

DEPARTMENT OF LAND UTILIZATION  
**CITY AND COUNTY OF HONOLULU**  
650 SOUTH KING STREET  
HONOLULU, HAWAII 96813 • (808) 523-4432

RECEIVED

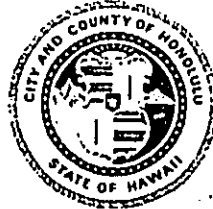
'95 JUN 16 P3:13

PATRICK T. ONISHI  
DIRECTOR

OFFICE OF ENVIRONMENTAL  
QUALITY CONTROL

LORETTA K.C. CHEE  
DEPUTY DIRECTOR

94/SV-006 (ASK)



JEREMY HARRIS  
MAYOR

June 9, 1995

The Honorable Gary Gill, Director  
Office of Environmental Quality Control  
220 South King Street, 4th Floor  
State of Hawaii  
Honolulu, Hawaii 96813

Dear Mr. Gill:

CHAPTER 343, HRS  
Environmental Assessment/Determination  
Negative Declaration

Recorded Owner/  
Applicant/Agent: Kaneohe Yacht Club  
Location : 44-503 Kaneohe Bay Drive  
Tax Map Key : 4-4-22: 32  
Request : Shoreline Setback Variance  
Proposal : Construction of a riprap retaining wall  
to stabilize the bank of an existing  
drainage channel  
Determination : A Negative Declaration Is Issued

Attached and incorporated by reference is the Final Environmental Assessment (FEA) prepared by the applicant for the project. Based on the significance criteria outlined in Chapter 200, State Administrative Rules, we have determined that preparation of an Environmental Impact Statement is not required.

We have enclosed a completed OEQC Bulletin Publication Form and four copies of the FEA. If you have any questions, please contact Ardis Shaw-Kim of our staff at 527-5349.

Very truly yours,

A handwritten signature in cursive script, appearing to read "Patrick T. Onishi".

PATRICK T. ONISHI  
Director of Land Utilization

PTO:am  
Enclosures

g:5kycsv6.asm

46

1995-07-08-0A-FEA - Kaneohe Yacht Club  
rip rap retaining wall

~~JUN 23 1995~~

JUL 8 1995

**FINAL**  
**ENVIRONMENTAL ASSESSMENT**  
**FOR**  
**KANEOHE YACHT CLUB**  
**SOUTH EASEMENT BANK STABILIZATION PROJECT**

Revised: May 3, 1995

ATTACHMENT "A"

FINAL  
ENVIRONMENTAL DESCRIPTION AND PROJECTED ENVIRONMENTAL  
ASSESSMENT AT KANEOHE YACHT CLUB SOUTH DRAINAGE EASEMENT  
BANK STABILIZATION PROJECT

The proposed work is to stabilize the erosion which is occurring along the north slope of an existing intermittent drainage channel which passes through the southern side of the Kaneohe Yacht Club property. As a side benefit, the intended work will restore the drainage capacity of this existing storm drain to near original conditions.

It is the intend that the north side slope of this drainage easement be mechanically shaped utilizing a backhoe or equivalent equipment. This slope shall then be stabilized using a commercially available filter fabric cloth mat intended for this purpose. To secure the cloth, a layer of 0.5 to 300 pound rip rap stone would be placed over the top of the fabric. This stone would be commercially quarried stone free from any organic matter or other contaminates.

The existing vegetation will be cleared to the minimum extend necessary to permit the work to be accomplished. Approximately 100 cubic yards of accumulated alluvial silt is to be removed during the slope preparation and restoration of the original construction of the drainage easement. The drainage channel depth has been reduced due to accumulation of silty material from storm drain run off from neighboring off-site locations mauka of the property and the erosion of the unlined drainage channel slopes. The drainage channel has not been restored since it was originally constructed in the mid 1970's for the C&C of Honolulu.

The drainage channel bottom is a silty bottom and devoid of life other than occasional invertebrates who swim up the channel during periods of high tides.

The material removed will be initially spoiled in a retained stockpile located makai of the restoration site and within the Kaneohe Yacht Club property. The location of this area is downwind of any residential area and will not cause any adverse affect to neighboring properties. After a reasonable amount of drainage has occurred, the dredged material shall be truck-hauled and disposed at the Kapaa landfill site, or other suitable and approved landfill site. A copy of our proposed Settling Basin Construction details are attached for your reference.

Immediate environmental impact will be negligible other than temporarily increased turbidity in the immediate areas. However, the turbidity will be much less than that which is chronically experienced due to storms and fresh-water run off caused during heavy rains discharging through this channel. There should be no long-term adverse impact. Sea life that currently inhabit the drainage easement would re-established themselves very quickly since there will be little change in the physical environment that currently exists. All such sea life are extremely plentiful in the shoreline areas around Kaneohe Bay. There are no rivers or streams within 2,000 feet of this site.

An engineer's design report will be prepared during the final design for construction permits. To minimize redesign costs, all comments made by regulatory and permitting agencies will be incorporated into the final project design. Design of the lined slopes, sizes of stone and layer thickness, bedding materials, functional and structural ability and life expectancy will be in accordance with accepted hydraulic design standards of the U.S. Army Corps. of Engineers as contained in Engineer Manual 1110-2-1601.

The following non-structural Best Management Practices will be implemented during construction.

- a. No excavation will occur during heavy rainfall - run off periods. This will mitigate the transportation of silt laden waters down the drainage channel to the ocean.
- b. To the maximum extent practical, earthwork will be limited to low or incoming tidal periods.
- c. Excavated materials will be stockpiled and dewatered on land prior to transportation to a permanent land based disposal site. Dewatering will pass through existing grass and vegetation to filter out suspended materials to maximum extent practicable. Surrounding berms and weirs will permit settlement prior to returning to ocean waters via the existing storm drain to the bay.
- d. Construction is planned for the dry season between May to December when flow down the drainage channel is minimal.

Alternative actions are as follows:

- a. No Action: Erosion of the existing banks will continue. Eroded materials will be deposited in ocean waters, seaward of the storm drain outlet. Eventually existing structures and roadways will be endangered. The only effective solution is some form of bank stabilization.
- b. Vertical Concrete Walls: This option would require far more excavation to provide adequate footing foundations and vertically cut slopes. The cost of this option would be prohibitive. Also depending upon the foundation would greatly expand the depth of the drainage channel and therefor the opposite bank.
- c. Vertical Steel Sheet Piling: Cost is beyond means. Sheet piling could be installed at the landward edge of the property slope; however, increased drainage velocities would cause erosion of remaining channel materials, which would be deposited in the ocean waters.

To date, we have received favorable responses from all other agencies. This includes other City and County agencies, the U.S. Army Corp. of Engineers, and State of Hawaii review agencies. Full Approvals have been received from the following agencies:

Costal Zone Management Planning:	Approval Received 2/3/94
General Permit, Corp of Eng.:	Approval Received 1/11/94
Dept. of Public Works, C&C of Honolulu:	Approval Received 12/23/93
Section 401 State of Hawaii, Dept of Health:	Approval Pending (See * below)

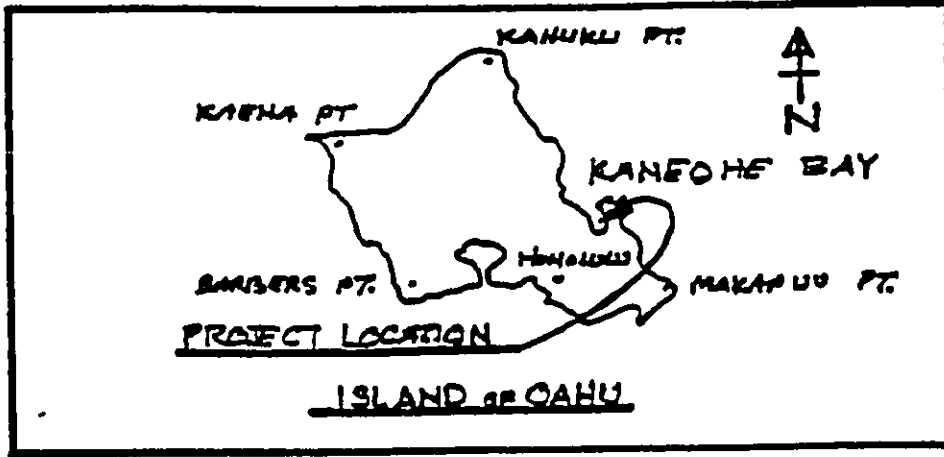
\* **Note:** No unfavorable comments received. Our application was set out by the State to the engineering firm of Engineering Concepts to make a review of our application. This review was completed in November, 1994 with no unfavorable comments.

