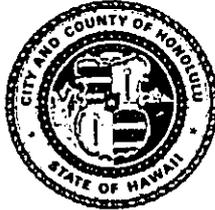


DEPARTMENT OF LAND UTILIZATION
CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET
HONOLULU, HAWAII 96813 • (808) 523-4432



JEREMY HARRIS
MAYOR

PATRICK T. ONISHI
DIRECTOR

LORETTA K.C. CHEE
DEPUTY DIRECTOR

94/SV-005(ASK)

February 14, 1995

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

Dear Mr. Gill:

CHAPTER 343, HRS
Environmental Assessment/Determination
Negative Declaration

Recorded Owner/ Applicant	:	Wallace Johnston
Agent	:	Oceanit Coastal Corporation
Location	:	870 Mokulua Drive, Lanikai, Oahu
Tax Map Key	:	4-3-8: 50
Request	:	Shoreline Setback Variance
Proposal	:	Construction of a Rubble Revetment
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 (4) copies of the FEA. If you have any questions, please contact Ardis Shaw-Kim of our staff at 527-5349.

Very truly yours,

Handwritten signature of Patrick T. Onishi in cursive script.

PATRICK T. ONISHI
Director of Land Utilization

PTO:am
Attachments

g:huit4.ask

OFFICE OF ENVIRONMENTAL
QUALITY CONTROL

95 FEB 15 PM 2:56

RECEIVED

17

1995-03-08-0A-*FEA - Johnston seawall shoreline set back variance*
MAR - 8 1995



Oceanit Coastal Corporation

coastal engineering services

A subsidiary of Oceanit Laboratories, Inc.

~~RECEIVED FEB 29 8 10 27~~

~~DEPARTMENT OF LAND UTILIZATION
CITY AND COUNTY OF HONOLULU~~

**FINAL
ENVIRONMENTAL ASSESSMENT FOR
SHORE PROTECTION AT
870 MOKULUA DRIVE, LANIKAI, OAHU
TMK 4-3-08:50**

DEPARTMENT OF LAND UTILIZATION
CITY AND COUNTY OF HONOLULU
95 JAN 25 PM 3 43

submitted to:

**THE DEPARTMENT OF LAND UTILIZATION
CITY AND COUNTY OF HONOLULU**

NOVEMBER 1994

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I. GENERAL INFORMATION

A. APPLICANT: Mr. Wallace Johnston
1349 Aalapapa
Kailua, HI 96734

B. RECORDED FEE OWNER: Same as applicant.

C. AGENT: Oceanit Coastal Corporation
1100 Alakea Street, Suite 3100
Honolulu, HI 96813

D. TAX MAP KEY: 4-3-08:50

E. LOT AREA: 11,250 sq ft

F. AGENCIES CONSULTED IN MAKING ASSESSMENT:

Department of Land Utilization, City and County of Honolulu
Department of Land and Natural Resources, State of Hawaii

II. DESCRIPTION OF PROPOSED ACTION

A. GENERAL DESCRIPTION

The residential property located at 870 Mokulua Drive in Lanikai is fronted on the ocean side by a rubble/rip-rap revetment that protects the property from coastal erosion damage. The site location is shown in Figure 1. A home on the property is located approximately 24 feet from the certified shoreline and less than 10 feet from the top of the existing revetment. Erosion from wave action and rainwater runoff has damaged the revetment exposing the house to potential damage from waves or shifting soil at the foundation.

Oceanit Coastal Corporation (OCC) evaluated the existing revetment and determined that it was not properly designed or constructed. However, the revetment does provide needed shore protection. Without the revetment, the house would be threatened and probably damaged. It is OCC's recommendation that the existing revetment be replaced with one that is designed and constructed according to accepted coastal engineering practices. No other solution was identified that meets both technical and regulatory requirements.

The new revetment will be constructed in the Shoreline Setback area and will require a Shoreline Setback Variance (SV) from the Revised Ordinances of Honolulu, Chapter 23, Section 23-1.5, Prohibitions within the shoreline area.

B. TECHNICAL CHARACTERISTICS

1. Use Characteristics

The proposed rubble revetment will replace an existing revetment and will protect the property from wave and current induced coastal erosion.

2. Physical Characteristics

Property Layout

A shoreline survey map is included in Appendix A. The site plan is shown in Figure 2.

Shoreline Conditions

An aerial photograph of the property and nearshore area taken in 1990 is shown as Figure 3. Photographs of the existing revetment are shown in Figure 4. The existing revetment consists of relatively small stones ranging from 6-18 inches nominal diameter. The revetment extends onto neighboring property to the south. The revetment is contained on the north by a CRM seawall and on the south by a concrete water tank that acts as a seawall. A house is located at

the top of the revetment approximately 10.5 feet above sea level. The offshore bottom is flat and consists of mixed sand, rock, and reef material. Water depth is less than 6 feet deep out to a reef approximately 1800 feet offshore. Beach/revetment profiles are shown in Figure 5. These profiles vary seasonally.

The property is located near the north end of Lanikai Beach as shown in the aerial photograph. A well defined beach can be seen to the south of the property while to the north, the beach disappears. The beach width at the site varies seasonally, depending on wave conditions. A long-term erosion study (Sea Engineering, 1988) shows net accretion on both sides of the property through 1988; however, Figure 3 shows only a narrow beach to the north, indicating erosion since the 1988 measurement. In October 1993, there was no beach immediately to the north of the property.

Based on wave patterns and beach shape, the property appears to be located near a beach node where sand transport can move in either direction along the coast. Wave refraction/diffraction patterns taken from an aerial photograph indicate why this occurs as wave fronts can be seen to move in both directions along the coast (Figure 6). The bi-directional movement of sand has also been observed by local residents. During a site visit, a slow current was observed moving to the north. Waves are generally small with larger waves breaking on the offshore reef.

Lanikai Beach is subject to North Pacific swell, tradewind waves, and rarely to hurricane waves. The selected design wave is a 10-year tradewind wave that has a significant wave height of 22 feet and period of 10 seconds. Although larger deepwater waves may occur, waves approaching the shoreline are height limited by the shallow water depth inside the reef. Waves as high as 3 feet have been observed inside the reef by area residents. A hurricane wave was not used for design because hurricane conditions would most likely damage the house regardless of the shore protection structure. A revetment designed for hurricane waves is too large for a residential lot.

Deepwater wave setup combined with high tide will cause the water elevation to rise approximately 4 feet. In this depth, waves approximately 3.5 feet high will break on the revetment. Waves higher than 3.5 feet will break farther offshore and thereby dissipate energy. Therefore, 3.5 feet is used as the design wave height.

Shore Protection Structure Description

The proposed shore protection structure is a rubble revetment with a slope of 1:1.5. Design drawings are included in Appendix B. The revetment has been designed according to Corps of Engineers guidelines. The top of the revetment is at elevation +10.5 feet MSL. The toe of the revetment follows the certified shoreline. The toe stones will be placed on hard substrate and keyed into the bottom for stability. Armor stones will range from 700 to 1200 pounds with 50 percent greater than 900 pounds. Nominal size of this stone ranges from 1.9 to 2.2 feet diameter. Two layers of armor stones will be placed on a bedding layer of 1/10 size stone.

Filter fabric will be placed between the bedding layer and existing soil to prevent piping. The revetment is flanked on the north by a neighboring CRM wall. The south end of the revetment will be flanked by placing armor stones on a 1:1 slope at the end of the revetment. This slope will be backfilled with sand and smaller stone to blend with the neighboring property. This flanking slope will only be exposed if severe erosion occurs. Under normal conditions, it will be buried.

With a design wave of 3.5 feet, runup on the revetment will be approximately 6-8 feet. Therefore, some overtopping may occur during high wave conditions. The revetment has been designed with a gravel filter to allow overtopping water or rain runoff to drain back into the sea.

Since the revetment is constructed of rubble and is flanked by a CRM wall to the north and a concrete tank to the south, it will have minimal effect on sand transport along the beach. Rubble revetments dissipate wave energy and minimize scour and reflection effects associated with vertical sea walls.

The revetment is designed with a 1:1.5 slope rather than 1:2 because of space constraints. There is insufficient room to construct a 1:2 revetment between the house and the certified shoreline. Excavation for the construction near the house foundation could result in damage from soil movement (Figure 4).

