

JOHN WAIHEE  
GOVERNOR OF HAWAII



WILLIAM W. PATY, CHAIRPERSON  
BOARD OF LAND AND NATURAL RESOURCES

STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES

P. O. BOX 621

'90 OCT 23 11:28 HONOLULU, HAWAII 96809

REF:OCEA:JN

OFC. OF ENVIRONMENTAL  
QUALITY CONTROL

DEPUTIES  
KEITH W. AHUE  
MANABU TAGOMORI  
RUSSELL N. FUKUMOTO  
AQUACULTURE DEVELOPMENT  
PROGRAM  
AQUATIC RESOURCES  
CONSERVATION AND  
ENVIRONMENTAL AFFAIRS  
CONSERVATION AND  
RESOURCES ENFORCEMENT  
CONVEYANCES  
FORESTRY AND WILDLIFE  
HISTORIC PRESERVATION  
PROGRAM  
LAND MANAGEMENT  
STATE PARKS  
WATER AND LAND DEVELOPMENT

FILE: KA-9/7/90-2425  
DOC.: 0107E

OCT 22 1990

MEMORANDUM

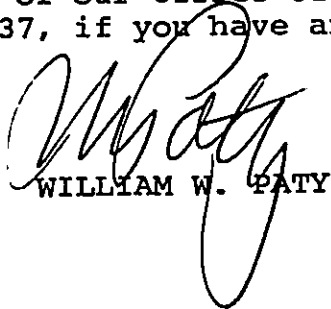
TO: Office of Environmental Quality Control

FROM: William W. Paty, Chairperson  
Board of Land and Natural Resources

SUBJECT: DOCUMENT FOR PUBLICATION IN THE OEQC BULLETIN -  
ENVIRONMENTAL ASSESSMENT FOR CONSERVATION DISTRICT USE  
APPLICATION KA-9/7/90-2425 for construction of a  
concrete/Rock Seawall, Haena, Kauai;  
TMK: 5-9-25: 33, lot 16

The above mentioned Chapter 343 Document was reviewed and a negative declaration was declared based upon the environmental assessment provided with the CDUA.

Please call me or Cathy Tilton of our Office of Conservation and Environmental Affairs, at 8-7837, if you have any questions.

  
WILLIAM W. PATY

Enclosure

237

1990-11-08 KA - PPA

Ellis Concrete/rock removal

FILE COPY

STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
P. O. BOX 621  
HONOLULU, HAWAII 96809

FOR DLNR USE ONLY

Reviewed by \_\_\_\_\_  
Date \_\_\_\_\_  
Accepted by \_\_\_\_\_  
Date \_\_\_\_\_  
Docket/File No. \_\_\_\_\_  
180-Day Exp. \_\_\_\_\_  
EIS Required \_\_\_\_\_  
PH Required \_\_\_\_\_  
Board Approved \_\_\_\_\_  
Disapproved \_\_\_\_\_  
Well No. \_\_\_\_\_

DEPARTMENT MASTER APPLICATION FORM

(Print or Type)

I. LANDOWNER/WATER SOURCE OWNER  
(If State land, to be filled in by Government Agency in control of property)

Name Wayne E. Ellis

Address P.O. Box 1729

Lihue, Kauai, HI

96766

Telephone No. 245-4014

SIGNATURE Wayne E. Ellis

Date \_\_\_\_\_

II. APPLICANT (Water Use, omit if applicant is landowner)

Name Wayne E. Ellis

Address P.O. Box 1729

Lihue, Kauai, HI

96766

Telephone No. 245-4014

Interest in Property \_\_\_\_\_

(Indicate interest in property; submit written evidence of this interest)

\*SIGNATURE Wayne E. Ellis

Date \_\_\_\_\_

III. TYPE OF PERMIT(S) APPLYING FOR

( ) A. State Lands

(X) B. Conservation District Use

( ) C. Withdraw Water From A Ground Water Control Area

( ) D. Supply Water From A Ground Water Control Area

( ) E. Well Drilling/Modification

\*If for a Corporation, Partnership, Agency or Organization, must be signed by an authorized officer.

IV. WELL OR LAND PARCEL LOCATION REQUESTED

District HANAIEI

Island KAUAI

County KAUAI

Tax Map Key 5-9-02: 33, LOT 16

Area of Parcel 34,405 sq. ft.

(Indicate in acres or sq. ft.)

Term (if lease) \_\_\_\_\_

V. Environmental Requirements

Pursuant to Chapter 343, Hawaii Revised Statutes, and in accordance with Title 11; Chapter 200, Environmental Impact Statement Rules for applicant actions, an Environmental assessment of the proposed use must be attached. the Environmental assessment shall include, but not be limited to the following:

- (1) Identification of applicant;
- (2) Identification of approving agency,
- (3) Identification of agencies consulted in making assessment;
- (4) General description of the action's technical, economic, social, and environmental characteristics;
- (5) Summary description of the affected environment, including suitable and adequate location and site maps;
- (6) Identification and summary of major impacts and alternatives considered, if any;
- (7) Proposed mitigation measures, if any;
- (8) Determination;

(SEE APPENDIX A, ATTACHED)

