoospora implexa, Galaxaura sp.*, and greater amounts *of Padina.* Coral cover was very minimal in the area. The largest coral colony observed was a *Porites lobata* (lobe coral) colony about half way out along the east side of the pipeline measuring approximately 10 inches across and 10 inches high. Four other small colonies of *P. lobata* (all less than 3 inches across) were seen in the vicinity of the pipeline.

The macro-faunal population of the nearshore area consisted of a few sea cucumbers (2-*Holothuria atra,* and *1-Actinopyga mauritiana*), short spinned sea urchins (*Echinometra mathaei)*, cone shells, a small school of weke (*Mulloides vanicolensis),* and a few small damselfishes, and wrasses. Further out towards the end of the pipeline additional species were noted including the moorish idol (*Zanclus canescens*), one-spot damselfish (*Dascyllus albisella*), seargent major (*Abedudefduf abdominalis*), and manini (*Acanthurus triostegus*).

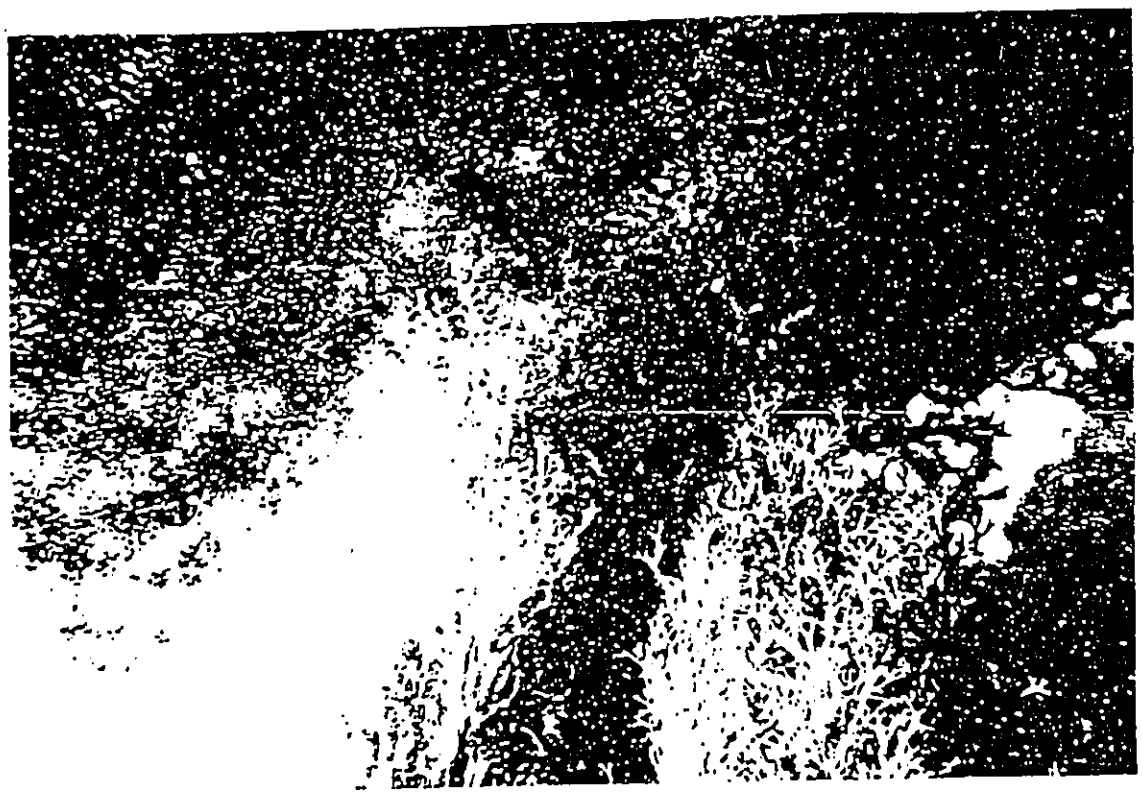
2. Benthic Environment at Ulili Street

The Ulili Street outfall site was subtly different in character from the Elepaio Street site. The reef is further offshore, and the buried pipeline is completely invisible from ground level at the shoreline and at least half way out to the reef. The pipeline location is marked with two metal stakes, one about half way to the reef and the second near the end of the pipeline. Underwater observations of the pipeline alignment were only completed out to the mid-way marker stake. There is no visible evidence in the substrate (from the ground level) indicating the alignment of the pipe.

