DEPARTMENT OF PLANNING AND PERMITTING
CITY AND COUNTY OF HONOLULU
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JEREMY HARRIS
MAYOR

ERIC G. CRISPIN, AIA
DIRECTOR

BARBARA KIM STANTON
DEPUTY DIRECTOR

2001/ED-11(ask)
2003/SV-13

August 8, 2003

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

Dear Ms. Salmonson:

Chapter 343, Hawaii Revised Statutes
Final Environmental Assessment (EA)

Owner	:	John E. Lindelow, Etal.
Applicant/ Agent	:	John E. Lindelow
Location	:	1450-B Mokulua Drive, Kailua
Tax Map Key	:	4-3-3: 96
Request	:	Shoreline Setback Variance
Proposal	:	After-the-fact Approval for Expansion of a Non-conforming Seawall

Attached and incorporated by reference is the Final EA prepared by the applicant for the project. Based on the significance criteria outlined in Title 11, Chapter 200, Hawaii Administrative Rules, we have determined that preparation of an Environmental Impact Statement is not required.

If you have any questions, please contact Ardis Shaw-Kim of our staff at 527-5349.

Sincerely yours,

Barbara A Kim

for ERIC G. CRISPIN, AIA
Director of Planning and Permitting

EGC:cs
Attachments
239181

2003-09-23-OA-FEA

FINAL
(MOKULUA DRIVE SEAWALL) ENVIRONMENTAL ASSESSMENT

FOR A SEAWALL BUILT IN 1984

Lanikai, Oahu, Hawaii

Tax Map Key: 4-3-003:096

Prepared for and by:

John Lindelow, Roz Rapozo & Roger Fonseca

July 2003

FINAL

ENVIRONMENTAL ASSESSMENT

FOR A SEAWALL BUILT IN 1984

Lanikai, Oahu, Hawaii

Tax Map Key: 4-3-003:096

Prepared for and by:

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July 2003

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APPENDIX 1: COMMENTS ON DRAFT ENVIRONMENTAL ASSESSMENT AND RESPONSES

Randall Fujiki, Dept. of Planning and Permitting
Jane Morris, Lanikai resident
James Pennaz, Dept. of the Army
Anthony Ching, Land Use Commission, DBEDT, State of Hawaii
Genevieve Salmonson, State Office of Environmental Quality Control
Faith Evans, Kailua Neighborhood Board
Lanikai Community Association

APPENDIX 2: BOUNDARY INTERPRETATION FROM THE STATE LAND USE COMMISSION

Request for a Boundary Interpretation
Boundary Interpretation

I. GENERAL INFORMATION

Applicants:	John Lindelow, Roz Rapozo & Roger Fonseca PO Box 61449 Honolulu, HI 96839
Recorded Fee Owner:	John Lindelow, Roz Rapozo & Roger Fonseca PO Box 61449 Honolulu, HI 96839
Agent:	None
Tax Map Key:	4-3-003:096 (1450A/B Mokulua Drive, Kailua, HI 96734)
Lot Area:	14,967 sq. ft. (Survey of June 28, 1966) 8,650 sq. ft. (Survey of April 9, 2003)

Agencies Consulting in Making Assessment: Department of Planning and Permitting, City & County of Honolulu; State of Hawaii Land Use Commission; State of Hawaii Dept. of Land and Natural Resources; Real Estate Assessment Bureau, City & County of Honolulu.

II. DESCRIPTION OF THE PROPOSED ACTION

A. General Description

Narrative Description of Proposed Project. The action covered by this assessment consisted of the previous owner of this property (Gary Leigh Barry) constructing, in 1984, a sea wall fronting the ocean, without first obtaining a necessary Variance and Permit. The current owners acquired the property in mid 2000. In 1966, the house on this property sat back approximately 150 feet from the makai boundary. By 1984, erosion had claimed over 100 feet of this distance, and ocean waves were threatening to take much more. No construction or reconstruction is being proposed in this document. We seek only to obtain the necessary Variance and Permit for the sea wall so that it can be brought into compliance with City and County law.

Figure 2 shows the property location, and it also shows the locations of other recently issued Shoreline Setback Variances issued by the City that the applicants are aware of. These are:

- **Recent SSV 1:** TMK 4-3-005:60, 1280 Mokulua Drive (Owner: Dewey): For a new sea wall constructed in 2002.
- **Recent SSV 2:** TMK 4-3-005:61 and TMK 4-3-004:74, 1286 and 1302 Mokulua Drive (Owner: Dilks): For a new sea wall constructed in 2001 fronting 2 properties.
- **Recent SSV 3:** TMK 4-3-040: 78, 79, 88, and 108 (1336, 1344, 1352, and 1354 Mokulua Drive) (Owners: Binney et. al.): For a new revetment fronting 4 properties, constructed circa 1990-1.
- **Recent SSV 4:** TMK 4-3-003:63, 1502 Mokulua Drive (Owner: Abbott). After-the-fact SSV for extensive repairs to an existing sea wall circa 1993-4.

Relation of Parcel to the Shoreline Setback. The entire project area lies within the Shoreline Setback.

Location Maps. See Figures 1, 2, and 3.

Land Use Approvals Required. This project requires a Shoreline Setback Variance, and this Environmental Assessment has been written in support of such a Variance.

Comments on the Draft Environmental Assessment by the State Land Use Commission (LUC) (see Appendix 1) indicated that the LUC initially believed the seawall was within the State Conservation District, which would have required a State permit from the DLNR. The applicants worked with the LUC, performed a title search, had a survey of the 1964 Boundary done by a registered professional land surveyor, and requested and received a formal boundary interpretation from the LUC. The boundary interpretation request and the LUC's boundary interpretation can be found in Appendix 2, and the Boundary Interpretation 03-15 map can be found in Figure 16. The conclusion of the LUC is that the State Conservation Boundary coincides with the State Certified Shoreline Survey, meaning that all of the seawall lies within the Urban District and no part of it lies in the Conservation District. Under this interpretation, no permit from the DLNR is required for the existing seawall.

B. Technical Characteristics

Use Characteristics.

Physical Characteristics. The sea wall, built in 1984, consists of a con create-rubble-masonry (CM) wall located on the makai edge of the property (as surveyed in 2003). The entire sea

wall is within the property boundaries, according to the State Certified Shoreline Survey conducted in April 2003 (Figure 4). The wall is about 34" high on the mauka side, and about 8 feet tall on the makai side (see drawings). It is 64.5 feet long along the makai side of the property. It is 32" thick at its top. The slope of the lower portion of the wall (that in contact with the ocean) ranges between 30 degrees below the horizontal (on the southern end) to 35 degrees below the horizontal (on the northern end). This shallow slope greatly diminishes the rebound action of ocean waves in comparison to a more vertical wall. Included in this project is a flanking wall on the Waimanalo side of the property that is also within the shoreline setback (see drawings) and is also completely within the boundaries of the subject property, as demonstrated in the State Certified Shoreline Survey of April 2003. An elevation of the flanking wall can be seen in Figure 15.

Construction Characteristics. Since the sea wall was built 19 years ago, no construction characteristics apply.

III. AFFECTED ENVIRONMENT

A. Subject Site and Surrounding Area.
The subject property is located within the State Urban District. It is designated Residential in the Development Plan and R-10 on the Land Use Ordinance (LUO) map. The property lies within the Special Management Area (SMA). The wall construction, however, involves improvements to an existing single family residence that is not part of a larger development.

B. Federal FIRM Zone, LUO Flood Hazard District. According to Flood Insurance Rate Maps (FIRM), the property lies within a special flood hazard area designated as Zone AE, with base flood elevations determined up to an elevation of 5 feet. The construction of retaining walls in a flood hazard area is exempted from the provisions outlined under Article 9, Flood Hazard Districts, Section 21-9.10.13 of the Revised Ordinances of Honolulu.

C. Coastal Views. See Figures 6, 11, 12, 13.

D. Relation to Beach Access Points. Etc. The subject property is not adjacent to any beach accesses, beach parks, or recreation areas. Beach accesses exist a few properties away on both the Kailua and the Waimanalo sides of the property. The property is not adjacent to or near any wildlife areas or habitats, except for the open ocean immediately makai of the property.

IV. PROJECT IMPACTS

Topography - The subject property is flat, oceanfront land extending from Mokulua Drive to the bottom of the sea wall at the makai edge of the property. As recently as 1966, the property extended another 100 feet makai. The construction of the sea wall has had no impact on the topology of the property or the area.

Soils & Drainage - The Lanikai area is classified by the US Soil Conservation Service as being in the Kaena-Waialua Association. This soil type is characterized by fine grain soils with fine to coarse textured subsoils and underlying materials. The surface soil on the the project parcel is Jaucas sand, a soil commonly found in the the area where slopes are between 0 and 15 percent. Jaucas sand is predominantly single grain, pale brown to very pale brown, and more than six inches deep. The soil tends to be moderately alkaline and features rapid permeability, keeping surface runoff to a minimum. The new sea wall has no adverse impact on the soils of the area, and drainage from this area is excellent.

Flora - The vegetation in the project area consists of coconut trees, naupaka, yard grass, and other low-lying vegetation. No endangered or rare species are known to exist on or around the site. The new sea wall has no adverse impact to the existing vegetation, and in fact assists its growth by protecting it from erosion and exposure to salt water.

Fauna - No endangered animal species are known to exist on or around the subject property. The new sea wall has no effect on the fauna populations of Lanikai, Oahu, or Hawaii.

Marine Environment - The marine environment immediately makai of the sea wall consists of a sandy beach and a few coral outcroppings starting about 70 feet off shore. Schools of small fish can frequently be seen harboring at the base of the sea wall. The only endangered species in the local marine environment is the green sea turtle (Chelonia mydas), which is usually found towards the outer edge of the shallow reef barrier located about 3/4 mile off Lanikai beach. The new sea wall has no adverse impact on the marine environment.

Historic, Archaeological & Cultural Features - The project site has no archaeological features within its boundaries or in its general vicinity. The new sea wall has no negative impact on historic or archaeological resources. There are no known significant cultural resources present at the site. This area in which the subject parcel resides has been a residence for over 40 year. No traditional Hawaiian practices or gatherings are known or have been observed anywhere in the vicinity of the subject parcel. Discussions with other area residences also reveal no knowledge of such practices in the vicinity, and no observations of such practices in the vicinity of the subject parcel.

Air Quality - The new sea wall has no impact on air quality.

Water Quality - Water quality in Lanikai will not be adversely impacted by the construction or existence of the new sea wall.

Noise - Noise may have been generated 19 years ago when the new sea wall was constructed, but no additional noise impacts will occur as a result of the new sea wall.

Socioeconomic - The construction of the new sea wall was a short-term project that created no new jobs. The amount of income, revenues, and demand on public services was negligible so as to have

no impact on the socioeconomic setting of the area.

Additional Discussion of Significance Criteria based on HAR 11-200-12
The sea wall does not and has not had a significant effect on the environment and therefore preparation of an environmental impact statement is not required. The Significance Criteria in HAR 11-200-12 were reviewed and analyzed. Based on the analysis, the following conclusions were drawn:

- **No irrevocable commitment to loss or destruction of any natural or cultural resource has or will result.** There are no known significant cultural resources present at the site.

- **The sea wall has not and will not curtail the range of beneficial uses of the environment.** The sea wall does not affect access to the shoreline and does not affect access along the shore fronting the subject property.

- **The sea wall has not and will not conflict with the state's long-term environmental policies or goals and guidelines.** The State's environmental policies and guidelines as set forth in Chapter 344, Hawaii Revised Statutes, "State Environmental Policy", encompass two broad policies: conservation of natural resources, and enhancement of the quality of life. The sea wall has not and will not significantly affect natural resources, while maintaining the quality of life of the residents by preventing storm wave damage.

- **The sea wall has not and will not substantially affect the economic or social welfare of the community or state.** The sea wall does not have economic or social impacts on the community or the State.

- **The sea wall has not and will not substantially affect public health.** There are no public health concerns relating to the sea wall.

- **No substantial secondary impacts such as population changes or effects on public facilities are expected.** There are no secondary impact concerns relating to the proposed sea wall.

- **No substantial degradation of environmental quality has occurred or is expected due to the sea wall.** The wall is already built and has been in place for 19 years and no construction activity is being proposed.

- **No cumulative effect on the environment or commitment to larger actions have or will be involved.** The sea wall stabilizes the shoreline, and does not affect existing littoral processes and has no impact on the adjacent shorelines, which are already armored with sea walls.

- **No rare, threatened or endangered species or their habitats are affected.** There are no known rare, threatened, or endangered species or their habitats located at or near the sea wall.

- **The sea wall has not and will not detrimentally affect air or water quality or ambient noise levels.** The sea wall was built 19 years ago and no new construction or

reconstruction is being proposed.

• **The sea wall has not and will not detrimentally affect environmentally sensitive areas such as flood plains, tsunami zones, beaches, erosion-prone areas, geologically hazardous lands, estuaries, fresh waters, or coastal waters.** The sea wall is located in coastal flood hazard zone designated AE on the Flood Insurance Rate Map. The sea wall has had and will have little or no effect on the flood characteristics. The sea wall has not and will not alter the existing long shore or cross-shore sediment transport processes affecting this shoreline area. The sea wall has not and and will not have adverse long-term impacts on marine resources or coastal waters, and has likely provided beneficial impacts to coastal water quality by preventing erosion of the shoreline.

• **The sea wall has not and will not substantially affect scenic vistas and view planes identified in county or state plans or studies.**

• **There has not been and is not a requirement for substantial energy consumption.** The sea wall requires no energy consumption.

Alternatives

Given that the sea wall is already in place, the only alternative to leaving it in place is to tear it down (the "no action" alternative). The absence of protection from the near shore elements would result in substantial hardship for the owners as it would lead to continued deterioration of their property (which has already lost over 100 feet on its makai side since 1966) and the eventual undermining of the house. In addition, earth and debris from the deteriorating property would be carried into the ocean where it could adversely affect the marine environment.

Other alternatives to sea walls include sloping revetments, dune-scaping, retreat from the shoreline by moving structures inland, and beach replenishment. Because the property is a flag lot and because it has already lost over 100 feet on its makai side, it is currently very narrow (see State Certified Shoreline Survey). Because of this narrowness, the first three of these alternatives would be unworkable because the take substantial amounts of space and/or because, if implemented, they would encroach upon the State's Conservation District. There is only about 12 feet between the back of the house and the back property line. The last alternative, beach replenishment, is probably the best long-term solution, but it requires community resources and coordination that are beyond the means of a single property owner.

V. MITIGATION MEASURES

Because no significant impacts have been determined in association with this project, no mitigation measures will be needed.

VI. COASTAL ENGINEERING EVALUATION

Historical Shoreline Analysis. The subject property is at the southeast end of Lanikai, which has historically experienced considerable accretion and erosion over many decades. Diagram 1 below shows the average cumulative movement of the shoreline over a 2500 foot length along the southern third of the Lanikai coastline, which encompasses the shoreline in front of the subject property.

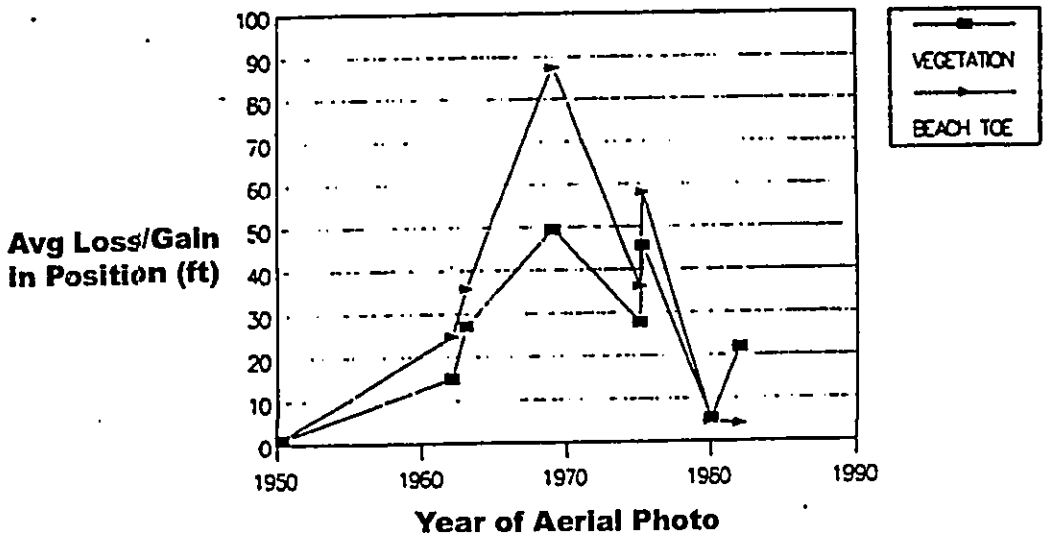

Diagram 1: Based on analysis of historical aerial photos as described in the study report, "Hawaii Shoreline Erosion Management Study, Overview and Case Study Sites (Makaha, Oahu; Kailua-Lanikai, Oahu; Kukuiula-Poipu, Kauai", prepared by Edward K. Noda and Associates, Inc. and DHM, Inc., for the Hawaii Coastal Zone Management Program, Office of State Planning, June 1989. This study also has a detailed discussion of the littoral processes and long-term changes along the entire Lanikai shoreline. Units on the left axis are in feet. Higher numbers indicate a wider beach.

Between 1950 and 1970, according to Diagram 1, the shoreline accreted substantially, to a maximum of about 200 feet near the Lanipo Drive drainage channel (which is about 160 feet south of the subject property). This is substantiated by the 1966 property line as indicated on the TMK map for this property, which shows the property line to be 100 feet further seaward than it is today.

From 1970 through the mid-1980's, the shoreline eroded back to the approximate location it was in the early 1950's. Presently, over 2000 feet at the southeast end of Lanikai has shore protection structures, many built on top of preexisting structures built during the 1950's or in previous erosion cycles.

The long-term cycle of accretion and erosion is a natural process whose causes have not been fully established. These cycles are characteristic of many beaches, and they are not limited to the south end of Lanikai Beach. Of the 97 oceanfront parcels along Lanikai Beach, 93 have some sort of sea wall or shoreline protection structure (according to a survey by a longtime Lanikai resident). Many if not most of these shoreline protection structures are invisible or hard to see because they are currently buried in sand and vegetation and are far mauka of the shoreline (by up to 200 feet). In decades past, these sea walls were built to protect the homes behind them, and since then the sand

has accreted into wide beaches. On other sections of Lanikai Beach (such as the southern end), erosion has been the trend in recent decades, leading to the exposure of preexisting, buried sea walls, and the reconstruction or repair of these structures by concerned property owners. As the natural cycle of Lanikai Beach continues in decades to come, these renewed sea walls will also likely become fully or partially buried and will lie far mauka of the ocean shore, and other areas of Lanikai beach--now wide and sandy--will erode back, exposing the old walls buried there.

Based on the existence of these buried & forgotten sea walls, it seems reasonable to conclude that sea walls along Lanikai Beach, in and of themselves, do not prevent the beach from returning through natural accretion processes. These natural processes seem to be stronger than the increased wave reflectivity and subsequent erosion that sea walls are assumed to cause, or else the middle portion of Lanikai beach would not currently have 200+ feet width of sand, nor would the sand have returned to the southern portion of Lanikai beach after the first walls were built in the 1950's and earlier.