We are not proposing construction of a new drainage channel. The existing channel was constructed by the City and County of Honolulu in conjunction with private/public development improvements in the vicinity. No maintenance has been performed by the C&C of Honolulu since initial construction. During periods of heavy rainfall/run off, increased drainage velocities have scarred the original channel slope and is eroding adjacent lands belonging to Kaneohe Yacht Club. Without the project, erosion will continue and further damages will occur to an existing boat storage shed, a concrete slab, bituminous pavement, a concrete bulkhead and chain link fencing in the vicinity. The proposed revetment will protect these structures, and will provide advantageous to C&C of Honolulu by eliminating erosion of the unlined drainage channels.

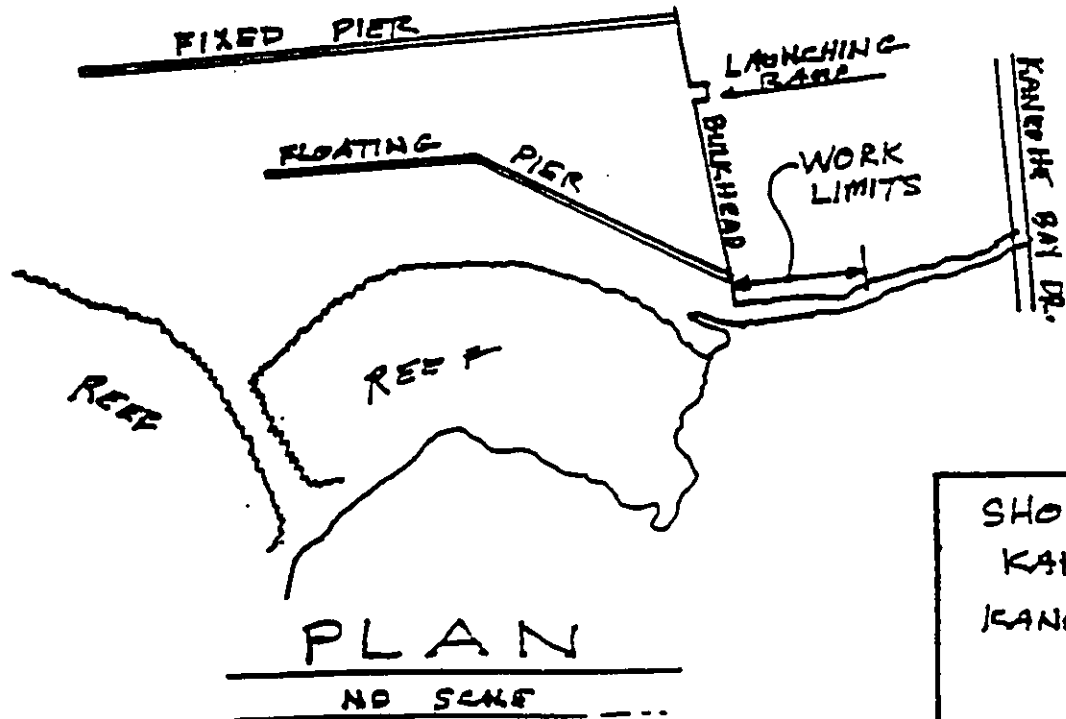
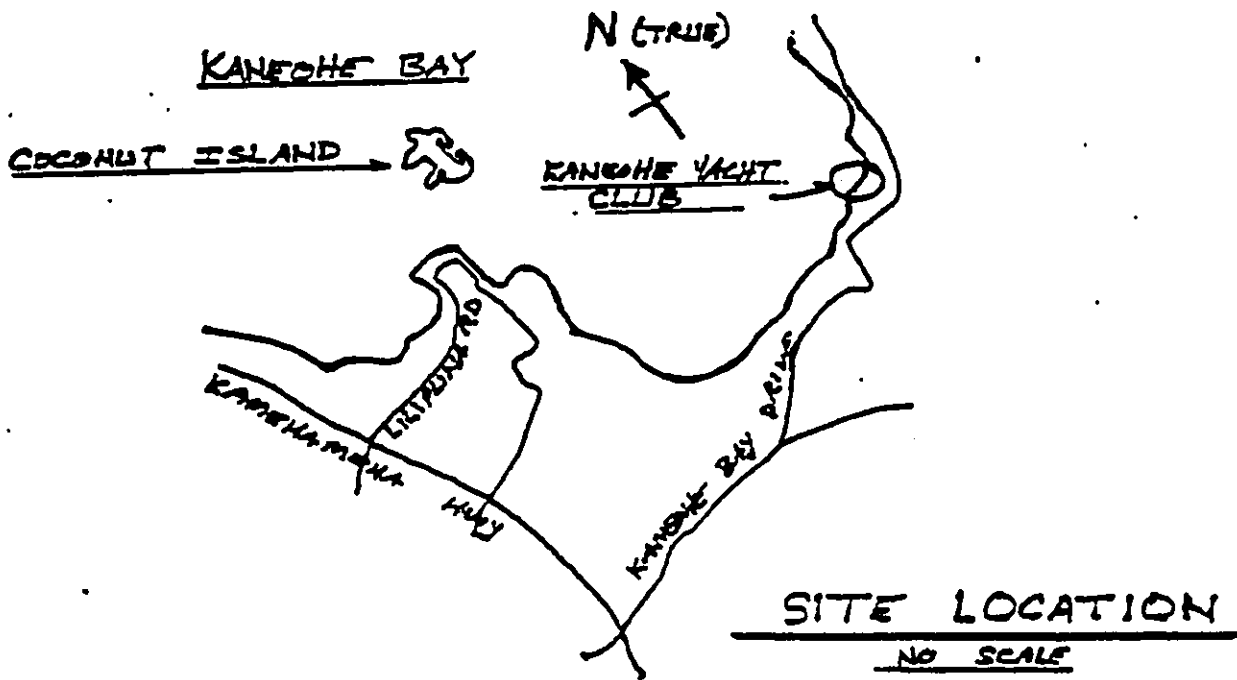
To contain costs, full scale drawings were not contemplated for this minor project. All pertinent information is contained on the sketches submitted with our applications. Minor design changes which may result from final design calculations will be incorporated into the final construction permit plans.

Estimated cost for this project is expected to be less than \$25,000. Work would commence within 6-months of receipt of all permits and authorizations and will be completed within 60 days there of. However, since it is desirable to do as much of this work as possible during the dry season, we're limited to the months of June - November for the construction period.

