

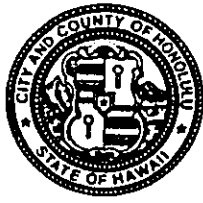
Sagara CRM Wall

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

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PHONE: (808) 523-4414 • FAX: (808) 527-8743

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MAYOR



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DIRECTOR

OFFICE OF ENVIRONMENTAL  
QUALITY CONTROL

LORETTA K.C. CHEE  
DEPUTY DIRECTOR

96/SV-007 (DT)  
96-08546

December 20, 1996

The Honorable Gary Gill, Director  
Office of Environmental Quality Control  
State Office Tower  
235 South Beretania Street, Room 702  
Honolulu, Hawaii 96813

Dear Mr. Gill:

CHAPTER 343, HRS  
Environmental Assessment/Determination  
Finding of No Significant Impact ✓

Owner/Applicant: Sagara Trucking, Inc.  
Agent : Goodsill Anderson Quinn & Stifel  
Location : 1607 Mokulua Drive, Lanikai, Oahu  
Tax Map Key : 4-3-01: 16  
Request : Shoreline Setback Variance  
Proposal : To allow (retain) an after-the-fact  
concrete rubble masonry retaining wall  
and concrete stairway within the 40-foot  
shoreline setback  
Determination : A Finding of No Significant Impact is  
Issued

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

We have enclosed a completed OEQC Bulletin Publication Form and four copies of the FEA. If you have any questions, please contact Dana Teramoto of our staff at 523-4648.

Very truly yours,

*Loretta Chee*  
PATRICK T. ONISHI  
Director of Land Utilization

PTO:am  
Encls.

g:neg96sv7.djt

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1997-01-08-DA-*FEA-Sagara Retaining Wall*

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96-08546

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DEPARTMENT OF LAND AND NATURAL RESOURCES  
DIVISION OF PERMITS OF HONOLULU

*FINAL*  
***Environmental Assessment  
Shoreline Setback Variance***

SAGARA PROPERTY  
TMK: 4-3-01: 16  
LANIKAI, KAILUA, HAWAII

PREPARED BY: MICHAEL S. CHU, LAND ARCHITECT  
126 QUEEN STREET SUITE 306 • HONOLULU, HI 96813 • ph: 537-4674 fx: 521-9054  
December 2, 1996

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December 2, 1996

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**APPENDIX A, COMMENTS & RESPONSES TO DRAFT EA**

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City Department of Parks and Recreation  
City Department of Public Works  
State Department of Health  
Department of the Army  
State Office of Environmental Quality Control  
State Department of Land and Natural Resources  
Lanikai Community Association

**APPENDIX B, LIST OF EXHIBITS**

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Exhibit 1: Location Map  
Exhibit 2: TMK Map  
Exhibit 3: Site Photos and Maps  
Exhibit 4: Site Cross Section  
Exhibit 5: Site Plan, 1985  
Exhibit 6: Site Plan, 1986  
Exhibit 7: Topographic Survey, 1996  
Exhibit 8: Scenario A, Extent of Encroachment  
Exhibit 9: Scenario B, Extent of Encroachment

## **1. Introduction**

### **1.1 Purpose of the Environmental Assessment**

Applicant: Sagara Trucking, Inc.  
Agent: Goodsill, Anderson, Quinn and Stifel  
EA Consultant: Michael S. Chu, Land Architect  
Accepting Agency: City and County of Honolulu,  
Department of Land Utilization

The purpose of this assessment is to examine the environmental effects of an existing CRM retaining wall and concrete stairway which encroaches into the 40 ft. shoreline setback area; assess possible alternatives and mitigative measures; and to summarize the overall findings and conclusions of this study.

The wall and stairway were constructed in 1985 and has been cited by the City and County of Honolulu for being in violation of Chapter 23 of the Revised Ordinance of Honolulu.

Because the environmental assessment involves uses and activities within the shoreline setback area, the requirements of Chapter 343, HRS, apply.

### **1.2 Scope of the Environmental Assessment**

This assessment is prepared based on the Content Guide for Preparing an Environmental Assessment Required for an Application for a Shoreline Setback Variance (SSV) Ordinance No. 4631, Shoreline Setback Rules and Regulations.

### **1.3 Proposed Action**

The applicant proposes that the existing CRM retaining wall and concrete stairway be permitted through the issuance of an "after the fact" variance pursuant to Section 23-1.8 Shoreline Setbacks and Chapter 17, Shoreline Setback Rules.

#### **1.4 Agencies Consulted**

The following agencies were consulted during the preparation of this assessment:

City and County of Honolulu  
Department of Land Utilization

City and County of Honolulu  
Building Department

City and County of Honolulu  
Department of Public Works

City and County of Honolulu  
Department of Parks and Recreation

State of Hawaii  
State Department of Land and Natural Resources  
Oahu Land Management District Office

State of Hawaii  
State Department of Land and Natural Resources  
Historic Sites