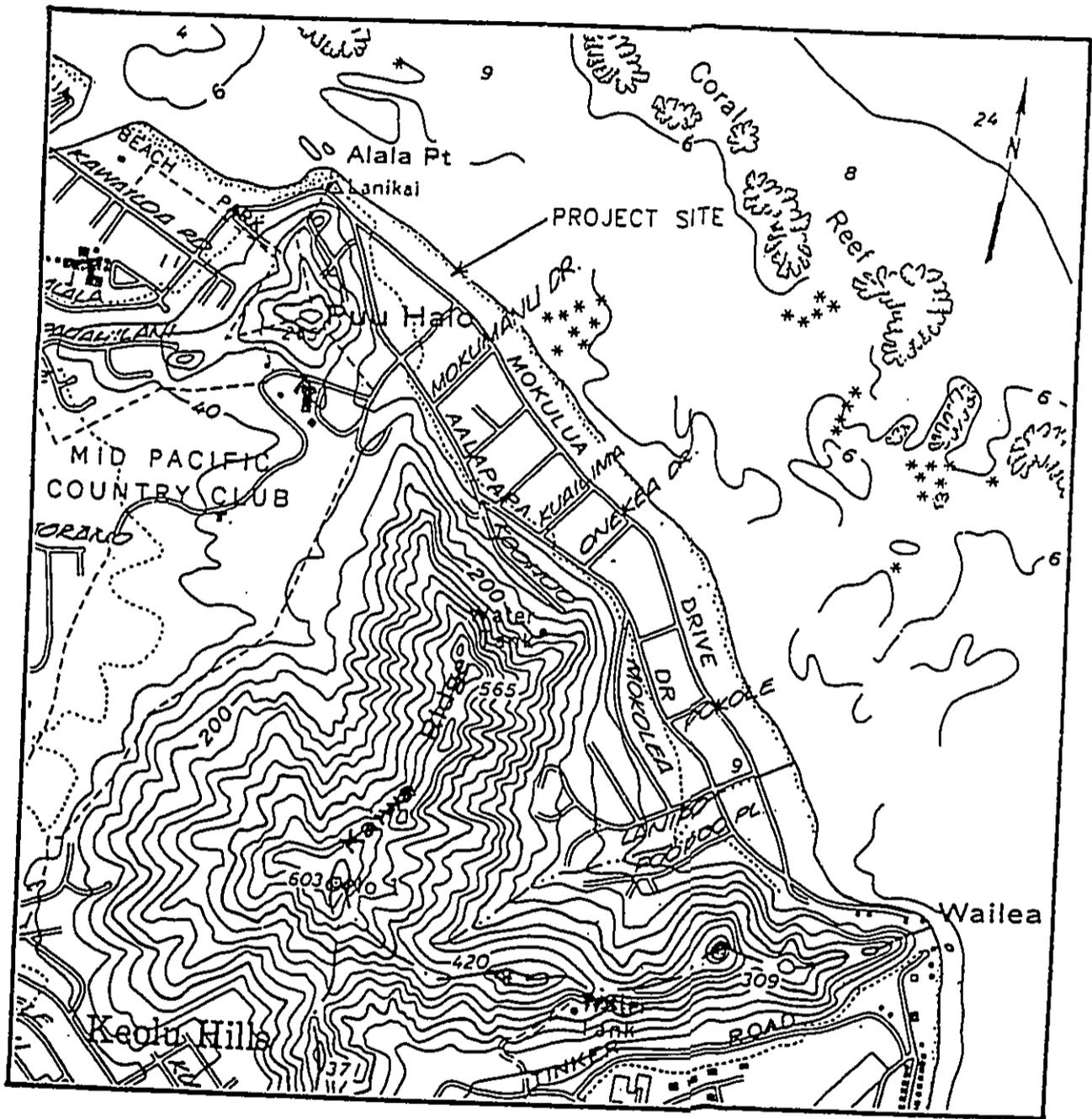


FIGURE 1. VICINITY MAP

DOCUMENT CAPTURED AS RECEIVED

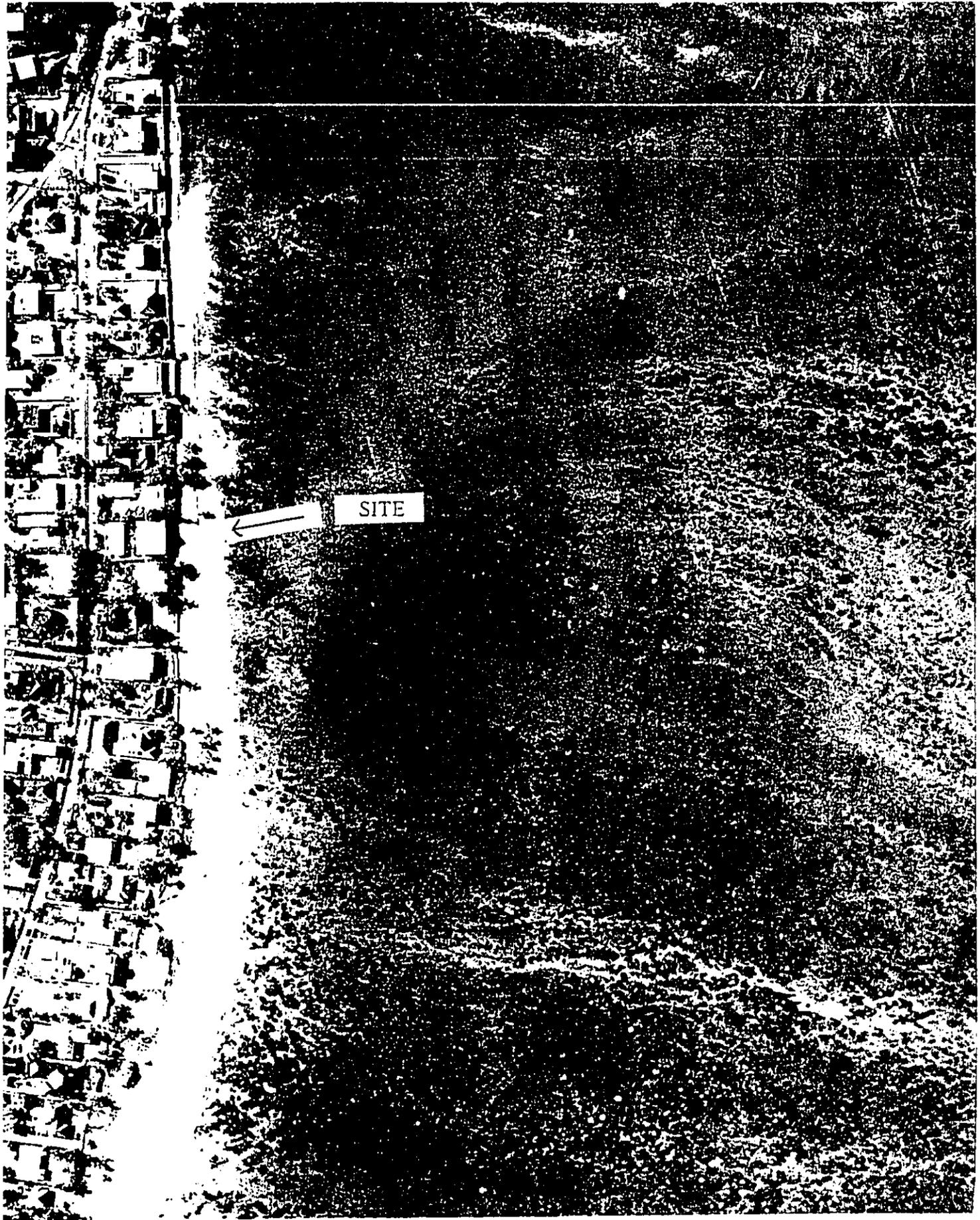
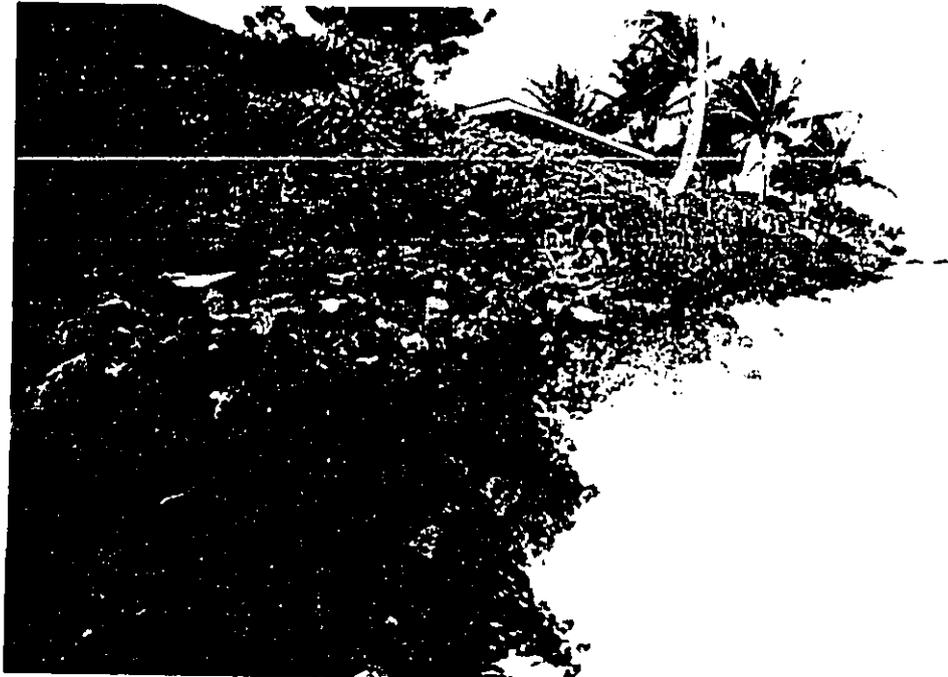