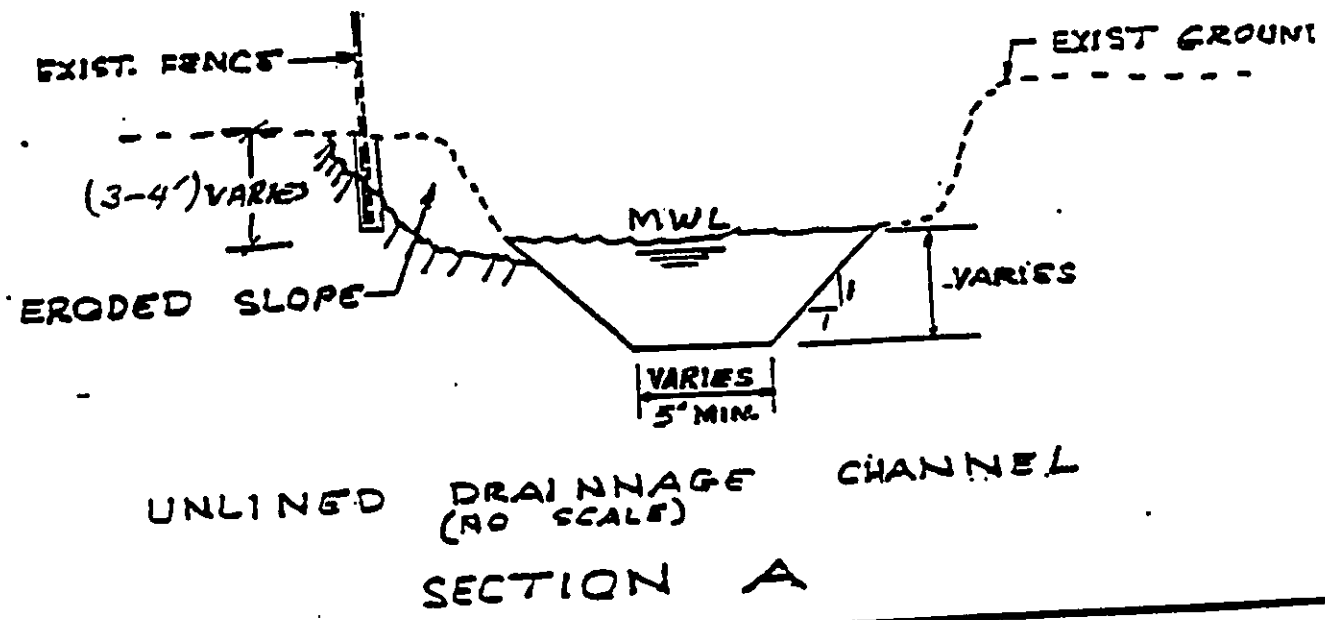
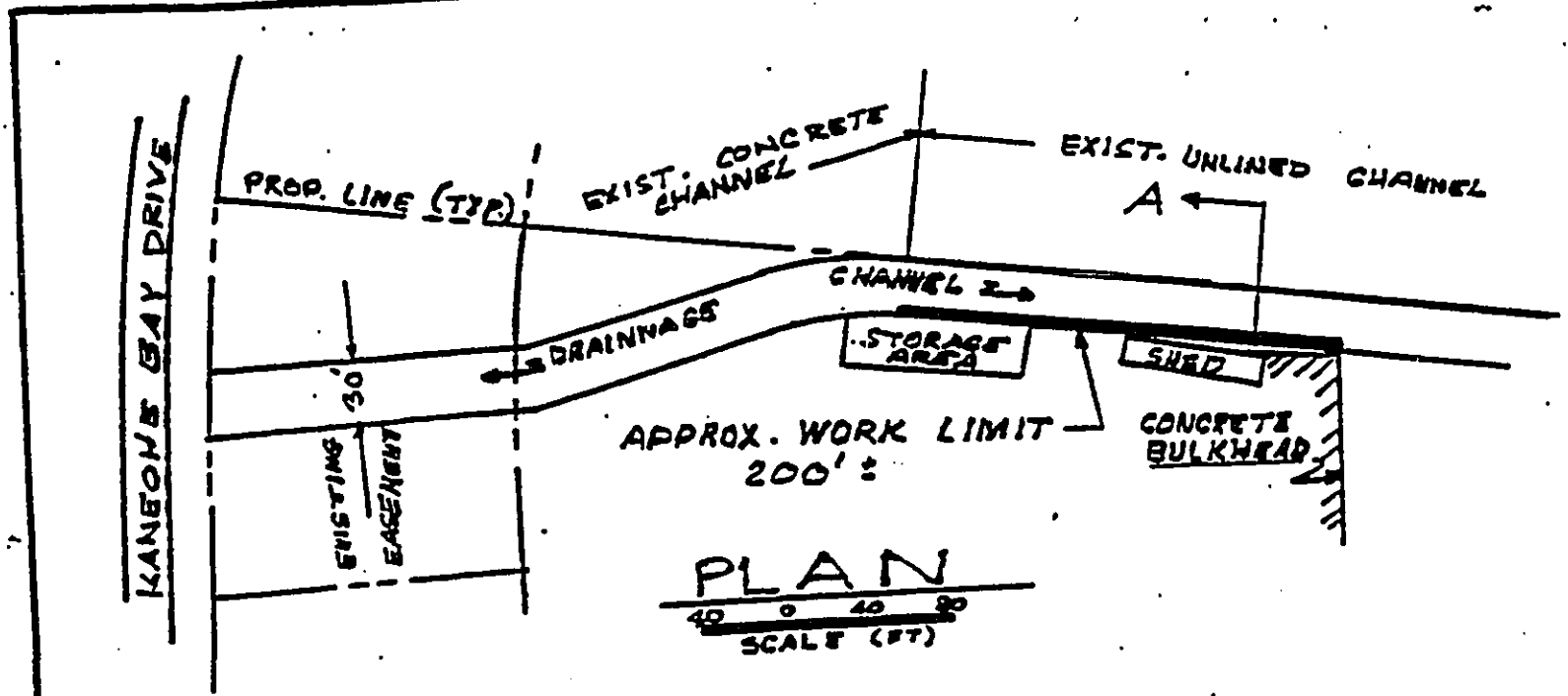
ATTACHMENT "B"



DATE: FEB 24 PM 8 45  
DRAWN BY: [illegible]