In recent years, several Shoreline Setback Variances have been granted within a block or two of the subject property.

- **Recent SSV 1:** TMK 4-3-005:60, 1280 Mokulua Drive (Owner: Dewey): For a new sea wall constructed in 2002.
- **Recent SSV 2:** TMK 4-3-005:61 and TMK 4-3-004:74, 1286 and 1302 Mokulua Drive (Owner: Dilks): For a new sea wall constructed in 2001 fronting 2 properties.
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- **Recent SSV 4:** TMK 4-3-003:63, 1502 Mokulua Drive (Owner: Abbott). After-the-fact SSV for extensive repairs to an existing sea wall circa 1993-4.

Please see Figure 2 for the location of these properties in relation to the subject property.

The EA's associated with the most recent of these SSV's (numbers 1 and 2 above) have included the following study, which was conducted for TMK 4-3-4:74 and TMK 4-3-5:61:

> **Coastal Engineering Evaluation for a Shore Protection Structure at Lanikai, Oahu, Hawaii.** Prepared by Edward K. Noda and Associates, Inc. December 1997 (revised).

This document is likely well-known to the DPP, and we encourage reference to it in regards to the current SSV application, as its content echoes and supplements the Coastal Engineering Evaluation provided in this document.

VII. SEAWALL CONSTRUCTION

The current sea wall was built in 1984 by the previous owner (the current owners acquired the property in mid 2000). A cross-section drawing of the sea wall is shown in Figure 7. Front and top views are presented in Figure 8.

[As indicated in the Certified Shoreline Survey in Figure 4, the stairway is NOT part of the subject property. The stairway was incorrectly included in previous violation notices regarding the subject sea wall, but it is actually on another parcel.]

The current sea wall has shown exceptional durability over the last 19 years, and it is very difficult to discern differences in photos taken shortly after its completion and photos taken today, except that there has been minor erosion at the toe. It is a 64.5 feet long CM wall with a front portion sloping at about 32 degrees below the horizontal, and a 32" wide by 34" tall cap. There have been, to the owner's knowledge, no problem with sink holes on the mauka side of the wall, indicating that the wall was well constructed in terms of stone underlay and filters.

According to the State Certified Shoreline Survey, the shoreline is at the bottom (toe) of the wall on the seaward side (See Figure 4.). The toe is protected by some small boulders, and there is sand bottom going out 50-100 feet makai of the toe. Schools of fish can frequently be observed harboring near the wall.

The sea wall has a flanking CM support wall on the southern (Waimanalo) end of the property, which is totally within the surveyed property lines, and which is included in the SSV application. This wall provides excellent flank protection on the southern end of the main sea wall. On the northern end, protection is provided by the contiguous cement stairway and the sea wall and revetments of the next property (the Paul Mitchell estate). Figures 10, 11, 12, 13, and 14 also depict a so-called "boat ramp" on the South side of the property, and this area is also marked on the TMK map as a narrow strip of land. Figure 15 provides an elevation of the flanking wall.

VIII. JUSTIFICATION FOR SHORELINE SETBACK VARIANCE

Justification for a Shoreline Setback Variance under ROH Section 23-1.8(3), the Hardship Standard.

The property owners will suffer Economic Hardship if this Variance is not granted. Our application for a Shoreline Setback Variance fulfills the three criteria for hardship set forth in ROH Sec. 23-1.8(3)(A).

1) We will be deprived of reasonable use of the land if we are required to comply fully with the shoreline rules and remove the seawall. If the seawall is removed, the house will eventually be undermined by storm waves, causing serious damage to the house and rendering it uninhabitable. The property has already lost a huge percentage (approx. 42%) of its size as surveyed in 1966. The property is a flag lot, and due to the loss of over 100 feet of makai property, there is no way to move the house back away from the ocean.

2) Our proposal is due to unique circumstances and does not draw into question the reasonableness of ROH 23 and the shoreline setback rules. The house on this property was built in full compliance of ROH 23 and sat back approximately 150 feet from the ocean when it was built in the 1960's. The radical erosion of some 100 feet of property caused the previous owner to rapidly build a non-permitted wall in 1984. The narrowness of the flag lot creates a unique circumstance that precludes other solutions to the erosion situation, such as moving the house back away from the ocean or utilizing a gradually sloping revetment.

3) Our proposal is the practicable alternative which conforms best to the purpose of the shoreline setback regulations. The preferred alternative, as most experts and Lanikai residents agree, would be beach restoration by replenishment of sand. To be effective, however, such a project would have to be designed, financed, permitted, and developed along the entire Lanikai beach area, encompassing numerous residential properties. Projects of this scope are normally carried out by the US Army Corps of Engineers or by an agency of state government. The scope of such a project places it beyond the capability of a single property owner. A protective structure is the best practical alternative in this situation.

The owners also appeal to the principle of fairness. Most Lanikai beach front properties already have shoreline protection structures--and most of these are nonconforming structures or built on top of nonconforming structures that were originally constructed many decades ago. It would be unreasonable and unfair to deny us the opportunity to protect our property when the same opportunity has been given to others in the same circumstances.

IX. FIGURES

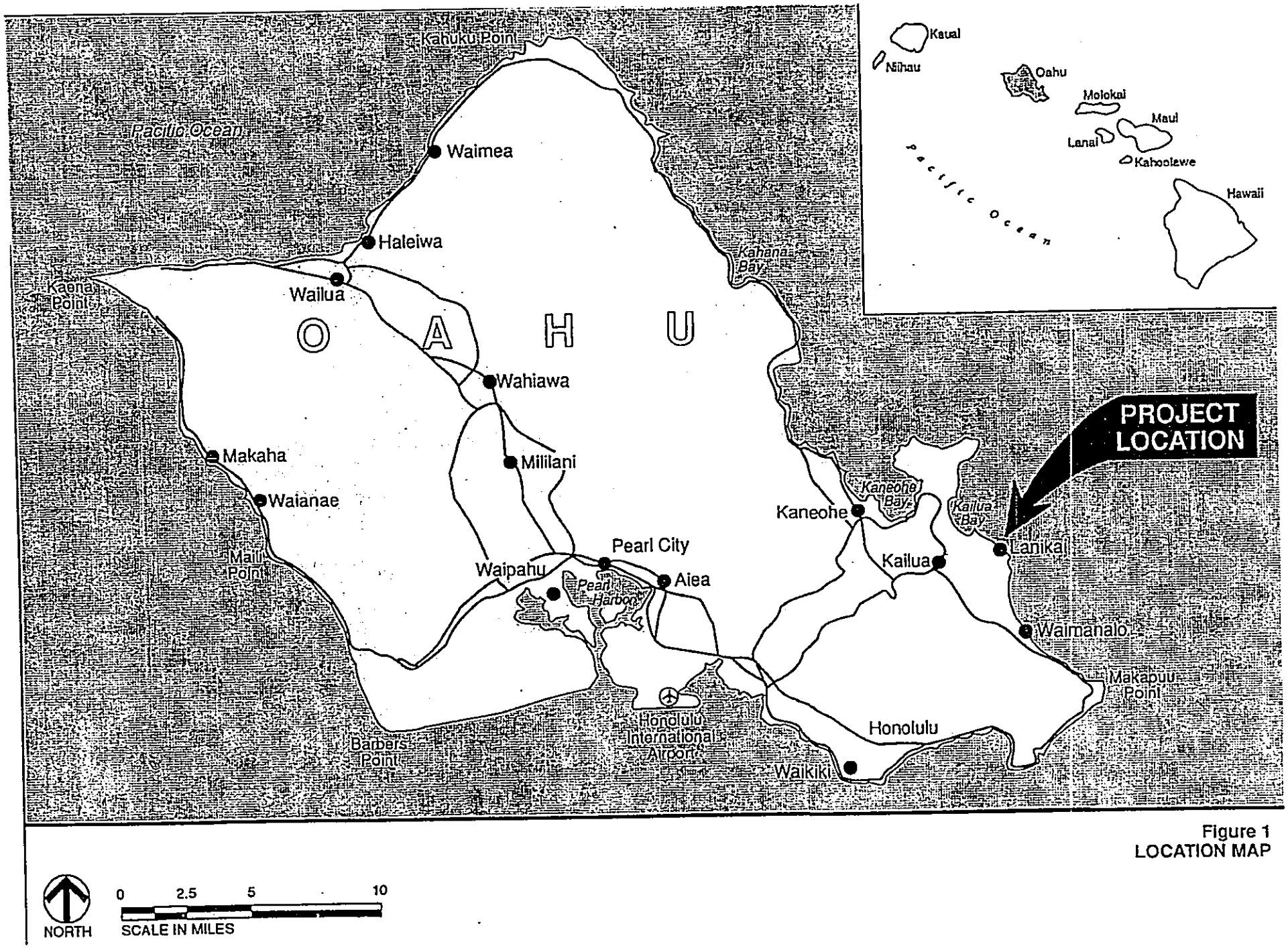


Figure 1
LOCATION MAP

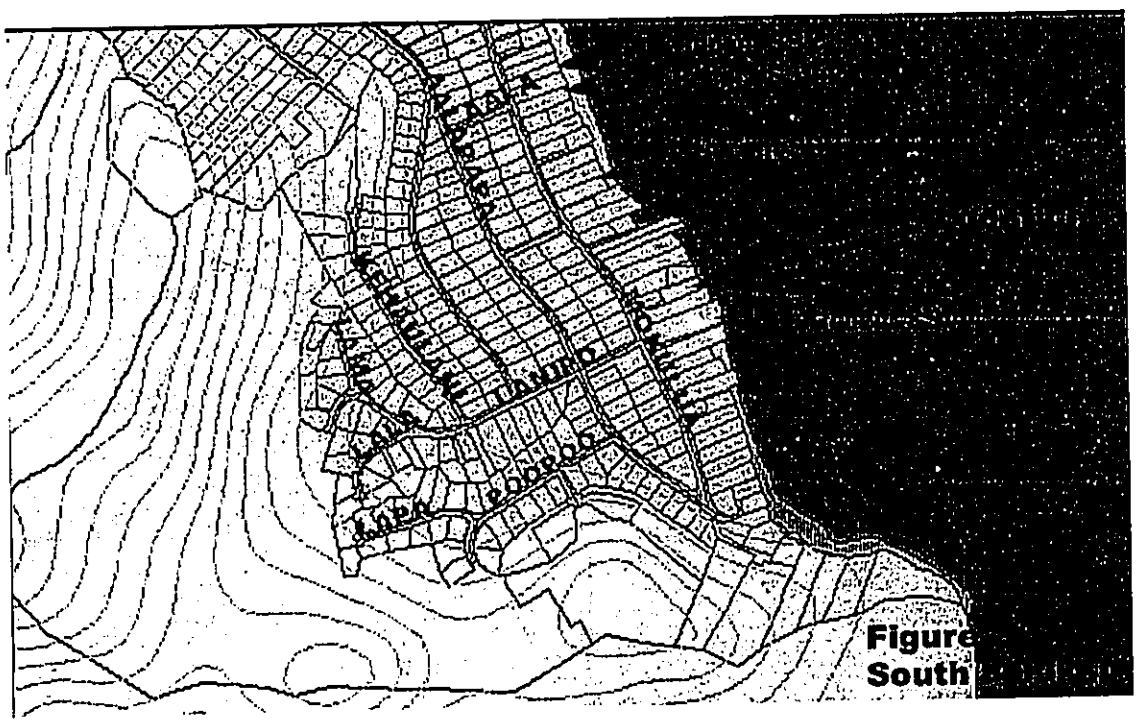


Figure
South

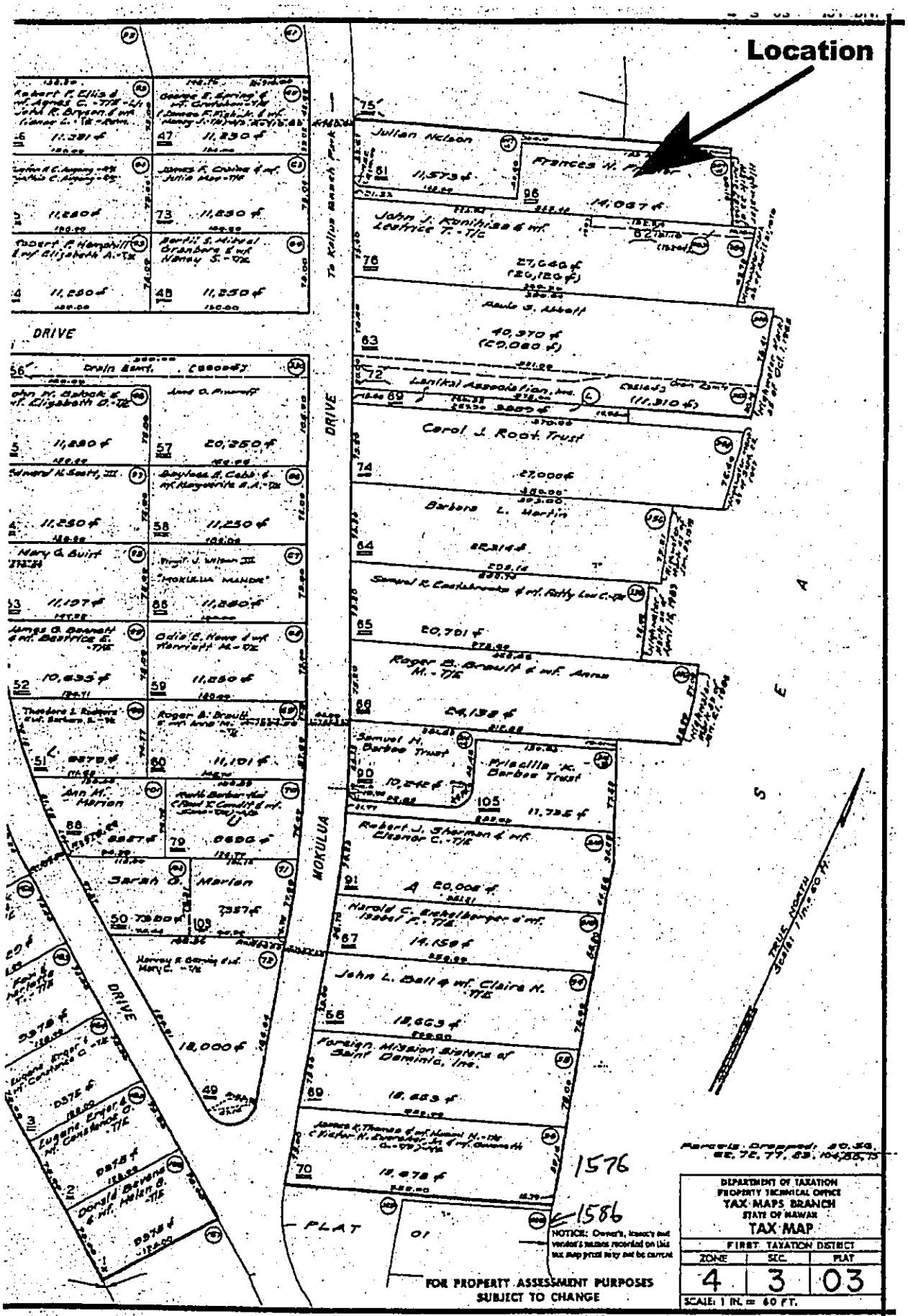


Figure 3: Tax Map Key

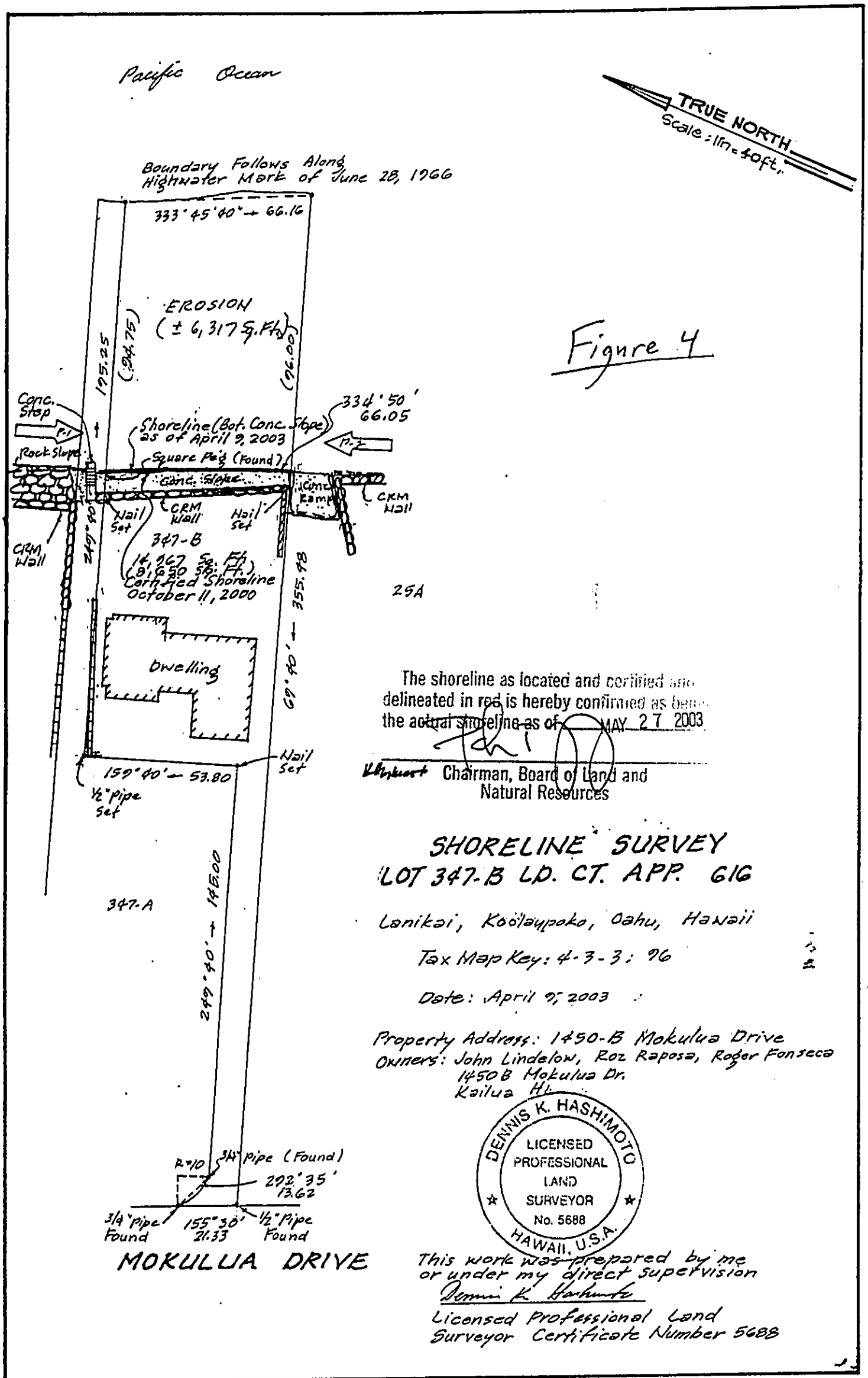


Figure 4

The shoreline as located and certified and delineated in red is hereby confirmed as being the actual shoreline as of MAY 27 2003

Chairman, Board of Land and Natural Resources

SHORELINE SURVEY
LOT 347-B LD. CT. APP. 616

Lanikai, Koʻolaupoko, Oahu, Hawaii

Tax Map Key: 4-3-3: 96

Date: April 9, 2003

Property Address: 1450-B Mokulua Drive
Owners: John Lindelow, Roz Raposa, Roger Fonseca
1450B Mokulua Dr.
Kailua HI.