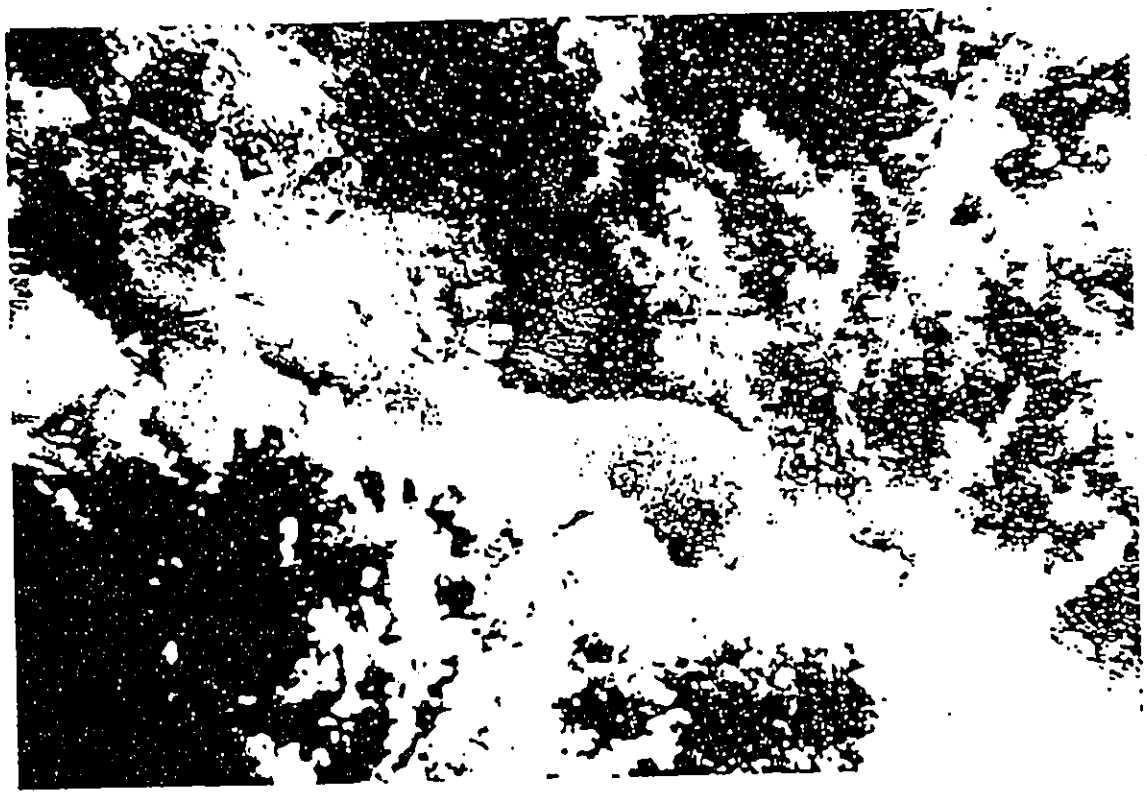
In the very nearshore area (within 5 yards) portions of solid "beach rock" (consolidated coral and sand) extend above the general surface intermittently along the beach. Some areas offshore are littered with piles of lava or basalt rock.

Beyond this very nearshore zone the substrate is sand and loosely consolidated rubble. Although most of the rubble is less than 6-inches in diameter, occasional larger "boulders" occur (up to about 18-inches in diameter). These larger calcarious boulders are clearly the result of large storms that break off pieces of the reef, and deposit them in this back reef flat area. These boulders provide habitat for algae and invertebrates generally removed from the scouring action of the sand substrate.

Acanthophora spicifera was once again the most common algae throughout the range, with *Padina* and *Dictyota* both more prevalent here than at the Elepaio site (see Figure 11). In contrast to the Elepaio site, there was an obvious lack of *Ulva,*



Dictyota acutiloba



Sea Cucumber and Mixed Seaweeds in Rubble Bed

FIGURE 11. ULILI BENTHIC PHOTOS

ELEPAIO & ULILI MARINE EA

Oceanit Laboratories, Inc.