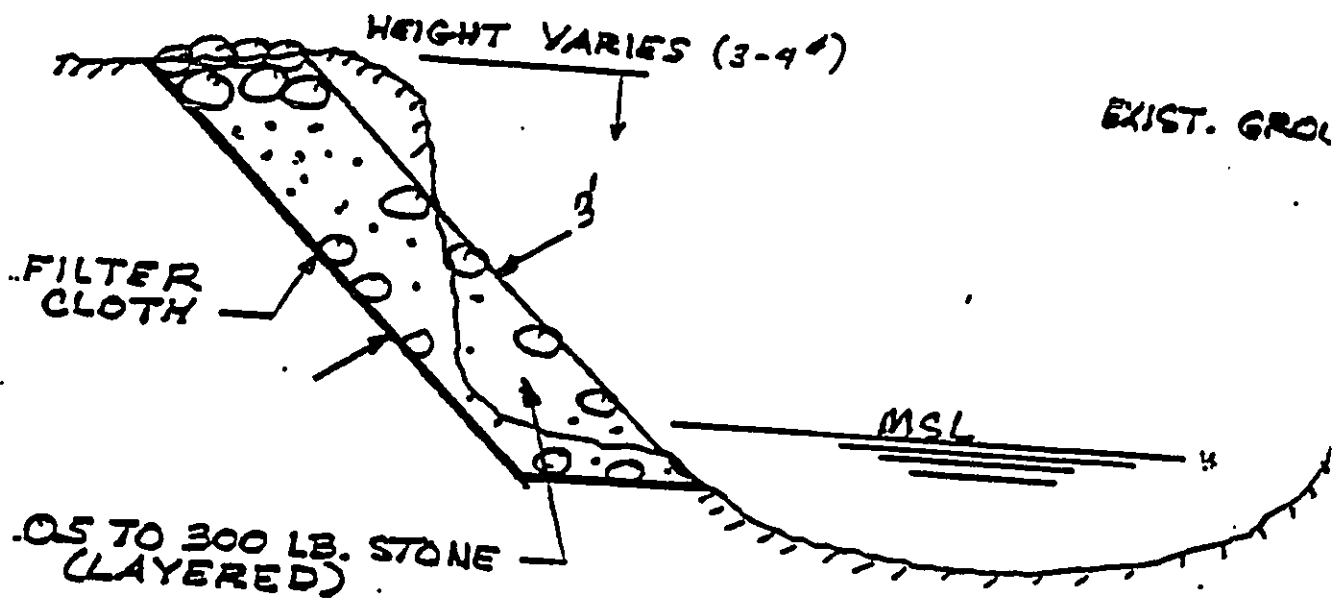


SHORELINE PROTECTION  
KANEHOE YACHT CLUB  
KANEHOE BAY, OAHU, HAWAII



SHORELINE PROTECTION  
 KANEOHE YACHT CLUB  
 KANEOHE BAY, OAHU, HAWAII

SHEET 2 of 3      OCT '93



PROPOSED SLOPE REPAIRS  
NO SCALE

SHORELINE PROTECT  
KANEOHE YACHT CL  
KANEOHE BAY, OAHU, HA

SHEET 2 of 3

α



-CERTIFIED SHORELINE

40' SHORELINE SETBACK

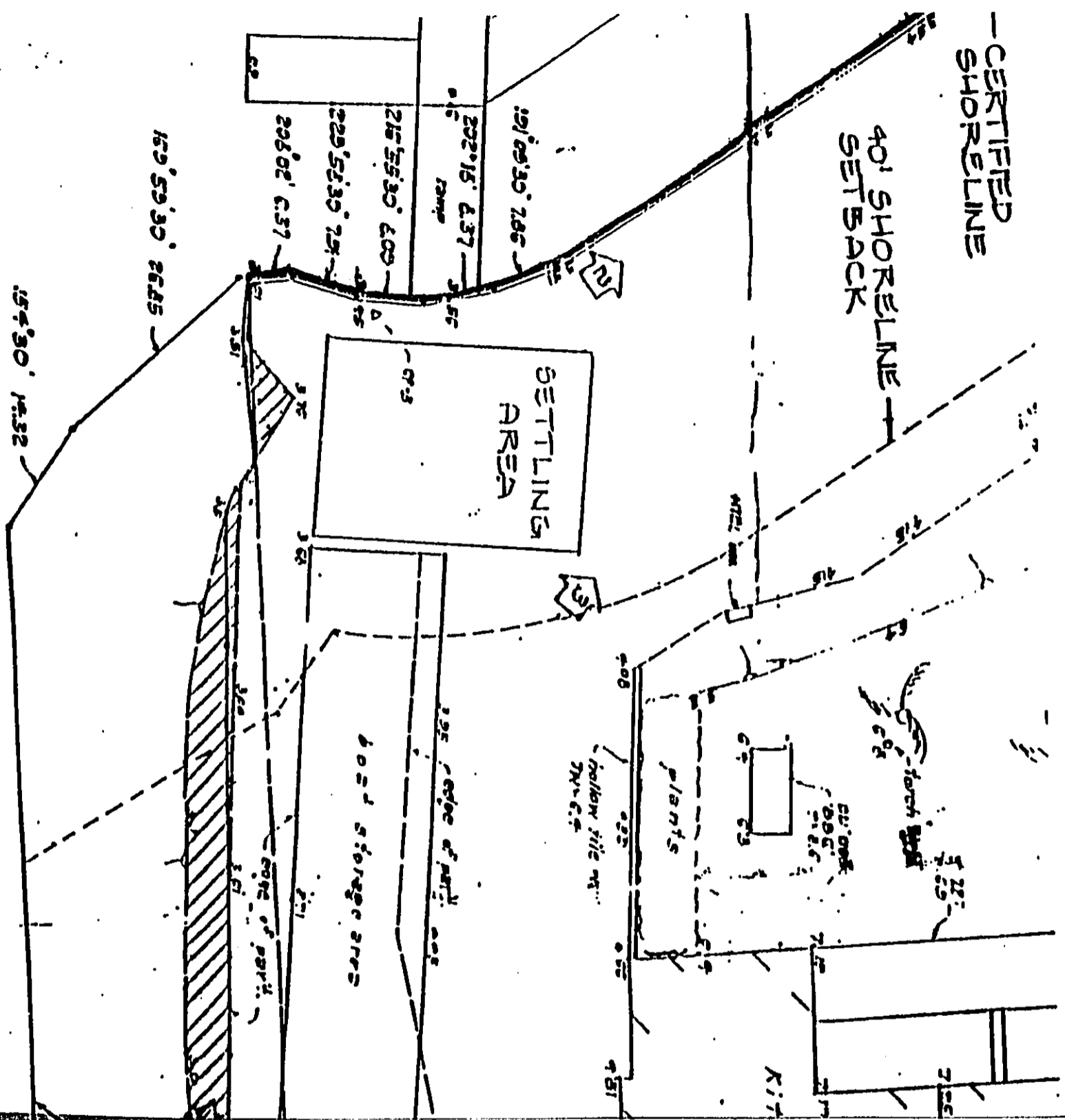
SETTLING AREA

plants

KIT

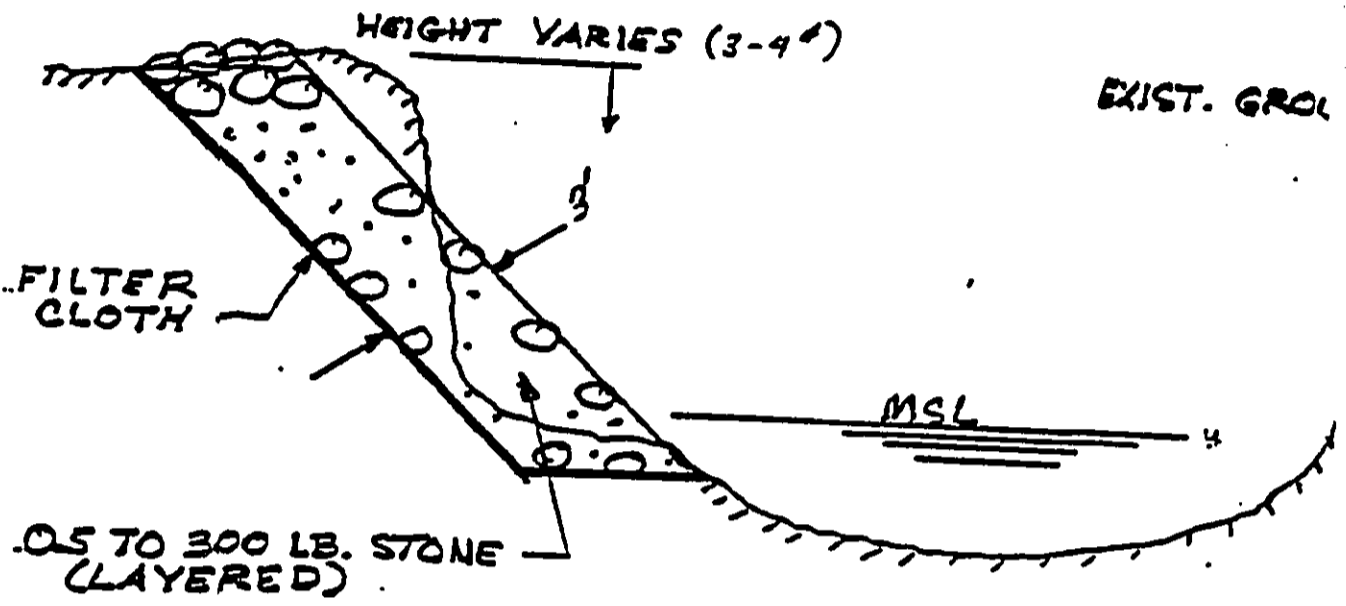
wood storage area

hollow tile m...



# CORRECTION

THE PRECEDING DOCUMENT(S) HAS  
BEEN REPHOTOGRAPHED TO ASSURE  
LEGIBILITY  
SEE FRAME(S)  
IMMEDIATELY FOLLOWING

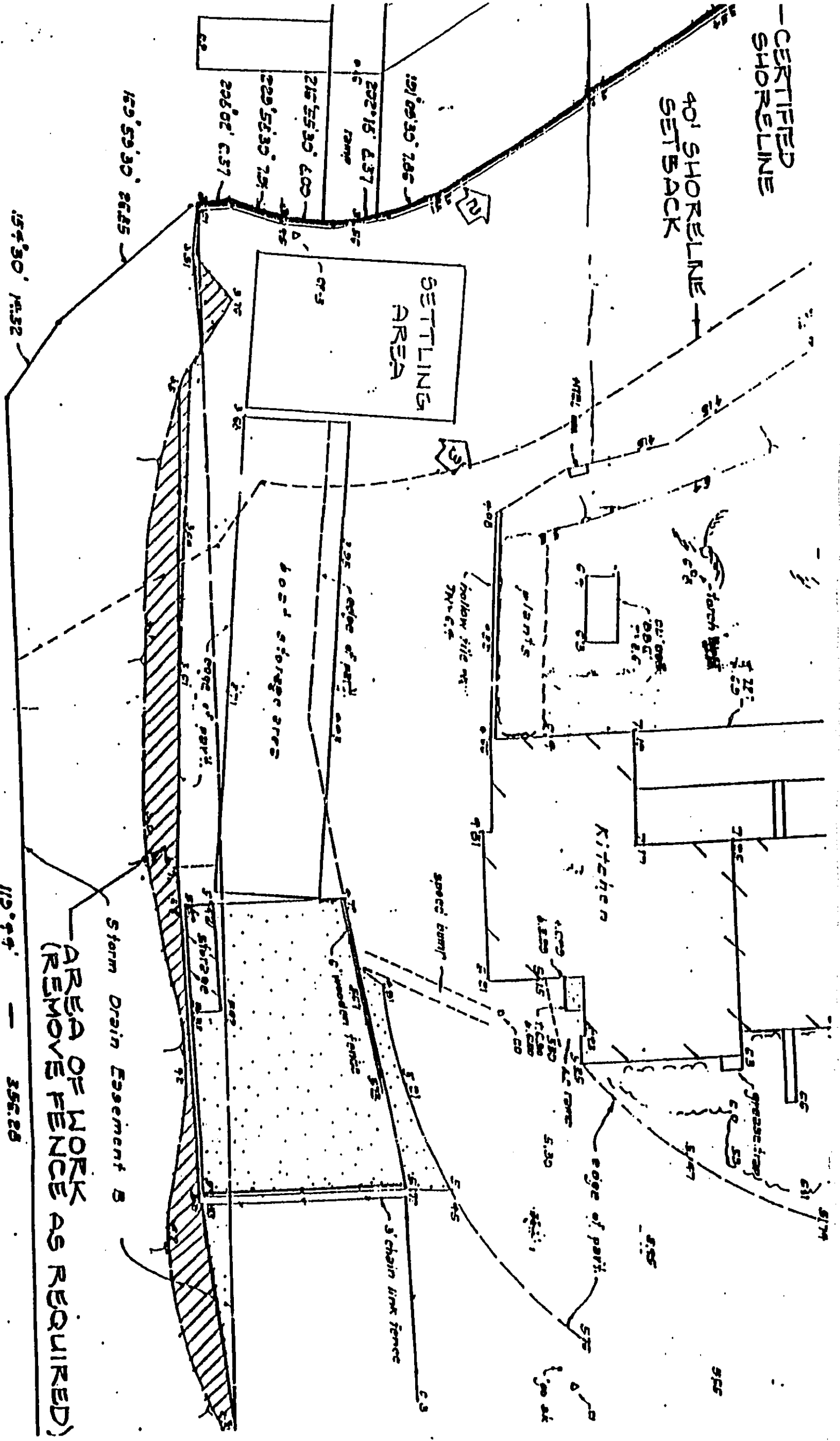


PROPOSED SLOPE REPAIRS  
NO SCALE

SHORELINE PROTECT  
KANEOHE YACHT C  
KANEOHE BAY, OAHU, HA  
SHEET 3 OF 3

CERTIFIED  
SHORELINE

40' SHORELINE  
SETBACK



SETTLING  
AREA

Kitchen

wood storage area

Storm Drain Easement B  
AREA OF WORK  
(REMOVE FENCE AS REQUIRED)

119° 49' — 356.28

154° 30' 14.32

159° 59' 30" 26.25

206° 02' 6.37

229° 56' 30" 7.51

216° 55' 30" 4.00

202° 15' 43.7

191° 09' 30" 7.86

hollow tile m...  
TH. C. P.

plants

lime pit

spec. bump

grease trap

edge of part.