INFORMATION REQUIRED FOR ALL USES

I. Description of Parcel

- A. Existing structures/Use. (Attach description or map).
- B. Existing utilities. (If available, indicate size and location on map. Include electricity, water, telephone, drainage, and sewerage).
- C. Existing access. (Provide map showing roadways, trails, if any. Give street name. Indicate width, type of paving and ownership).
- D. Vegetation. (Describe or provide map showing location and types of vegetation. Indicate if rare native plants are present).
- E. Topography; if ocean area, give depths. (Submit contour maps for ocean areas and areas where slopes are 40% or more. Contour maps will also be required for uses involving tall structures, gravity flow and other special cases).
- F. If shoreline area, describe shoreline. (Indicate if shoreline is sandy, muddy, rocky, etc. Indicate cliffs, reefs, or other features such as access to shoreline).
- G. Existing covenants, easements, restrictions. (If State lands, indicate present encumbrances.)
- H. Historic sites affected. (If applicable, attach map and descriptions).

II. Description: Describe the activity proposed, its purpose and all operations to be conducted. (Use additional sheets as necessary).

III. Commencement Date: SEE APPENDIX B, ITEM III

Completion Date: SEE APPENDIX B, ITEM III

IV. TYPE OF USE REQUESTED (Mark where appropriate)

- 1. Permitted Use (exception occasional use);  
DLNR Title 13, Chapter 2, Section \_\_\_\_\_; Subzone \_\_\_\_\_.
- 2. Accessory Use (accessory to a permitted use):  
DLNR Title 13, Chapter 2, Section \_\_\_\_\_; Subzone \_\_\_\_\_.
- 3. Occasional Use: Subzone \_\_\_\_\_.
- 4. Temporary Variance: Subzone \_\_\_\_\_.
- 5. Conditional Use: Subzone LIMITED .

Area of Proposed Use 34,405 sq. ft.  
(Indicate in acres or sq. ft.)

Name & Distance of Nearest Town or Landmark  
3,500± feet to Haena State Park

Boundary Interpretation (If the area is within 40 feet of the boundary of the Conservation District, include map showing interpretation of the boundary by the State Land Use Commission).

Conservation District Subzone LIMITED  
County General Plan Designation OPEN

V. FILING FEE

1. Enclose \$50.00. All fees shall be in the form of cash, certified or cashier's check, and payable to the State of Hawaii.
2. If use is commercial, as defined, submit additional public hearing fee of \$50.00.

INFORMATION REQUIRED FOR CONDITIONAL USE ONLY

I. Plans: (All plans should include north arrow and graphic scale).

- A. Area Plan: Area plan should include but not be limited to relationship of proposed uses to existing and future uses in abutting parcels; identification of major existing facilities; names and addresses of adjacent property owners.
- B. Site Plan: Site plan (maps) should include, but not be limited to, dimensions and shape of lot; metes and bounds, including easements and their use; existing features, including vegetation, water area, roads, and utilities.
- C. Construction Plan: Construction plans should include, but not be limited to, existing and proposed changes in contours; all buildings and structures with indicated use and critical dimensions (including floor plans); open space and recreation areas; landscaping, including buffers; roadways, including widths; offstreet parking area; existing and proposed drainage; proposed utilities and other improvements; revegetation plans; drainage plans including erosion sedimentation controls; and grading, trenching, filling, dredging or soil disposal.
- D. Maintenance Plans: For all uses involving power transmission, fuel lines, drainage systems, unmanned communication facilities and roadways not maintained by a public agency, plans for maintenance shall be included.
- E. Management Plans: For any appropriate use of animal, plant, or mineral resources, management plans are required.
- F. Historic or Archaeological Site Plan: Where there exists historic or archaeological sites on the State or Federal Register, a plan must be submitted including a survey of the site(s); significant features; protection, salvage, or restoration plans.

II. Subzone Objective: Demonstrate that the intended use is consistent with the objective of the subject Conservation District Subzone (as stated in Title 13, Chapter 2).

V. APPENDIX A

ENVIRONMENTAL ASSESSMENT/DETERMINATION

OWNERS: Wayne E. and Helen R. Ellis  
Michael L. Ellis  
Helen K. Ellis

APPLICANT: Avery H. Youn, Architect  
3016 Umi Street, Suite 211-B  
Lihue, Kauai, Hawaii 96766

LOCATION: Situated at Haena, Island of Kauai, State of Hawaii, containing an area of 34,405 sq.ft., more or less, further identified as Kauai Tax Map Key 5-9-02: 33, Lot 16.

REQUEST: State Conservation District Use Application (CDUA), County Special Management Area (Minor) Use Permit and Shoreline Setback Variance Permit, for the construction of a concret/rock seawall connecting to the seawall approved by DLNR for the Zimmerman property (TMK 5-9-02: 34).

APPROVING AGENCY: Department of Land and Natural Resources

AGENCIES CONSULTED: Kauai Planning Department, and Public Works Department

I. PROPOSED ACTION

The owners propose to construct a 174 ft. long seawall along the shoreline of the property to prevent further erosion. The seawall proposed will consist of a concrete wall faced with a heavy rock rubble front at a slight camber, with a concrete footing (See Exhibit 4). The appearance of the rock-faced wall is to achieve a natural look compatible with the area, which would be less obtrusive and more effective than a vertical concret wall. Excavation for the wall will occur such that the foundation can sit on beach rock or the coral shelf beneath the sand. The height of the wall will match the seawall previously approved by DLNR for the abutting Zimmerman property. The exposed height should not exceed eight (8) feet.