Hypnea, and *Dictyosphaeria* algae in the nearshore water. The shift in the composition of seaweed species indicates that Ulili site probably does not experience the influx of fresh water and dissolved nutrients evident at the Elepaio outfall. Of interest, however, along the estimated path of the Ulili pipeline were two separate patches (~1 yd^2) of the green *Caulerpa sp. (*species either *sertularioides* or *taxifolia* – no sample taken) algae. This algae is often associated with sandy reef flat areas that receive fresh water input. It is possible that these patches of algae mark locations of freshwater leaks in the pipeline.

Nearshore at the Ulili site there appears to be a greater abundance of both sea cucumbers (primarily *Holothuria atra*) and short-spined sea urchins (*Echinometra mathaei)*, as compared to the Elepaio site. During the Ulili site survey there were no fish observed in the water.

IV. IMPACTS, ALTERNATIVES, AND MITIGATION

A. Impacts

1. Bathymetry

No in water construction is envisaged at any of the sites that would change the depth in the area. The proposed improvements do not change the amount of sediment supply to the area. Therefore no short term or long term impacts on the existing nearshore water depth is expected to occur from the proposed action.

2. Currents and Circulation

Proposed improvements at the Elepaio site include removal of the existing stairs that are perpendicular to the shoreline and replacing it with stairs that are parallel to the shoreline. The existing stairs project beyond the high water line. The proposed stairs also project a foot below the high water line. However, the total projection into the water will be less than the existing condition. The currents in the area will not be impacted by the construction of the stairs. The concrete manhole structure is landward of the high water line and will not impact currents or circulation.

At the Ulili site no provision for overflow of stormwater is currently available. The proposed project does not involve any construction of structures seaward of the high water line. Therefore, no long-term impact on currents and circulation is anticipated. The proposed outfall structure incorporates an overflow facility to discharge stormwater during heavy storm events. This shoreline discharge will cause very localized modification of currents near the overflow point during heavy storm events and produce a very small temporary impact on the total circulation in the area.

3. Water Quality

The major short-term impact to water quality will be increased turbidity during construction resulting from trenching and moving activities. In addition to on-site construction work, turbidity in the vicinity of the site may be increased from the movement of construction equipment near the shoreline at the Elepaio site. The increase in turbidity should be of short duration and limited to the construction period and immediately after heavy rains.

The most significant long-term impact on water quality will be the discharge of fresh water near the shoreline at the Ulili site when the pipe discharges stormwater at the shoreline during heavy rain events. Changes in salinity, turbidity, and nutrient concentrations will occur when the overflow occurs. The impact, however, will be localized and limited to a short time during and after overflow discharge. The design peak discharge for the Ulili Drainage System was computed to be approximately 150 cubic feet per second, based on a 10-year storm recurrence interval (Wilson Okamoto, 1980). The discharge will occur only during heavy rainfall. Local circulation

APPENDIX IV

AGENCY COMMENTS

BENJAMIN J. CAYETANO
GOVERNOR
SEIJI F. NAYA, Ph.D.
DIRECTOR
BRADLEY J. MOSSMAN
DEPUTY DIRECTOR
DAVID W. BLANE
DIRECTOR, OFFICE OF PLANNING

Telephone: (808) 587-2846
Fax: (808) 587-2824

DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT & TOURISM

OFFICE OF PLANNING
235 South Beretania Street, 6th Floor, Honolulu, Hawaii 96813
Mailing Address: P.O. Box 2359, Honolulu, Hawaii 96804

Ref. No. P-8343

November 9, 1999

Dear Project Manager:

Subject: Environmental Assessment and Environmental Impact Statement Reviews

For your information, the Hawaii Coastal Zone Management (CZM) Program is no longer routinely reviewing environmental assessment and environmental impact statement reports. If there are any questions, please call John Nakagawa of our CZM Program at (808) 587-2878.

Sincerely,

David W. Blane
Director
Office of Planning

KUSAO & KURAHASHI, INC.
Planning and Zoning Consultants
INTERSTATE BUILDING
1314 S. KING ST., SUITE 1203
HONOLULU, HAWAII 96814

BUS (808) 539-8852
FAX (808) 521-4292

March 21, 2000

Mr. David W. Blane, Director
Office of Planning
Department of Business, Economic Development & Tourism
235 S. Beretania Street 6th Floor
Honolulu, Hawaii 96813

Subject: Draft Environmental Assessment Elepaio and Ulili Street Drain Outlet Improvements - TMK: 3-5-03: 39 and 3-5-04

Dear Mr. Blane:

Thank you for your response to the Department of Design and Construction's request for comments on the proposed Draft Environmental Assessment. We will note your response in future assessments.