3' chain link fence

wooden fence

edge of part.

edge of part.

edge of part.

edge of part.

edge of part.

edge of part.

edge of part.

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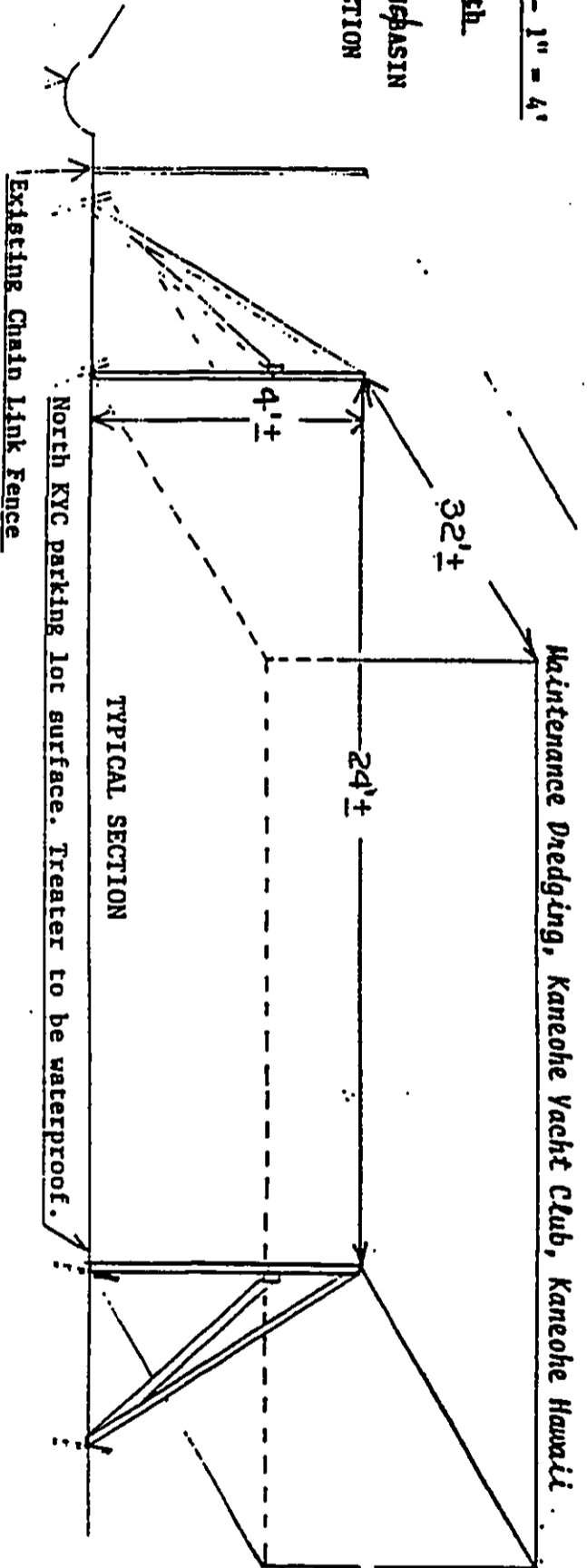
edge of part.

edge of part.

Scale - 1" = 4'