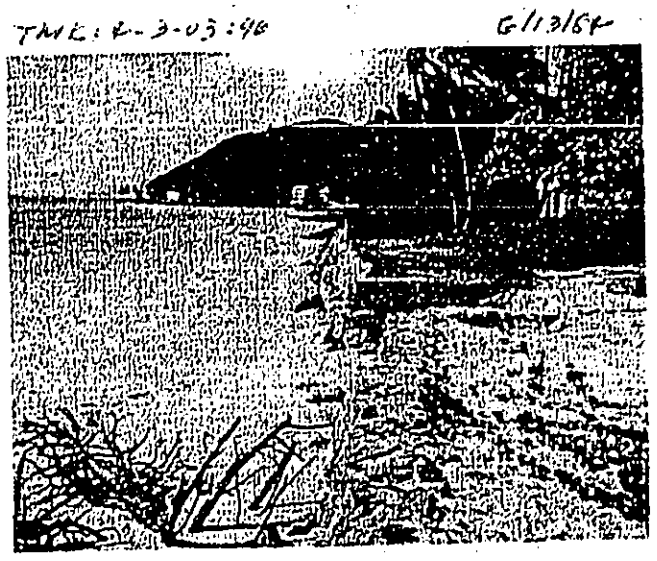
DENNIS K. HASHIMOTO
LICENSED PROFESSIONAL LAND SURVEYOR
No. 5688
HAWAII, U.S.A.

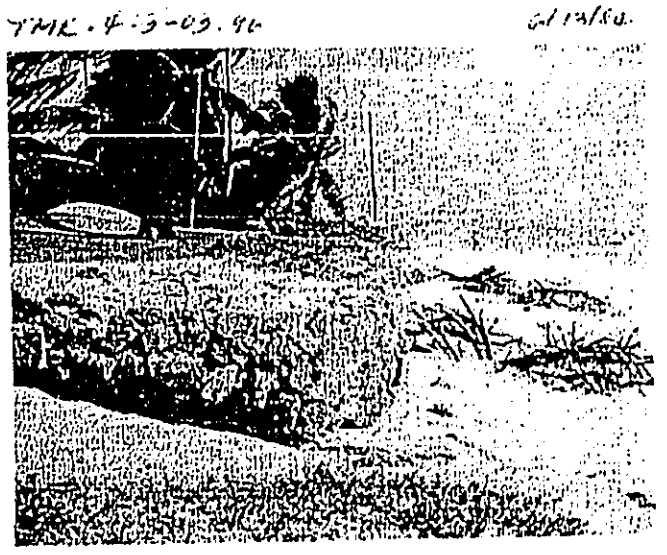
This work was prepared by me or under my direct supervision
Dennis K. Hashimoto
Licensed Professional Land Surveyor Certificate Number 5688

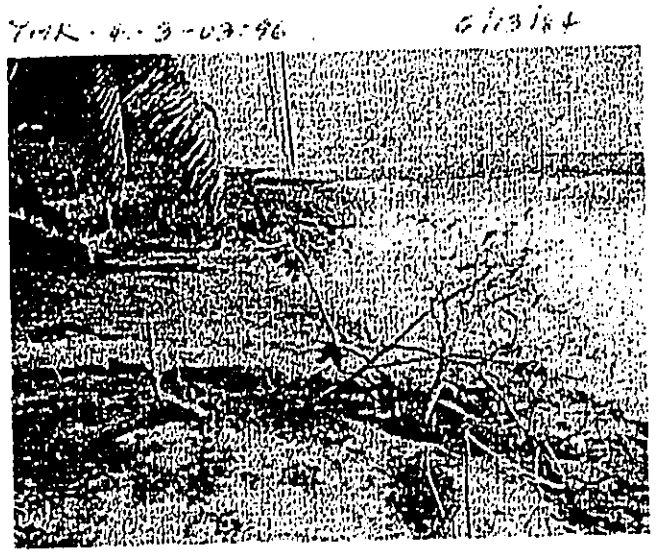
Field Book 344: 24

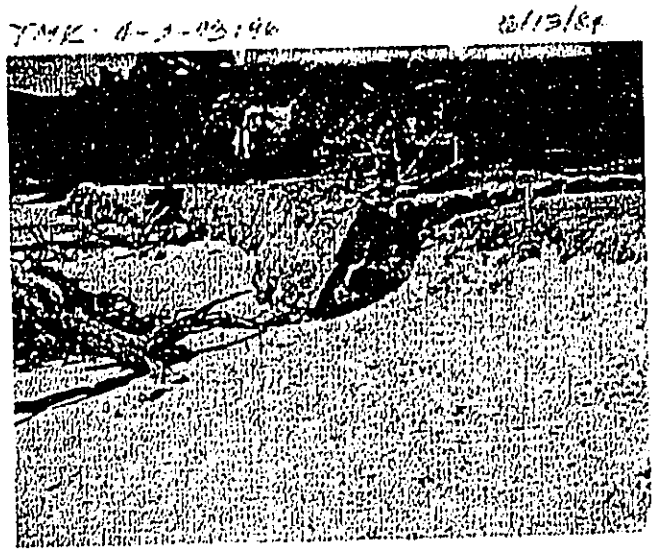
DJNS Surveying & Mapping, Inc.
P.O Box 25636 Honolulu, Hawaii 96825

Job Number 00322









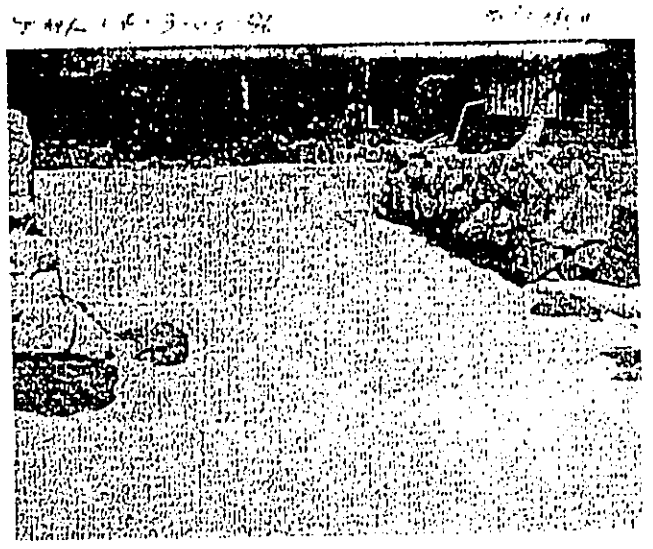


Figure 5: 1984 Pictures from DPP Files

(best pictures available - derived from photocopies of photos in DPP file)

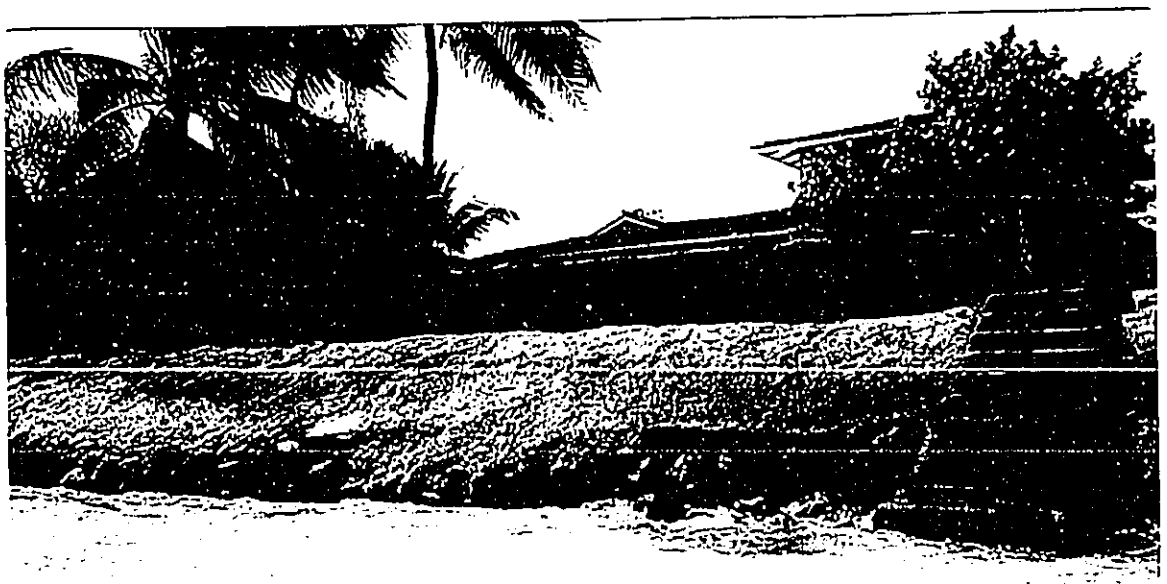


Figure 6A: Seawall views. Above: Note that stairway is not on subject property Below: Looking south towards Waimanalo

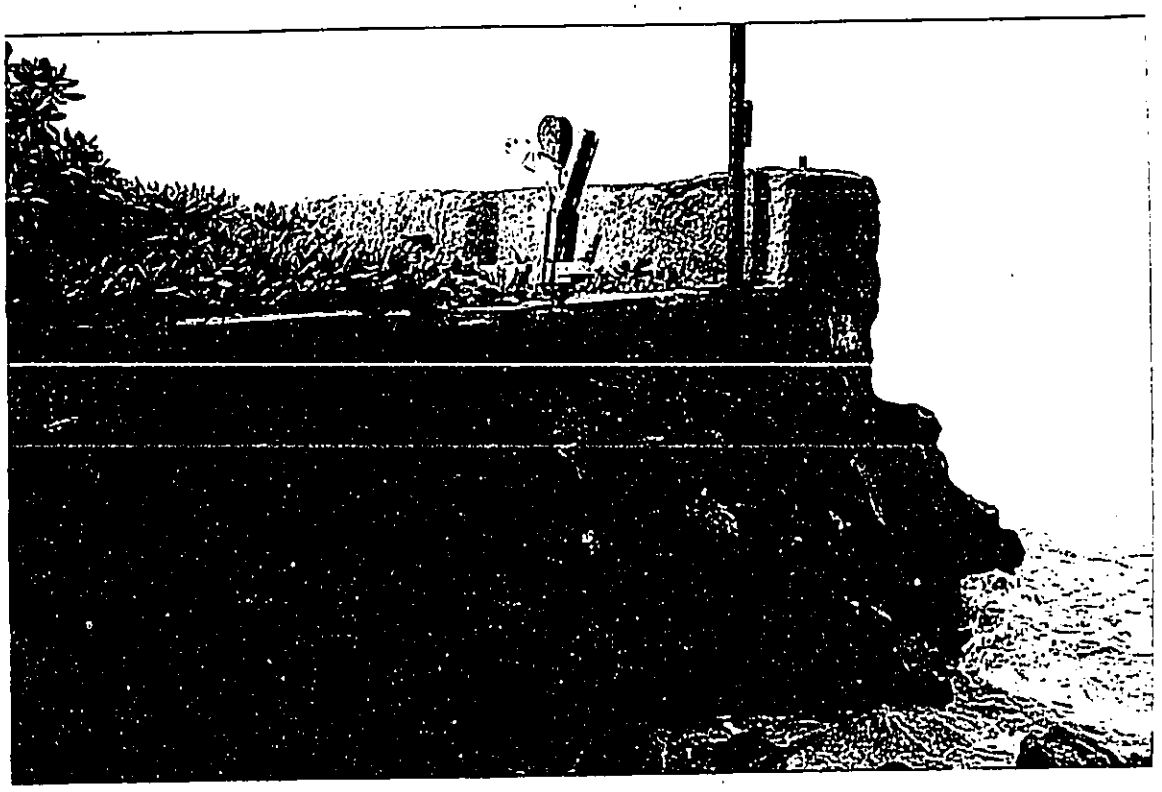


Figure 6B: Sea Wall views. Above: Flanking wall on south (Waimanalo) end. Below: View from stairway looking south.

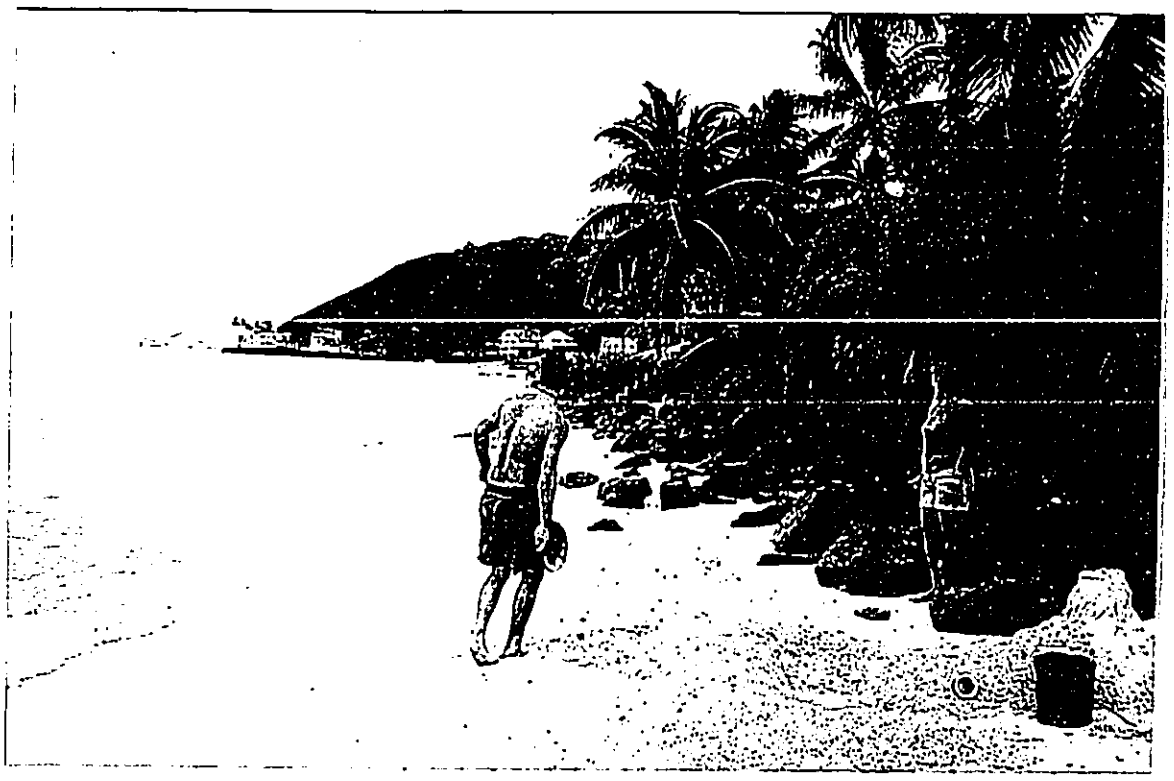


Figure 6C:
Neighboring Sea Walls.
Above: Sea Wall at Paul Mitchell estate (nonconforming) with stairway in background.
Below: Sea Wall Kunihisa residence (nonconforming)