II. TECHNICAL CHARACTERISTICS

- a. The subject property has a single family residential unit, and is grassed, bordered with mature vegetation consisting of coconut palms, banyan, kamani, papaya and ironwood.
- b. The land closest to the shoreline is the highest portion of the lot, approximately 18 ft above MSL, and forms a natural beach berm. The

land gently slopes inland to approximately 15 feet above MSL at its lowest point, approximating less than 1% slope.

- c. The ironwood and kamani trees along the shoreline are in danger of collapsing due to the root systems being undermined and exposed.
- d. The provision of a seawall should not adversely impact the existing drainage pattern of the property in any manner, as the shoreline area is the higher portion of the lot. Should rainfall occur of a sufficient magnitude to create a surface runoff, drainage would be towards the inland boundary of the lot. Flooding problems from surface runoff are not anticipated.
- e. Utilizing the County's Cultural Sensitivity Maps, the entire Haena area is designated as having a moderate degree of sensitivity. However, no specific sites of historical or archaeological significance are located on the subject property. However, if during site preparation for the construction of the seawall/revetment any sites, features, or remains are discovered, the County Planning Department, the State of Hawaii Preservation Officer, and a qualified archaeologist shall be contacted immediately. All work will be halted until a determination of the significance of the discovery can be assessed, and an appropriate course of action can be established.
- f. The proposed seawall will not result in any adverse effects. It should not interfere in any manner with the public's right to use the beach, since the existing beach fronting the wall is approximately 35 feet in width.

### III. ECONOMIC CHARACTERISTICS

The construction of a seawall would not generate any significant beneficial or adverse economic effects, other than create short-term employment benefits during the course of construction.

### IV. SOCIAL CHARACTERISTICS

No adverse social impacts are anticipated with the construction of a seawall to prevent further erosion of the property. Lateral beach access as it currently exists will not be affected.

### V. ENVIRONMENTAL CHARACTERISTICS

The purpose of the seawall is to prevent further erosion to the property. Approximately 15,560 sq.ft. of land area has already been eroded. In addition, adjacent properties are experiencing severe erosion also. Two properties to the south and west (Murcia-Toro, Inc. and Zimmerman) have been approved by the Land Board for the construction of seawalls. It is these three properties that are being most heavily eroded along this section of Haena Point.

In a Coastal Engineering Evaluation Report prepared by Field Services Hawaii, Inc. for the property owned by Murcia-Toro, Inc. (parcel 35, 2 properties south) it identifies the erosion that is occurring on that

property and an additional 200 ft. of shoreline between that property and Haena Point. The area being referred to is the site of the Zimmerman and Ellis properties.

The report further points out several factors which may be contributing to the erosion problems along this short stretch of shoreline. In viewing the off-shore reef formation, there is a discontinuity of the shallow off-shore reef west of Haena Point and fronting this property. The depression, or channel, parallels the shore and terminates at the beach fronting these three properties. The beach rock or limestone reef platform is also discontinuous along this short 400 feet stretch of beach.

Because of the channel, a convergence of currents occur during large northwesterly swell conditions, from waves breaking across the outer shallow reef and from waves breaking along the southwest shore. This convergence increases the water elevation fronting the project site and drives the flow out through the break in the reef. The increased water levels allow waves to cause erosion at higher elevations on the beach. High tide conditions will further encourage the erosion process. The discontinuous beach rock at the water's edge does not afford beach toe stability. The vertical backshore escarpment increases scouring action of the waves on the beach, and the off-shore currents through the channel carries out all eroded sediments thus preventing it from settling in the immediate vicinity.

The report continues to state that the vegetation line appears to have receded 30 feet over a 32 year period, based on aerial photos taken from 1950 to 1983. It further states that the present high vertical escarpment along this shoreline reach can accelerate the rate of erosion because of scouring and undermining of the bank. It is not unreasonable to assume that erosion of vegetated land along this site will continue.

#### VI. SUMMARY DESCRIPTION OF AFFECTED ENVIRONMENT

Relative to the seawall, its rock facing will act as a revetment which will dissipate wave energy and is not expected to cause scouring at the toe of the wall, nor loss of beach sand to the extent that a vertical wall would. The wall would be placed along the existing escarpment and inland of the certified shoreline or vegetation line; therefore it will not create a barrier to longshore transport of sediment moving past the revetment, or interfere with coastal processes.

#### VII. IDENTIFICATION AND SUMMARY OF MAJOR IMPACT(S) AND ALTERNATIVES CONSIDERED

As identified above, the major impact is related to the seawall in that such would cause scouring on the adjacent properties during periods of high surf.

A secondary impact may be the visual aesthetics of the wall, however, using a rock rubble facing at a camber should make the wall more compatible with the beach setting.



There are alternatives to consider which are as follows:

No Action: This action will result in continued erosion due to the configuration of the present shoreline and the outlying reef formation and channel.

Beach Nourishment: As identified in the Coastal Engineering Evaluation Report, the reef formation, the channel, the discontinuous beach rock at the shoreline, and the steep escarpment all contribute to the erosion problem. Beach nourishment would only provide a temporary solution since the above factors would still exist and the erosion processes would still continue.