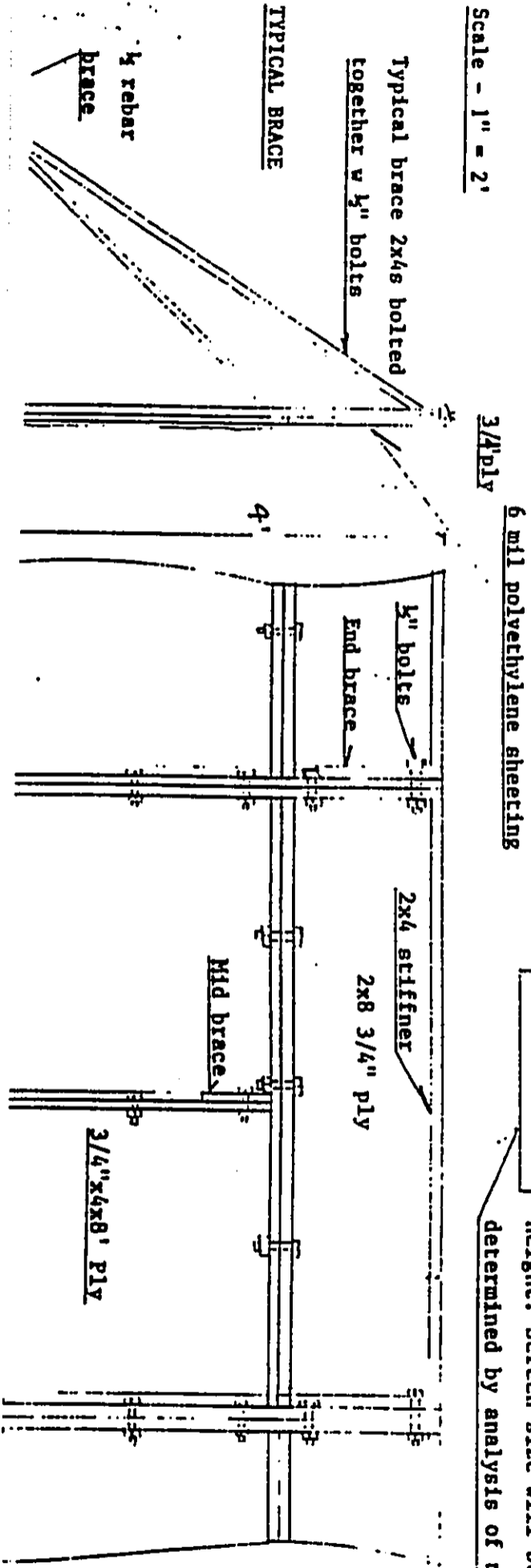
North

SETTLING BASIN  
CONSTRUCTION  
DETAILS

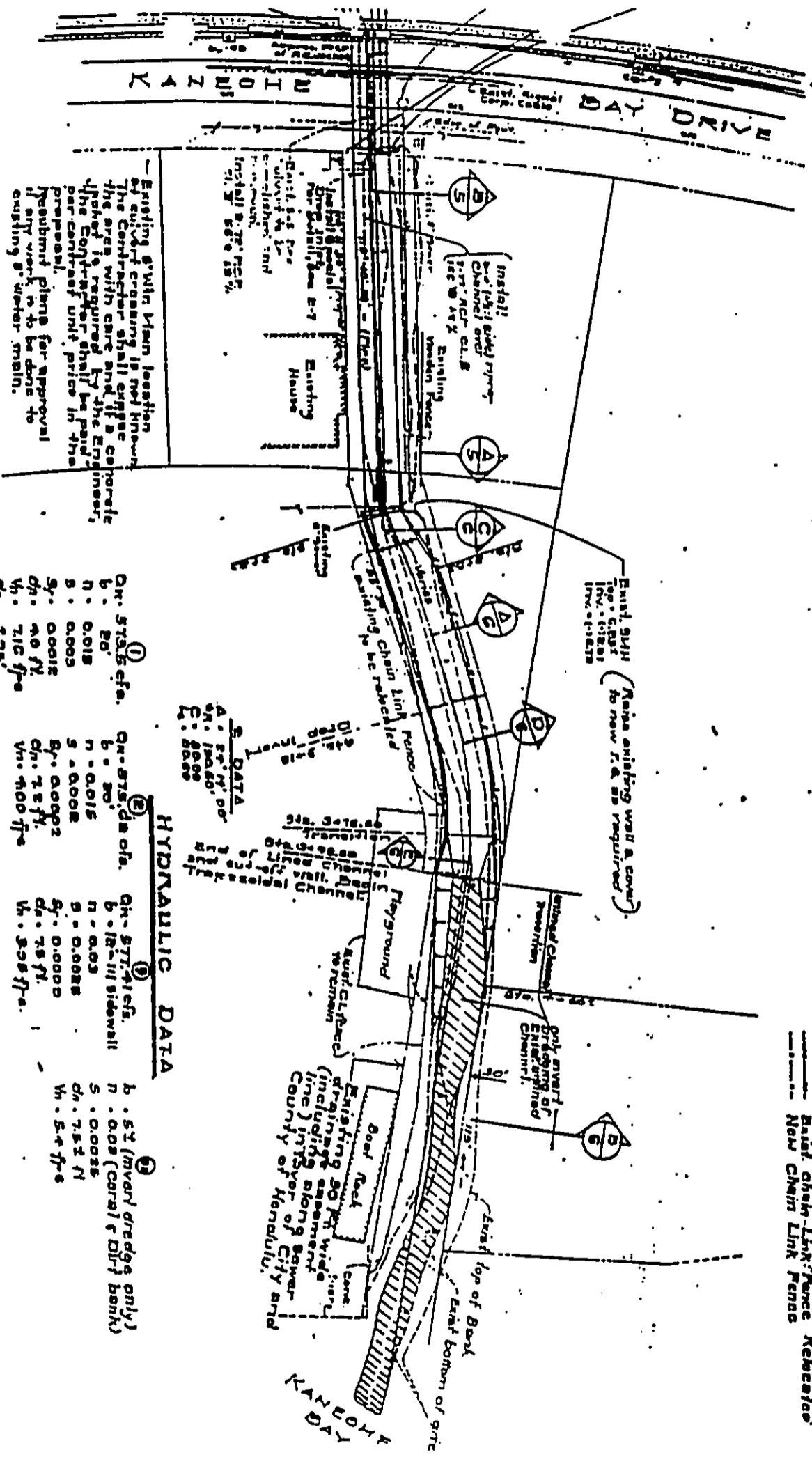


Existing grass lined storm runoff swale.  
Dredge water discharge will flow into bay in swale.

Scale - 1" = 2'



DRAINAGE OUTLET - not to scale  
Two outlets on makai end of settling basin. 3'w x 5'H with stop logs to control outlet weir height. Screen size will be determined by analysis of material



Existing 8" Wtr. Main location by utility engineering is not known. The Contractor shall explore the area with care and if a concrete block is required by the Engineer, the Contractor shall be paid per contract unit price in the proposal. Plans for approval if any work to be done to existing 8" water main.

QR. STA. 575.5 cfs.

a.	30'
b.	0.015
c.	0.0005
d.	0.0002
e.	0.0001
f.	0.00005
g.	0.00002
h.	0.00001
i.	0.000005
j.	0.000002
k.	0.000001

QR. STA. 577.1 cfs.

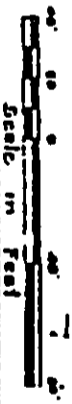
a.	30'
b.	0.015
c.	0.0005
d.	0.0002
e.	0.0001
f.	0.00005
g.	0.00002
h.	0.00001
i.	0.000005
j.	0.000002
k.	0.000001

QR. STA. 578.7 cfs.

a.	30'
b.	0.015
c.	0.0005
d.	0.0002
e.	0.0001
f.	0.00005
g.	0.00002
h.	0.00001
i.	0.000005
j.	0.000002
k.	0.000001

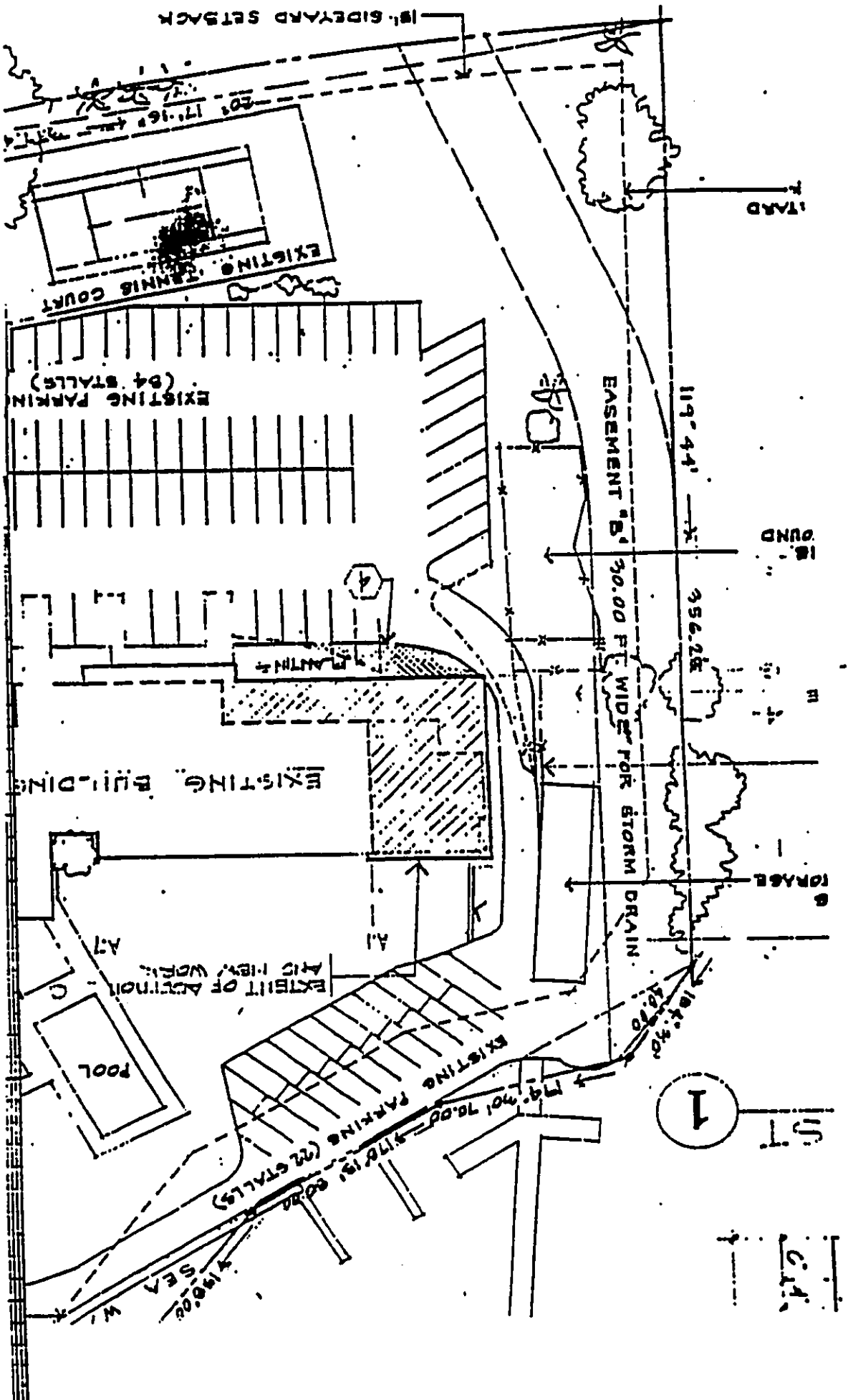
**HYDRAULIC DATA**

**PLAN**



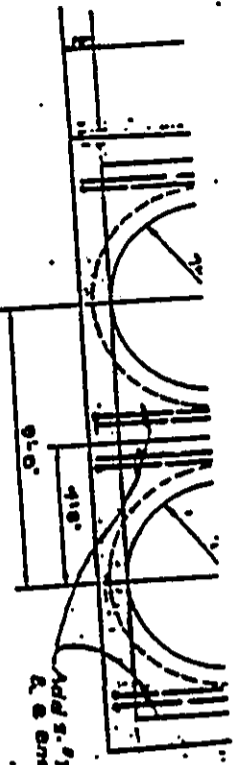
NOT TO SCALE

DATE	NOV 19 1958
BY	J. W. B. / J. W. B.
CHECKED	J. W. B. / J. W. B.
APPROVED	J. W. B. / J. W. B.
TITLE	SEWER LINE
PROJECT	SEWER LINE
SHEET	1 OF 1
SCALE	AS SHOWN
DATE	NOV 19 1958
BY	J. W. B. / J. W. B.
CHECKED	J. W. B. / J. W. B.
APPROVED	J. W. B. / J. W. B.
TITLE	SEWER LINE
PROJECT	SEWER LINE
SHEET	1 OF 1
SCALE	AS SHOWN



ORIGINAL "AS-CONSTRUCTED"