FIGURE 3. AERIAL PHOTOGRAPH





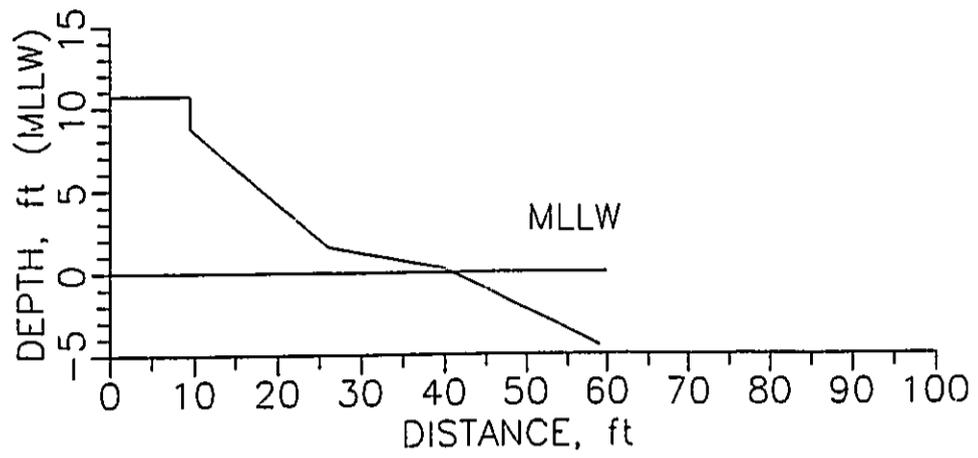
(C.) NORTH END OF REVETMENT
AND NEIGHBORING CRM WALL



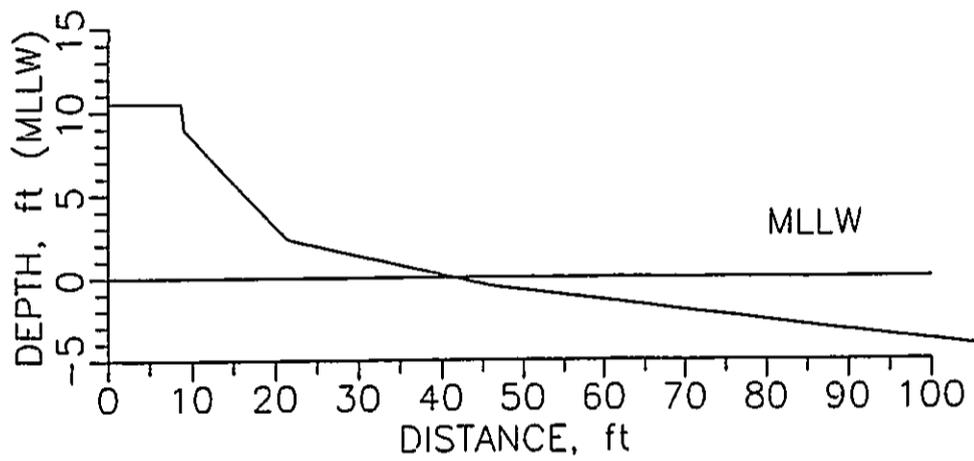
(D.) SMALL AREA BETWEEN HOUSE
AND TOP OF REVETMENT

NOV 24 1983 PM 3 43
PHOTOGRAPHY
SECTION

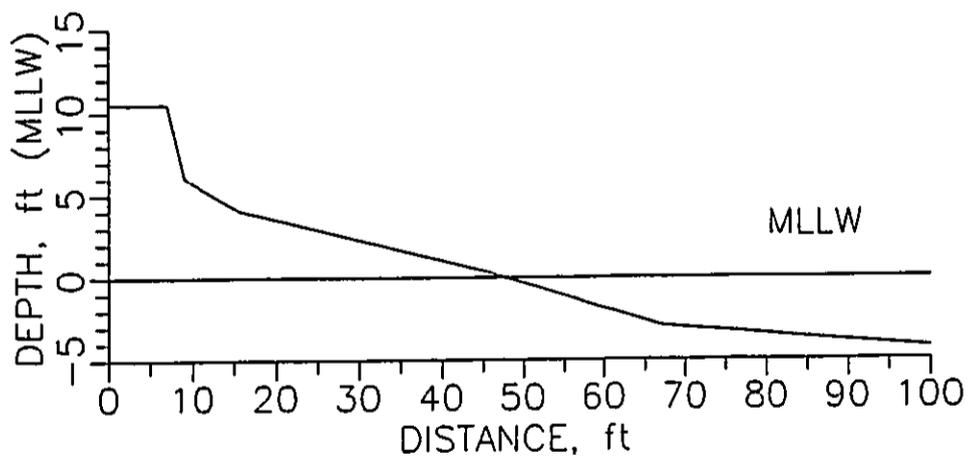
FIGURE 4. (CONTINUED) SHORELINE PHOTOGRAPHS



BEACH PROFILE NORTH EDGE OF PROPERTY



BEACH PROFILE CENTER OF PROPERTY



BEACH PROFILE SOUTH EDGE OF PROPERTY

FIGURE 5. SHORELINE PROFILES



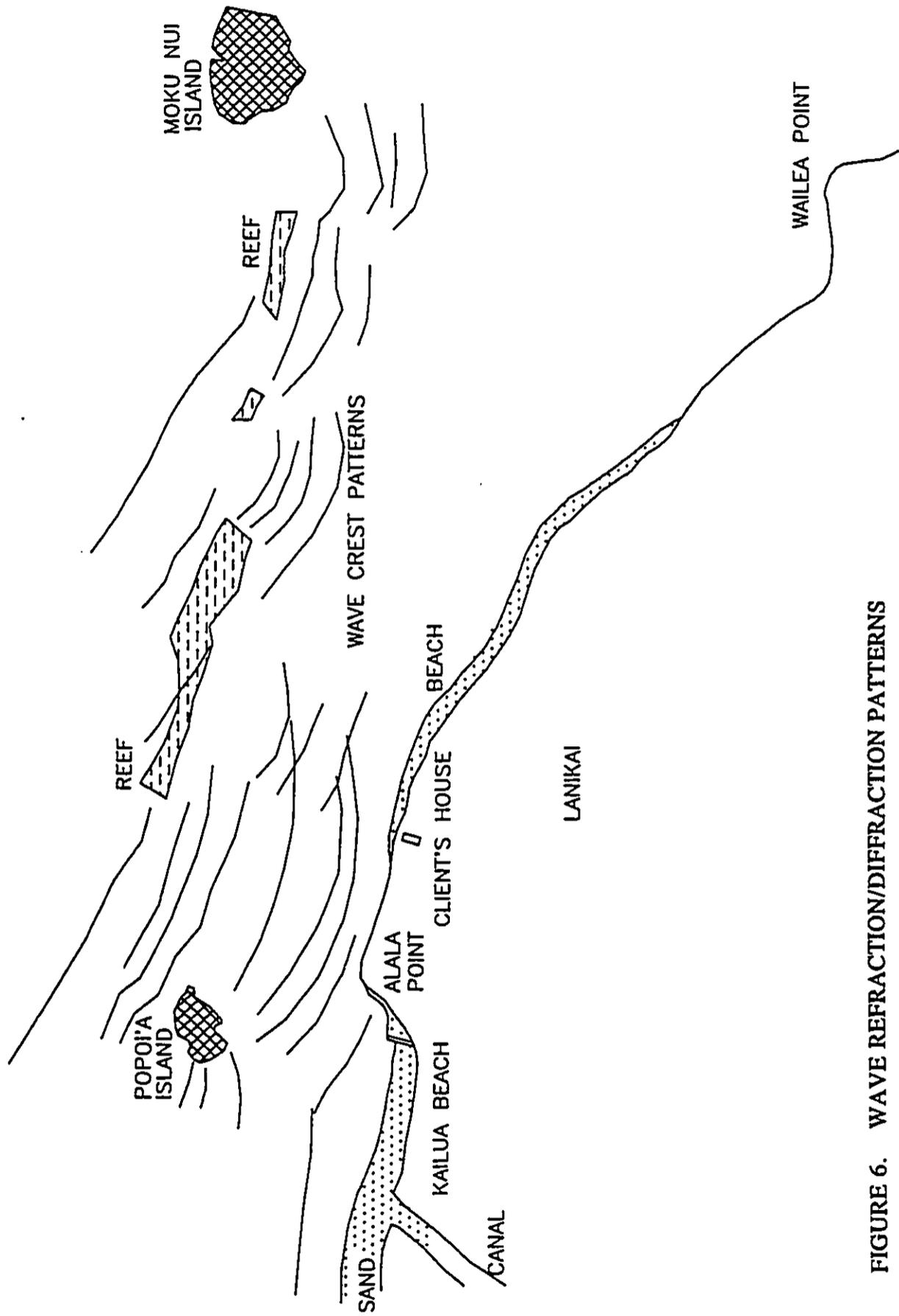


FIGURE 6. WAVE REFRACTION/DIFFRACTION PATTERNS

III. AFFECTED ENVIRONMENT

The property is located near the north end of Lanikai Beach (Figures 1-3). The area is zoned residential (R-10). The project site is not located in a flood zone although other parts of Lanikai beach are (Figure 7). The proposed revetment is below the existing grade of the lot and does not block coastal views. The project site is the third lot to the north from a beach access right of way. The proposed revetment will not affect beach access, but will make access easier because rocks laying across the beach will be removed. There are no beach parks or recreation areas adjacent to the site; however, Kailua Beach Park is located approximately 1700 feet north along the beach and is separated from Lanikai beach by Alala Point.

IV. IMPACTS AND ALTERNATIVES

A. IMPACT OF PROPOSED REVETMENT

The revetment has been designed to have minimum impact on beach processes. The random placement of armor stones on a 1:1.5 slope will dissipate wave energy and will not significantly affect sediment transport. The revetment toe will not extend seaward past a line joining the neighboring walls and will not impede longshore transport. A rubble revetment has protected the lot for many years, and a properly designed replacement will not change existing beach conditions. Conditions may be improved by removal of rocks that have previously extended seaward past the waterline.

B. ALTERNATIVES

Three alternatives other than the selected revetment were considered. These are discussed in the following paragraphs.