Offshore Structures: This alternative would not be desirable at all in the Haena area and would probably conflict with the ongoing recreational activities occurring there now. Furthermore, it will directly impact the coastal processes by affecting currents and sediment flow, which may also cause erosion elsewhere along the shoreline. This alternative most likely will receive the most public objection.

#### VIII. MITIGATION MEASURES

It is fortunate for this application adjoining property owners to the south and west are also constructing seawalls, which would resolve the scouring problem that would be created on those properties by this wall should it have been constructed by itself. It is also fortunate for this application that the Coastal Engineering Evaluation Report for the Murcia-Toro Inc. project similarly evaluated the Zimmerman and Ellis properties and potential impacts.

Said properties which have received County and State approvals for the construction of seawalls are:

1. TMK 5-9-02: 35, Murcia-Toro, Inc.
2. TMK 5-9-02: 34, Zimmerman

#### IX. DETERMINATION

An environmental impact statement is not required since no major adverse environmental impacts are anticipated from this project, in that the adjoining properties are also constructing seawalls, a rock face revetment will be used, and all backfill will be of crushed rock or coral to minimize any chance of turbidity during periods of high surf. The seawall will be constructed to be similar to those walls already approved.

APPENDIX B

INFORMATION REQUIRED FOR ALL USES

I.. DESCRIPTION OF PARCEL

- a. General Description  
The subject property is on the shoreline of Haena, Island Of Kauai, State of Hawaii. The property previously contained 49,965 sq.ft. of land. However, an October 1989 survey shows an area of 34,405 sq.ft. It is identified as Kauai Tax Map Key 5-9-02: 33, Lot 16. Exhibit 1 is the project site location in Haena, Hanalei, Kauai. Exhibit 2 is the property location on TMK 5-9-02. Exhibit 3 is a copy of the shoreline certification map.
- b. Existing Structures/Use  
There are presently two residential structures on the property that were constructed in 1948. One structure is approximately 1,438 sq.ft., and the other is approximately 300 sq.ft. The balance of the property is lawn and landscaping.
- c. Existing Utilities  
Water, electric and telephone services exist on-site. One cesspool exists on site, approximately 10 feet north of the main dwelling unit, and approximately 60 feet from the northerly (side) property line. No direct drainage flows to the ocean since the topography slopes inland due to the raised sand berm which fronts the shoreline.
- d. Existing Access  
The lot is located at the end of a private unpaved 30 ft. wide roadway which services this lot and the nine neighboring lots within this subdivision. Ownership of the roadway belongs to all those owners of lots abutting this roadway. This roadway connects to Kuhio Highway, which is approximately 1,100 feet away.
- e. Vegetation/Fauna  
Existing mature vegetation lies within and along the perimeter of the property, and consists of palms, banyan, kamani, papaya, ironwood, etc. There are no known rare or endangered species of flora or fauna found on the property given the long residential use of the property.
- f. Topography  
The site is relatively flat, sloping inland from the beach berm. The berm, at its highest point is approximately 18 ft. above MSL, sloping inland to approximately 15 feet above MSL at its lowest point. The average slope would be in the 1% range.

g. Description of Shoreline

Between the sand berm and the water's edge, there exists a small beach approximately 35 feet wide. A barrier reef fronts the beach and goes out approximately 1000 feet offshore at its nearest point, to 2000 feet at its farthest. A coral shelf is visible at the shoreline and is expected to run inland also under the sandy beach and berm fronting the site. Because of the reef formation, there is a channel that comes up to the property between the reef. This channel and reef are heavily used for recreational purposes, including swimming, snorkeling, windsurfing and surfing. The channel also serves as a rest stop for many of the zodiac/tour boat operations.

The elevation at the top of the sand slope of the beach is approximately 7-9 feet above MSL. The top of the escarpment is approximately 10-12 feet above the beach, and shows evidence of heavy erosion due to the large northwesterly swells this area experiences during winter months. As explained in the attached environmental assessment, several factors contribute to the erosion process at this location. A convergence of currents during large northwesterly swells increases the elevation of the water within the channel which fronts the property. The increased water levels allow waves to cause erosion at higher elevations on the beach. The discontinuous beach rock at the water's edge, the steep escarpment, and the offshore currents within the channel all contribute to the erosion problem, and is expected to continue if the seawall is not constructed.