State of Hawaii  
State Department of Health

U.S. Department of Agriculture  
Natural Resource Conservation Service

U.S. Department of the Army

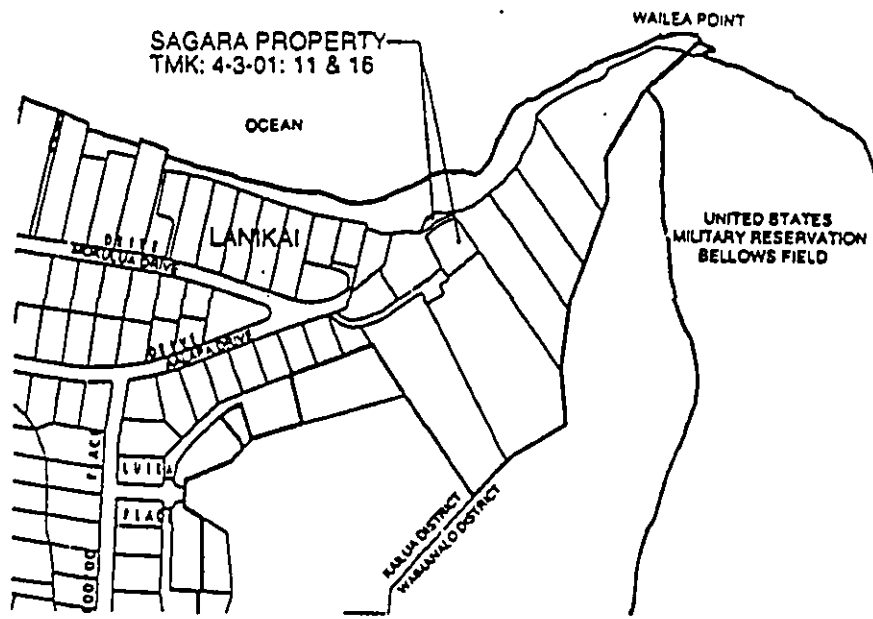
The following community groups were consulted during the preparation of this assessment:

Lanikai Community Association

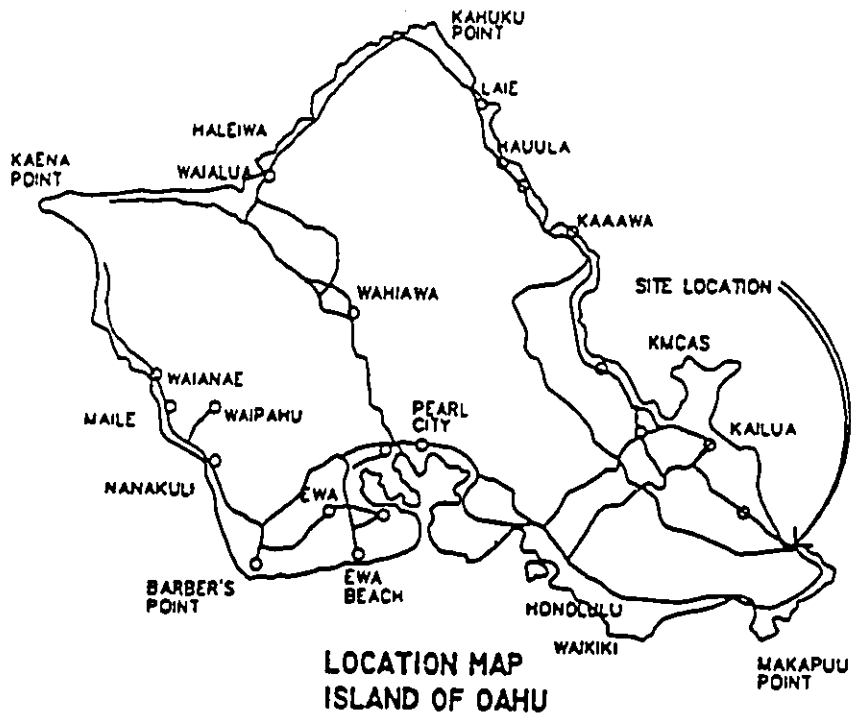
Kailua Neighborhood Board No. 31

\*\*\*\*\*

# EXHIBIT 1



VICINITY MAP



LOCATION MAP  
ISLAND OF OAHU

## 2. Project Description

### 2.1 Site Location and Description

The subject property is within the Koolaupoko district of the City and County of Honolulu. It is located in Kailua towards the far southern end of the Lanikai residential community near Wailea Point. The street address of the property is 1607 Mokulua Drive.

The subject property (hereafter referred to as the Sagara Property) is owned in fee by Mr. Kay Sagara who holds title to the property through his corporation, Sagara Trucking, Inc. (STI). It consists of three separate lots. Lots 238 and 239 (TMK: 4-3-01: 16) are contiguous and are located on a steep coastal bluff overlooking Lanikai. Together, these two lots total 12,796 sf and have been developed with a single family dwelling unit which was constructed in 1985- 86. Primary access to this dwelling unit is via a paved driveway which is connected to Mokulua Drive.

Lot 234 (TMK: 4-3-01: 11), also owned by STI, is a small, irregular shaped lot along the shoreline. The lot is 1950 sf in size and is separated from the main property by a 12 ft. wide private beach road. This lot is utilized as private open space. It also contains portions of a sewer easement and HECO overhead utility lines. The lot is protected by a continuous shoreline wall located seaward of the lot. This shoreline wall was built at least prior to 1967.

The beach road, which bisects the Sagara Property, extends from Mokulua Drive to the last residential lots leading to Wailea Point. There are a total of 4 residential lots beyond the Sagara Property. The beach road fronting the Sagara Property is described as lots 143-C-1-B-1 and 143-C-1-B-2. Consolidation plans prepared by ControlPoint in 1985 (DLU folder 85-40) describe the road as being a "perpetual right of way and sanitary sewer



easement in favor of the City and County of Honolulu." Drainage lines are also located within the roadway.