Keep the Existing Revetment

The existing revetment has been somewhat effective; however, it was not designed or constructed according to accepted coastal engineering standards. The stones are too small and no filter layer was installed. As a result some erosion has occurred at the top of the revetment and stones have slumped onto the beach. Further erosion could cause soil movement and threaten the house foundation. Replacing the existing revetment will provide better protection for the house.

Rubble Revetment with 1:2 Slope

A 1:2 revetment reaches nearly to the house foundation. Its construction is considered impractical and could threaten the structural integrity of the house. If a 1:2 revetment was constructed, sheet piling would probably be required to stabilize the house foundation.

Retaining Wall with Rubble Toe

A retaining wall with rubble toe would provide adequate shore protection; however, the Department of Land Utilization encourages alternative shore protection methods because of concern about effects on the beach.

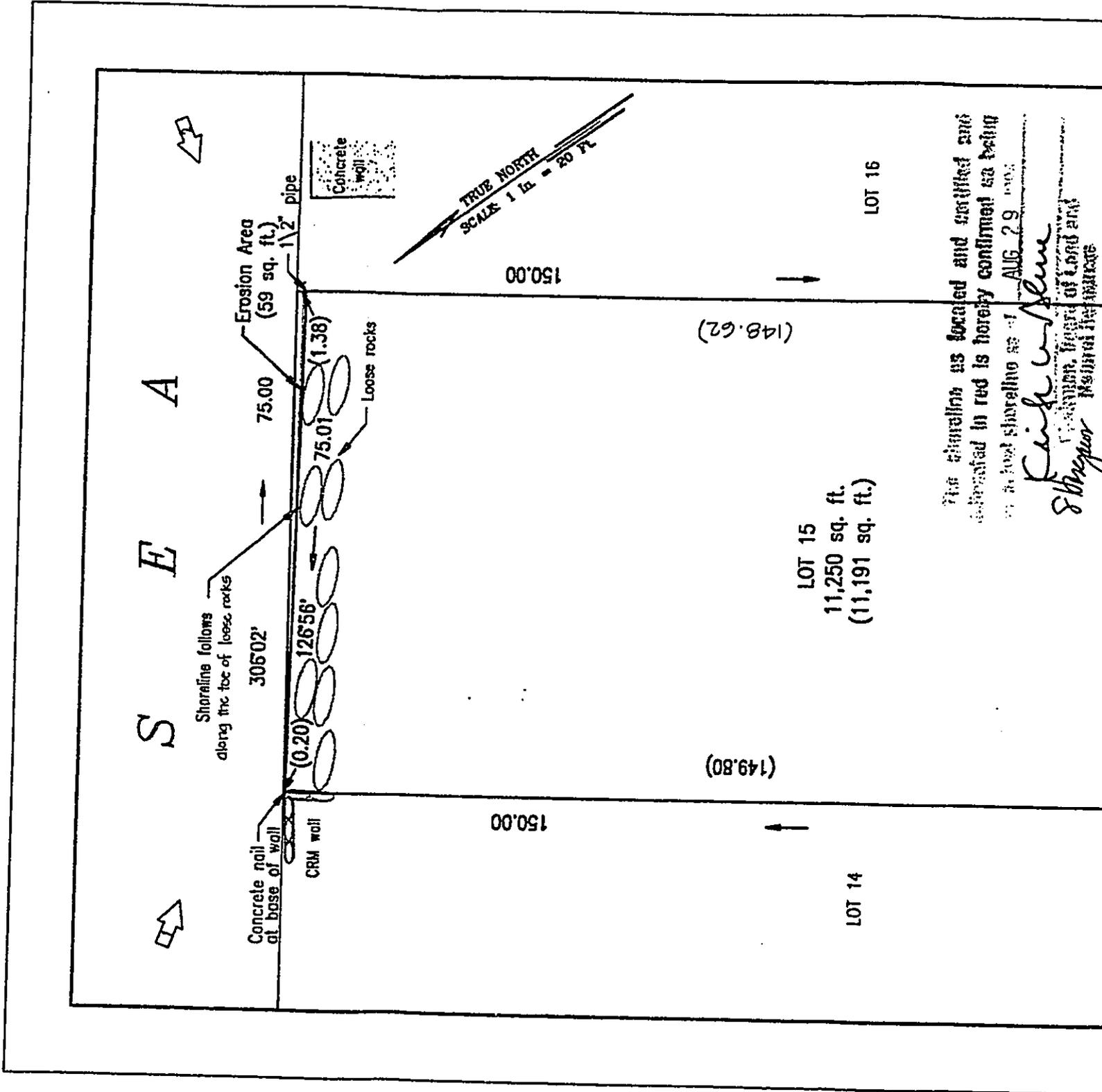
Because the house is threatened and could be damaged, some type of shore protection is required. A 1:1.5 rubble revetment, properly designed and constructed, will provide the greatest protection with minimal impact on beach processes.

V. MITIGATION MEASURES

Because of the negative impact of the revetment on the environment, no mitigation measures are considered necessary.

**APPENDIX A
SHORELINE SURVEY**

Oceanit Coastal Corporation



SEA

Shoreline follows along the toe of loose rocks

30502'

12656'

75.00

75.01

(1.38)

Loose rocks

Erosion Area (59 sq. ft.)

1 1/2" pipe

Concrete well

TRUE NORTH
SCALE: 1 in. = 20 ft.

150.00

150.00

(149.80)

(148.62)

LOT 15
11,250 sq. ft.
(11,191 sq. ft.)

LOT 14

LOT 16

The shoreline as located and certified and delineated in red is hereby confirmed as being the actual shoreline as of AUG 29 1963

Frank Wilson
Engineer, Board of Land and Natural Resources

The shoreline as located and certified and delineated in red is hereby confirmed as being the actual shoreline as of AUG 29 1994

Wesley T. Tenggan
Wesley T. Tenggan
Professional Land Surveyor

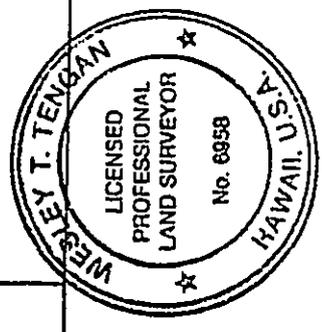
21602'

12602'

75.00

MOKULUA DRIVE

→ To Kailua Town



SHORELINE MAP
LOT 15

OF LAND COURT APPLICATION 505

Kailua, Koolauapoko, Oahu, Hawaii

Owner: John D. Huitt Jr.

Date: April 1, 1994

Tax Map Key: 4-3-08:50

Note: denotes position and direction of photo

This work was prepared by me or under my supervision.