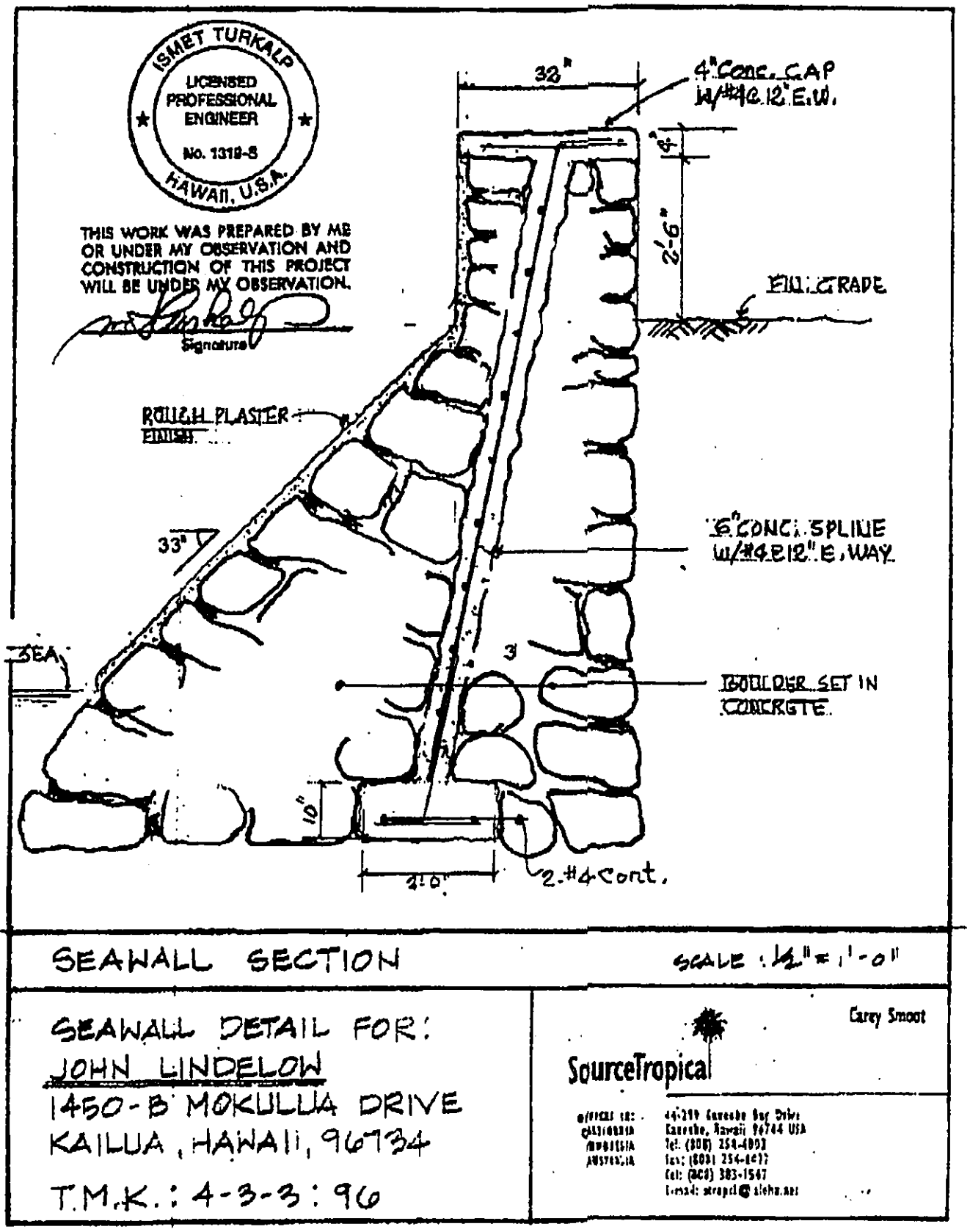


Figure 7: Seawall Section
As Built

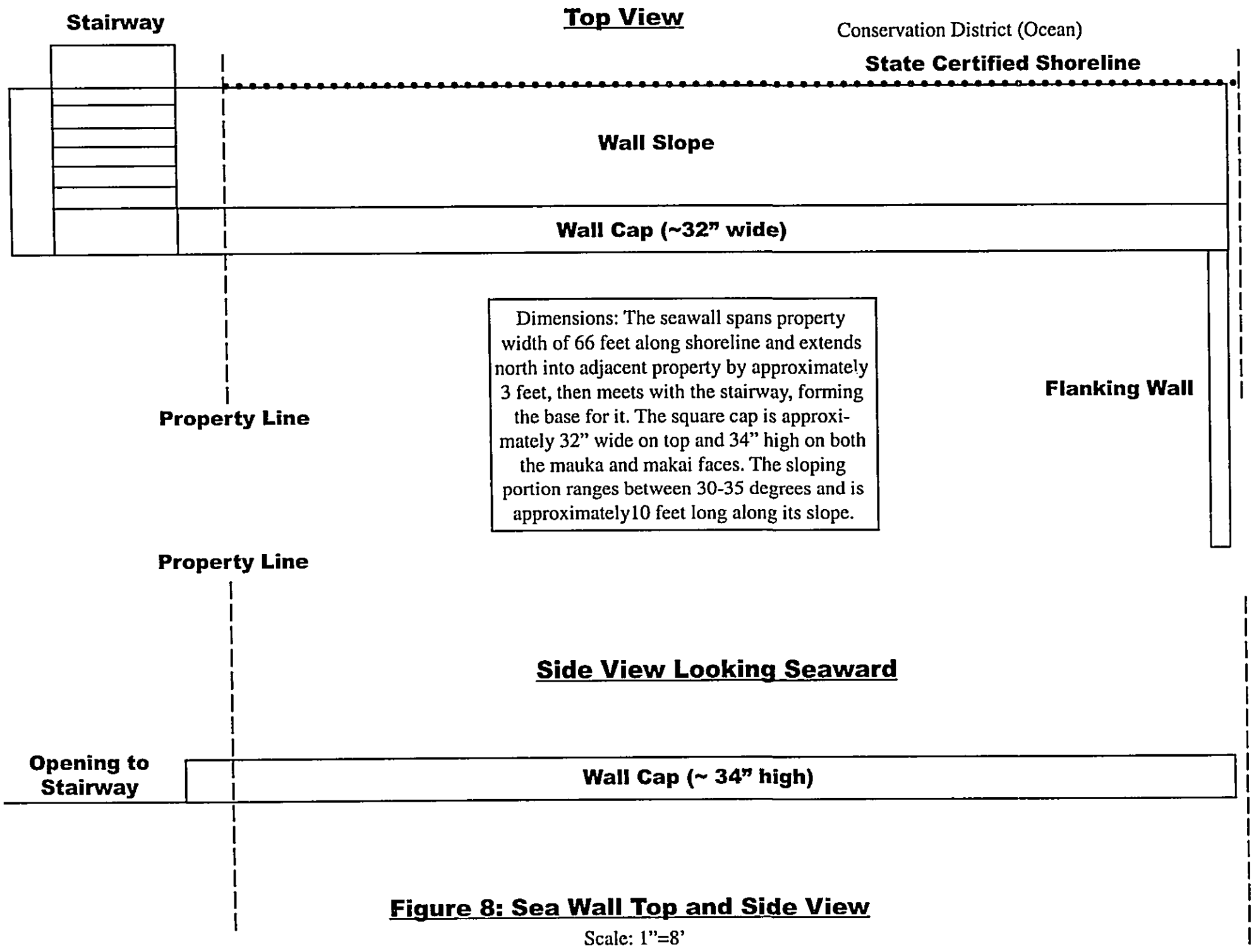
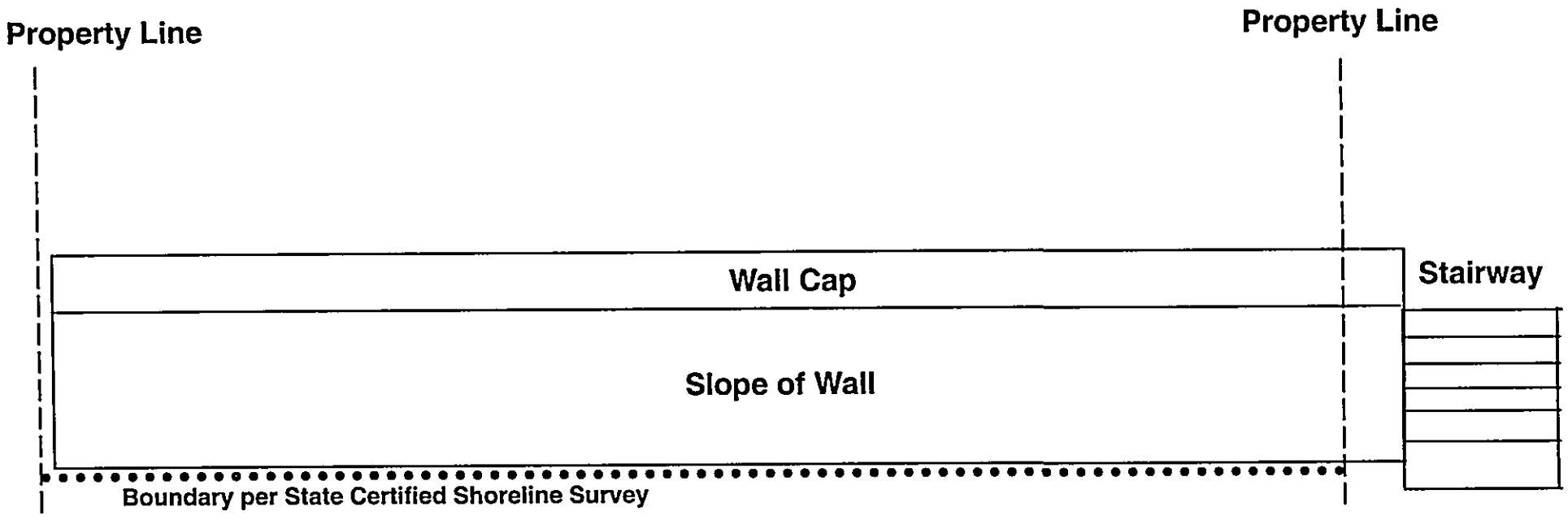


Figure 8: Sea Wall Top and Side View

Scale: 1"=8'



Dimensions
Property Line to Property Line: 66.05 feet
Edge of Wall on Left (South) to Property Line on Right: 64 feet, 5 inches
Wall Cap Vertical Height: 34" High
Wall Slope Vertical Height: Approx 6 feet
Wall slope angle: 30-35 degrees

Figure 9: Sea Wall Elevation from Ocean Side

Scale: 1"=8'

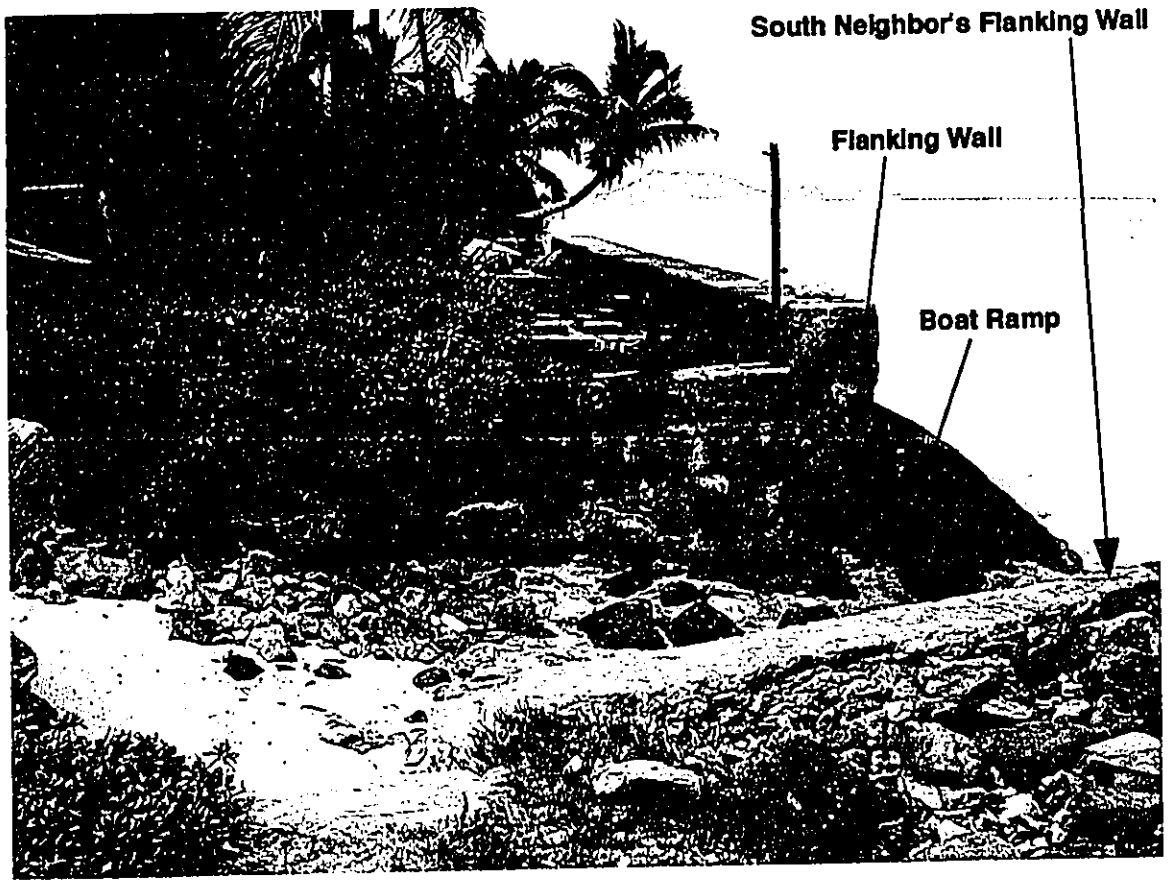


Fig 10: Flanking Wall

Figure 11: Aerial View of Property and Coast 1

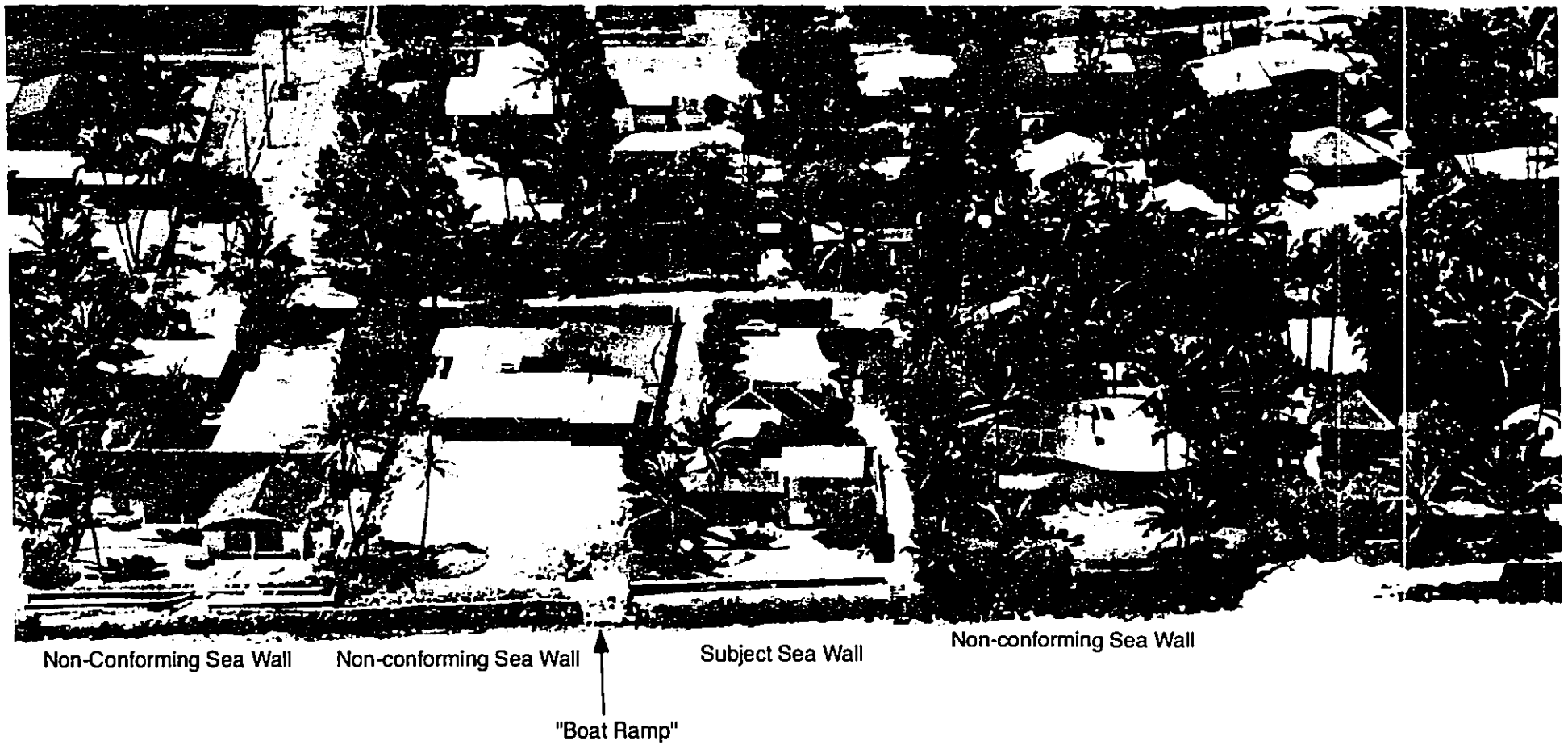


Figure 12: Aerial View of Property and Coast 2

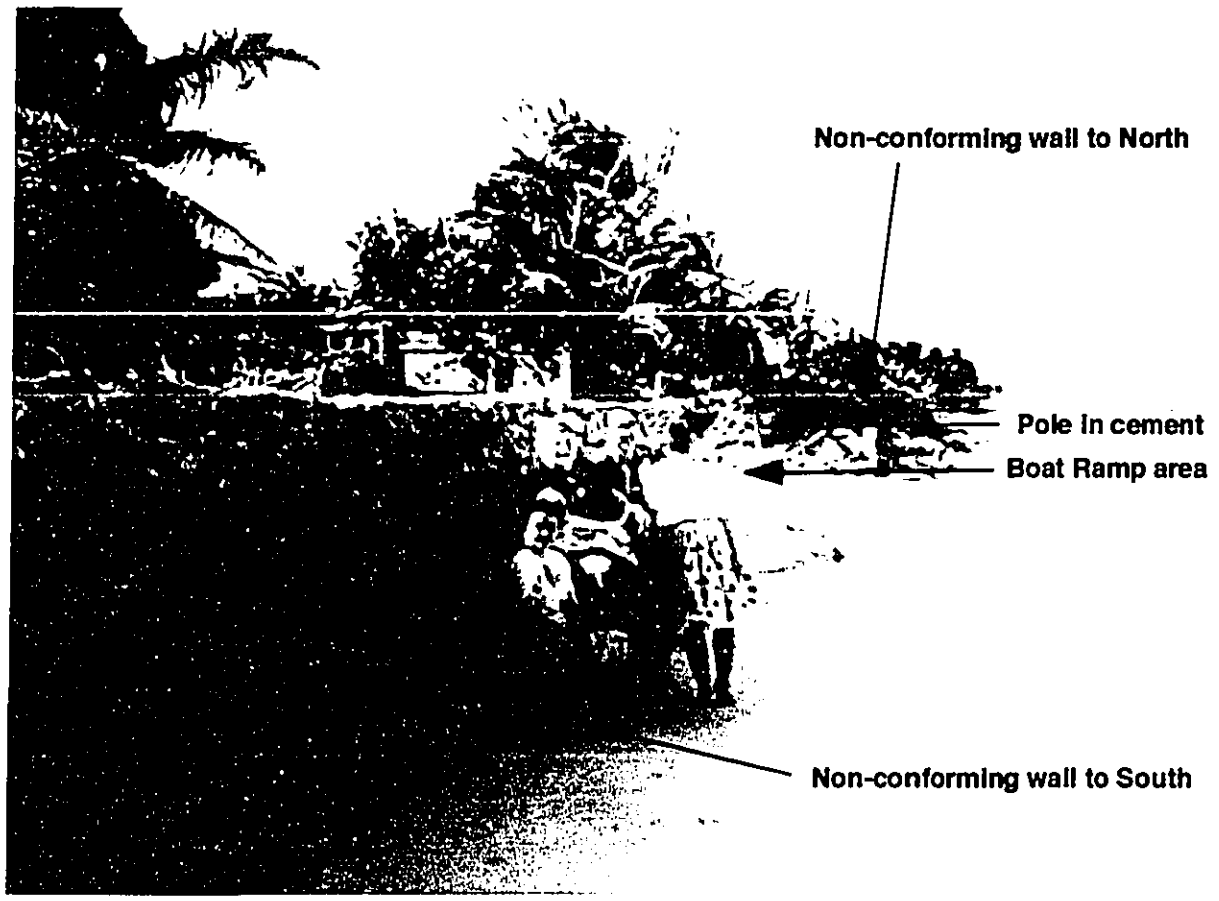
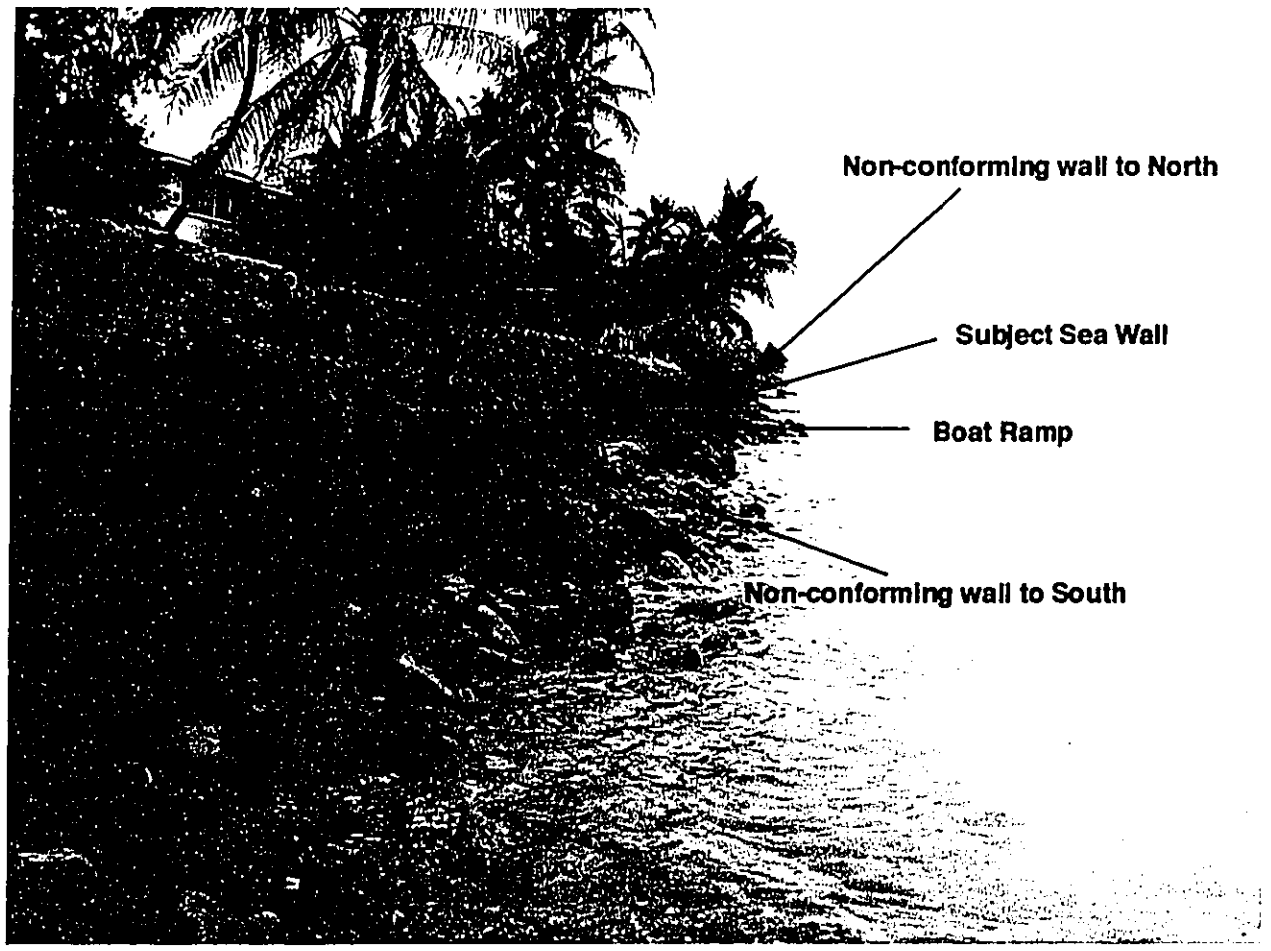