## **2.2 History of the Site**

Sagara acquired the property in March 1984. According to Building Permit records, no improvements (i.e. dwelling unit) existed on the property prior to this date.

Upon acquiring the property, Sagara commissioned architect Fritz Johnson Inc. to prepare plans for a new dwelling. Plans were completed and approved by City agencies (DLU, BWS, Div. of Engr., Div. of Wastewater) during May 1985. Building Permit 214-732 was issued for the proposed dwelling unit and related site improvements on October 11, 1985. The building permit was issued and approved with a waiver of an instrument shoreline survey.

According to the Building Department, the applicant's site plan as illustrated on sheet A-1 (dated Sept. 12, 1985, Exhibit 5) did not include the retaining wall cited in the Notice of Violation. However, due to site and soil conditions encountered during construction, a retaining wall was deemed necessary. Revisions to the site plan were made by the architect on or about March 5, 1986 to include the CRM wall as it presently exists (see Exhibit No. 6). The wall appears to be sensitively designed as a landscape element, following the profile of the hillside, utilizing lava rock material and incorporating planting terraces while still providing the structural stability needed at the base of the slope. However, this revised plan was not submitted to the Building Department for permitting purposes.

On September 19, 1995 a notice of violation was issued to the property owner by the Building Department citing the CRM wall and stairway for being within the shoreline setback without a shoreline setback variance. On December 18,

1995 a similar notice of order was issued to the property owner by the Department of Land Utilization.

In late December 1995 the owner commissioned Michael S. Chu, Land Architect to assist the firm of Goodsill Anderson Quinn and Stifel in assessing the violations. In January 1996, the owner retained the services of the R.M. Towill Corp. to perform a detailed topographic survey of the property.

Investigations confirmed that the CRM wall and concrete stairway were constructed without the benefit of appropriate permits. Attempts to correct the violation were initiated. Several meetings were conducted by the owner's consultants with DLU staff. In March 1996 the R. M. Towill Corp. applied for a shoreline certification with the State Department of Land and Natural Resources.

Although the seawall was in existence for many years prior to acquiring the property, the DLNR rejected the shoreline certification application on May 20, 1996 citing encroachment upon State land.

### **2.3 Extent of Encroachment**

Because a certified shoreline survey was not attainable, an alternate approach was undertaken to determine the probable extent of encroachment by the CRM wall and concrete stairway. This analysis was based on two scenarios and are described below as Scenarios A and B.

#### **Scenario A**

Scenario A utilizes the shoreline location and 40 ft. setback line as recommended by the R.M. Towill Corp. in their shoreline certification application to the DLNR. These boundary lines are illustrated in Exhibit 8. The quantitative findings under this scenario are:

Total land area between the recommended shoreline location and the recommended 40 ft. setback fronting the Sagara Property	4497 sf
Total area of CRM wall and concrete stairway encroachment within recommended 40 ft. shoreline setback area	40 sf (stairs) 422 sf (CRM wall) <hr/> 462 sf total
Percentage of total structure encroachment within recommended shoreline setback area	10%
Percentage of open space makai of encroachment	90%

### Scenario B

Scenario B represents a more conservative approach in which the makai property line at Lot 234 was utilized as the theoretical shoreline location, and assumes the entire CRM wall and concrete stairway as being within the shoreline setback area. The analysis results of this scenario are illustrated on Exhibit 9 and the quantitative findings under Scenario B are:

Total land area between the makai property boundary and the mauka face of CRM wall	4438 sf
Total area of CRM wall and concrete stairway	100 sf (stairs) 1188 sf (CRM wall) <hr/> 1288 sf total
Percentage of total structure encroachment	30%
Percentage of open space	70%

While not as definitive as a certified shoreline survey, the two scenarios/analysis described above provides a practical alternative in gauging the extent of probable encroachment. In the case of the Sagara Property, this encroachment ranges between 10 and 30%. The majority of the area between the ocean and the CRM wall remains in open space.

#### **2.4 Technical Characteristics and Physical Features**

The concrete stairway is located in the side yard of Lot 238 (see Exhibit 7). It extends from the dwelling unit (el. 32.4 ft.) to the beach road (el. 10.4 ft.). It is 3 feet wide and contains a metal handrail (less than 42" ht.). The overall size of the stairway is approximately 100 sf.

The CRM wall is parallel to the makai property line at Lot 238. From its base, the wall leans into the site by approximately 13.5 feet. The overall wall height is approximately 20 ft. It is designed as a gravity retaining wall with strong landscape characteristics. It is designed with three terraces ranging from 6 to 8 ft. per terraced level. Each terrace is topped by a linear planter which is landscaped and irrigated with a sprinkler system. Exhibit No. 3 contains recent photos of the wall, depicting its visual appearance and relationship to the Sagara Property and the abutting beach road. Exhibit No. 4 is a cross section drawing of the wall and illustrates the relationship of the wall to the topography of the site.

Exhibit 4 is presented based on pre-construction topographic information. It shows that the Sagara Property has an unusually steep slope, averaging 48% as measured from its mauka boundary (70 ft. elevation) to its makai boundary (10.5 ft. elevation). It is steepest towards the makai portion of the site where the natural incline approached 80% prior to the 1985 construction of the wall.

The wall appears integral to the site. It re-enforces the hillside by preventing possible erosion and/or sliding. The wall is located mauka of the ocean and is not a shoreline protection structure as defined under Chapter 11 of the shoreline setback rules and regulations. As a retaining wall, it is in compliance with LUO general standards for retaining wall structures.