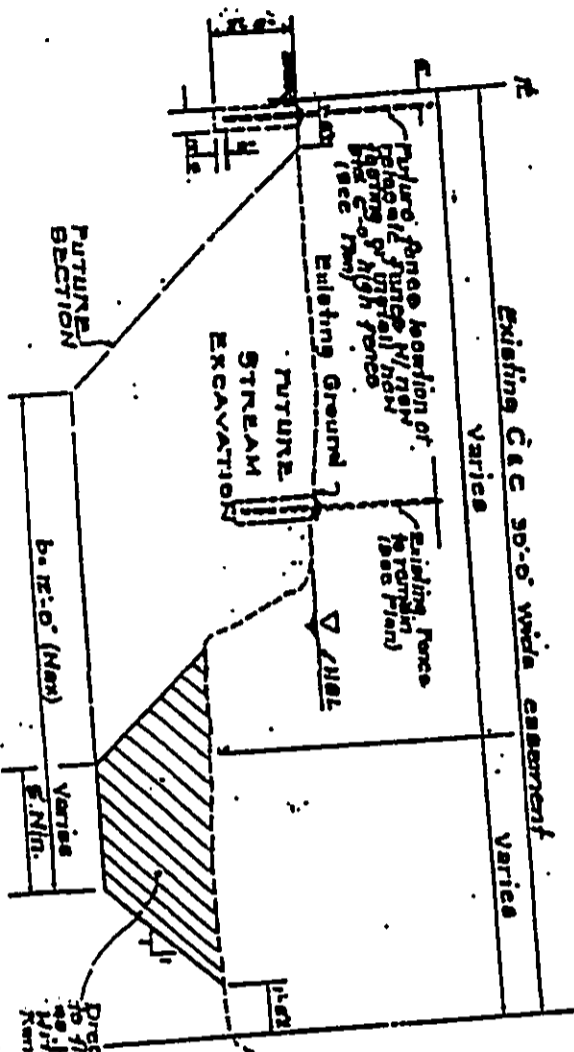
DRAIN



**SECTION A**  
Scale: 1/4" = 1'-0"

n	0.0000	n	0.0010
q	0.0000	b	0.0000
dn	0.0000	dn	0.0000
Vn	0.0000	Vn	0.0000
A	0.0000	A	0.0000
Op	0.0000	Op	0.0000

Provide cut-off wall  
See Detail (B)

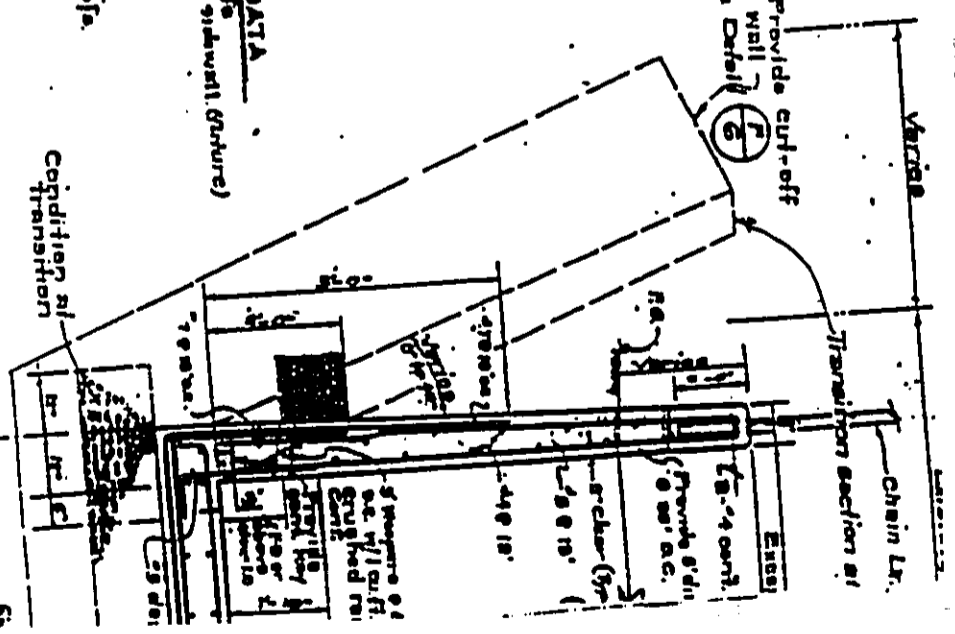


**UNLINED CHANNEL @ KANEHOHE BAY**  
Scale: 1/4" = 1'-0"

**HYDRAULIC DATA**

q	0.0000
n	0.0000
q	0.0000
dn	0.0000
Vn	0.0000
A	0.0000
Op	0.0000

Provide invert to finish as possible within existing ditch bed track Kaneohe



ORIGINAL "AS-CONSTRUCTED"  
ENGINEERING PLANS



JUN 23 1995



**Kaneohe Yacht Club**

44-503 Kaneohe Bay Drive  
Kaneohe, Hawaii 96744

'95 MAY 18 PM 3:31  
DEPT OF LAND UTILIZATION  
CITY & COUNTY OF HONOLULU

May 3, 1995

City & County of Honolulu  
ATTN: Mr. Patrick T. Onishi, Director  
Department of Land Utilization  
650 South King Street  
Honolulu, HI 96813

RE: 95-01482(DT) 94/SV-006  
Kaneohe Yacht Club Bank  
Stabilization Shoreline Variance

Dear Mr. Onishi,

In reply to your letter of April 24, 1995 please note the following additional information as requested:

1. The Cost of the entire project, including the portions outside of the 40-foot shoreline set back is conservatively estimated at \$25 to \$30,000. No work will be conducted outside of these areas, except for temporary storage of excavated materials prior to permanent disposal.
2. Construction will commence within 6 months of receipt of all permits and authorizations, and will be completed within 60 days there of. On this basis, construction is estimated to occur in September - November, 1995.
3. An engineer's design report will be prepared during final design for construction permits. To minimize redesign costs, all comments made by regulatory and permitting agencies will be incorporated into the final project design. Design of the lined slopes, sizes of stone and layer thickness, bedding materials, functional and structural ability and life expectancy will be in accordance with accepted hydraulic design standards of the U.S. Army Corps. of Engineers as contained in Engineer Manual 1110-2-1601.
4. We have received favorable responses from all other agencies to date. This includes other City and County agencies, the U.S. Army Corp. of Engineers, and State of Hawaii review agencies. Full Approvals have been received from the following agencies:

Telephone (808) 247-4121 · Fax (808) 235-8180

Costal Zone Management Planning:	Approval Received 2/3/94
General Permit, Corp of Eng.:	Approval Received 1/11/94
Dept. of Public Works, C&C of Honolulu:	Approval Received 12/23/93
Section 401 State of Hawaii, Dept of Health:	Approval Pending (See * below)

\* **Note:** No unfavorable comments received. Our application was set out by the State to the engineering firm of Engineering Concepts to make a review of our application. This review was completed in November, 1994 with no unfavorable comments.

5. As noted in the third paragraph of our FEA, the total excavated earthwork is estimated at 100 cubic yards or less. Of this amount, less than 15% of this earthwork will be removed from within the 40' set back area.

6. The following non-structural Best Management Practices will be implemented during construction.

a. No excavation will occur during heavy rainfall - run off periods. This will mitigate the transportation of silt laden waters down the drainage channel to the ocean.

b. To the maximum extent practical, earthwork will be limited to low or incoming tidal periods.

c. A silt screen will be employed during earthwork and revetment placement operations to minimize transportation of silt to ocean waters.

d. Excavated materials will be stockpiled and dewatered on land prior transportation to a permanent land based disposal site. Dewatering will pass through existing grass and vegetation to filter out suspended materials to the maximum extent practicable. Surrounding berms and weirs will permit settlement prior to returning to ocean waters via the existing storm drain to the bay.

e. Construction is planned for the dry season between May to December when flow down the drainage channel is minimal.

7. Alternatives considered are:

a. No Action: Erosion of the existing banks will continue. Eroded materials will be deposited in ocean waters, seaward of the storm drain outlet. Eventually existing structures and roadways will be endangered. The only effective solution is some form of bank stabilization.

b. Vertical Concrete Walls: This option would require far more excavation to provide adequate footing foundations and vertically cut slopes. The cost of this option would be prohibitive. Also depending upon the foundation would greatly

expand the depth of the drainage channel and therefor the opposite bank.

c. Vertical Steel Sheet Piling: Cost is beyond means. Sheet piling could be installed at the landward edge of the property slope; however, increased drainage velocities would cause erosion of remaining channel materials, which would be deposited in the ocean waters.