Your comments and this response will be included in the Final Environmental Assessment.

Should you have questions, please do not hesitate to call me.

Very truly yours,

Keith H. Kurahashi

Keith H. Kurahashi

cc: City and County of Honolulu
Department of Design and Construction

BENJAMIN J. CAYETANO
GOVERNOR

GENEVIEVE SALMONSON
DIRECTOR

STATE OF HAWAII
OFFICE OF ENVIRONMENTAL QUALITY CONTROL

235 SOUTH BERETANIA STREET
SUITE 702
HONOLULU, HAWAII 96813
TELEPHONE (808) 586-4185
FACSIMILE (808) 586-4186

November 29, 1999

Randall Fujiki, Director
Department of Design & Construction
650 South King Street
Honolulu, Hawaii 96813

Attention: Tyler Sugihara

Dear Mr. Fujiki:

Subject: Draft Environmental Assessment (EA) for **Elepaio and Ulili Streets Drain Outlet Improvement**

We have the following comments to offer:

1. Two-sided pages: In order to reduce bulk and conserve paper, we recommend printing on both sides of the pages in the final document.

2. Determination: A determination stating that an environmental impact statement will not be required is listed in the draft EA. The EIS law prohibits a determination of significant impact or lack of significant impact before the end of the 30-day public review period and prior to receipt, response and analysis of all written comments. For a draft EA the proper determination is *anticipated FONSI* (Finding of No Significant Impact).

3. Funding: The total project cost is not given. Please disclose all state or county funds involved, including any federal funds flowing through the state or county.

4. Contacts: List state and county agencies contacted, during the draft EA comment period as well as the preconsultation phase. Notify the nearest neighbors or neighboring landowners of the proposed project, allowing them sufficient time to review the draft EA and submit comments. Document all contacts in the final EA and include copies of any correspondence.

5. Shoreline setback variance: Is an SSV required for this project?

6. Construction impacts: The draft EA notes that construction is expected to take two months. Will there be a construction vehicle staging area? What measures will be taken to protect equipment and materials from theft or vandalism? How will equipment and materials be transported to the drain outlets and the stairway at their beach locations?

If you have any questions, please call Nancy Heinrich at 586-4185.

Sincerely,

GENEVIEVE SALMONSON
Director

c: Keith Kurahashi

KUSAO & KURAHASHI, INC.
Planning and Zoning Consultants
INTERSTATE BUILDING
1314 S. KING ST., SUITE 1262
HONOLULU, HAWAII 96814

BUS. (808) 596-8882
FAX (808) 521-4202

March 21, 2000

Ms. Genevieve Salmonson, Director
Office of Environmental Quality control
State of Hawaii
235 South Beretania Street, suite 702
Honolulu, Hawaii 96813

Subject: **Draft Environmental Assessment Elepaio and Ulili Street Drain Outlet Improvements - TMK: 3-5-03: 39 and 3-5-04**

Dear Ms. Salmonson:

Thank you for your response to the Department of Design and Construction's request for comments on the proposed Draft Environmental Assessment.

The following are our responses to your recommendations in that letter:

1. In order to reduce bulk and conserve paper, we will print on both sides of the pages in the final environmental assessment.
2. We made note of your comments regarding the EIS law prohibiting a determination of significant impact or lack of significant impact before the end of the 30-day public review period and prior to receipt, response and analysis of all written comments. In future Draft EA's for other projects the proper determination will be stated.
3. $350,000 of County funds were appropriated for this project. No Federal funds are involved in this project.
4. The Final EA will list state and county agencies contacted during the draft EA comment period as well as the pre-consultation phase. The nearest neighboring landowners were notified of the proposed project. Their names will be listed in the Final EA.
5. A Shoreline setback variance is not required for this project involving

repair and renovation of existing structures, which will not increase encroachment into the setback area.