Exhibit 7 is a topographic survey of the Sagara Property. The exhibit was prepared by R.M. Towill. Added to the exhibit are the approximate locations of

certified shorelines at adjacent properties. The certified shoreline information was obtained from the Department of Land and Natural Resources and digitized onto the exhibit.

### **2.5 Utilities**

There are several utility easements located in the beach road to include a sewer easement, overhead utility lines and a HECO vault. There are no utility requirements or improvements associated with the CRM wall or the concrete stairway.

### **2.6 Access**

Access to the Sagara Property is from Mokulua Drive where it loops to intersect Aalapa Drive. A private driveway has been constructed at this location. The driveway turns mauka and leads up the slope to the mauka portion of the Sagara Property. The driveway provides vehicular access to the Sagara residence and other dwelling units constructed along the bluffs.

A beach road extends from Mokulua Drive to Wailea Point. It is a narrow road consisting of several segmented roadway lots. It is partially paved up to the Sagara Property. It is unimproved (gravel) beyond this point. The beach road does not service the Sagara residence. It instead leads to the last four house lots located near Wailea Point. Access rights along this roadway are provided by a perpetual easement. HECO and the City and County of Honolulu also maintain easement rights along the roadway for electrical and sewer purposes.

There is no public beach access in this area.

### **2.7 Social Characteristics**

The CRM wall is located entirely on the Sagara Property and does not encroach into adjacent properties. The CRM wall appears consistent with the urban design character of the neighborhood. It is not visually obtrusive nor does it

impair access. The concrete stairway provides private access for the landowner.

## **2.8 Economic Characteristics**

There are no significant economic impacts associated with the presence of the CRM retaining wall and the applicants request for a shoreline variance.

On the other hand, removal of the CRM wall and stairway would result in costly site construction for the property owner. Secondary impacts and cost for protecting existing utilities and vehicular circulation along the beach road may occur.

\*\*\*\*\*

### 3. Affected Environment

#### 3.1 Topography

A review of the 1983 edition of the Atlas of Hawaii indicates that the site lies at the intersection of the Kailua Bay Plain and a descending ridge of the Koolau Cliff and Valley physiographic division (see Exhibit 3). The U.S.G.S. topographic map identifies the descending ridge as the Kaiwa Ridge, a coastal land form that separates Kailua from Waimanalo. The highest peak of this landform is 602 feet.

The Sagara Property (Lots 238 and 239) is located at the base of the Kaiwa Ridge. Topographic elevations at the site are approximately 10.5 ft. at its makai boundary and 70 ft. at its mauka boundary. The overall slope of the property is 48%. The area closest to the makai boundary was very steep prior to the wall's construction. The cross section contained in Exhibit No. 4 shows that it approached 80% prior to construction. In contrast, the roadway and Lot 234 are level with a consistent elevation of approximately 10 to 10.5 ft.

The steep sloping condition and its abrupt transition to a narrow and level condition near the shoreline is reflective of the physiographic intersection of the Kaiwa Ridge and the Kailua Coastal Plain.

#### 3.2 Soils

##### ALISH (Agricultural Lands of Importance to the State of Hawaii)

The Lanikai area is within the State Land Use Urban district. No ALISH classifications are provided for Urban lands.

##### Land Study Bureau

According to the Land Study Bureau Detailed Land Classification of Oahu (1972), the Kaiwa Ridge is classified as having E105 soils. This is the poorest rating for agricultural productivity. The Land Study Bureau further describes this

soil type as being rocky with rough, broken lands and with slopes from 36 to 80%, suitable for only pastures and grazing.

#### Soil Conservation Service

The SCS survey map no. 65 identifies the soils at the Kaiwa Ridge as KtC, Kokokahi Series. The soil description of the Kokokahi Series is as follows:

*"This series consist of moderately well drained soils on talus (rock fragments at the foot of a cliff) slopes and alluvial fans on the island of Oahu. These soils developed in colluvium and alluvium derived from igneous rock. They are moderately sloping to steep. Elevations range from near sea level to 135 feet. The annual rainfall amount is 20 to 35 inches. The mean annual soil temperature is 74 degrees F. Kokokahi soils occur in the vicinity of Kaneohe and Pearl Harbor and are geographically associated with Alaeloa and Jaucas soils. These soils are used for pastures and homesites. The natural vegetation consists of kiawe, koa haole, klu, bristly foxtail, pilgrass and bermuda grass."*

A discussion with SCS soil scientist Saku Nakamura was held on 14 May 1996 regarding the erosional characteristics of the Kokokahi series. According to Mr. Nakamura, the Kokokahi series has a high clay content and has a high shrinking/ swelling potential. The soil has a tendency to swell and become "sticky" when moist, and to shrink and become hard and cracked when dry. Although described as moderately well drained, water movement through the soil is fairly slow due to its heavy clay content. Mr. Nakamura pointed out that the K value is rated at .28, indicating high erodability and the potential for sliding on steep slopes. According to Mr. Nakamura, in an agricultural situation this erodability rating would indicate a requirement for implementing soil conservation measures.

### **3.3 Drainage and Water Resources**

The Sagara Property is located below the 10 inch isohyetal line and receives less than 35 inches of rainfall per year. During the summer months, rainfall is less than 1 inch per month. Most rainfall infiltrates into the soils of the Kaiwa Ridge or the sand along the Kailua Plain. On occasion, heavy rainfall may



result in run-off from the Kaiwa Ridge area into the ocean. Ponding and temporary flooding may occur along portions of the unimproved roadway.