8. We are not proposing construction of a new drainage channel. The existing channel was constructed by the City and County of Honolulu in conjunction with private/public development improvements in the vicinity. No maintenance has been performed by the C&C of Honolulu since initial construction. During periods of heavy rainfall/run off, increased drainage velocities have scarred the original channel slope and is eroding adjacent lands belonging to Kaneohe Yacht Club. Without the project, erosion will continue and further damages will occur to an existing boat storage shed, a concrete slab, bituminous pavement, a concrete bulkhead and chain link fencing in the vicinity. The proposed revetment will protect these structures, and will provide advantageous to C&C of Honolulu by eliminating erosion of the unlined drainage channels.

To contain costs, full scale drawings were not contemplated for this minor project. All pertinent information is contained on the sketches submitted with our applications. Minor design changes may result from final design calculations.

Again, please do not hesitate to contact me if you have any questions!

Sincerely,



Allan Schildknecht  
Project Chairman, KYC



# Kaneohe Yacht Club

44-503 Kaneohe Bay Drive

Kaneohe, Hawaii 96744

## ATTACHMENT "D-1"

### SCOPE OF WORK

#### AT KANEOHE YACHT CLUB SOUTH DRAINAGE EASEMENT

The proposed work is to stabilize the erosion which is occurring along the north slope of the drainage channel which passes through the southern side of the Kaneohe Yacht Club property. As a side benefit, the intended work will restore the drainage capacity of this existing storm drain to near original conditions.

It is the intent that the north side slope of this channel be mechanically shaped utilizing a backhoe or equivalent equipment. This slope shall then be stabilized using a commercially available filter fabric cloth mat intended for this purpose. To secure the cloth, a layer of 0.5 to 300 pound rip rap stone would be placed over the top of the fabric. This stone would be commercially quarried stone free from any organic matter or other contaminants. This material will comply with Section 11-54-03 of the Hawaii Administrative Rules.

The existing vegetation, which is primarily Hale Koa will be cleared to the minimum extent necessary to permit the work to be accomplished. Approximately 100 cubic yards of accumulated alluvial silt is to be removed during the slope preparation and restoration of the original construction of the drainage channel. The drainage channel depth has been reduced due to accumulation of silty material from storm drain run off from neighboring off-site locations mauka of the property and the erosion of the unlined drainage channel slopes. The drainage channel has not been restored since it was originally constructed in the mid 1970's for the C&C of Honolulu. A siltation fence will be constructed at the outlet of the drainage basin to minimize the siltation flowing into the bay during construction.

The immediate environmental impact will be negligible other than temporarily increased turbidity in the immediate areas. However, the turbidity will be much less than that which is chronically experienced due to storms and fresh-water run off caused during heavy rains discharging through this channel. There should be no long-term adverse impact.

Telephone (808) 247-4121 · Fax (808) 235-8180



# Kaneohe Yacht Club

44-503 Kaneohe Bay Drive

Kaneohe, Hawaii 96744

## ATTACHMENT D-3

### MONITORING PROGRAM

There is no indication that the alluvial silty bottom of the drainage ditch contains any contamination. Previous tests of the siltation within yacht club harbor show the silt within this area to also be free of contamination. However, during the construction should additional tests of the discharge waste be required, the club will have these tests made as requested.

Visual inspection of the discharge will be maintained through-out the excavation process of both the spoils and the turbidity of the water within the drainage ditch and the immediate areas of the Kaneohe Bay where the ditch drains into.

Please refer to our attached siltation containment drawings for additional information.

Prior to removal of the dried spoils, the spoils will again be examined and will be truck hauled to a suitable landfill site on Oahu. It is our intent not to have any ocean discharge of the spoils.

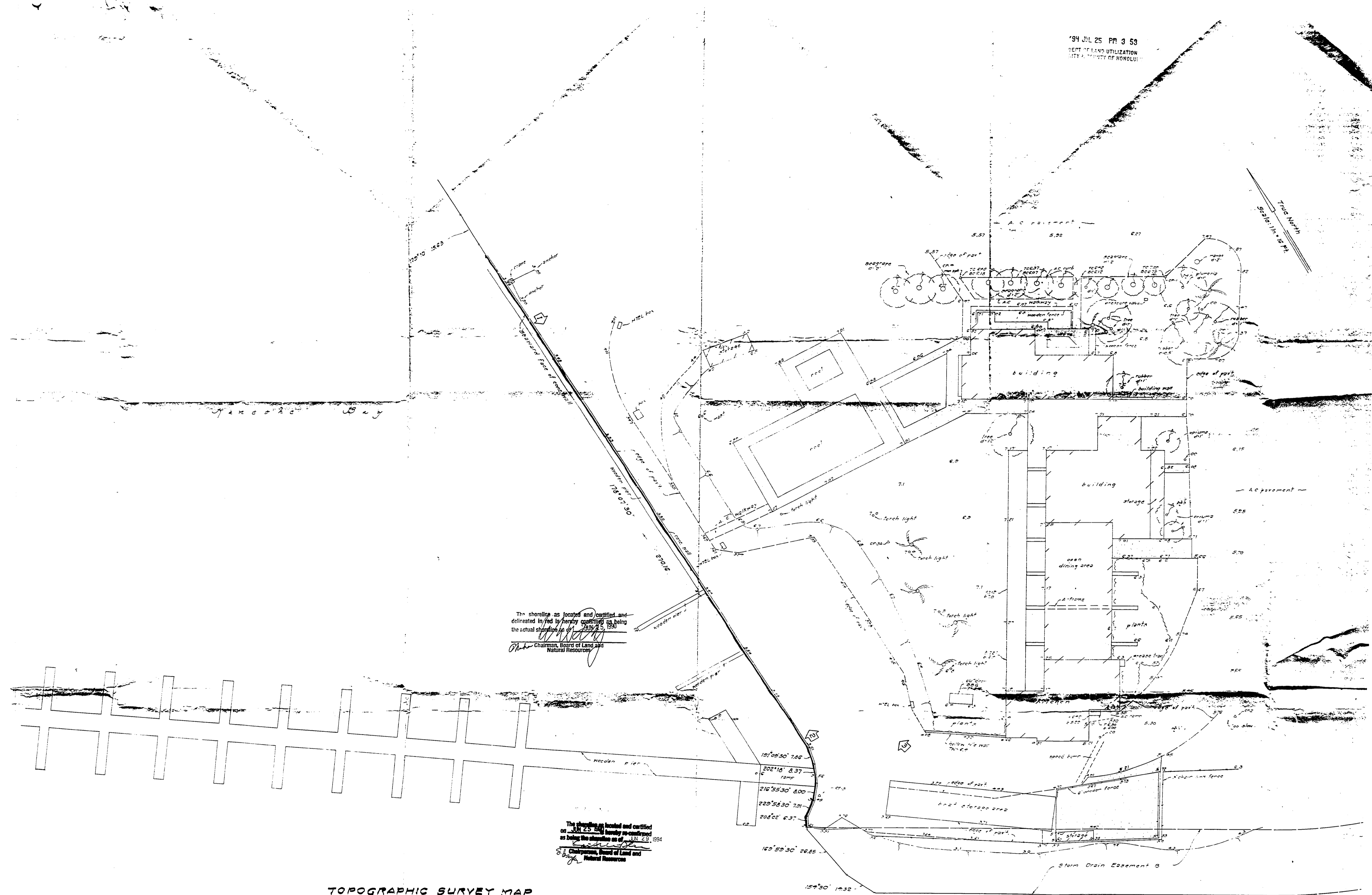
**OVERSIZED  
DRAWING/MAP**

**PLEASE SEE  
35MM ROLL**

**0062**

RECEIVED AS  
FOLLOWS

'94 JUL 25 PM 3 53  
DEPT. OF LAND UTILIZATION  
OFFICE OF HONOLULU



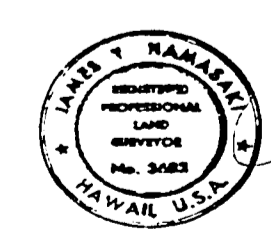
The shoreline as located and certified and delineated in field by survey conducted on 7/25/94 holding the actual certificate of title.

*[Signature]*  
Chairman, Board of Land and Natural Resources

The shoreline as located and certified on 7/25/94 hereby re-certified as being the shoreline as of 7/25/94.

*[Signature]*  
Chairman, Board of Land and Natural Resources

**TOPOGRAPHIC SURVEY MAP**  
**PORTION OF REVISED**  
**KANEOHE YACHT CLUB SITE**  
Puuuuli, Kaneohe, Koolau Point, Oahu, Hawaii  
Scale: 1 in. = 10 Ft.  
Tax Map Key: 7-4-22, par. 32 April 11, 1990



*[Signature]*  
JAMES T. HAMASAKI

CONTROLPOINT SURVEYING AND ENGINEERING, INC.  
1043 Wong Ho Lane  
Honolulu, Hawaii 96814

Job No. 89003  
P.B. No. 55218