6. No staging area is planned for this project. Only minimal materials will be on site at any given time, and the Contractor will ensure security of materials. Equipment and materials will be transported to the drain outlets at their beach locations using the City right-of-way, as authorized by the Department of Parks and Recreation and the property at 4551 Kahala Avenue for which the applicant has secured a right-of-entry.

Thank you for taking the time to review and comment on our Draft EA. Your comments and this response will be included in the Final EA. Should you have questions, please do not hesitate to call me.

Very truly yours,

Keith H. Kurahashi

Keith H. Kurahashi

cc: City & County of Honolulu
Department of Design and Construction

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'99 DEC

DDR
OliverMcMillan

November 30, 1999

DESIGN
DIV
DES

Mr. Randall K. Fujki, Director
Department of Design and Construction
City and County of Honolulu
650 S. King Street, 2nd Floor
Honolulu, Hawaii 96813
Attn: Mr. Tyler Sugihara

Re: 4551 Kahala Avenue, Honolulu, Hawaii
Elepaio and Ulili Street Drain Outlet Improvement
Tax Map Key: 3-5-03: 39 and 3-5-04

Dear Mr. Sugihara:

Enclosed are the following executed documents:

1. Right of Entry
2. Permission to utilize a portion of our property.

I have also reviewed the Draft Environmental Assessment for Elepaio and Ulili Street Drain Outlet Improvements, Honolulu, Oahu, Hawaii. My concern is with the Ulili outfall that effects our property at 4551 Kahala Avenue, Honolulu, Hawaii. The report indicates that the offshore Ulili outfall pipe is not fully functional due to blockage with sand. Are there any plans for cleaning and maintaining the off shore portion of the Ulili outfall pipe subsequent to the proposed work.

I look forward to your reply.

Yours truly,

James L. McMillan

JLM:ld
Enclosures
h:\ld\mydocs\tmmdkm\Sugihara 113099

DDR OliverMcMillan

California: 4350 Executive Drive, Suite 300 · San Diego, California · 92121 · 858 457-0911 · FAX 858 455-1697
Ohio: 3300 Enterprise Parkway · P.O. Box 228042 · Beachwood, Ohio · 44122 · 216 755-5500 · FAX 216 755-1500

DEPARTMENT OF DESIGN AND CONSTRUCTION
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET, 2ND FLOOR
HONOLULU, HAWAII 96813
PHONE: (808) 523-4564 • FAX: (808) 523-4567

FILE COPY

JEREMY HARRIS
MAYOR

RANDALL K. FUJIKI, AIA
DIRECTOR

ROLAND D. LIBBY, JR., AIA
DEPUTY DIRECTOR

IDEA 99-0371

December 8, 1999

Mr. James L. McMillan
DDR OliverMcMillan LP
4350 Executive Drive, Suite 300
San Diego, California 92121

Dear Mr. McMillan:

Subject: Elepaio and Ulili Streets Drain Outlet Improvements
CIP No. 98505, Contract No. F-61388

Thank you for expediting the execution of the right-of-entry for the State Surveyor and for allowing us to utilize a portion of your property at 4551 Kahala Avenue to construct modifications to our drain manhole. In regard to your question concerning the cleaning and maintaining of the offshore portion of the Ulili Street outfall, there are no current plans to clean the pipeline within the ocean area. The outfall, which was constructed by Bishop Estate and dedicated to the City as part of the development of the Kahala area, discharges to a sandy area which has caused the system to be prone to blockage problems. A previous study of the outfall indicated that the pipeline is partially blocked with sand and coral which reduces its drainage flow capacity during heavy rains. Removal of the sand and coral from the drainline would be very difficult with current technology and would not be economically feasible. We will continue to monitor new technologies in offshore pipe cleaning methods and their potential application for the Ulili Street outfall.

If you have any questions, please call Tyler Sugihara of the Division of Infrastructure Design and Engineering at 523-4932.