Wesley T. Tenggan

WESLEY T. TENGGAN
LICENSED PROFESSIONAL LAND SURVEYOR
Certificate Number: 6958

HUITT

RECEIVED
LAND COURT
DIVISION

95 JAN 25 PM 3 43

RECEIVED
LAND COURT
DIVISION

94 SEP 20 PM 10 27

**APPENDIX B
REVETMENT DESIGN DRAWINGS**

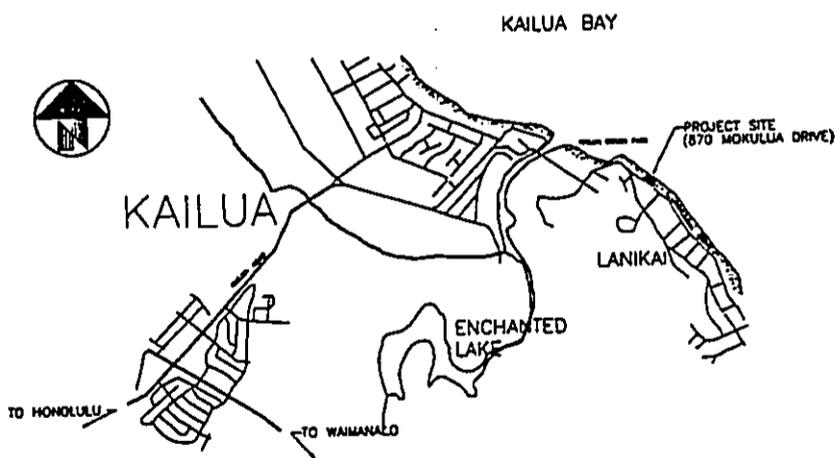
Oceanit Coastal Corporation



LOCATION MAP

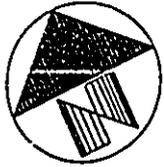
NOT TO SCALE

REVETMENT DESIGN
870 MOKULUA DRIVE
LANIKAI, O'AHU, HAWAII
TMK: 4-3-08 : 50

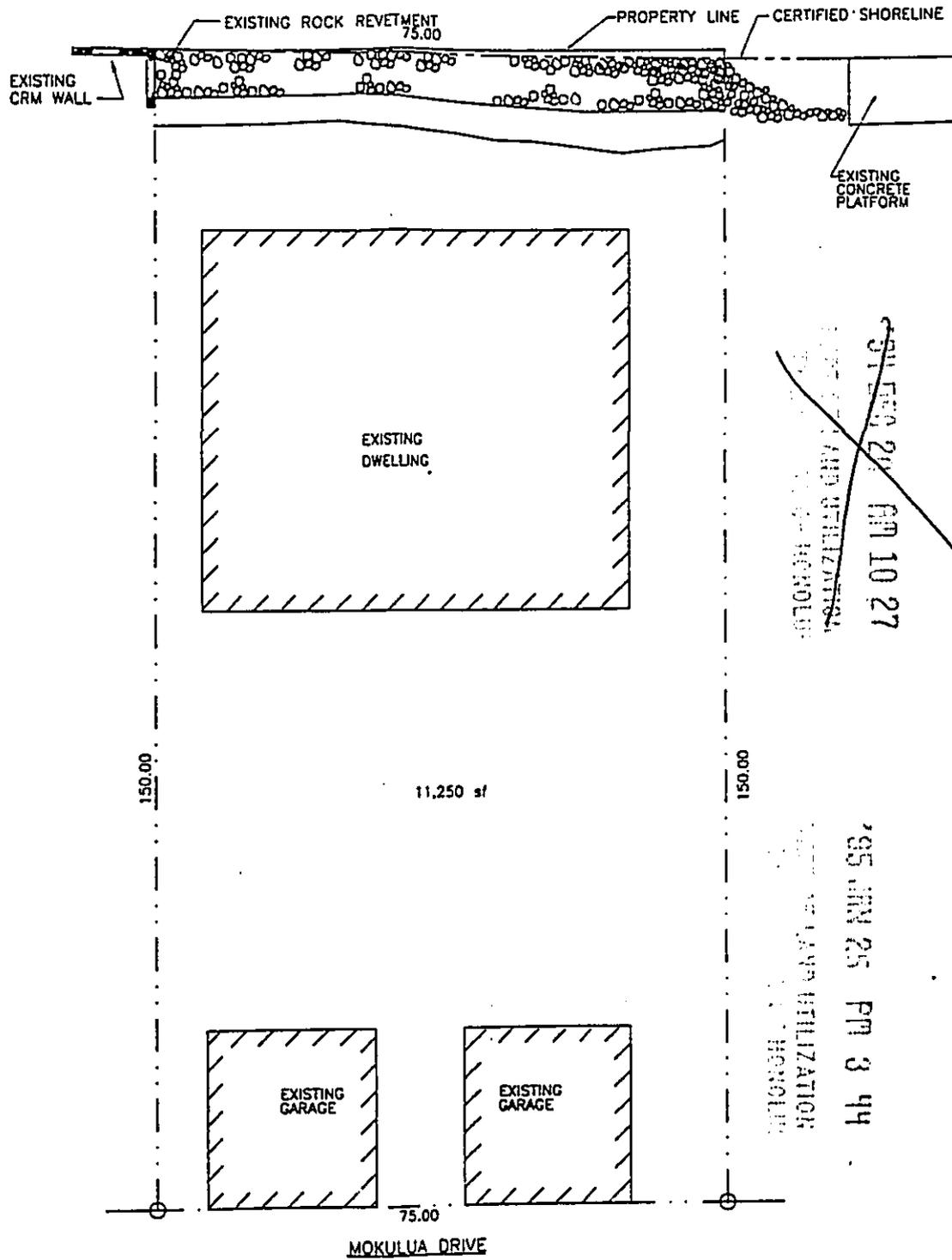


PROJECT LOCATION

SCALE : 1" = 2000'



SIGN FOR
DRIVE
, HAWAI'I
: 50



81 FEB 20 PM 10 27
 95 JUN 25 PM 3 44
 LAND UTILIZATION
 HONOLULU

PLOT PLAN

SCALE : 1" = 10'

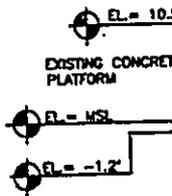
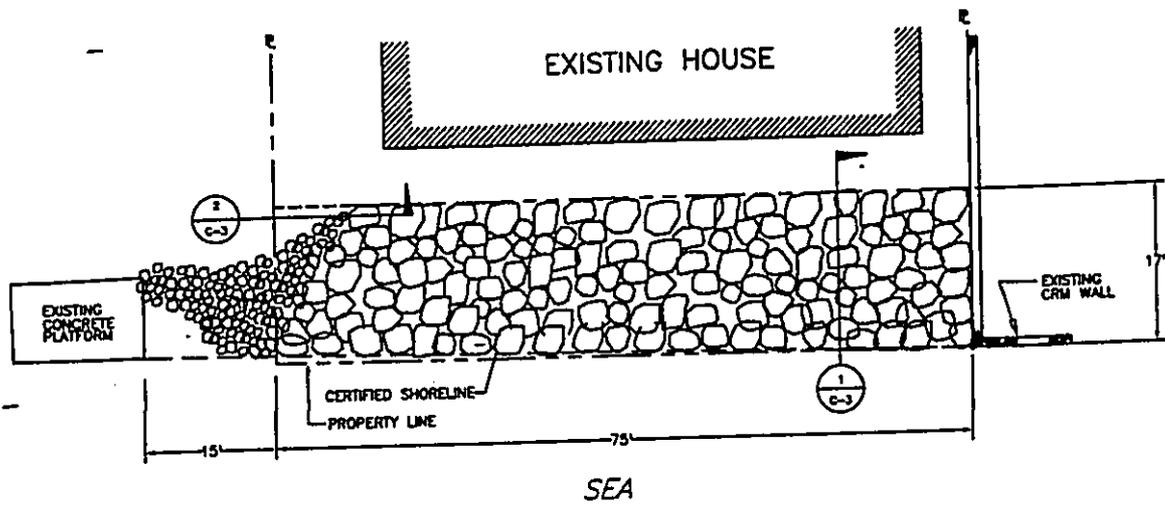
SPM ENGINEERS, INC.
CONSULTING ENGINEERS
801 KALANIKULANI DRIVE, SUITE 200
HONOLULU, HAWAII 96817



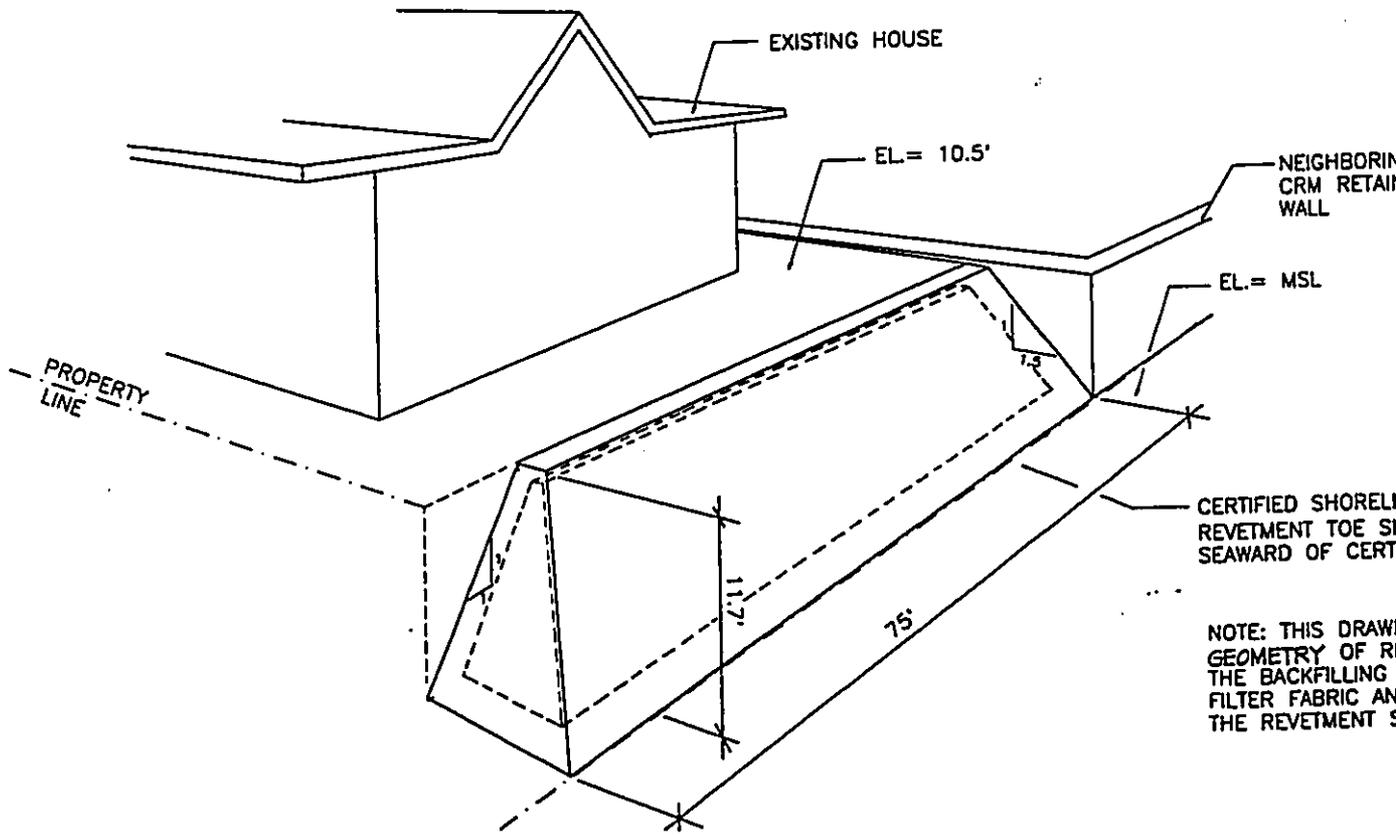
This work was prepared by me or
under my supervision and
construction of this project will be
under my observation.