Figure 13: Sea Wall Comparison, 1956 and 2003



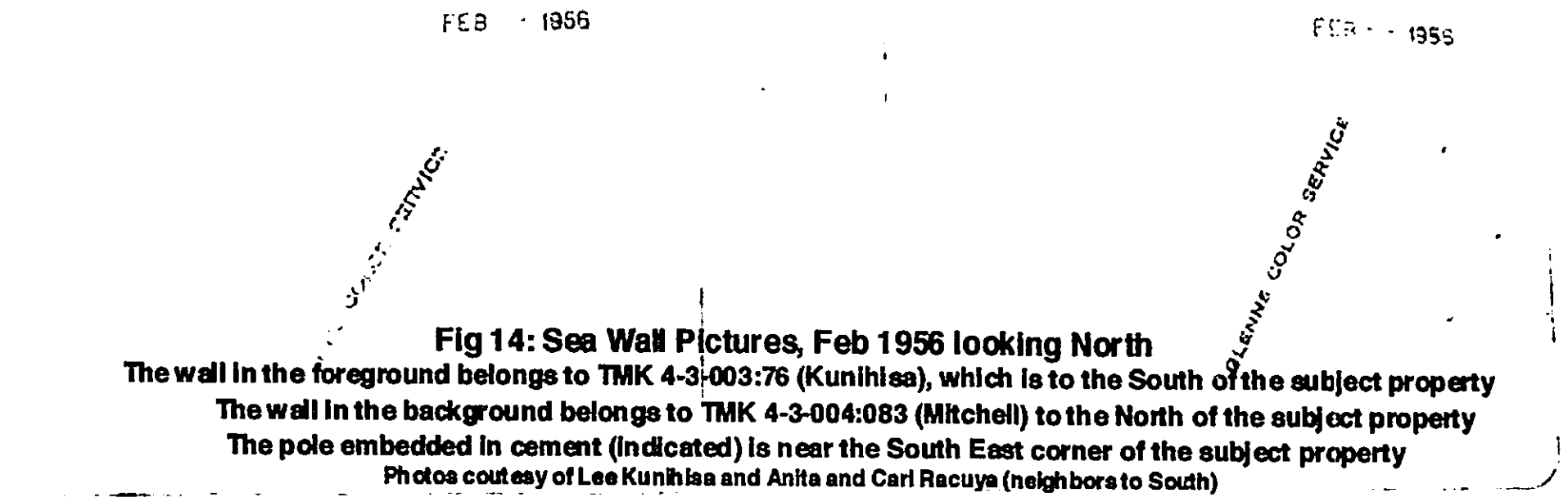


Fig 14: Sea Wall Pictures, Feb 1956 looking North

The wall in the foreground belongs to TMK 4-3-003:76 (Kunihisa), which is to the South of the subject property

The wall in the background belongs to TMK 4-3-004:083 (Mitchell) to the North of the subject property

The pole embedded in cement (indicated) is near the South East corner of the subject property

Photos courtesy of Lee Kunihisa and Anita and Carl Racuya (neighbors to South)

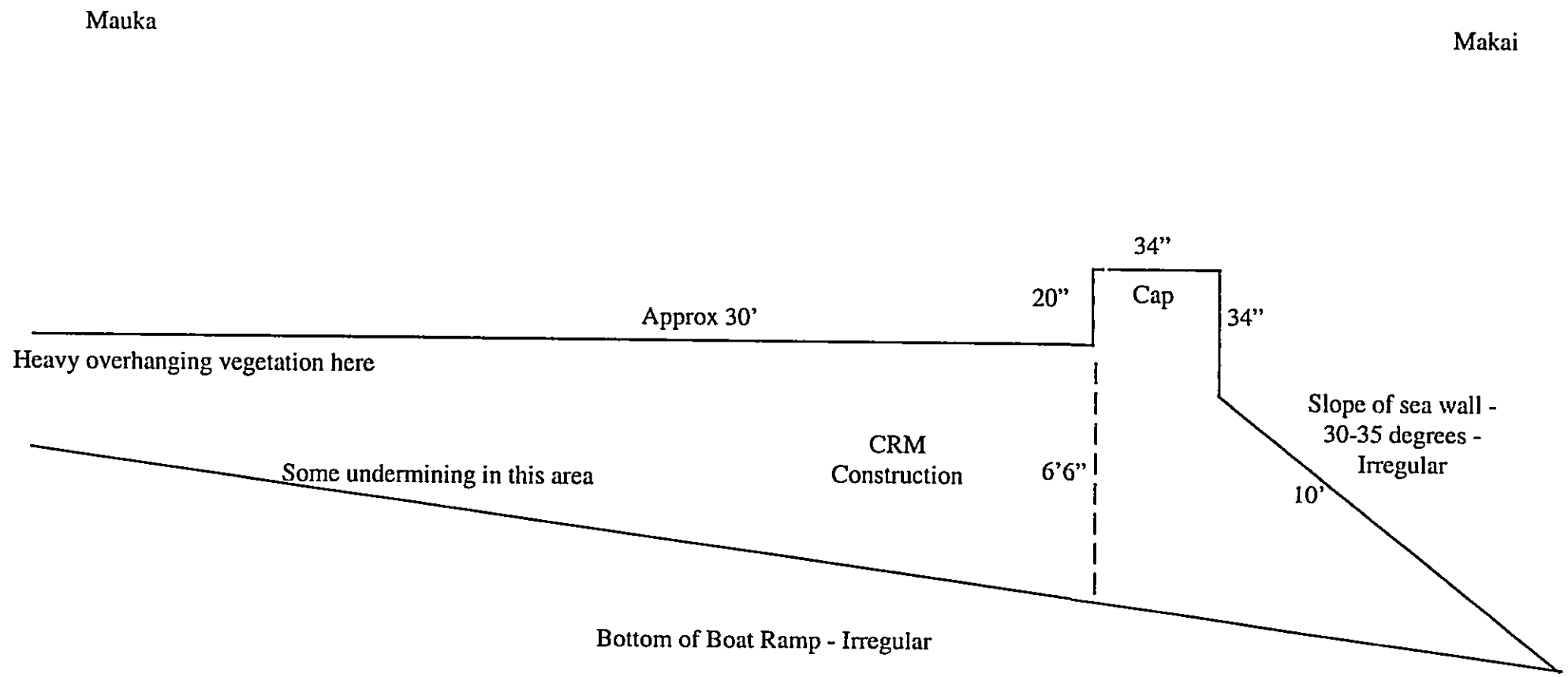


Figure 15: Flanking Wall Elevation

Scale: 1"=3 1/3'

Pacific Ocean

CONSERVATION

TRUE NORTH
Scale : 1in = 40ft.

Boundary Follows Along
Highwater Mark of June 28, 1966

333°45'40" → 66.16

EROSION
(± 6,317 Sq. Ft.)

198.25 (Bk. 75)

96.00

Boundary as shown on Ld. Ct. App. 616, Map 50, July 17, 1961

Shoreline (Bot. Conc. Slope) 25.9 April 9, 2003

334°50'
66.05

Conc. Step

P-1

P-2

Rock Slope

Conc. Slope

Conc. Ramp

CRM Wall

Nail Set

CRM Wall

Nail Set

CRM Wall

347-B
14,967 Sq. Ft.
(0.350 Ac.)
Certified Shoreline
October 11, 2000

25A

355.48

URBAN

69°40'

Dwelling

Nail Set

159°40' — 53.80

½" Pipe Set

347-A

146.00

The boundary as located, named and delineated is hereby certified as the actual Land Use District Boundary adopted by the State Land Use Commission, Honolulu, Hawaii.

JUN 0 3 2003 by Anthony J. Ching
Date Executive Officer

LAND USE COMMISSION
STATE OF HAWAII
2003 MAY -7 A 7:23

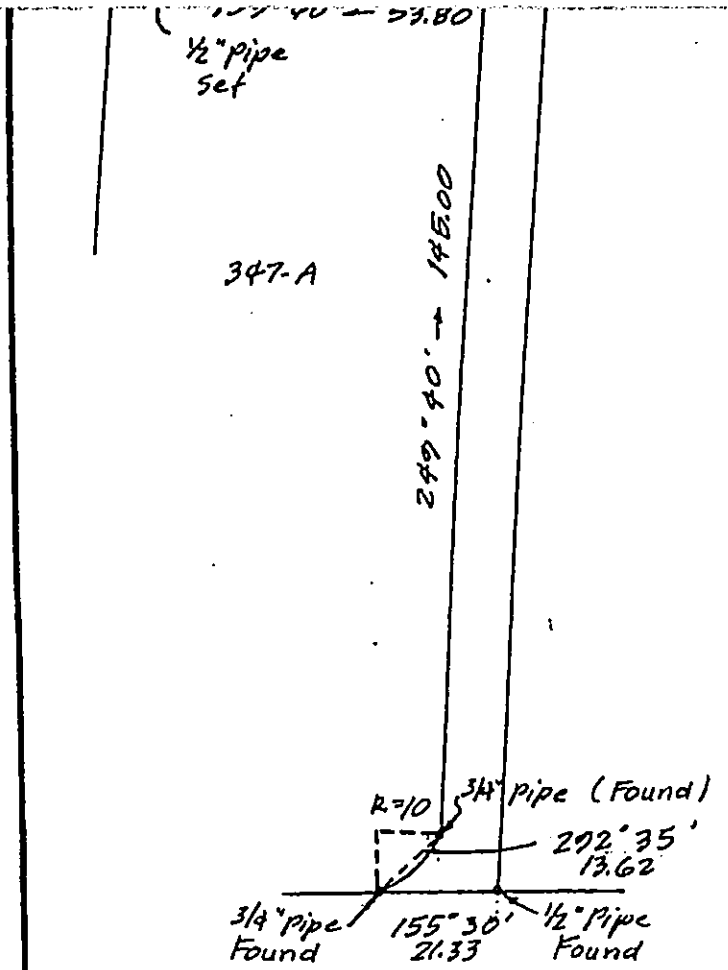
APPROXIMATE STATE LAND USE URBAN / CONSERVATION DISTRICT BOUNDARY
(FOLLOWS A VALID SHORELINE SURVEY)

Boundary Interpretation No. 03-15

SHORELINE SURVEY
LOT 347-B LD. CT. APP. 616

Lanikai, Koolaupoko, Oahu, Hawaii

Figure 16



SHORELINE SURVEY
LOT 347-B L.D. CT. APP. 616

Lanikai, Koolaupoko, Oahu, Hawaii

Tax Map Key: 4-3-3: 96

Date: April 9, 2003

Property Address: 1450-B Mokulua Drive
Owners: John Lindelow, Roz Raposa, Roger Fonseca
1450B Mokulua Dr.
Kailua HI.

Boundary Interpretation No.

DENNIS K. HASHIMOTO
LICENSED PROFESSIONAL LAND SURVEYOR
No. 5688
HAWAII, U.S.A.

This work was prepared by me or under my direct supervision
Dennis K Hashimoto
Licensed Professional Land Surveyor Certificate Number 5688

Field Book 344:24

DJNS Surveying & Mapping, Inc.
P.O Box 25636
Honolulu, Hawaii 96825

Job Number 00322

APPENDIX 1: COMMENTS ON DRAFT EA AND RESPONSES

Randall Fujiki, Dept. of Planning and Permitting
Jane Morris, Lanikai resident
James Pennaz, Dept. of the Army
Anthony Ching, Land Use Commission, DBEDT, State of Hawaii
Genevieve Salmonson, State Office of Environmental Quality Control
Faith Evans, Kailua Neighborhood Board
Lanikai Community Association

DEPARTMENT OF PLANNING AND PERMITTING
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET • HONOLULU, HAWAII 96813
TELEPHONE: (808) 523-4414 • FAX: (808) 527-6743 • INTERNET: www.co.honolulu.hi.us

JEREMY HARRIS
MAYOR

RANDALL K. FUJIKI, AIA
DIRECTOR

LORETTA K.C. CHEE
DEPUTY DIRECTOR

2001/ED11(ASK)

August 1, 2001

Mr. John E. Lindelow
Mr. Roger Fonseca
Ms. Roz Rapozo
P. O. Box 61449
Honolulu, Hawaii 96839

Dear Mr. Lindelow, Mr. Fonseca and Ms. Rapozo:

Draft Environmental Assessment (EA)
to retain a CRM seawall
Tax Map Key 4-3-003: 096

We are forwarding copies of all comments we have thus far received related to the Draft Environmental Assessment (EA) for the above-referenced project.

In accordance with the provisions of Chapter 343, Hawaii Revised Statutes (HRS), you must respond in writing to these and any other comments which were received during the 30-day comment period which began with publication of a notice of availability of the Draft EA in The Environmental Notice on July 8, 2000. The Final EA must include these comments and responses, as well as revised text, where needed.

We have reviewed the above document and offer the following comments:

1. Page 1 refers to a "nonconforming seawall (built circa 1955 according to documents found in the DPP's file..."). The document is a letter of May 21, 1984 from a private surveyor to the State which claims the presence of an old seawall. It is not our position that an old wall existed or remains buried beneath the existing seawall at the site.

2. The Draft EA states that the wall was built in 1984. Based on a 1988 survey, enclosed, we believe that the wall has been modified at least once since then. Accordingly, all that can be stated with certainty is that a wall was built in 1984 and additional construction and/or modifications, some of which exist today, were subsequently made.

3. Figure 5 are copies of original photos on file with the State Survey Office. The accompanying letters indicate that the walls shown in the photos were built in 1984, making them illegal and not nonconforming as indicated in the caption.

4. If Figure 7 is intended to show the "as built" condition it should be labeled as such.

5. The Final EA should include an elevation as seen from the ocean. This plan should be drawn to scale.

6. A cross section and elevation should be provided for the flanking wall.

7. Page 6 indicates that the variance application includes the flanking wall on the adjacent property, Tax Map Key 4-3-3: 76. Prior to our acceptance of a shoreline setback variance application you must obtain authorization from the adjacent property owner.

If you have questions regarding the above, you may contact Ardis Shaw-Kim of our staff at 527-5349.

Sincerely yours,

for RANDALL K. FUJIKI, AIA
Director of Planning
and Permitting

RKF:cs
Enclosures

Posse Doc.No. 108751

John Lindelow
Roz Rapozo
Roger Fonseca
PO Box 61449
Honolulu, HI 96839

24 January 2003

Randall K. Fujiki, AIA, Director of Planning and Permitting
Dept of Planning & Permitting, City and County of Honolulu
650 South King Street
Honolulu, HI 96813

Dear Mr. Fujiki:

Subject: DRAFT ENVIRONMENT ASSESSMENT REVIEW
Project Name: Lanikai Seawall
Applicants: John Lindelow, Roz Rapozo, Roger Fonseca
Request: Shoreline Setback Variance
TMK No.: 4-3-0003:096

Thank you for your response to our Draft EA noted above. Following are your comments and our responses:

1. Comment: Page 1 refers to a "nonconforming seawall (built circa 1955 according to documents found in the DPP's file..."). The document is a letter of May 21, 1984 from a private surveyor to the State which claims the presence of an old seawall. It is not our position that an old wall existed or remains buried beneath the existing seawall at the site.

Response: Further research has revealed the following: 1) Figures 13-14 include photographs taken in February1956 by our neighbor to the South (TMK 4-3-003:076, the Kunihisa residence). These photos show: A) The existence of seawalls on either side of the subject property, including the Kunihisa sea wall and the sea wall to the North of the subject property (TMK 4-3-004:083, the Paul Mitchell Estate) which has been improved since 1956; B) The lack of a sea wall fronting the subject property; and C) Evidence of the flanking wall that is assumed to have been one edge of the "boat ramp" that is described by long-time residents as being present at this location--See the pole embedded in cement in the mid-background behind the Kunihisa's wall.

Discussion with the Kunihisa's indicates that what the private surveyor may have been observing in 1984 was the top of the flanking wall on the North side of the "boat ramp". This flanking wall was actually built on the subject property, as it is totally within the boundaries as explained further below. This would be near the South-East corner of the subject property, now beneath the South end of the subject seawall.

The 1956 photos are also important in that they demonstrate the need for sea walls as early as 1955. They also demonstrate that sand DOES accrete in front of sea walls, because after this picture was taken, well over 100 feet of addtional sand accreted at this location (until it started to erode again in the 1970s).

In sum, based on our new research, we agree with your assessment that there was no non-conforming seawall upon which the current sea wall was built, except probably at the South-East corner (see discussion further below). We have removed all references to a pre-existing wall in the Final EA.

2. Comment: The Draft EA states that the wall was built in 1984. Based on a 1988 survey, enclosed, we believe that the wall has been modified at least once since then. Accordingly, all that can be stated with certainty is that a wall was built in 1984 and additional construction and/or modifications, some of which exist today, were subsequently made.

Response: We agree with your assessment and have modified our Final EA accordingly.

3. Comment: Figure 5 are copies of original photos on file with the State Survey Office. The accompanying letters indicate that the walls shown in the photos were built in 1984, making them illegal and nonconforming as indicated in the caption.

Reponse: Given the new photos we have found from 1956, we agree with your assessment and have changed the captions and text of the Final EA accordingly.

4. Comment: If Figure 7 is intended to show the "as built" condition it should be labeled as such.

Response: We agree and have made the change in the Final EA.