h. Existing Covenants, Easements, Restrictions

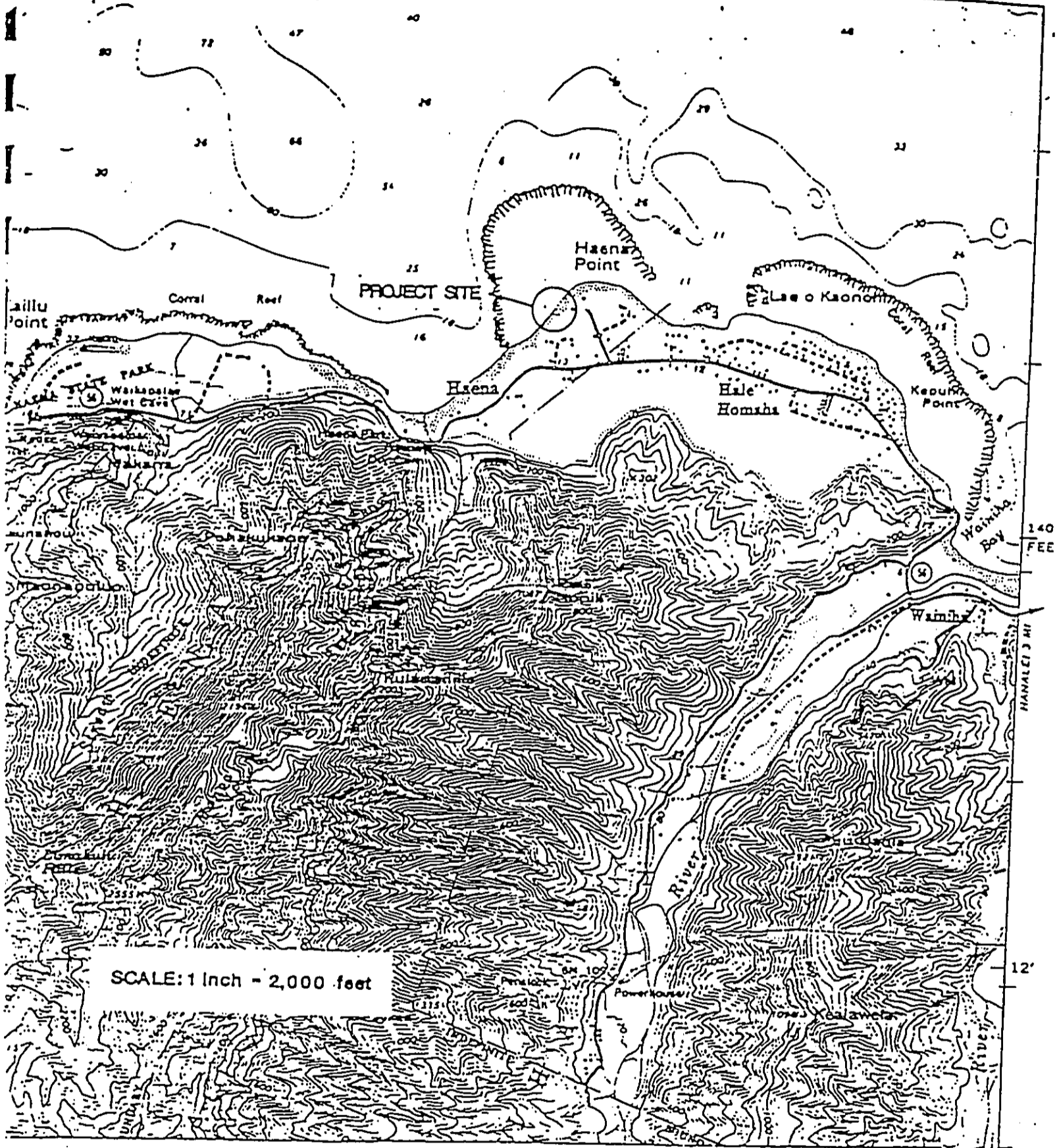
No covenants, easements or restrictions are attached to this property.

i. Historic Sites Affected

Historic or archaeological sites are not known to exist on the property. However, if during site preparation for the construction of the seawall and revetment any sites, features, or remains are discovered, the County Planning Department, the State Historic Preservation Officer, and a qualified archaeologist shall be contacted immediately. All work will be halted until a determination of the significance of the discovery can be assessed, and an appropriate course of action can be established.