Dwight M. Oshida
6/24/94

		
Oceanit Coastal Corporation coastal engineering services		
1180 KANEIHEHE 1100 Alapai Street, Suite 3100 Honolulu, Hawaii 96813		Ph: (808) 531-3017 Fax: (808) 531-3177 MCI: OCEANIT
REVETMENT DESIGN 870 MOKULUA, HAWAII TAK: 4-1-08-50		
SCALE: AS NOTED	APPROVED BY	DESIGNED BY: WTB
DATE: 6/94		DRAWN BY: WTY
		JOB NO.
		ACAD FILE: <i>08-01-01</i>
		DRAWING NUMBER C-1

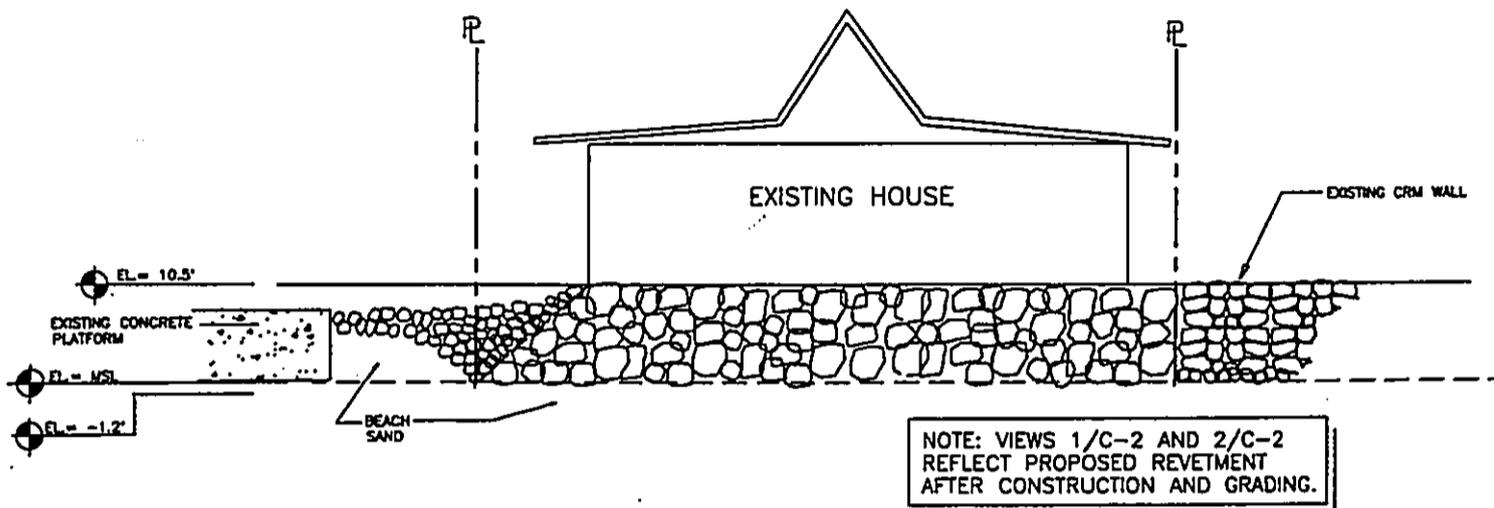


1 PROPOSED REVETMENT PLAN
 C-2 SCALE: 1" = 10'

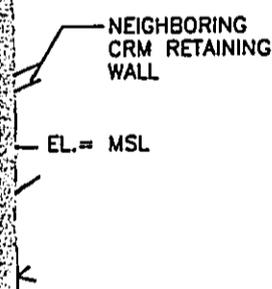


NOTE: THIS DRAWING SHOWS THE GEOMETRY OF THE REVETMENT WALL. THE BACKFILLING, FILTER FABRIC AND THE REVETMENT S...

3 REVETMENT WALL PERSPECTIVE
 C-2 SCALE: 1" = 10'



2
C-2
PROPOSED REVETMENT FRONT VIEW
 SCALE: 1" = 10'



CERTIFIED SHORELINE
 REVETMENT TOE SHALL NOT EXTEND
 SEAWARD OF CERTIFIED SHORELINE

NOTE: THIS DRAWING SHOWS THE
 GEOMETRY OF REVETMENT.
 THE BACKFILLING OF SAND AND PLACEMENT OF GEOTEXTILE
 FILTER FABRIC AND STONE LAYERS SHOULD FORM
 THE REVETMENT SHOWN IN OTHER DRAWINGS

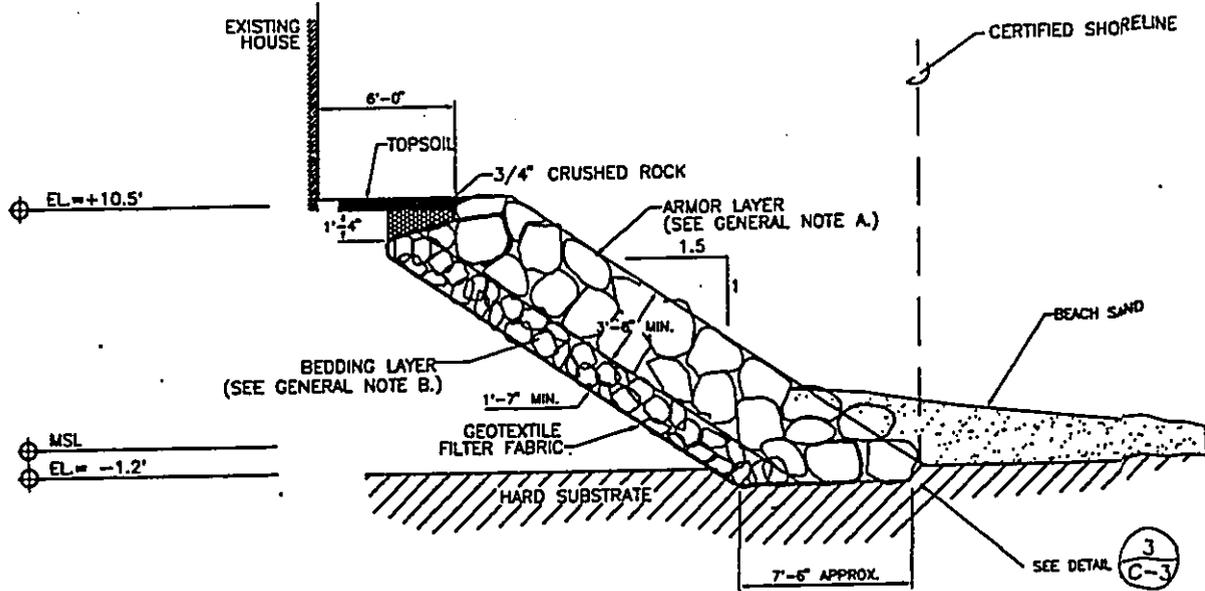
SEFM ENGINEERS, INC.
 CONSULTING ENGINEERS
 601 SANDER STREET, SUITE 602
 HONOLULU, HAWAII 96817



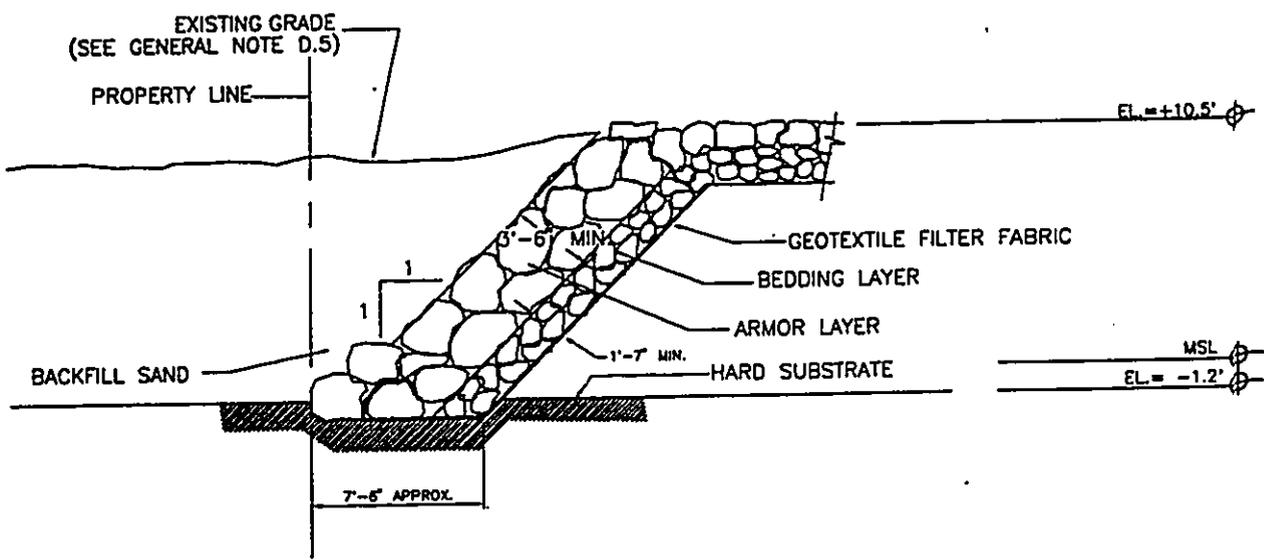
This work was prepared by me or
 under my supervision and
 construction of this project will be
 under my observation.
Dwight M. Okawa

RECEIVED
 CIVIL ENGINEERING
 95 JUN 25 PM 3 44

Oceanit Coastal Corporation coastal engineering services		
1100 Alakea Street 21st Floor Honolulu, Hawaii 96813		
PH: (808) 531-3017 FAX: (808) 526-3717 MCI: OCEANIT		
REVETMENT DESIGN 870 MOKULUA, LANIKAI MK: 4-3-08-50		
SCALE AS NOTED	APPROVED BY	DESIGNED BY WZB
DATE 6/94		DRAWN BY WTY
		JOB NO.
		ACAD FILE: revetment.dwg
		DRAWING NUMBER C-2



1 CROSS SECTION
 C-3 SCALE: 1" = 4'



2 CROSS SECTION
 C-3 SCALE: 1" = 4'

BEDDING STONE
 GEOTEXTILE
 FILTER FABRIC

3 TO
 C-3 SC

GENERAL NOTES

A. ARMOR LAYER:

1. Armor stones shall range from 700 pounds to 1200 pounds with 50 percent greater than 900 pounds.
2. Armor stone shall be quarry stone or field stone with specific gravity greater than 2.65.
3. The armor layer shall be two stones thick with minimum thickness dimension of 3.5 feet.