The area is not serviced by City and County storm drainage systems. There are no streams or other inland water resources in the vicinity.

### **3.4 Coastal Hazards**

According to Civil Defense Tsunami Evacuation Maps, the areas makai of the base of the Kaiwa Ridge are subject to inundation. This would include the beach road and the small Sagara lot (Lot 234) makai of the road.

Federal Insurance Rate Maps (FIRM) echo this hazard district. The areas makai of the beach road are classified as Zone AE with a floodway elevation of between 5 and 6 feet along the Lanikai beach frontage.

### **3.5 Climate**

The Lanikai area is a semi-arid environment, receiving less than 35 inches of rainfall per year. The Waimanalo station of the National Weather Service states that the average (mean) temperature ranges from 62 to 85 degrees Fahrenheit. Surface winds are predominantly on shore from the Northeast.

### **3.6 Water Quality**

The ocean waters are classified as Marine Waters Class A.

### **3.7 Vegetation and Fauna**

Undeveloped portions of the Kaiwa Ridge are naturalized with coastal scrub vegetation and are dominated by the Kiawe and Koa Haole with an undergrowth of Piligrass and other seasonal groundcovers. This plant community is well suited for this arid coastal environment and provides good erosion control along the steep slopes of the hillside.

The coastal scrub vegetation has been removed at most residential lots along the Kaiwa Ridge and within the Kailua Plain and replaced with ornamental landscape material of greater aesthetic value.

The Sagara Property is typical of many of the residential lots within the Lanikai community. Spider Lilies, Beach Naupaka, Beach Heliotrope, Kamani and Coconut Palms are commonly used and characterize the general landscape of the neighborhood.

No significant, endangered or unusual plant material were identified during site visits. A literature review of EIS reports<sup>1</sup> for projects within the immediate vicinity has identified no significant/ endangered or unusual plant material in the area.

Ocean birds are often sighted in the vicinity. Mokulua Island, located off shore from the Lanikai community is a protected bird sanctuary.

### **3.8 Beach Processes**

The CRM wall and concrete stairway are located a significant distance mauka of the ocean at a base elevation of approximately 10.5 ft. As a result, either the wall nor the stairway affects, obstructs nor influences beach processes.

### **3.9 Coastal Views, Public Shoreline Access and Open Space**

The 1987 DLU Coastal View Study<sup>2</sup> (CVS) identifies the Lanikai area as being within the Kailua Bay Viewshed. The CVS identifies Mokulua Drive (1-1/2 miles) as a resource, providing intermittent views of the ocean. Although having a Mokulua address, the Sagara Property is located several hundred feet

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<sup>1</sup> Lanikai Flood Control Project, EIS, For Dept. of Public Works, by Kwock and Assoc.  
Lanikai Hale, CDUA, by Dames and Moore  
Revised Master Plan for Kailua Beach Park, Department of Parks and Recreation, 1996

beyond this 1-1/2 mile stretch. No other scenic resources are identified in the vicinity.

The CVS identifies coastal landforms as a category of significance, subject to CZM scrutiny. Although lying within the SMA boundary, the CVS does not identify Kaiwa Ridge as a significant coastal landform.

The character of the shoreline area varies. The area immediately fronting the Sagara Property consist of several natural rock outcroppings which serves as the base for the old seawall. The shoreline area immediately east of the Sagara Property contains a fairly wide sand beach and several vertical seawalls and concrete bunkers (WWII) located at the makai edge of the residential lots. The shoreline area immediately west of the Sagara Property consist of a sloping rock revetment with a narrow sand beach during low tide.

There is no designated public shoreline access across or adjacent to the Sagara Property or in the vicinity of the beach road. Lateral public access along the shoreline may be somewhat difficult during high tide conditions due to the rocky conditions.

Lot 234 is landscaped and maintained as private open space. Together with the beach road, it provides a significant open space buffer between the ocean and the developed Sagara Property.

### **3.10 Archaeology and Historic Sites**

No archaeological or historic resources within the vicinity were identified in the literature search. Site visits and DLNR maps have identified several concrete bunkers nearby at the shoreline. It is believed that the bunkers were built during WWII as shoreline defense structures.

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<sup>2</sup> Oahu Coastal View Study, for DLU, by Chu and Jones, 1987

### **3.11 Circulation, Traffic, and Access**

Vehicular circulation originates from the Aalapapa/ Mokulua Drive which loops through the Lanikai community. It is a one way, public street system that carries a relative low volume of residential traffic.

The beach road is a private road. It is narrow, generally unpaved and wide enough for only a single lane of traffic circulation. It is the only vehicular access route serving the four residential lots beyond the Sagara Property.

The beach road tees into the Mokulua Dr./ Aalapaa Dr. intersection where it is paved and fortified with vertical walls on both the mauka and makai sides. The road is unimproved (gravel) from the Sagara Property to Wailea point. No public parking improvements presently exist along the roadway.

No traffic impact analysis was conducted as part of this assessment; however frequent site visits indicate that usage of the beach road is extremely light and consists primarily of local traffic (residence) and service vehicles associated with the utility easements in the road. The beach road is private; however, there are no gates or other barrier that controls access along this route.

The CRM wall has been constructed entirely within the Sagara Property and does not encroach into or impair traffic circulation at the beach road. By retaining the slope, the wall enhances circulation and access along the beach road. House lots further towards Wailea Point, utility companies (HECO) and the City and County appear to benefit from this improvement.