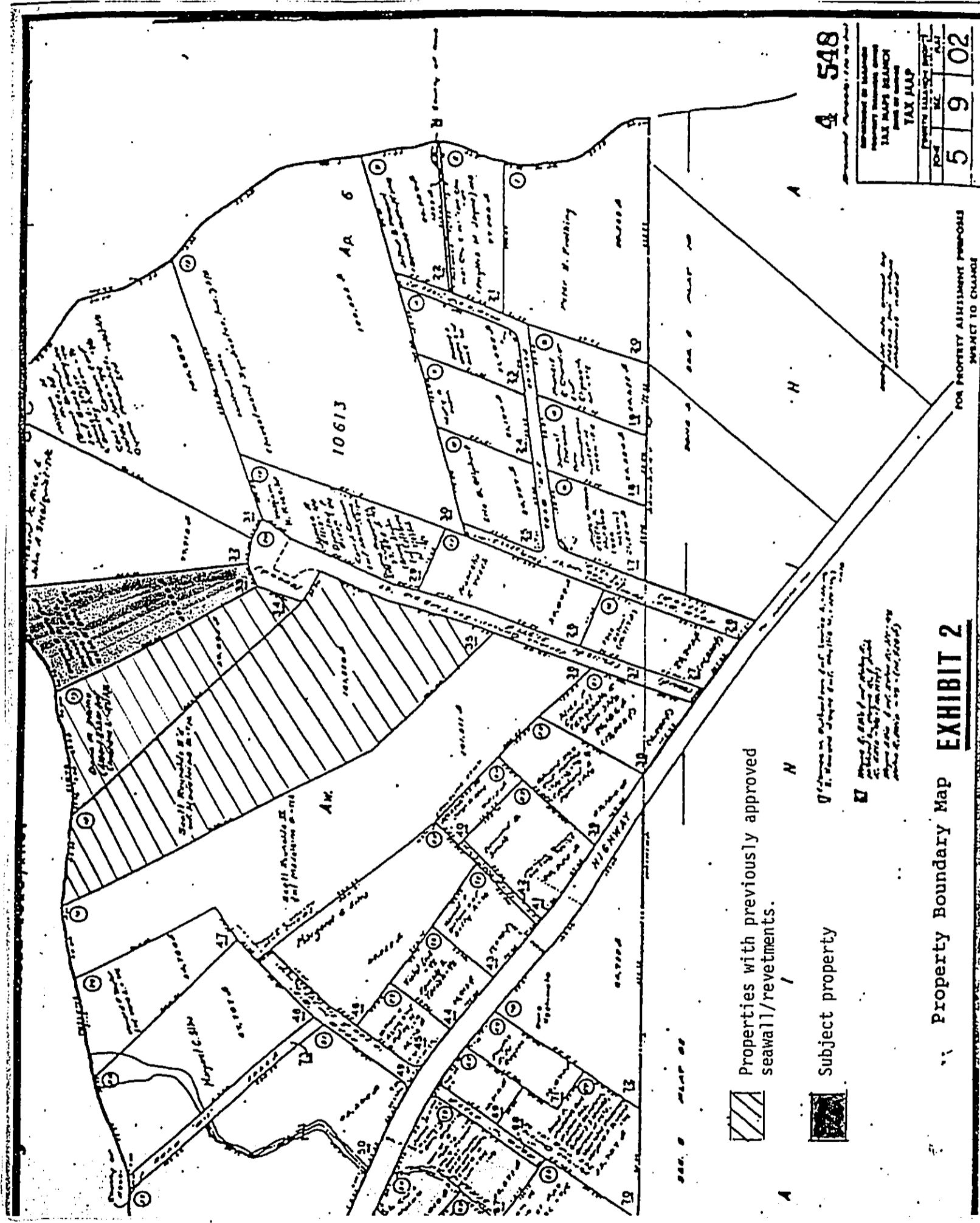
II. DESCRIPTION

A concrete seawall, approximately 174 feet long, with a sloped rock facing is proposed to be constructed inland of the certified shoreline in order to protect the site from further erosion. The shoreline survey conducted in October 1989 indicates that approximately 15,560 sq.ft. of the property have already been lost. The sloped rock facing or revetment however, should soften the abruptness of the wall height and improve its overall visual appearance. Exhibit 4 provides a typical cross-section of the proposed wall. The sloped rock revetment is also for the purpose of dissipating



Project Site Location Map, Haena, Kauai

**EXHIBIT 1**



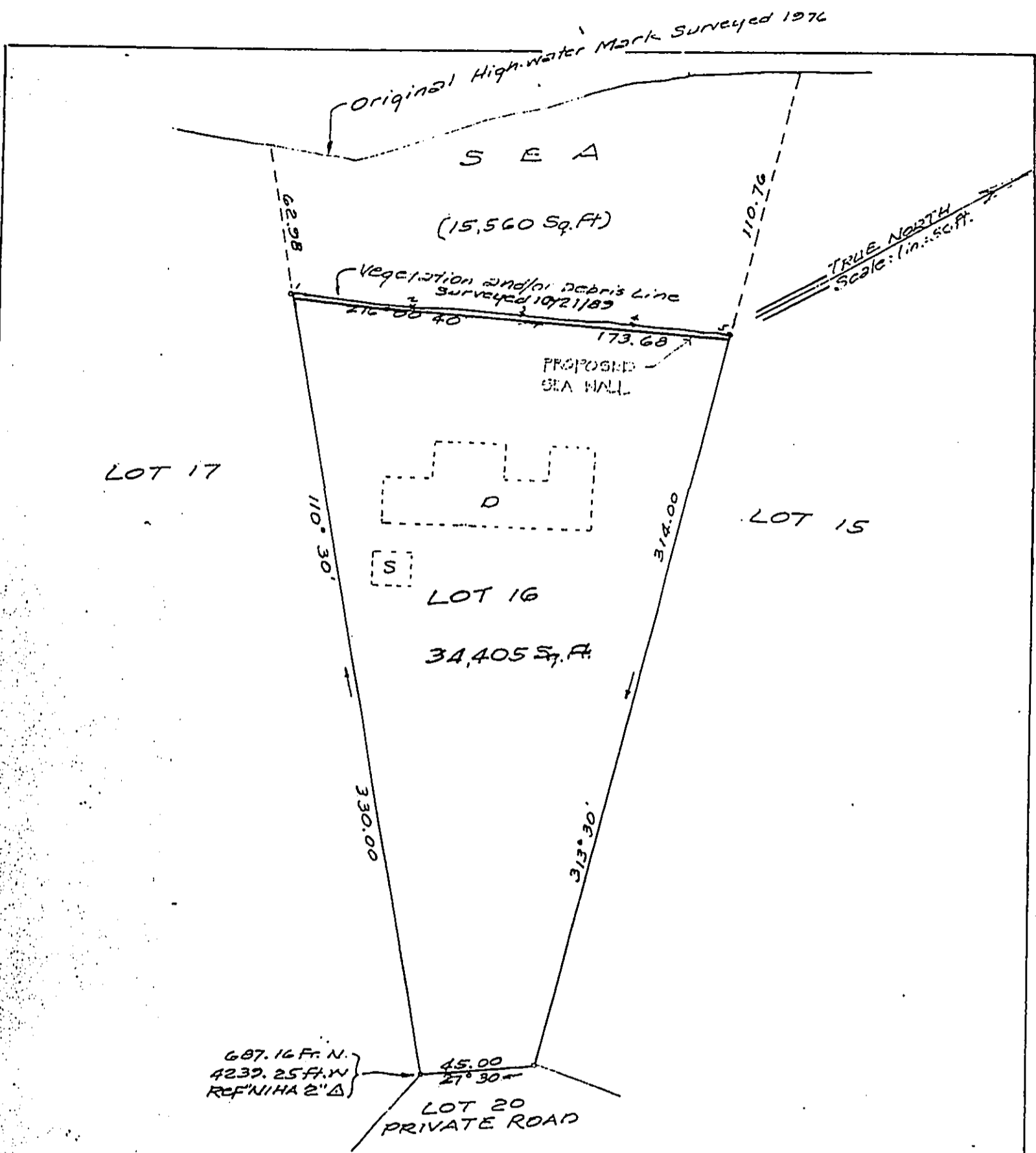
Properties with previously approved seawall/revetments.