5. Comment: The Final EA should include an elevation as seen from the ocean. This plan should be drawn to scale.

Response: The Final EA contains an elevation as seen from the ocean. See Figure 9.

6. Comment: A cross section and elevation should be provided for the flanking wall.

Response: The final EA contains an elevation of the flanking wall. See Figure 15.

7. Comment: Page 6 indicates that the variance application includes the flanking wall on the adjacent property, Tax Map Key 4-3-3:76. Prior to our acceptance of a shoreline setback variance application you must obtain authorization from the

adjacent property owner.

Reponse: The flanking wall is actually entirely within the subject property, and is not within 4-3-3:76 at all. The Draft EA was mistaken on this point, as it was based on eyeballing the State Certified Shoreline Survey. The actual location of the southern boudary as marked by the surveyor in 2002 is indicated in Figure 10. As per the SCSS, the surveyor's pin is 66 feet south of the North property line, and over 12 inches beyond the farthest reach of the existing flanking wall, and thus well within the subject property's boundaries. As discussed in Item 1 above, the original flanking seawall on this boundary was apparently constructed on the subject property circa 1955 or earlier. It is not known who constructed this flanking wall, which was probably originally built as part of the "boat ramp" that can be seen in the various photographs provided in the Final EA. In the TMK map (Figure 3), this small area is marked off within TMK 4-3-3:76's boundaries and has been described historically as a "boat ramp" by long-time area residents.

Thank you for the opportunity to respond to your comments.

Sincerely

John Lindelow

2001/CLOG-3165

JANE S. MORRIS

1548 Mokulua Drive, Kailua HI 96734 – Ph. 261-2514

'01 JUL. 20 PM 2 58

DEPT OF PLANNING and PERMITTING
CITY & COUNTY OF HONOLULU

July 17, 2001

Dept. of Planning and Permitting
650 S. King Street, 7th Floor
Honolulu, HI 96813

Attn: Ardis Shaw-Kim

In re: 1450a Mokulua Drive

Dear Ms. Shaw-Kim,

In regard to the request to retain a seawall at the above address, I felt some background information might be pertinent to this issue.

I was the listing agent of the property in 1983. At that time severe erosion had occurred, close to half of the original 14,967 sq. ft. had eroded, no seawall existed. I sold the property to Gary Barry. At the time of recordation, March 30, 1984, the property was 8,690 sq. ft. as per Sam Horita's survey dated 2-9-84.

Mr. Barry decided to build a seawall, to my knowledge no permits were obtained. He asked my husband to oversee said construction and he declined.

Hopefully this bit of background information will be helpful to you.

Aloha,

Jane S. Morris

cc: Lanikai Community Association,
Ned Dewey, President, P.O. Box 481, Kailua, HI 96734
John Lindelow, P. O. Box 61449, Honolulu, Hi 96839

John Lindelow
Roz Rapozo
Roger Fonseca
PO Box 61449
Honolulu, HI 96839

24 January 2003

Jane S. Morris
1548 Mokulua Drive
Kailua, HI 96734

Dear Ms. Morris:

Subject: DRAFT ENVIRONMENT ASSESSMENT REVIEW
Project Name: Lanikai Seawall
Applicants: John Lindelow, Roz Rapozo, Roger Fonseca
Request: Shoreline Setback Variance
TMK No.: 4-3-0003:096

Thank you for your response to our Draft EA noted above, and thank you for providing us with a copy of a survey dated 9Feb84 for TMK 4.3.3:96.

We have found new pictorial evidence indicating that there was not a seawall parallel to the coast in 1956, but one of the existing flanking walls may have existed at that time as part of the "boat ramp" to the South of our property.

Sincerely,

John Lindelow

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

REPLY TO
ATTENTION OF

July 17, 2001

'01 JUL 18 PM 2 40

DEPT OF PLANNING
and PERMITTING
CITY & COUNTY OF HONOLULU

Civil Works Technical Branch

Mr. Randall K. Fujiki, Director
City and County of Honolulu
Department of Planning and Permitting
650 South King Street
Honolulu, Hawaii 96813

Dear Mr. Fujiki:

Thank you for the opportunity to review and comment on the Draft Environmental Assessment (DEA) for the Lanikai Seawall Project, Kailua, Oahu (TMK 4-3-3: 96). The following comments are provided in accordance with Corps of Engineers authorities to provide flood hazard information and to issue Department of the Army (DA) permits.

a. Since the applicant is requesting a shoreline setback variance from the City and County, a DA permit is not required. However, any future plans or modifications to the existing seawall will need to be evaluated by the Corps for DA permit requirements.

b. The flood hazard information provided on page 2 of the DEA is correct.

Should you require additional information, please contact Ms. Jessie Dobinchick of my staff at (808) 438-8876.

Sincerely,

James Pennaz

James Pennaz, P.E.
Chief, Civil Works
Technical Branch

John Lindelow
Roz Rapozo
Roger Fonseca
PO Box 61449
Honolulu, HI 96839

24 January 2003

James Pennaz, P.E. Chief, Civil Works Technical Branch
Department of the Army
US Army Engineer District, Honolulu
Ft. Shafter, Hawaii 96858-5440

Dear Mr. Pennaz:

Subject: DRAFT ENVIRONMENT ASSESSMENT REVIEW
Project Name: Lanikai Seawall
Applicants: John Lindelow, Roz Rapozo, Roger Fonseca
Request: Shoreline Setback Variance
TMK No.: 4-3-0003:096

Thank you for your response to our Draft EA noted above. Following are your comments and our responses to your points:

a. Comment: Since the applicant is requesting a shoreline setback variance from the City and County, a DA permit is not required. However, any future plans or modifications to the existing seawall will need to be evaluated by the Corps for DA permit requirements.

Response: Thank you. We will note this for the future.

b. Comment: The flood hazard information provided on page 2 of the DEA is corrent.

Response: Thank you.

Thank you for the opportunity to respond to your comments.

Sincerely,

John Lindelow

BENJAMIN J. CAYETANO
GOVERNOR

ANTHONY J.H. CHING
EXECUTIVE OFFICER

STATE OF HAWAII
DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT & TOURISM
LAND USE COMMISSION
P.O. Box 2359
Honolulu, HI 96804-2359
Telephone: 808-587-3822
Fax: 808-587-3827

July 11, 2001

Mr. Randall K. Fujiki, AIA
Director
Department of Planning and Permitting
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

Dear Mr. Fujiki:

Subject: DRAFT ENVIRONMENT ASSESSMENT REVIEW
Project Name: Lanikai Seawall
Applicants: John Lindelow, Roz Rapozo, and Roger Fonseca
Request: Shoreline Setback Variance
TMK No.: 4-3-003: 096

We have reviewed the Draft Environmental Assessment ("DEA") for the after-the-fact approval of an existing CRM seawall located within the shoreline setback and State Conservation District at 1450 A Mokulua Drive, Kailua, Oahu, Hawaii.

Upon review of the DEA, we have the following comments:

1. In regard to Section III. A. Subject Site and Surrounding Area, the subject parcel appears to be within the State Land Use Urban and Conservation Districts. Based upon our records, the subject seawall is within the Conservation District.

2. In regard to Section IV. Project Impacts, we recommend that the Applicants provide discussion of impacts to cultural resources in regard to native Hawaiian and traditional gathering and/or access rights and practices.

3. In regard to your question of State permits or approvals that will be needed to retain the existing wall, we recommend the Department and the Applicants consult with the Land Division, Department of Land and Natural Resources ("DLNR") on this matter. DLNR may have specific policies and/or requirements regarding construction of seawalls in the Conservation District.

We have no further comments to offer. Thank you for the opportunity to provide comments on the DEA.

Should you require clarification or further assistance in this matter, please contact Russell Kumabe of my staff at (808) 587-3822.

Sincerely,

for ANTHONY J.H. CHING
Executive Officer

John Lindelow
Roz Rapozo
Roger Fonseca
PO Box 61449
Honolulu, HI 96839

24 January 2003

Anthony J.J. Ching, Executive Officer
State of Hawaii DBEDT Land Use Commission
PO Box 2359
Honolulu, HI 96804-2359

Dear Mr. Ching:

Subject: DRAFT ENVIRONMENT ASSESSMENT REVIEW
Project Name: Lanikai Seawall
Applicants: John Lindelow, Roz Rapozo, Roger Fonseca
Request: Shoreline Setback Variance
TMK No.: 4-3-0003:096

Thank you for your response to our Draft EA noted above. Following are your comments and our responses to your points:

1. Comment: In regard to Section III.A. Subject Site and Surrounding Area, the subject parcel appears to be within the State Land Use Urban and Conservation Districts. Based upon our records, the subject seawall is within the Conservation District.

Reponse: We take issue with your comment that the subject seawall is within the Conservation District. In fact, the State Certified Shoreline Survey that was included as part of the Draft EA, clearly indicates that the seawall is completely within the property's boundaries and thus not within the Conservation District. Text on the State Certified Shoreline Survey states "Shoreline (Bottom of Concrete Slope) as of July 20, 2000". Confirmation of the State's placement of the boundary at the bottom of the subject seawall was confirmed to me verbally by the two State engineers who came out and confirmed the boundary in the Fall of 2000. As you know, the State Certified Shoreline Survey is relied upon by both City and State officials, and by citizens, in legal determinations of this sort, and such Surveys are considered the final word, both in judicial proceedings and in daily practices of government officials, in delimiting such boundaries.

2. Comment: In regard to Section IV. Project Impacts, we recommend that the Applicants provide discussion of impacts to cultural resources in regard to native Hawaiian and traditional gathering and/or access rights and practices.

Reponse: This topic was covered under the title "Historic & Archeological Features" in Section IV. We have added an indication that "There are no known significant cultural resources present at the site."

3. Comment: In regard to your question of State permits or approvals that will be needed to retain the existing wall, we recommend thd Department and the Applicants consult with the Land Division, Department of Land and Natural Resources ("DLNR") on this matter. DLNR may have specific policies and/or requirements regarding construction of seawalls in the Conservation District.

Reponse: See response to Item 1 above. Since the subject seawall is not in the Conservation District, a state permit from the DLNR for use of Conservation Land is not required.

Thank you for the opportunity to respond to your comments.

Sincerely,

John Lindelow

BENJAMIN J. CAYETANO
GOVERNOR

GENEVIEVE SALMONSON
DIRECTOR

STATE OF HAWAII
OFFICE OF ENVIRONMENTAL QUALITY CONTROL
235 SOUTH BERETANIA STREET
SUITE 702
HONOLULU, HAWAII 96813
TELEPHONE (808) 586-4185
FACSIMILE (808) 586-4186

July 26, 2001

Randall Fujiki, Acting Director
Department of Planning and Permitting
650 South King Street, 7th Floor
Honolulu, Hawaii 96813

Attn: Ardis Shaw-Kim

Dear Mr. Fujiki:

Subject: Draft Environmental Assessment (EA)
Mokulua Drive Seawall Reconstruction (Lindelow et. al.)

We have the following comments to offer:

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

2. Description of the proposed action: Section II.A. does not indicate what is actually proposed, but only what activity has previously occurred. Is a new seawall proposed, or retention or reconstruction of the existing one? Expand this description in the final EA.

3. Figures:

   a. In the final EA enclose clear photos in Figure 5.
   b. Enclose a new figure or on one of the existing figures indicate the Conservation District Boundary.
   c. In Diagram 1 indicate the units on the vertical axis. Presumably they are feet, but it is not clear whether a greater number of feet means beach loss or beach gain.

4. Contacts: Community consultation is required by law. Notify the nearest neighbors or neighboring landowners of the proposed project and document any comments they provide in the final EA. Be sure to include copies of any correspondence.

5. Significance criteria: Include a discussion of findings and reasons, according to the significance criteria listed in HAR 11-200-12, that supports your forthcoming determination, either Finding of No Significant Impact (FONSI) or EIS preparation notice. This discussion is required by law. You may use the enclosed sample as a guideline.

6. Permits and approvals: If any activity is proposed makai of the certified shoreline, then a Conservation District Use Permit may be required. Please indicate the status of this in the final EA.

7. Shoreline hardening policy: In the final EA include an analysis according to the "Shoreline Hardening Policy and Environmental Assessment Guidelines." You may contact our office for a paper copy or download it from our homepage at http://www.state.hi.us/health/oeqc/index.html.

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

Sincerely,

GENEVIEVE SALMONSON
Director

Enc.

c: John Lindelow

From: Mokulele Highway/Puunene Bypass final EA (1997)

DETERMINATION, FINDINGS AND REASONS FOR SUPPORTING DETERMINATION

SIGNIFICANCE CRITERIA: According to the Department of Health Rules (I 1-200-12), an applicant or agency must determine whether an action may have a significant impact on the environment, including all phases of the project, its expected consequences both primary and secondary, its cumulative impact with other projects, and its short and long-term effects. In making the determination, the Rules establish "Significance Criteria" to be used as a basis for identifying whether significant environmental impact will occur. According to the Rules, an action shall be determined to have a significant impact on the environment if it meets any one of the following criteria:

(1) Involves an irrevocable commitment to loss or destruction of any natural or cultural resources;

The proposed project will not impact scenic views of the ocean or any ridge lines in the area. The visual character of the area will change from the current agricultural land to an improved 4-lane highway which is compatible with the surrounding land use plans and programs being implemented for the region. The highway corridor is comprised of "Prime" agricultural land which is an important resource. Development of drainage systems will follow established design standards to ensure the safe conveyance and discharge of storm runoff. In addition, the subject property is located outside of the Count's Special Management Area (SMA).

As previously noted, no significant archaeological or historical sites are known to exist within the corridor. Should any archaeologically significant artifacts, bones, or other indicators of previous onsite activity be uncovered during the construction phases of development, their treatment will be conducted in strict compliance with the requirements of the Department of Land and Natural Resources.

(2) Curtails the range of beneficial uses of the environment;

Although the subject property is suitable for agricultural uses, the land area adjoining the Mokulele Highway is naturally suited for transportation purposes due to its location proximate to an existing highway system. To return the site to a natural environmental condition is not practical from both an environmental and economic perspective.

(3) Conflicts with the State's long-term environmental policies or goals and guidelines as expressed in Chapter 344, HRS; and any revisions thereof and amendments thereto, court decisions, or executive orders;

The proposed development is consistent with the Environmental Policies established in Chapter 344, HRS, and the National Environmental Policy Act.

(4) Substantially affects the economic or social welfare of the community or state;

The proposed project will provide a significant contribution to Maui's future population by providing residents with the opportunity to "live and work in hannony" in a high quality living environment. The proposed project is designed to support surrounding land use patterns, will not negatively or significantly alter existing residential areas, nor will unplanned population growth or its distribution be stimulated. The project's development is responding to projected population growth rather than contributing to new population growth by stimulating in-migration.

(5) Substantially affects public health

Impacts to public health may be affected by air, noise, and water quality impacts, however, these will be insignificant or not detectable, especially when weighed against the positive economic, social, and quality of life implications associated with the project. Overall, air, noise, and traffic impacts will be significantly positive in terms of public health as compared to the "no action" alternative.

(6) Involves substantial secondary impacts, such as population changes or effects on public facilities

Existing and planned large-scale housing development projects within Wailuku-Kahului and Kihei will contribute to a future population growth rate that will require expansion of public and private facilities and services. These

improvements will become necessary as the overall population of Maui grows and settlement patterns shift. However, the proposed project will not in itself generate new population growth, but provide needed infrastructure the area's present and future population.

In addition, new employment opportunities will generate new sources of direct and indirect revenue for individuals and the County of Maui by providing both temporary and long-term employment opportunities during the construction period. Indirect employment in a wide range of service related industries will also be created from construction during project development.

(7) Involves a substantial degradation of environmental quality;

The proposed development will utilize existing vacant agricultural land. With development of the proposed project, the addition of urban landscaping will significantly mitigate the visual impact of the development as viewed from outside the site while the overall design will complement background vistas.

Makai views from the subject property are available, however, they are not significant nor generally, available to the public in the property's present restricted condition.

(8) Is individually limited but cumulatively has considerable effect on the environment, or involves a commitment for larger actions;

By planning now to address the future needs of the community and the State, improvement of the transportation system is consistent with the long term plans for Maui. No views will be obstructed or be visually incompatible with the surrounding area.

(9) Substantially affects a rare, threatened or endangered species or its habitat;

No endangered plant or animal species are located within the highway corridor.

(10) Detrimentally affects air or water quality or ambient noise levels;

Any possible impact to near-shore ecosystems resulting from surface runoff, will be mitigated by the establishment of on-site retention basins during the construction phases of development. After development, retention areas within the highway right-of-way will serve the same function to encourage recharge of the groundwater.

(11) Affects or is likely to suffer damage by being located in an environmentally sensitive area, such as a flood plain, tsunami zone, beach, erosion-prone area, geologically hazardous land, estuary, freshwater, or coastal waters.

Development of the property is compatible with the above criteria since there are not environmentally sensitive areas associated with the project and the physical character of the corridor has been previously disturbed by agricultural uses. As such, the property no longer reflects a "natural environment". Shoreline, valleys, or ridges will not be impacted by the development.

(12) Substantially affects scenic vistas and view planes identified in county or state plans or studies;

Due to topographical characteristics of the property, views of the area to be developed are generally not significant although they are visible. The majority of the proposed project will not be visible, except from higher elevations by the general public or from persons traveling along the highway.

(13) Requires substantial energy consumption.

The location of the proposed project is between Maui's major growth areas. This relationship will reduce travel times and energy consumption after project build out through efficiencies gained by the increased capacity of the highway. Construction of the proposed project will not require substantial energy consumption relative to other similar projects.

John Lindelow
Roz Rapozo
Roger Fonseca
PO Box 61449
Honolulu, HI 96839

24 January 2003

Genevieve Salmonson, Director
State of Hawaii Office of Environmental Quality Control
236 South Beretania Street, Suite 702
Honolulu, HI 96813

Dear Ms. Salmonson:

Subject: DRAFT ENVIRONMENT ASSESSMENT REVIEW
Project Name: Lanikai Seawall
Applicants: John Lindelow, Roz Rapozo, Roger Fonseca
Request: Shoreline Setback Variance
TMK No.: 4-3-0003:096

Thank you for your response to our Draft EA noted above. Following are your comments and our responses to your points:

1. Comment: Two-sided pages: In order to reduce bulk and save on paper, please consider printing on both sides of the pages in the final document.

Response: We will strive to do so.

2. Comment: Description of the proposed action: Section II.A. does not indicate what is actually proposed, but only what activity has previously occurred. Is a new seawall proposed, or retention or reconstruction of the existing one? Expand this in the final EA.

Reponse: No new construction or reconstruction is being proposed. This is an application for a seawall built by a previous owner in 1984. This has been clarified in the Final EA.

3. Comment: Figures: a. In the Final EA enclose clear photos in Figure 5; b) Enclose a new figure or on one of the existing figures indicate the Conservation District Boundary; c) In Diagram 1 indicate the units on the vertical axis. Presumably they are in feet, but it is not clear whether a greater number of feet means beach loss or beach gain.

Response: The figures have been clarified in the Final EA per your request.

4. Comment: Contacts: Community consultation is required by law. Notify the nearest neighbors or neighboring landowners of the proposed project and document any comments they provide in the final EA. Be sure to include copies of any correspondence.