Very truly yours,

FOR RANDALL K. FUJIKI
Director

TS:GS:pto
cc: Hida, Okamoto & Associates Inc.
Kusao & Kurahashi
Mrs. Dorothy McMillan

BENJAMIN J. CAYETANO
GOVERNOR OF HAWAII

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TIMOTHY E. JOHNS, CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES

DEPUTIES
JANET E. KAWELO

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
CONSERVATION AND RESOURCES
ENFORCEMENT
CONVEYANCES
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
LAND
STATE PARKS
WATER RESOURCE MANAGEMENT

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

HISTORIC PRESERVATION DIVISION
Kakuhihewa Building, Room 555
601 Kamokila Boulevard
Kapolei, Hawaii 96707

November 30, 1999

Randall K. Fujiki, Director
Department of Design and Construction
City and County of Honolulu
650 S. King Street, 2nd Floor
Honolulu, Hawaii 96813

LOG NO: 24466
DOC NO: 9911E07

Dear Mr. Fujiki:

SUBJECT: **Chapter 6E-8 Historic Preservation Review -- Draft Environmental Assessment for Elepaio and Ulili Street Drain Outlet Improvements (Kusao & Kurahashi Inc. October 1999)**
Waialae-Kahala, Kona, O'ahu
TMK: 3-5-03:39, 3-5-04

Thank you for the opportunity to review the DEA for this project. The project proposes 1) the reconstruction of an existing manhole over the existing 42-inch drain line and repair and relocation of an existing stairway at the end of Elepaio Street right-of way; 2) the reconstruction of an existing drain manhole over the existing 54-inch Ulili Street drain line at the shoreline; and 3) the relocation and repair of a public access stairway across the top of the seawall at the end of Elepaio Street. The drain lines were constructed in 1953 and 1955.

A review of our records shows that there are no known historic sites at the project location. However, numerous human burials have been recorded in the sandy soils within residential lots in the Kahala area, and in one instance within the shoreline below the high tide line to the east of the Ulili drain line. Because it is likely that the installation of the drain lines and manholes would have disturbed cultural deposits at the existing drain locations, and because the only known historic site was found to the east of the Ulili drain line, we believe that this project will have "no effect" on historic sites. Section IX.B.1 notes that if historic sites are found during construction the State Historic Preservation Division will be contacted. We request that the following condition be attached to any permit approved for this project.

Condition:
In the unlikely event that historic sites, including human burials, are uncovered during routine construction activities, all work in the vicinity must stop and the State Historic Preservation Division must be contacted at 692-8015.

Aloha,

Don Hibbard, Administrator
State Historic Preservation Division

EJ:jk

c: OEQC, State Office Tower, Suite 702, 235 S. Beretania Street, Hon., HI 96813

KUSAO & KURAHASHI, INC.
Planning and Zoning Consultants
INTERSTATE BUILDING
1314 S. KING ST., SUITE 1253
HONOLULU, HAWAII 96814

BUS. (808) 538-8852
FAX (808) 521-4282

March 21, 2000

Mr. Don Hibbard, Administrator
State Historic Preservation Division
Department of Land and Natural Resources
601 Kamokila Blvd.
Kapolei, Hawaii 96707

Subject: Draft Environmental Assessment Elepaio and Ulili Street Drain Outlet Improvements - TMK: 3-5-03: 39 and 3-5-04

Dear Mr. Hibbard:

Thank you for your response to the Department of Design and Construction's request for comments on the proposed Draft Environmental Assessment.

We appreciate your comments and will include your request, in our Final EA, for a condition of approval to any permit to read as follows:

"Condition: In the unlikely event that historic sites, including human burials, are uncovered during routine construction activities, all work in the vicinity must stop and the State Historic Preservation Division must be contacted at 692-8015".

Again, thank you for taking the time to review our EA. Your comments and this response will be included in the Final Environmental Assessment.

Should you have questions, please do not hesitate to call me.

Very truly yours,

Keith H. Kurahashi

Keith H. Kurahashi

cc: City & County of Honolulu
Department of Design and Construction

BENJAMIN J. CAYETANO
GOVERNOR OF HAWAII

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STATE OF HAWAII
DEPARTMENT OF HEALTH
P.O. BOX 3378
HONOLULU, HAWAII 96801

'99 DEC -9 P3:1

BRUCE S. ANDERSON, PH.D., M.P.H.
DIRECTOR OF HEALTH

In reply, please refer to
File

99-2550

December 3, 1999

99-231/epo

99 DEC -9 PM 2:37

Mr. Randall K. Fujiki, Director
Department of Design and Construction
City and County of Honolulu
650 South King Street, 2nd Floor
Honolulu, Hawaii 96813