Subject property

Property Boundary Map **EXHIBIT 2**

FOR PROPERTY ASSIGNMENT PURPOSES  
SUBJECT TO CHANGE

TAX MAP	
5	9
02	



SHORELINE CERTIFICATION  
OF LOT 16 HAENA HUI LANDS  
AT HAENA, HANALEI, KAUAI, HAWAII

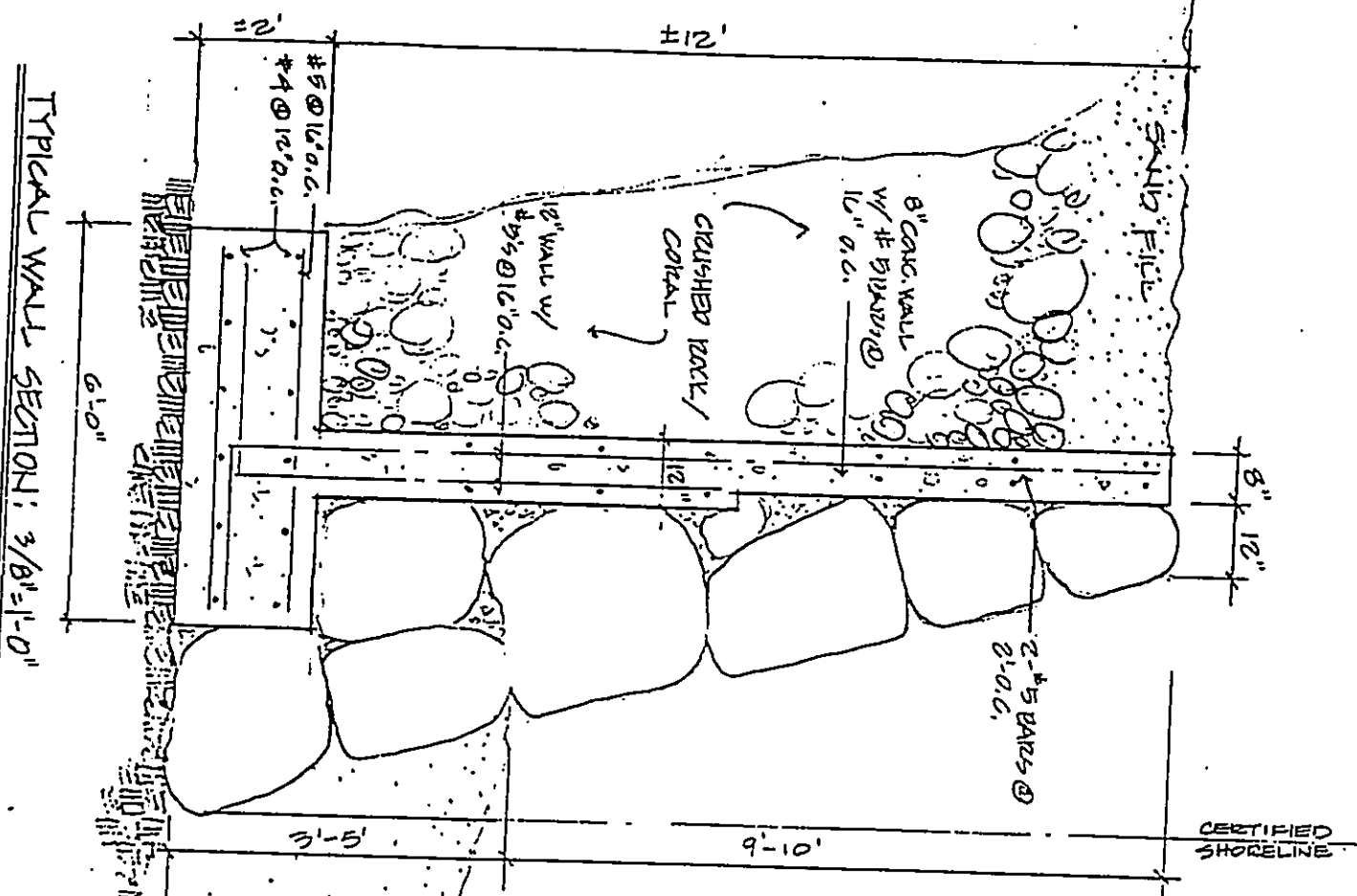
OWNERS:  
Wayne Ellis &  
Helen R.  
Rick Ellis  
Michael Ellis