Response: Neighbors on all sides have been supportive of our application. The Kunihisa's, to the South, provided the photos from February1956 shown in Figures 13 and 14. A public hearing, and public notices, are required as part of the process of obtaining a Shoreline Setback Variance, and will by duly carried through. According to the EA process as set out by the DPP, the public hearings are scheduled after the Final EA is submitted.

5. Comment: Significance criteria: Include a discussion of findings and reasons, according to the significance criteria listed in HAR 11-200-12, that supports your forthcoming determination, either Finding of No Significant Impact (FONSI) or EIS preparation notice. This discussion is required by law. You may use the enclosed sample as a guideline.

Response: Section 4 of the Final EA now contains an expanded discussion of Impacts based on HAR 11-200-12.

6. Comment: Permits and approvals: If any activity is proposed makai of the certified shoreline, then a Conservation District Use Permit may be required. Please indicate the status of this in the final EA.

Response: The entire sea wall is within the subject property, and none of the wall is is makai of the certified shoreline, according to the State Certified Shoreline Survey included with the Draft EA and Final EA.

7. Comment: Shoreline hardening policy: In the final EA include an analysis according to the "Shoreline Hardening Policy and Environmental Assessment Guidelines." You may contact our office for a paper copy of download it from our homepage at http://www.state.hi.us/health/oeqc/index.html.

Response: We have reviewed the above referenced guidelines and assured that these guidelines are addressed in various portions of the Final EA. For example, Historical Shoreline Analysis is addressed in Section IV, Site Maps and photographs are included Section VIII, Description of Improments is addressed in Section VII, and so on.

Thank you for the opportunity to respond to your comments.

Sincerely

John Lindelow

KAILUA NEIGHBORHOOD BOARD NO. 31
P.O BOX 487 • KAILUA, HAWAII 96734
PHONE: (808) 527-5749 • FAX: (808) 527-5760 • INTERNET: www.co.honolulu.hi.us

'01 AUG 6 PM 1 49
DEPT OF PLANNING
AND PERMITTING
CITY & COUNTY OF HONOLULU

August 2, 2001

Randall K. Fujiki, AIA
Director of Planning and Permitting
City & County of Honolulu
650 South king Street
Honolulu, Hawaii 96813

Dear Mr. Fujiki:

Subject: Draft Environmental Statement for a Seawall Reconstruction at 1450 A Mokulua Drive, Lanikai

As per your request (letter dated 7/3/01) to the Kailua Neighborhood Board, we have reviewed the Draft Environmental Assessment (DEA) for a seawall reconstruction at 1450 A Mokulua Drive in Lanikai.

The DEA makes several statements that we do not agree with:

1. no environmental or socioeconomic impacts (p.3);
2. wall is not preventing sand accretion (p.5);
3. the walls sloped face diminishes wave reflection (p.2);
4. no mitigation measures are needed (p.4);
5. the building on the lot is in imminent danger if the wall is removed (p.3);
6. other options (e.g. beach renourishment) are beyond the resources of individual property owners (p.3).

We take these points in turn below:

1. The seawall impacts public access to the shoreline because it contributes to beach loss, leads to sea floor deepening by scour at the toe of the wall, and contributes to increased wave agitation, makes egress and regress impossible for foot traffic. The beach loss caused by the wall impacts the littoral ecosystem and degrades water quality with increased turbidity caused by wave agitation and fleshy algae growth on the face of the wall.

2. An ocean engineering study[1] by Mr. Dave Lipp, a Lanikai resident, concluded that this and nearby walls in Lanikai prevent sand accretion by wave reflection, sand impoundment, and placement loss. A study[2] commissioned by the City states:

   "The recent construction of seawalls at the ends of the Lanikai beach could inhibit future sand accretion in these areas, and could have an effect on the stability of the middle portion of the beach."

3. The same report by Mr. Lipp states that the decreased slope, while diminishing wave reflection, does not altogether prevent it from having an impact.

4. The wall prevents sand accretion by wave reflection and blockage of dune sand that would otherwise naturally nourish a beach at this location. This leads to beach loss. Contrary to statements in the DEA, there is an immediate need for mitigation measures. This wall is directly responsible for damaging, altering and disrupting the beach, dune and shallow marine environment and ecosystem.

5. The building is set back 40 ft, it is not in imminent danger.

6. Contrary to the statements in this DEA beach nourishment is a very real option under the new State Program General Permit that should be available for public utilization in the very near future. This permit will allow the dredging and placement of up to 10,000 yd^3 of sand for the purpose of counteracting erosion. The Lipp study states that a ridge of sand is located offshore of the south Lanikai seawalls. This sand constitutes ideal nourishment source for this property. The cost of such an effort should be very competitive to wall construction and well worth any additional expense given the environmental remediation aspects.

The Kailua Neighborhood Board concludes that the DEA does not adequately address several critical aspects of this situation. Rather than permit a seawall, which is damaging a unique and valuable public resource, we recommend that beach replenishment be investigated as an alternative method for protecting this property.

Sincerely,

Charles (Chip) Fletcher, Ph.D.
Vice Chair, Environment Committee

Faith P. Evans
Chair

[1]Lipp, D.G., 1995. Changes in beach profiles due to wave reflections off seawalls at Lanikai, Hawaii. M.S. Thesis, Ocean Engineering, University of Hawaii, 79p.
[2]Sea Engineering, 1989. Oahu shoreline study. Prepared for City and County of Honolulu, November.

John Lindelow
Roz Rapozo
Roger Fonseca
PO Box 61449
Honolulu, HI 96839

24 January 2003

Faith Evans, Chair
Kailua Neighborhood Board
PO Box 487
Kailua, HI 96734

Dear Ms. Evans:

Subject: DRAFT ENVIRONMENT ASSESSMENT REVIEW
Project Name: Lanikai Seawall
Applicants: John Lindelow, Roz Rapozo, Roger Fonseca
Request: Shoreline Setback Variance
TMK No.: 4-3-0003:096

Thank you for your response to our Draft EA noted above. Following are your comments and our responses to your points:

1. Comment: The seawall impacts public access to the shoreline because it contributes to beach loss, leads to sea floor deepening by scour at the toe of the wall, and contributes to increased wave agitation, makes egress and regress impossible for foot traffic. The beach loss caused by the wall impacts the littoral ecosystem and degrades water quality with increased turbidity, caused by wave agitation and fleshy algae growth on the face of the wall.

Response: As explained in our response to item 2 below, natural cycles of beach accretion and erosion--and not the buildling of seawalls--are the primary cause for the build-up and erosion of beaches at Lanikai. There is no sea floor deepening in front of our wall, nor scour at the toe of the wall. There are many, many people who egress and regress from the water in front of the subject wall. There is no evidence that the subject seawall has increased turbidity. There is no evidence that the subject seawall cuases increased wave agitation. In fact, because of the low slope (30-35 degrees above horizontal) of the seawall, waves are gently reflected off of its surface.There is no fleshy algae growth on the face of the wall.

2. Comment: An ocean engineering study by Mr. Dave Lipp, a Lanikai resident, concluded that this and nearby walls in Lanikai prevent sand accretion by wave reflection, sand impoundment, and placement loss. A study commissioned by the City states "The recent construction of seawalls at the ends of the Lanikai beach could inhibit future sand accretion in these areas, and could have an effect on the stability of

the middle portion of the beach."

Response: Analyses of the Lanikai shoreline from aerial photos over the last several decades (documented in the Draft EA) clearly shows that the sand accretes and erodes in patterns that have nothing to do with the existence or non-existence of seawalls. A case in point is the area immediately in front of the subject property. In 1956, as shown in photos provided in the Final EA, the shoreline was approximately where it is today, and both the properties to the South and the North had seawalls in place. Over the next two decades, sand accreted in front of these same seawalls until the sand was some 150 feet wide. Then, it began to erode again in the 1970s, and now it is back to where it was in the mid-1950s.

In addition, nearly all of the properties in the middle of Lanikai beach, where the width of sand is great, have seawalls that are currently buried in the sand, an indication that these properties, too, were threatened at one time by ocean waves. The existence of these sea walls did NOT impede the accretion of sand in front of them.

Both of these points underscore the fact that seawalls have much less impact on beach erosion than do natural cycles which are much more powerful in this regard.

3. Comment: The same report by Mr. Lipp states that the descreased slope, while diminishing wave reflection, does not altogether prevent it from having an impact.

Response: The slope of the subject wall is 30 to 35 degrees above the horizontal, which makes it, in all likelihood, the lowest slope of any seawall in Lanikai.

4. Comment: The wall prevents sand accretion by wave reflection and blockage of dune sand that would otherwise naturally nourish a beach at this location. This leads to beach loss. Contrary to statements in the DEA, there is an immediate need for mitigation measures. This wall is directly responsible for damaging, altering and disrupting the beach, dune and shallow marine environment and ecosystem.

Response: As stated under Item 2, the beach in front of the subject property accreted by over 100 feet between 1955 and the early 1970s. Neighbors to the immediate South of the subject property and North of the subject property had significant seawalls in place at the time, as did others in the vicinity. Your argument that these seawalls are "directly responsible for damaging, altering and disrupting the beach" is unsupported by real-world empirical evidence.

5. Comment: The building is set back 40 ft, it is not in imminent danger.

Response: Storm surge in December of 2002 splashed within several feet of the house. Large waves sloshed over the seawall to within 15 feet of the house. Without the wall, living in the subject house would be a frightening experience during storms. It is our belief that without the subject seawall, our house would be undermined and

destroyed. Why would the previous owner have built it in the first place if he did not feel threatened by the heavy storms that hit Lanikai in 1983-4?

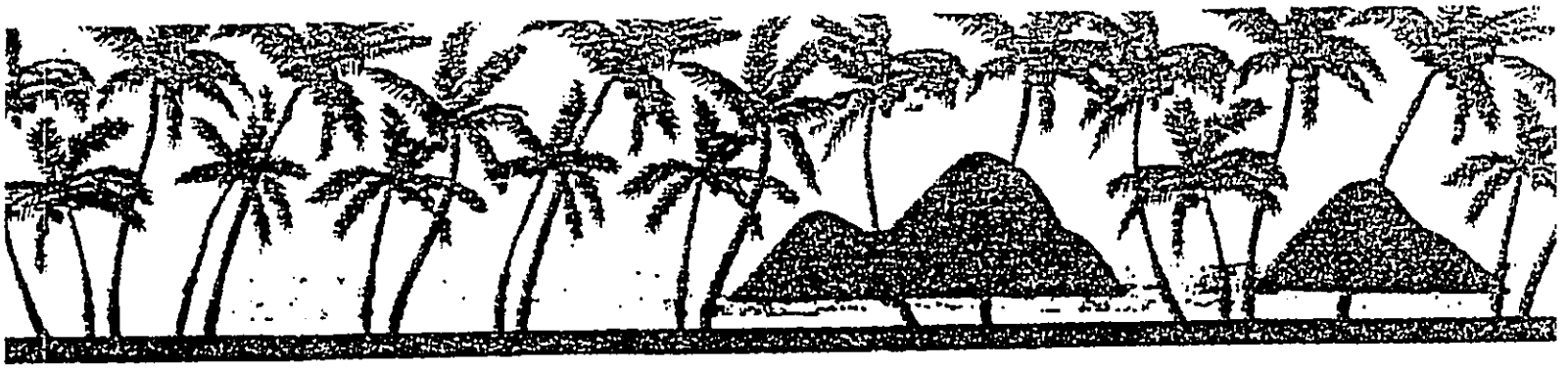
6. Comment: Contrary to the statements in this DEA beach nourishment is a very real option under the new State Program General Permit that should be available for public utilization in the very near future. This permit will allow the dredging and placement of up to 10,000 cubic yards of sand for the purpose of counteracting erosion. The Lipp study states that a ridge of sand is located offshore of the south Lanikai seawalls. This sand constitutes ideal nourishment source for this property. The cost of such an effort should be very competitive to wall construction and well worth any additional expense given the environmental remediation aspects.

Response: During the 1999-2000 winter season, 16,000 cubic yards of sand was placed along the Lanikai shoreline by the City. 18 months later, it was completely eroded, assumably overpowered by the natural cycle of erosion that dominated at that time. A continuous, large-scale renourishment effort is definitely not doable by an individual property owner--one estimate for dredging and moving 10,000 cubic yards of sand being $250,000.

Thank you for the opportunity to respond to your comments.

Sincerely

John Lindelow



THE LANIKAI ASSOCIATION • P. O. BOX 481 • KAILUA, OAHU 96734

October 2, 2001

Ms. Ardis Shaw Kim
Department of Planning and Permitting
City and County of Honolulu
650 S. King Street, 7th Floor
Honolulu, Hawaii 96813

Re: Variance Application for Existing Seawall
TMK: 4-3-003:096

'01 OCT 1 PM 2 30
CITY & COUNTY OF HONOLULU

Dear Ardis:

The Board of Directors of the Lanikai Community Association at its regularly scheduled meeting October 1, 2001, voted to make no objection to the above referenced application for a variance. It is Lanikai Association policy not to support after the fact variance requests. However, in this situation the Association does not believe that removing the seawall is a reasonable alternative. Furthermore, the fact that the seawall has been in place for 17 years, has adequately protected the property and was not constructed by the present applicant, are mitigating circumstances which were weighed in the Board's decision. Should you have any questions, please don't hesitate to give me a call at 534-1141.

Best regards,

Ned Dewey
President

ND:tmk

Enclosure

APPENDIX 2: BOUNDARY INTERPRETATION FROM THE STATE LAND USE COMMISSION

Request for a Boundary Interpretation
Boundary Interpretation

30 April 2003

Mr. Anthony Ching
State of Hawaii Land Use Commission
PO Box 2359
Honolulu, HI 96804

EL428356359US

Dear Mr. Ching:

This letter is in response to your letter dated March 13, 2003, regarding an Environmental Assessment being done for a Shoreline Setback Variance for TMK 4-3-3:096.

In Item 1 of that letter you state:

> "Based on the maps and information in our files, it is our position that the subject seawall is within the Conservation District based upon the findings of the Commission's 1964 Boundary Review.
>
> If you have other information or believe otherwise, we recommend that you request a boundary interpretation, in writing, and provide a master print and a copy of a survey map for the subject parcel that depicts topographic information, locating the seawall in relation to the State Land Use boundaries which is stamped and signed by a registered professional land surveyor. Please note that the location of the state certified shoreline survey is not necessarily consistent with the location of State Land Use district boundaries."

On 17Apr03, I visited your office and spoke at length with Fred Talon. He showed me several maps but could not say where the Commission's 1964 Boundary actually was in relation to our seawall. However, he outlined a methodology we could follow to determine the Commission's 1964 Boundary fronting our property, and gave us a copy of a 1964 TMK Map, the seaward property boundaries of which are, by definition, the Commission's 1964 Boundary.

The subject property had been subdivided in 1967, and thus we conducted research at the Real Estate Assessment Office of the City and County, and at the Bureau of Conveyances, DLNR, to determine the metes and bounds of the property before it was subdivided, as it was in 1964, when it had a TMK of 4-3-3:061. We obtained a map of the metes and bounds for this property from the Bureau of Conveyances for a certified survey conducted on July 17, 1961 (Map 50, attached).

Next, we presented these materials to a registered professional land surveyor, Dennis Hashimoto of DJNS Surveying, who has prepared the stamped and signed survey (attached) indicating the location of the seawall in relation to the 1961/4 boundary, per your request (Figure 3). I also spoke with Russell Kumabe of your office on 28Apr03 to clarify how the surveyor should label the 1961 boundary, and I spoke again with Fred

Talon about the submission process and timelines.

As can be seen in Mr. Hashimoto's survey, the 1961 boundary is several feet seaward of the most makai edge of the existing seawall, putting the seawall entirely within the Urban District and not within the Conservation District at all. Thus we do believe that the LUC's original position on this property is in error.

We ask the LUC now for a formal boundary interpretation based on the evidence we have presented.

In Item 2 of your letter of 13Mar03, you state:

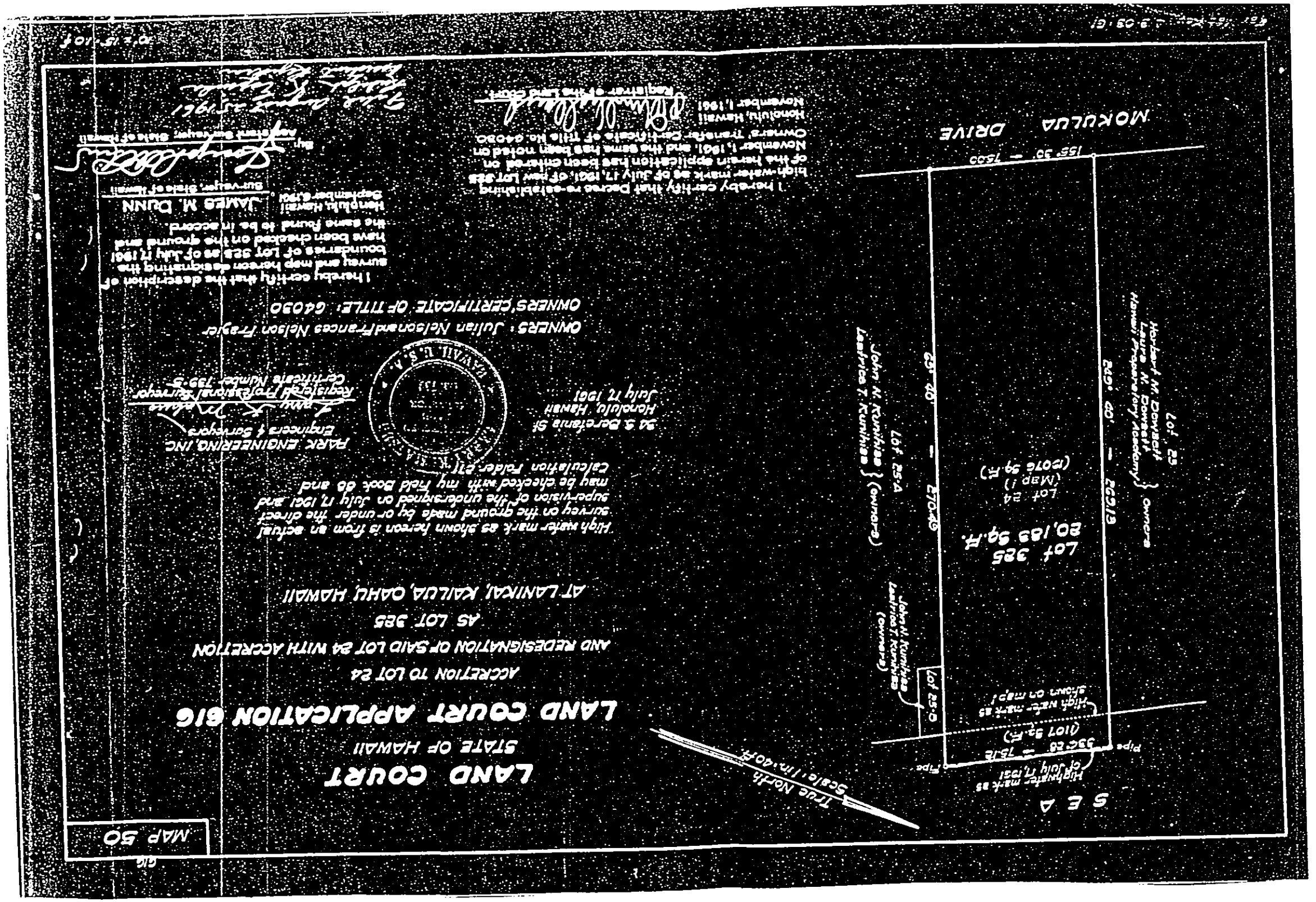
> "In recommending discussion of any impacts to cultural resources as related to native Hawaiian and traditional gathering and/or access rights and practices, your focus should be on identifying any gathering or access practices utilized in the project area (if any) rather than locating archaeological resources on the property."