B. BEDDING LAYER:

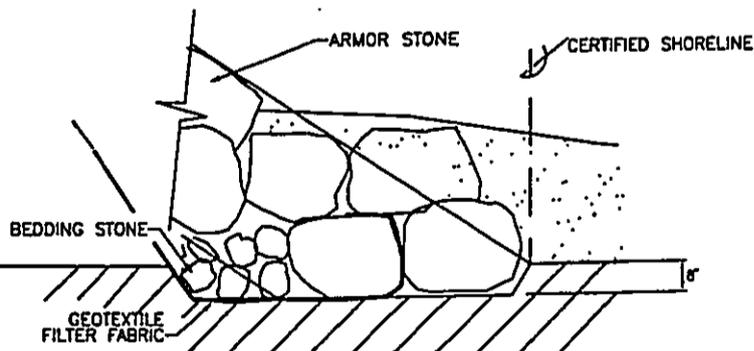
1. Bedding stones shall range from 70 to 120 pounds with 50 percent greater than 90 pounds.
2. Existing stone at the site may be used when it meets the size criteria.
3. The bedding layer shall be two stones thick with a minimum thickness dimension of 1.6 feet.

C. GEOTEXTILE FILTER FABRIC:

1. A geotextile filter fabric shall be placed between the bedding layer and the soil. The filter fabric shall be puncture resistant and shall retain soil particles. The fabric shall be Supac 8NP by Phillips Fiber Corp. or approved equal.
- The fabric must be placed loosely, not in a stretched condition, but free of wrinkles, creases, or folds.

D. CONSTRUCTION:

1. The existing rubble revetment shall be removed. Stones shall be used for the armor layer or bedding layer as appropriate by size.
2. Sand and rubble shall be excavated to hard substrate. If hard substrate is not found, the project engineer must be notified immediately for possible design changes.
3. The largest armor stones will be used as toe stones. Toe stones must be placed on hard substrate. No stones shall be placed seaward of the certified shoreline.
4. Revetment construction shall be done in a manner to prevent slumping of material from the house foundation, shifting of the house foundation, or other damage to the house.
5. Filter fabric shall continue around the corner at the south (Waimanala) end of revetment aligning the base with the top of the revetment approximately 17 feet from the certified shoreline. The south end shall be constructed in the same manner as the face but with a 1 to 1 slope. After construction, the area from the south top corner of the revetment to the property line shall be backfilled and covered with 1" stone, existing on site, to original slope prior to construction, blending with neighboring topography.
6. The project engineer will inspect the construction site a minimum of three times and report findings and progress to the owner. The project engineer must be notified of and approve design changes requested by the contractor.
7. After revetment construction, the beach shall be cleaned of construction debris and RETURNED TO ITS ORIGINAL SLOPE.
8. The contractor shall remove all unused material from the site.



3 TOE STONE KEY DETAIL
C-3 SCALE: NOT TO SCALE

SPM ENGINEERS, INC.
CONSULTING ENGINEERS
871 BARNES STREET, SUITE 202
HONOLULU, HAWAII 96817



The work was prepared by me or
under my supervision and
construction of this project will be
under my observation.

Dwight M. Otake

MATB072.dwg

05 JAN 25 PM 3 44
 REVETMENT DESIGN
 870 WOKULUA, LAHIKAU
 HONOLULU, HAWAII 96813

 Oceanit Coastal Corporation coastal engineering services		
1100 Alakea Building, Suite 3100, Honolulu, Hawaii 96813 Ph: (808) 531-3017, Fax: (808) 531-3177, MCI: OCEANIT		
REVETMENT DESIGN 870 WOKULUA, LAHIKAU TMR: 4-3-08:50		
SCALE AS NOTED	APPROVED BY	DESIGNED WEB
DATE: 6/94		DRAWN BY WTY
		JOB NO.
		ACAD FILE:
		DRAWING NUMBER C-3

**APPENDIX C
EA COMMENTS AND RESPONSE**

Oceanit Coastal Corporation



THE LANIKAI ASSOCIATION • P. O. BOX 481 • KAILUA, OAHU 9673.

September 15, 1994

Department of Land Utilization
650 S. King St.
Honolulu, HI 96813
Attention: Ardis Shaw-Kim

The following comments from the Lanikai Association are in regard to the Huitt Lanikai Revetment Replacement, TMK 4-3-8-50, applicant, John D. Huitt Jr.

According to City and County records, the rubble/rip-rap revetment that is currently in place is an illegal wall, having been constructed some time after 1967 without any permit being issued. The condition of the revetment is very poor. The rocks are of relatively small size and any serious storm action is capable of rolling them down into the surf where they pose a hazard.

The concerns of the Lanikai Association are as follows:

What will be the impact of this construction on the adjacent waters of Lanikai Bay and the sliver of sandy beach that is attempting to make a comeback? In the past months a small sand strip has reappeared in this area. If increased erosion to neighboring properties occurs as a result of this construction, who would be responsible: the city, the engineers, the property owner? Will there be any redress?

Will all the rubble of the current wall, plus any generated during and after construction, be removed from both the shoreline and offshore water? Who will monitor compliance? In the 1300 block of Mokulua Drive, 4 revetments were constructed to replace illegal and deteriorating walls in 1990 and 1991. The companies doing the construction left behind in the surf area rock and rubble, large and small, that has since dispersed down the beach for a half mile in a northerly direction. This rubble constitutes a serious hazard for all beach and surf users. No one has been held responsible. No attempt was made by the construction companies, owners of 3 of the properties, the city or the state to clean up the detritus. Will this happen again?

How was the 1-1/1-1.5 slope for the revetment determined? Is this angle sufficient to discourage erosion? The contractor doing the renovation to the existing house pointed out to us the perilously close location of the house to the water's edge. He said a longer slope would bring the top of the revetment to the edge of the house foundations. Should they not consider

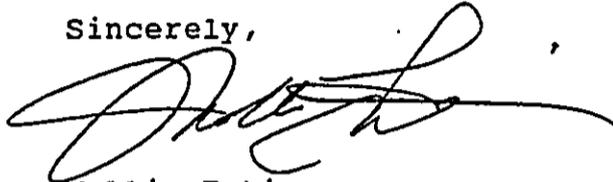
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relocating the house further back on the lot altogether, since extensive renovations are planned? The city needs to take relocation into consideration when issuing permits in such cases.

How can we be sure that the toe of the revetment will extend no farther into the ocean than the existing illegal revetment?

We appreciate your interest in our comments and look forward to hearing from you concerning the DLU's decision.

Sincerely,



Mollie Foti,
Chair, Beach Erosion Committee



Oceanit Coastal Corporation

coastal engineering services

A subsidiary of Oceanit Laboratories, Inc.

November 3, 1994

Ms. Mollie Foti
Chair, Beach Erosion Committee
The Lanikai Association
P.O. Box 481
Kailua, HI 96734

Subject: Response to Comments on Huitt Revetment Construction, 870 Mokulua Drive, Lanikai, TMK 4-3-8:50

Dear Ms. Foti:

We have received and reviewed your comments on the subject revetment construction. As you stated, the existing revetment is constructed of relatively small rocks that could be moved in serious storm action. Since the revetment has suffered some erosion damage, and shifting soil is threatening the house foundation; the owner would like to have it properly designed and constructed.

The beach in front of the property varies in size seasonally and with wave conditions. According to reports from the owner, the beach grew substantially in the summer of 1994. It will most likely reduce in size during the winter. We do not anticipate any increased erosion to the beach in front of the property or the neighboring property. The new revetment will not affect the beach any differently than the existing revetment and is designed to be more stable. Rocks from the new revetment should remain in place under most wave conditions and should not be carried onto the beach as has happened in the past.

The specification for building the revetment requires that the contractor restore the beach to its original condition after construction. The construction will be monitored by the professional engineer who seals the design drawings and by Oceanit's design engineers. Should the contractor not comply with the specification, the engineers will not certify completion and payment may be withheld by the property owner.

The slope of the front face of the revetment is 1 vertical to 1.5 horizontal. This is the maximum slope recommended by the U.S. Army Corps of Engineers in their coastal design manuals. Slopes of this steepness or shallower generally have minimum effect on beach sediment transport and may encourage beach growth in some cases. A revetment shallower than 1:1.5 will require excavation very close to the house foundation and could result in soil slumping and resulting damage to the house. The house has already started to crack due to soil movement probably caused by erosion

1100 Alakea Building • 1100 Alakea Street, 31st Floor • Honolulu, Hawaii 96813
TELEX: 7431404 • MCI: OCEANIT • TEL: (808) 531-3017 • FAX: (808) 531-3177

Ms. Mollie Foti
November 3, 1994
page 2

at the existing revetment. In addition, the owner would not be able to use the seaward door of the house because there would be no place to walk. Presently there is approximately 8-10 feet of level space between the wall of the house and the top of the revetment. Moving the house back is not a viable solution because of the high cost and potential for damage.