The concrete stairway is 3 feet wide structure that extends from the Sagara dwelling unit to the beach road. It is convenient pathway that permits pedestrian circulation from the upper lot to the lower lot. The concrete stairway

does not impair, interfere or obstruct pedestrian or vehicular circulation and/ or access.

\*\*\*\*\*

#### 4. Applicable Land Use Controls

State Land Use	Urban
Development Plan	Residential
Zoning	R-10
Flood Zone	AE el. 5 ft.
SMA	Yes
Shoreline Setback	Yes

Three land use controls may be applicable in reviewing the CRM wall and stairway encroachment. These include the general and R-10 development standards contained in the Land Use Ordinance (LUO); Chapter 23, Shoreline Setback; and Chapters 15, Shoreline Setback Rules regarding minor structures. The subject property is within the SMA boundary. However, application for a Special Management Use Permit at the subject property is not required due to Sec. 25-13 Definitions:

- (2) *Development does not include the following:*
  - (A) *Development of a single family residence that is not part of a larger development.*

##### 4.1 Land Use Ordinance

Portions of the CRM retaining wall (lower terrace) are located within the 5 ft. rear yard setback. Section 3.40 of the LUO allows walls to be constructed within this setback provided that the wall does not exceed 6 ft. in height.

Exhibit 4, Site Cross Section, illustrates the design of the wall relative to the topography. The portions of the CRM wall that lies within the yard setback is 6 ft. in height. The second and third terraces of the wall exceed 6 ft. however they are located beyond the 5 ft. setback.

##### 4.2 Shoreline Setback

The purpose of Chapter 23 ROH, Shoreline Setbacks, is

*"to protect and preserve the natural shoreline, especially sandy beaches; to protect and preserve public pedestrian access laterally along the shoreline and to the sea; and to protect and preserve open space along the shoreline. It is also a secondary policy of the city to reduce hazards to coastal property from coastal floods."*

Chapter 23 establishes a 40 ft. shoreline setback, as measured inland from a certified shoreline. No activities or structures are permitted within this setback area. The Building Department's Notice of Violation and the DLU's Notice of Order specifically cite the CRM wall as being in violation of Section 23-1.5 (b).

*Section 23-1.5 (b)- Structures and activities are prohibited within the shoreline area, with the following exceptions:*

- (1) Minor structures and activities permitted under rules adopted by the department which do not affect beach process or artificially fix the shoreline and do not interfere with public access, public views or open space along the shoreline. If, due to beach erosion or other cause, the director determines that a minor structure permitted under this section may affect beach processes or public access or has become located seaward of the shoreline, the director or other governmental agency having jurisdiction may order its removal;*
- (2) Minor structures and activities necessary for or ancillary to continuous, but not expansion, of agriculture or aquaculture in the shoreline area on June 16, 1989;*
- (3) Maintenance, repair, reconstruction and minor additions to or alterations of legal, publicly owned boating, maritime, or ocean sports recreational facilities, which result in little or no interference with natural shoreline processes. Privately owned boating, maritime, or ocean sports recreational facilities are specifically excluded from this exception;*
- (4) Nonconforming structures or structures that have received shoreline setback variances.*

Chapter 23 also provides for the granting of variances within the shoreline setback area. Variance criteria are listed under Sec. 23-1-.8. Criteria which may apply to the cited CRM wall are as follows:

*Sec. 23-1.8 (a)- The director may grant a variance upon finding that, based upon the record presented, the proposed structure or activity is necessary for or ancillary to:*

- (3) Landscaping; provided that the proposed structure or activity will not adversely affect beach processes and will not artificially fix the shoreline;*

Due to its design and functional characteristics, the CRM wall may be considered a landscape element, providing both utilitarian and aesthetic value to the property. The CRM wall replicates the basic shape and incline of the

hillside and forms three terraced/ linear planters that run the full width of the wall structure. The location of the CRM wall does not affect beach processes nor does it artificially fix the shoreline.

*(1) Hardship Standard.*

- (i) The applicant would be deprived of reasonable use of the land if required to comply fully with the shoreline setback ordinance and the shoreline setback rules;*

Full compliance with the shoreline setback ordinance is not possible. The applicant is unable to acquire a certified shoreline due to a seawall encroachment within State land. The seawall was not constructed by the applicant and it was in existence at least 20 years prior to his acquiring the property. Removal and relocation of the existing CRM wall in accordance with shoreline setback rules (waiver line) may jeopardize the stability of the property and may undermine the foundation of the present dwelling unit. Full compliance with the shoreline setback ordinance at this point in time would significantly impact the usability of the property and the existing house.

*(1) Hardship Standard.*

- (ii) The applicant's proposal is due to unique circumstances and does not draw into question the reasonableness of this chapter and the shoreline setback rules.*

The unique circumstances which are applicable to the variance request includes (a) the unusually steep topographic conditions of the site; (b) the soil conditions which have high erodability characteristics; and (c) the relationship of the CRM wall to the beach road; and (d) the location of the wall relative to the intersecting Kailua Coastal Plain and Koolau Cliff and Valley landforms.

These conditions created a unique situation in which an engineering solution, such as the CRM wall, was essential to facilitate the safe development of the Sagara Property and to relieve the potential erosional threat to the beach road.