ATTENTION: Tyler Sugihara

Dear Mr. Fujiki:

Subject: Draft Environmental Assessment (DEA)
Elepaio and Ulili Street Drain Outlet Improvements
Honolulu, Hawaii
TMK: 3-5-03: 39

Thank you for allowing us to review and comment on the subject project. We have the following comments to offer:

Water Pollution

1. The Army Corps of Engineers should be contacted to identify whether a Federal permit (including a Department of Army permit) is required for this project. If it is determined that a Federal permit is required, then a Section 401 Water Quality Certification would also be required from the Department of Health;

2. If the project involves any of the following discharges into state waters, a NPDES general permit is required for each activity:

   a. Storm water runoff associated with construction activities, including clearing, grading, and excavation that result in the disturbance of equal to or greater than five (5) acres of total land area;

b. Construction dewatering effluent; and

c. Hydrotesting effluent.

The Department requires that a Notice of Intent for a NPDES general permit be submitted thirty days before the discharge is to occur.

Should you have any questions, please contact Ms. Kris Poentis, Engineering Section of the Clean Water Branch, at 586-4309.

Sincerely,

GARY GILL
Deputy Director for
Environmental Health

c: OEQC
Kusao & Kurahashi
CWB

KUSAO & KURAHASHI, INC.
Planning and Zoning Consultants
INTERSTATE BUILDING
1314 S. KING ST., SUITE 1263
HONOLULU, HAWAII 96814

BUS. (808) 536-8852
FAX (808) 521-4282

March 21, 2000

Mr. Gary Gill
Deputy Director of Environmental Health
State of Hawaii
P.O. Box 3378
Honolulu, Hawaii 96801

Subject: Draft Environmental Assessment Elepaio and Ulili Street Drain Outlet Improvements - TMK: 3-5-03: 39 and 3-5-04

Dear Mr. Gill:

Thank you for your review and comments to the Department of Design and Construction's Draft Environmental Assessment (EA). Our response to your comments are as follows:

1. The City has applied for a Department of the Army Section 404 permit and Department of Health Water Quality Certification. The Army has determined that the proposed work can be authorized under a Nationwide Permit.

2. As discussed with staff at the State Department of Health, NPDES permits are not anticipated for this project.

Thank you for taking the time to review and comment on our Draft EA. Your comments and this response will be included in the Final EA

Very truly yours,

Keith H. Kurahashi

Keith H. Kurahashi

cc: City & County of Honolulu
Department of Design and Construction

DEPARTMENT OF PARKS AND RECREATION
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET, 10TH FLOOR • HONOLULU, HAWAII 96813
PHONE: (808) 523-4182 • FAX: 523-4054

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JEREMY HARRIS
MAYOR

WILLIAM D. BALFOUR, JR
DIRECTOR

MICHAEL T. AMII
DEPUTY DIRECTOR

December 8, 1999

99 DEC 10 AM 8:21

TO: RANDALL K. FUJIKI, DIRECTOR
DEPARTMENT OF DESIGN AND CONSTRUCTION

FROM: WILLIAM D. BALFOUR, JR., DIRECTOR

SUBJECT: ELEPAIO AND ULILI STREET DRAIN OUTLET IMPROVEMENTS
TAX MAP KEYS: 3-5-03:39 AND 3-5-04

We have reviewed the above-referenced document and find that the proposed project will not have any adverse impact on our recreation programs or facilities. However, because the project area is within a shoreline that is heavily used by residents in the surrounding area, caution must be taken to ensure that the surfaces of completed structures are free of any hazardous protrusions. All remnant construction materials should be removed from the beach area during and after the construction phase.

Thank you for the opportunity to comment on the draft environmental assessment. Should you need further information, please contact Mr. John Eveland, Executive Assistant, at 527-6038.

W. D. Balfour, Jr.

WILLIAM D. BALFOUR, JR.
Director

WDB:cu
(99-2964GT)

cc: Office of Environmental Quality Control
Kusao & Kurahashi, Inc.