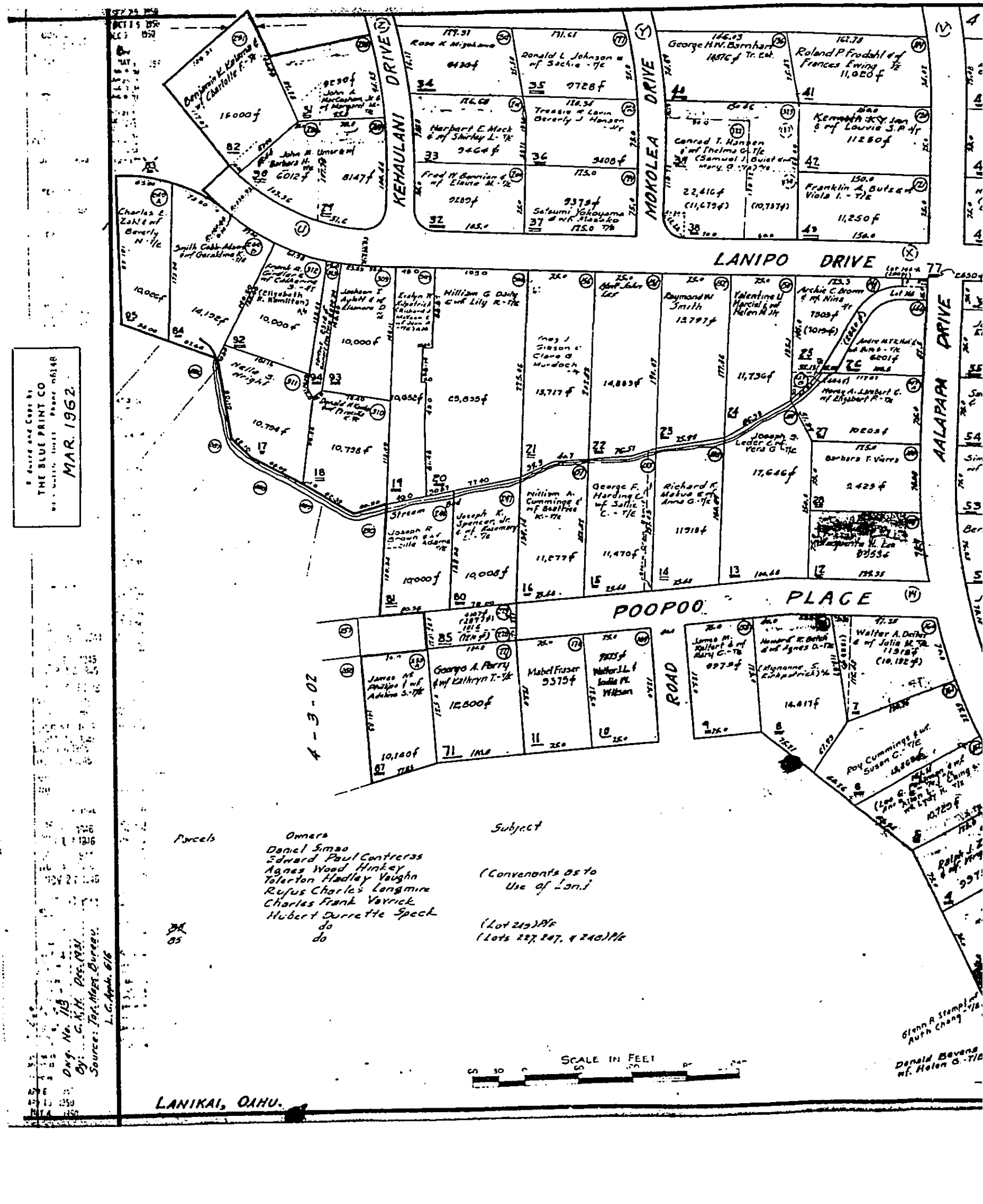
We have modified our Environmental Assessment accordingly. Thank you. The area in which the subject parcel resides has been a residence for over 40 year. No traditional Hawaiian practices or gatherings are known or have been observed anywhere in the vicinity of the subject parcel. Discussions with other area residences also reveal no knowledge of such practices in the vicinity, and no observations of such practices in the vicinity of the subject parcel have taken place.

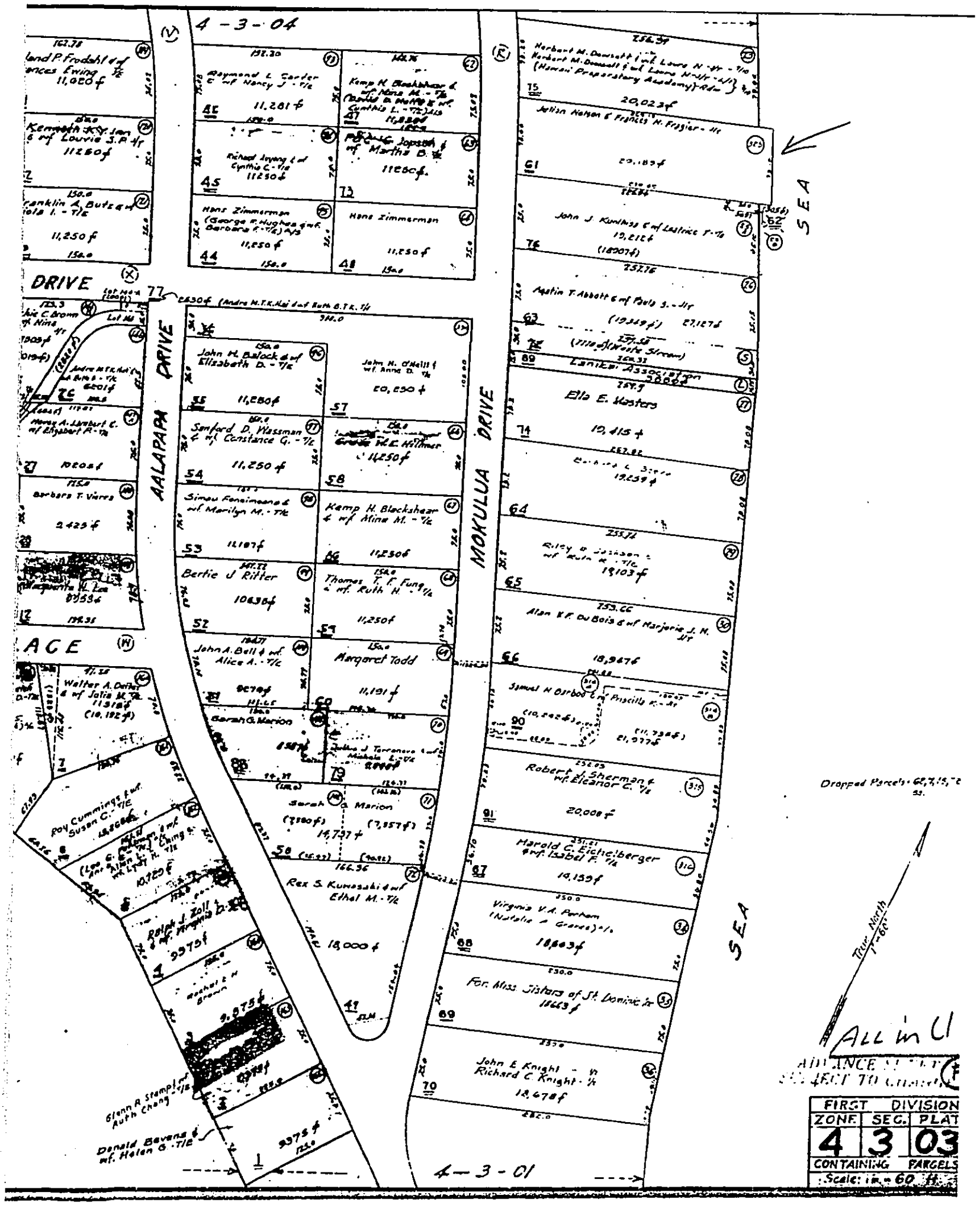
Sincerely,

John Lindelow

Map 50







LINDA LINGLE
BENJAMIN J. CAYETANO
GOVERNOR

ANTHONY J.H. CHING
EXECUTIVE OFFICER

STATE OF HAWAII
DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT & TOURISM
LAND USE COMMISSION
P.O. Box 2359
Honolulu, HI 96804-2359
Telephone: 808-587-3822
Fax: 808-587-3827

June 3, 2003

Mr. John Lindelow
P.O. Box 61449
Honolulu, Hawaii 96839

Dear Mr. Lindelow:

Subject: Boundary Interpretation No. 03-15 for Tax Map Key No: 4-3-03: 96, Lanikai, Koolau Poko, Oahu, Hawaii

Pursuant to your letter dated April 30, 2003, requesting a boundary interpretation for the subject parcel, please be advised that we have determined an approximate location of the State Land Use (SLU) Urban/Conservation District boundary relative to the existing concrete-rubble-masonry (CRM) seawall. Our determination is based on review of the Commission's records and official maps currently on file at our office. We also reviewed the information provided by you, including the Draft Environmental Assessment (DEA), the photographs, and the maps that were not previously available to us in our earlier assessment of the seawall.

We understand that over the years, the subject parcel has experienced both accretion and erosion as a result of the dynamic littoral processes along the entire Lanikai shoreline. We also understand that the current CRM seawall was built in 1984 on top of an existing, non-conforming seawall that was constructed circa 1955. We further understand that no new construction or reconstruction of the seawall is being proposed.

Based on review of our records, we note that the subject parcel was placed within the State Land Use Urban District on August 23, 1964, with the coastal portions having an elevation below the high water mark designated within the State Land Use Conservation District. According to the materials you submitted, the shoreline of Lanikai, including the subject parcel, accreted substantially during this time, resulting in a property line that was 100 feet further seaward than it is currently (DEA, p. 4).

Given the date and location of the wall's original construction and our understanding that the current wall utilized the footprint already established in 1955, it is our determination that the location of the Urban/Conservation District boundary would follow the *valid* shoreline (i.e., within one year) as certified by the Chairperson of the Board of Land and Natural Resources.

In the event it is determined that any portion of the current seawall extended seaward beyond the 1955 footprint of the pre-existing wall and/or that there was erosion of the subject parcel's shoreline in 1964, we reserve the right to re-examine our findings relative to this interpretation based on the additional information.

We have enclosed a copy of your map entitled "Shoreline Survey, Lot 347-B Ld. Ct. App. 616" with an approximate location of the State Land Use Urban/Conservation District boundary delineated for your reference.

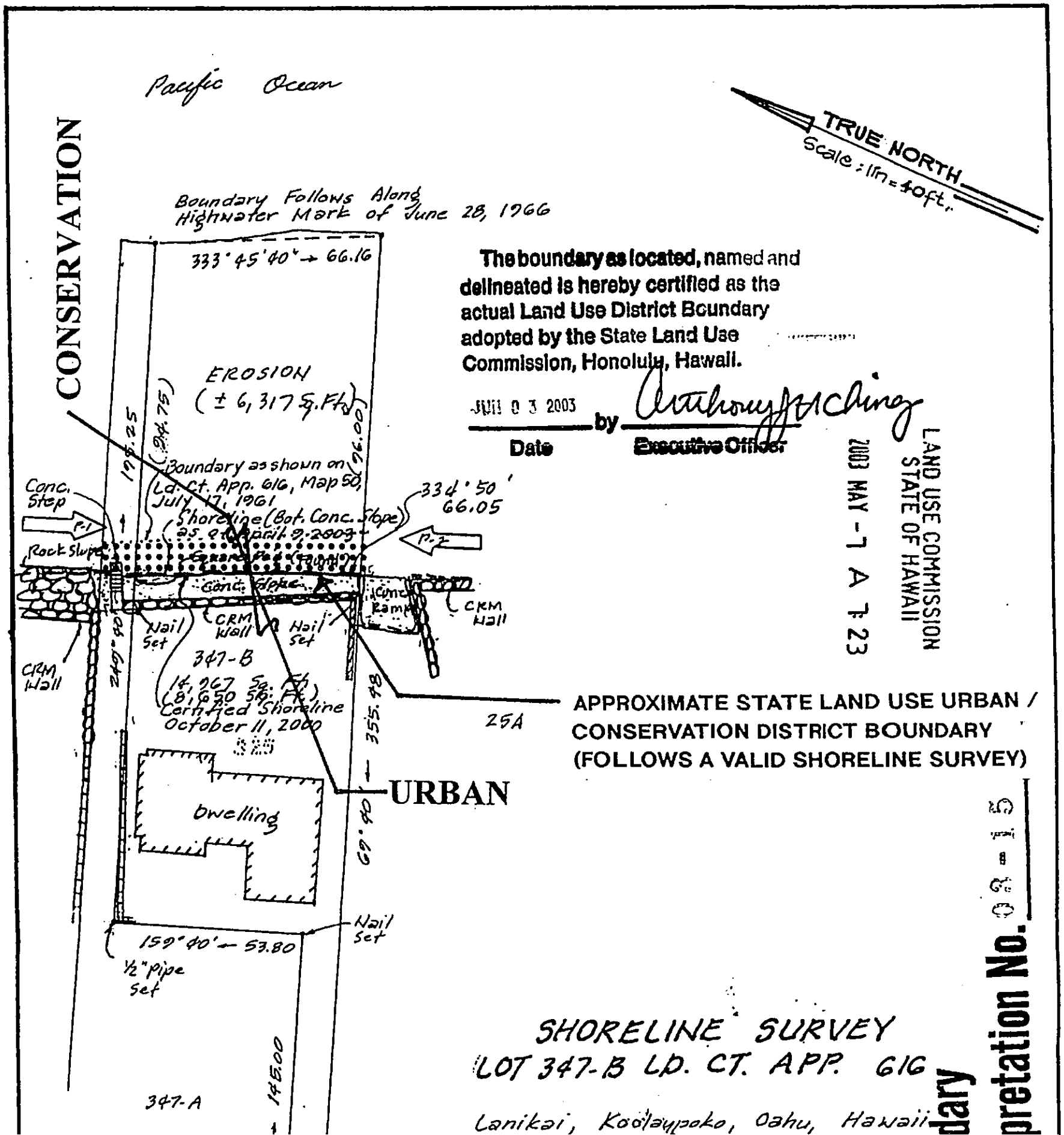
Should you require clarification or further assistance in this matter, please feel free to call Fred Talon or Bert Saruwatari of my staff at 587-3822.

Sincerely,

ANTHONY J. H. CHING
Executive Officer

Enclosure: Boundary Interpretation Map dated June 3, 2003

c: Peter Young, BLNR Chairperson (w/enclosure)
Attn: Diedre S. Mamiya, Land Division
Eric Crispin, Director, Department of Planning and Permitting, C&C of Honolulu (w/enclosure)
Attn: Richard Cabasawa
Glenn Y. Sato, Tax Maps & Records Supervisor, Department of Budget and Fiscal Services, C&C of Honolulu (w/enclosure)



The boundary as located, named and **delineated is hereby certified as the actual Land Use District Boundary adopted by the State Land Use Commission, Honolulu, Hawaii.**

JUN 0 3 2003 **by** Anthony J. H. Ching

Date **Executive Officer**

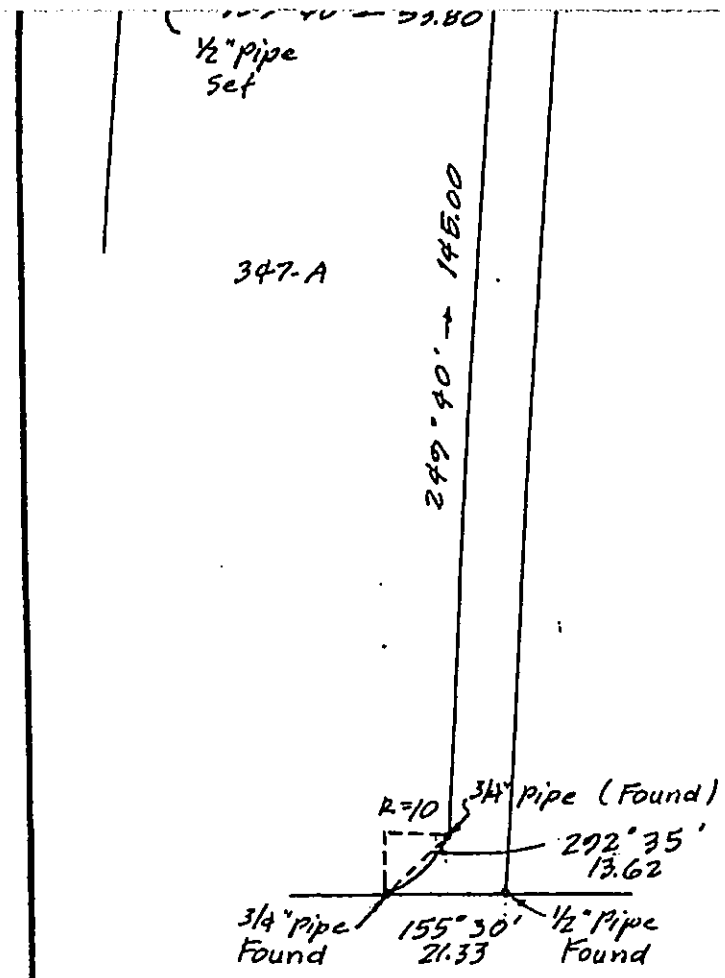
LAND USE COMMISSION
STATE OF HAWAII
2003 MAY -7 A 7:23

SHORELINE SURVEY

LOT 347-B LD. CT. APP. 616

Lanikai, Koolaupoko, Oahu, Hawaii

Boundary Interpretation No. 03-15



SHORELINE SURVEY
LOT 347-B LD. CT. APP. 616

Lanikai, Koolaupoko, Oahu, Hawaii

Tax Map Key: 4-3-3: 96

Date: April 9, 2003

Property Address: 1450-B Mokulua Drive
Owners: John Lindelow, Roz Raposa, Roger Fonseca
1450B Mokulua Dr.
Kailua HI.

DENNIS K. HASHIMOTO
LICENSED PROFESSIONAL LAND SURVEYOR
No. 5688
HAWAII, U.S.A.

This work was ~~prepared~~ by me or under my direct supervision
Dennis K Hashimoto
Licensed Professional Land Surveyor Certificate Number 5688

Boundary Interpretation No

Field Book 344:24

DJNS Surveying & Mapping, Inc.
P.O Box 25636 Honolulu, Hawaii 96825

Job Number 00322