The applicant's variance request does not challenge the rationale or the reasonableness of Chapter 23 and its accompanying rules. The applicant's justification for a variance is instead based on the unique site conditions listed above and established criteria contained within Chapter 23 and the Shoreline Setback Rules.

*(1) Hardship Standard.*

*(iii) The proposal is the practicable alternative which best conforms to the purpose of this chapter and the shoreline setback rules.*

Located at the intersection of the Kaiwa Ridge and Kailua Plain, the CRM wall is ideally sited to provide maximum engineering efficiency, while conforming to the spirit of the shoreline setback ordinance and rules. The CRM wall has resulted in negligible impact to the coastal landform and shoreline environment; benefits the neighborhood by providing protection to the beach road; and is an aesthetic contribution to the environment.

The design and location of the CRM wall is a practicable alternative to locating the retaining wall further inland which would require a significantly greater amount of grading and removal of the base of the Kaiwa Ridge; would require a larger wall structure; and would increase the amount of area along the shoreline area that is susceptible to hazards by way of coastal flooding and storm/ high wave inundation.

#### **4.3 Chapter 15, Shoreline Setback Rules**

Chapter 15, Shoreline Setback Rules pertains to minor structures which are permitted within the shoreline setback area.

*15-1 Applicability*

*(a) Minor structures and activities may be permitted in the shoreline setback, if they do not affect beach processes or artificially fix the shoreline; do not interfere with public access, public views or open space along the shoreline; and do not otherwise endanger the public health, safety or welfare.*

*(b) Minor structures and activities include, but are not limited to the following:*

*(7) Masonry headers or pavers needed for a border or pathway; areas of pavers or headers shall not be greater than 20 square feet and when combined with all other structures within the shoreline setback, shall comprise no more than 10 percent of the area between the shoreline and shoreline setback line;*

Elements of Chapter 15 as described above may be applicable to the concrete stairway cited in the Notice of Violation. The stairway is constructed with masonry material and is a pedestrian scale pathway which enables the property owner basic access to his lower lot. Treads, risers and a safety hand rail are incorporated as a means of negotiating the grade. While the stairway may exceed 20 sf, and in combination with the CRM wall may exceed the allowable area between the shoreline and shoreline setback line, substantial open space (3150 sf) along the ocean frontage remains as a result of Lot 234 (1950 sf) and the beach road (1200 sf). Due to the perpetual right of way easement associated with the beach road and the inability to develop Lot 234, continuation of this open space is reasonably assured.

\*\*\*\*\*

## 5. Alternatives

Based on the findings of this report, issuance of a shoreline setback variance is considered to be the most reasonable approach to correcting the CRM wall and stairway citation. Section 4 of this assessment identifies several variance criteria that may be applicable. Alternatives to the shoreline setback variance were considered. These include the following:

### Alternative A: No Action

The "no action" alternative would not relieve the property owner of the citation issued by the City and County of Honolulu.

### Alternative B: Relocate CRM Wall and Stairway

Relocation of the CRM wall was considered. Under this alternative it is estimated that a minimum of 50% of the existing wall would be affected. There are several serious and/or prohibitive factors associated with this alternative.

1. Substantial demolition, excavation and expense would be required to relocate the wall in a mauka direction.
2. The exact shoreline setback cannot be determined without a certified shoreline. Without the certified shoreline, over excavation and an exaggerated setback may be necessary to insure conformance to the intent of the setback requirement. Unnecessary removal and scarification to the base of the Kaiwa Ridge would likely occur.
3. During the demolition and excavation process, instability of the slope may occur and threaten the foundation of the existing dwelling unit.
4. Substantial disruption to circulation and access along the beach road would likely occur.

Due to the steep terrain, removal of the existing concrete stairway would create a hazard for the property owner and would eliminate pedestrian circulation between the property owner's upper and lower lot.

Alternative B is considered to be impractical for the reasons outlined above. It would not serve any public benefit nor fulfill any of the stated purposes of Chapter 23. Implementation of Alternative B or similar measure may result in adverse environmental impacts which exceed acceptability.

\*\*\*\*\*

## 6. Impacts and Mitigative Measures

### 6.1 Evaluation of Environmental Impacts

An evaluation of the proposed action is provided relative to the Significance Criteria contained in the Environmental Impact Statement Rules, Title 11, Chapter 200.

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

The application is for an after the fact shoreline setback variance to permit a CRM retaining wall (constructed in 1985). Granting this variance would require no construction activities and no irrevocable commitment, loss or destruction of resources would occur.

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

The beneficial uses of the environment consist of open space along the shoreline, vehicular ingress/ egress to the house lots at Wailea Point and utility easements. Granting of a shoreline setback to permit the existing CRM wall to remain in its present location would not disturb, curtail or prevent these functions and/ or activities from continuing.

Comments from the Department of Parks and Recreations indicate that existing CRM wall "does not have any significant impact on recreational resources in the area."

*(3) Conflicts with the State's long range 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 CRM wall does not conflict with the policies, goals or guidelines expressed in Chapter 344, HRS.

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

No affects upon the economics or social welfare of the community or the State are anticipated by granting the requested shoreline setback variance.

*(5) Substantially affects public health;*

No affects upon public health are anticipated by granting the requested shoreline setback variance.

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

No secondary impacts are anticipated by granting the requested shoreline setback variance.

*(7) Involves a substantial degradation of environmental quality;*

Allowing the existing CRM wall to remain would not degrade the existing environmental quality.