This work was prepared by me  
or under my supervision 10/21/89  
10 AM.  
Masao Fujishige  
Registered Land Surveyor 1065  
Puhii, Kauai, Hawaii  
Ph. 245-6388

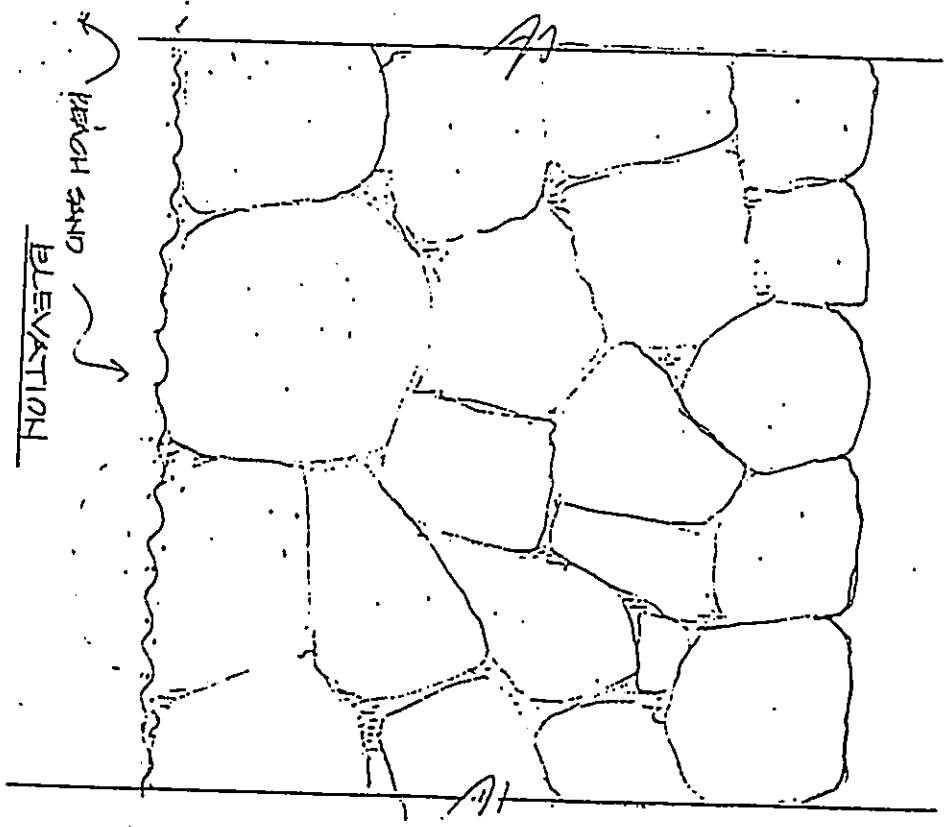
**EXHIBIT 3**

Tax Map Key: (4th DIV.) S-9-02:33



TYPICAL WALL SECTION: 3/8"=1'-0"

EXHIBIT 4



BEACH SAND ELEVATION

CERTIFIED SHORELINE





wave energy to prevent further erosion and scouring of the toe of the wall. Backfill material will be of crushed rock or coral.

No rocks, coral or sand shall be removed from the area seaward of the shoreline for use in construction of the seawall unless authorization and approval is obtained from the Department of Land and Natural Resources.

The proposed seawall/revetment will be constructed to match the approved seawall/revetment on the abutting Zimmerman (5-9-02: 34) and Murcia-Toro, Inc. (5-9-02: 35) properties. SEE Exhibit 2 for location of these properties.

### III. COMMENCEMENT AND COMPLETION DATES

Construction is proposed to commence as soon as all required State and County permits are secured. Completion is expected within 1-2 months provided adverse weather conditions do not affect the construction timetable.

### ADDITIONAL INFORMATION

#### 1. Compliance with County requirements

The proposed seawall/revetment will comply with the Shoreline Management Area (SMA) Rules and Regulations as administered by the County of Kauai Planning Department.

#### 2. Justification for Proposed Use

The environmental assessment concludes that no significant adverse environmental impacts will be generated by this project. The impact of the seawall relative to creating scouring of adjacent properties can or is being mitigated in that the adjoining property owners to the south and west are in the process of similarly constructing seawalls also.

The proposed wall will not interfere with the public usage of the beach in that it will be built inland of the certified shoreline and the existing 35 ft. wide beach fronting the property will remain intact.

The seawall is the best alternative to consider in that it will offer maximum protection of the property and will not interfere with the coastal processes. The sloped rock rubble facing will make the wall blend better with the existing beach setting, will help dissipate wave action, and will prevent scouring of the foundation.

3. The applicant's seawall/revetment should be constructed to match the proposed revetment on the Murcia-Toro property, with a slope ratio of 1.5 feet horizontal to 1 foot vertical, or to a slope recommended by the applicant's marine engineer at an exposed height not to exceed eight (8) feet.