The toe of the revetment will extend no further seaward than the certified shoreline. At the certified shoreline, the toe will be covered with sand under most wave conditions. Construction will be inspected by a professional engineer who will have to certify that the revetment is constructed according to the specification. A contractor who does not follow the specification may be required to redo the revetment or may not be paid by the owner.

We hope your concerns have been adequately addressed. If you have further questions, please do not hesitate to call.

Sincerely,



Warren E. Bucher, Ph.D.
Senior Ocean Engineer

cc: DLU

WEB/fotiresp.ltr



Oceanit Coastal Corporation

coastal engineering services



DEPARTMENT OF THE ARMY
U. S. ARMY ENGINEER DISTRICT, HONOLULU
FORT SHAFTER, HAWAII 96858-5440



REPLY TO
ATTENTION OF

August 24, 1994

Operations Division

Mr. Donald A. Clegg
Director
Department of Land Utilization
650 South King Street
Honolulu, Hawaii 96813

Dear Mr. Clegg:

This is in response to your July 26, 1994 letter regarding the proposed Huitt revetment at 870 Mokulua Drive, Lanikai, Oahu, TMK: 4-3-008: 050. The project involves the replacement of an existing revetment fronting the shoreline of a Lanikai residence.

Based on our review of the Environmental Assessment, the toe of the revetment appears to be landward of the certified shoreline and above the mean high water (MHW) line. Provided that none of the construction work, including temporary structures, fill or equipment activity, extends below the MHW line, a Department of the Army permit is not required.

We appreciate the opportunity to review this proposal. File No. NP 94-113 has been assigned to this project. Please refer to this number in future correspondence.

Sincerely,

David E. Mizue
for Michael T. Lee
Chief, Operations Division



Oceanit Coastal Corporation

coastal engineering services

A subsidiary of Oceanit Laboratories, Inc.

November 8, 1994

Mr. Michael T. Lee
Chief, Operations division
Department of The Army
U.S. Army Engineer District, Honolulu
Fort Shafter, HI 96858-5440

Subject: Proposed Revetment at 870 Mokulua Drive, Lanikai, Oahu, TMK 4-3-8:50;
Reference File No. NP 94-113

Dear Mr. Lee:

Thank you for your comments on the subject revetment construction. As you stated, the design specifications for this revetment require the contractor to place the toe landward of the certified shoreline. However, although the construction method has not yet been determined, it may be necessary to operate equipment such as a small backhoe on the beach. This disturbance will be temporary, and the specifications require the contractor to return the beach to its original condition after completion of construction. The revetment construction will be monitored by a professional engineer to ensure that specifications are met. The property owner and construction contractor will be informed of the conditions requiring a Department of the Army Permit.

Should you require further information, please contact us.

Sincerely,

Warren E. Bucher, Ph.D.
Senior Ocean Engineer

cc: DLU

WEB/11084ml.coe

94-0589

DEPARTMENT OF PARKS AND RECREATION
CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET
HONOLULU, HAWAII 96813

24

JEREMY HARRIS
MAYOR



WALTER M. OZAWA
DIRECTOR
ALVIN K.C. AU
DEPUTY DIRECTOR

August 26, 1994

TO: DONALD A. CLEGG, DIRECTOR
DEPARTMENT OF LAND UTILIZATION

FROM; WALTER M. OZAWA, DIRECTOR

SUBJECT: ENVIRONMENTAL ASSESSMENT, CHAPTER 343, HRS
PROJECTS WITHIN THE SHORELINE SETBACK
REFERENCE NO. 94/SV-005 (ASK)

Thank you for providing us with the opportunity to comment on this environmental assessment for the Huitt revetment at 870 Mokulua Drive, Lanikai, Tax Map Key 4-3-8: 50.

The sandy beaches of Kailua and Lanikai are one of this island's most valued public recreational resources. The lateral access along the sandy beach at Lanikai is heavily used by the public. For these reasons, our department supports those actions which will preserve or enhance the beach in this area.

If you have any questions, please call John Morihara of our Advance Planning Branch at extension 4246.

For WALTER M. OZAWA, Director

WMO:ei

We Add Quality to Life



Oceanit Coastal Corporation

coastal engineering services

A subsidiary of Oceanit Laboratories, Inc.

November 8, 1994

Mr. Walter M. Ozawa, Director
Department of Parks and Recreation
City and County of Honolulu
650 South King Street
Honolulu, HI 96813

Subject: Environmental Assessment for Revetment at 870 Mokulua Drive, Lanikai,
TMK 4-3-8:50; Reference No. 94/SV-005(ASK)

Dear Mr. Ozawa:

Thank you for your comments on the subject environmental assessment. Oceanit Coastal Corporation and the property owner are very concerned with the condition of Lanikai Beach. This project has been designed in the best way possible to preserve the beach for public use. The new revetment will be more stable than the existing one, resulting in fewer rocks being carried onto the beach by severe wave action and less potential interference with beach use.

If we can provide further information, please contact us.

Sincerely,

Warren E. Bucher, Ph.D.
Senior Ocean Engineer

cc: DLU

WEB/11084wo.dpr

JOHN WAIHEE
GOVERNOR OF HAWAII



94-05931
KEITH W. AHUE, CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES

DEPUTIES
JOHN P. KEPPELER II
DONALD MANAIKE

REF:OCEA:DKP

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

P. O. BOX 621
HONOLULU, HAWAII 96809

FILE NO.: 95-063
DOC. ID.: 4854

AUG 29 1994

AQUACULTURE DEVELOPMENT
PROGRAM
AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
CONSERVATION AND
ENVIRONMENTAL AFFAIRS
CONSERVATION AND
RESOURCES ENFORCEMENT
CONVEYANCES
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
LAND MANAGEMENT
STATE PARKS
WATER AND LAND DEVELOPMENT

The Honorable Donald Clegg, Director
Department of Land Utilization
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

Dear Mr. Clegg:

SUBJECT: Environmental Assessment (EA) & Shoreline Variance (94/SV-005):
Huitt Revetment, Lanikai, Oahu; TMK: 4-3-08: 50

We have reviewed the application information for the subject project transmitted by your memorandum dated July 26, 1994, and have the following comments:

Division of Aquatic Resources

The Division of Aquatic Resources (DAR) comments that limited nearshore turbidity may occur and lateral shoreline access may be temporarily disrupted during construction activities. However, no significant long-term impact adverse to aquatic resource values is expected from the replacement of the damaged rock revetment.

Revetment construction should only be allowed mauka of the applicants' certified shoreline because of ongoing erosion/accretion activity along Lanikai Beach. Hazards may exist on the beach from rubble encroaching on State land from the former revetment, and fishing and other active public use of ocean recreational opportunities along Lanikai beach could be affected adversely. Further, the potential for State liability could exist if accidents result from obstacles on public land.

Finally precautions should be taken during reconstruction activities to prevent debris, wastes, eroded materials, petroleum products, and other contaminants from excessively entering the marine environment.

We also note that the Division of Land Management should be contacted at 587-0433, for a right-of-entry for access on areas makai of the certified shoreline during construction.

We will forward our Historic Preservation Division comments as soon as they become available.

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DIVISION OF AQUATIC RESOURCES
AUG 30 1994

Mr. Clegg

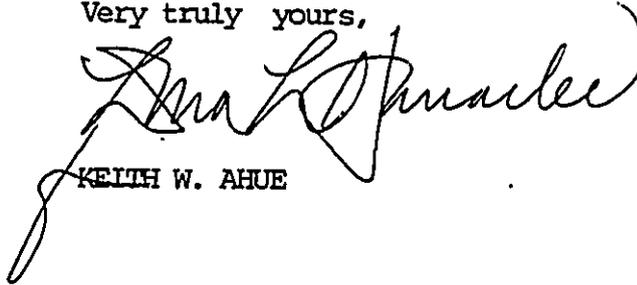
- 2 -

File No.: 95-063

We have no other comments to offer at this time. Thank you for the opportunity to comment on this matter.

Please feel free to call Steve Tagawa at our Office of Conservation and Environmental Affairs, at 587-0377, should you have any questions.

Very truly yours,



KEITH W. AHUE



Oceanit Coastal Corporation

coastal engineering services

A subsidiary of Oceanit Laboratories, Inc.

November 8, 1994

Mr. Keith W. Ahue, Chairperson
State of Hawaii
Department of Land and Natural Resources
P.O. Box 621
Honolulu, HI 96809

Subject: Environmental Assessment and Shoreline Variance (94/SV-005):
Revetment at 870 Mokulua, Lanikai, Oahu, TMK 4-3-08:50
File No. 95-063; Doc. ID. 4854

Dear Mr. Ahue:

Thank you for your department's comments on the subject environmental assessment. We agree with the Division of Aquatic Resources' comment that limited nearshore turbidity may occur, and shoreline access may be temporarily limited during revetment construction. We anticipate that construction should take less than two weeks, depending on weather or other unforeseen problems. Every effort will be made to minimize impacts to the beach. The construction plans and specifications require the contractor to return the beach to its original condition after construction. This means that construction debris will be removed. Construction activity will be monitored by a professional engineer, and design conditions must be met before the revetment is certified as completed.

The property owner and construction contractor will be notified to contact the Division of Land Management for a right-of-entry for access to areas makai of the certified shoreline.

If you have additional comments or we can provide further information, please contact us.

Sincerely,


Warren E. Bucher, Ph.D.
Senior Ocean Engineer

cc: DLU

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