KUSAO & KURAHASHI, INC.
Planning and Zoning Consultants
INTERSTATE BUILDING
1314 S. KING ST., SUITE 1263
HONOLULU, HAWAII 96814

BUS. (808) 538-6652
FAX (808) 521-4292

March 21, 2000

Mr. William D. Balfour, Jr.,
Director
Department of Parks and Recreation
City and County of Honolulu
650 S. King Street, 10th Floor
Honolulu, Hawaii 96813

Subject: Draft Environmental Assessment Elepaio and Ulili Street Drain Outlet Improvements - TMK: 3-5-03: 39 and 3-5-04

Dear Mr. Balfour:

Thank you for your response to the Department of Design and Construction's request for comments on the proposed Draft Environmental Assessment.

In response to your comments, the City will ensure that the surfaces of completed structures are free of any hazardous protrusions. The Contractor will be required to remove all remnant construction materials from the beach area during and after the construction phase. Your comments and this response will be included in the Final Environmental Assessment.

Should you have questions, please do not hesitate to call me.

Very truly yours,

Keith H. Kurahashi

Keith H. Kurahashi

cc: City & County of Honolulu
Department of Design and Construction

DEPARTMENT OF PLANNING AND PERMITTING
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET • HONOLULU, HAWAII 96813
TELEPHONE (808) 523-4414 • FAX (808) 527-6743

JEREMY HARRIS
MAYOR

JAN NAOE SULLIVAN
DIRECTOR

LORETTA K C CHEE
DEPUTY DIRECTOR

1999/CLOG-7305(ST)
'99 EA Comments - Zone 3

December 27, 1999

Mr. Keith Kurahashi
Kusao & Kurahashi
1314 South King Street, Suite 1263
Honolulu, Hawaii 96814

SUBJECT: Draft Environmental Assessment (EA): Elepaio and Ulili Street Drain Outlet Improvements, Honolulu, Oahu, Tax Map Keys 3-5-03: 39 and 3-5-04

We have reviewed the Draft EA for the above-referenced project received on November 9, 1999, and our comments are as follows:

Section III, A. General Description

4. Land Use Approvals

This subsection should be expanded to disclose that the Elepaio Street improvements are partially within the Diamond Head Special District (The boundary is the centerline of the street). However, the proposed improvements are considered exempt from Special District permit requirements pursuant to Land Use Ordinance (LUO) Section 21-9.40-6.

d. Special Management Area - The Final EA should be revised to indicate that the proposed project is considered exempt from SMA permit requirements pursuant to Section 25-1.3(2)(D) & (F) Revised Ordinances of Honolulu and will not require a minor SMA Use Permit as indicated.

Should you have any questions, please contact Steve Tagawa of our Land Use Approvals Branch at 523-4817.

Very truly yours,

for JAN NAOE SULLIVAN
Director of Planning
and Permitting

JNS:lg

cc: ✓Tyler Sugihara, Design and Construction
Office of Environmental Quality Control

Posse: 19085

KUSAO & KURAHASHI, INC.
Planning and Zoning Consultants
INTERSTATE BUILDING
1314 S. KING ST., SUITE 1263
HONOLULU, HAWAII 96814

BUS (808) 536-8852
FAX (808) 521-4892

March 21, 2000

Mr. Randall Fujiki, Director
Department of Planning and Permitting
650 S. King Street, 7th Floor
Honolulu, Hawaii

Attention: Ms. Eileen Mark

Subject: Draft Environmental Assessment Elepaio and Ulili Street Drain Outlet Improvements - TMK: 3-5-03: 39 and 3-5-04

Dear Mr. Fujiki:

We are responding to Ms. Jan Sullivan's letter dated December 27, 1999 in which comments on the above Draft Environmental Assessment (EA) were stated. Our responses are as follows:

In the Final EA under, "Section III, A. General Description, subsection 4. Land Use Approvals" we will expand this subsection to disclose that the Elepaio Street improvements are partially within the Diamond Head Special District and that the proposed improvements will be considered exempt from Special district permit requirements pursuant to Land Use Ordinance Section 21-9.40-6.

The Final EA will be revised to indicate that the proposed project is considered exempt from SMA permit requirements pursuant to section 25-1.3(2) (D) & (F) Revised Ordinances of Honolulu and will not require a minor SMA Use Permit.

Thank you for taking the time to review and comment on our Draft EA. Your comments and this response will be included in the Final EA

Very truly yours,
Keith H. Kurahashi
Keith H. Kurahashi

cc: City & County of Honolulu
Department of Design and Construction