*(8) Is individually limited but cumulatively has considerable effect upon the environment or involves a commitment for larger action;*

There are no cumulative impacts associated with the requested variance. On the other hand, removal of the CRM wall would result in a commitment for larger actions to include significant grading and removal of portions of the base of the existing hillside (coastal land form) in order to accommodate another wall further inland to stabilize the exiting house.

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

The existing CRM wall has no affect on rare, threatened or endangered species, or their habitats.

*(10) Detrimentially affects air, or water quality or ambient noise levels; or*

The existing CRM wall has no detrimental affects on air or water quality, or ambient noise levels.

*(11) Affects an environmentally sensitive area such as a flood plain, tsunami zone, erosion-prone area, geologically hazardous land, estuary, fresh water, or coastal waters.*

The existing CRM wall has a beneficial effect on an environmentally sensitive area. As a retaining wall, it minimizes the potential for erosion

from the hillside and separates the residentially zoned property from the flood zone near the shoreline.

## **6.2 Determination**

This environmental assessment finds no condition where the existing CRM wall or the existing concrete stairway has adversely impacted the natural shoreline, inhibited public shoreline access, reduced open space or encroached into public coastal views. Nor are there any indications that the continued presence of the wall and stairway would or has resulted in any significant adverse environmental impacts as described in the significance criteria (11-200-12, EIS Rules, nor does the wall pose a conflict to the policies, goals or guidelines as contained in Chapter 344, HRS.

Considering the topographic and soils condition of the site; the location of the wall relative to the Kailua Plain and the Kaiwa Ridge; the utility easements and ingress/ egress at the adjacent Beach Road; and the aesthetic appearance of the CRM wall, this environmental assessment finds the CRM wall to have distinct, practical and life/ safety benefits to the neighborhood. Furthermore, with the exception of failing to meet a prescribed 40 ft. distance, this environmental assessment finds that the CRM wall is actually positioned to best serve the underlying intent of Chapter 23 and the Shoreline Setback Rules.

The absence of any significant impacts and the unique set of conditions described above forms the basis and rationale for granting the variance request. These findings are responsive to the variance criteria of Chapter 23.

Should a shoreline setback variance for the CRM wall be granted per the applicant's request, no short, long term or cumulative impacts are anticipated. On the other hand, removal of the wall would require aggressive construction activities as outlined under Alternative B in section 5 of this report, far outweighing any public benefit.

Similarly, no adverse environmental effects have been identified in connection with the concrete stairway. As with the CRM wall, no short or long term impacts are anticipated. Its removal would result only in the elimination of pedestrian access between the property owner's upper and lower Lots.

Should a shoreline setback variance be granted, enabling the existing CRM wall and concrete stairway to remain within the 40 ft. setback, the wall and stairway would become classified as "nonconforming" but permissible (i.e. lawful) under Section 23-1.6. Repairs and/or alteration would be permitted in a manner that does not increase its nonconformity. Should the wall or stairway be destroyed by any means to an extent greater than 50% of its replacement cost at the time of its destruction, it shall not be reconstructed except in conformity with the provisions of Chapter 23.

### **6.3 Mitigative Measures**

Because no significant short, long term or cumulative impacts are anticipated, no mitigative measures are proposed for the existing CRM wall or concrete stairway.

\*\*\*\*\*



## 7. Summary and Conclusions

### 7.1 Summary

Although site investigations confirm the encroachment of the CRM wall and concrete stairway into the shoreline setback area, substantial information supports the necessity and desirability of the wall in its present location; and the concrete stairway as a minor structure.

- The topographic and soil conditions of the site strongly suggest the possibility of erosion and/ or sliding from the upper slopes of the property.
- The CRM wall benefits the neighborhood by protecting and maintaining access along the beach road. This access is critical for the residences located toward Wailea Point, for emergency vehicles, HECO and the City and County of Honolulu. There are no other access routes available.
- The wall helps to protect properties from coastal flooding.
- The design of the wall is complimentary to the neighborhood. It is sensitively designed with lava rock and planting terraces, and it sympathetic to the natural form of the hillside.
- Its location at the precise intersection of the Kaiwa Ridge and the Kailua Coastal Plain is a practical solution.

Through the course of this assessment, no significant adverse environmental effects were discovered that relate to the presence of the existing CRM wall, nor does the wall or stairway conflict with the stated purpose of Chapter 23, Shoreline Setbacks.

- No significant short, long term or cumulative impacts have been identified or expressed by any reviewing agency or community group.
- The wall and stairway do not artificially fix the shoreline nor do they affect beach processes.
- The wall and stairway do not interfere with nor obstruct public shoreline access.

- The area between the ocean and the CRM wall is dominated by open space.
- The concrete stairway is a minor structure that provides basic access between the property owner's upper and lower lots.

Removal of the CRM wall or the concrete stairway would serve no public purpose, and may result in adverse environmental impacts.

- A significant construction effort would be required to relocate the wall. Access along the beach road, potential erosion of the hillside and underpinning of the foundations at the existing dwelling unit would pose significant technical and logistic problems.
- A replacement wall or other means of securing the hillside would not necessarily be as beneficial to the neighborhood.
- Adverse alterations to the coastal land form may occur as a result of removing/ relocating the wall in a mauka direction.

## **7.2 Conclusions**

Because the CRM wall benefits the neighborhood and does not conflict with the purpose of Chapter 23, it would be reasonable for the accepting Agency to concur with these findings and conclude that no adverse environmental effect has occurred in the past or will occur in the future; and that the granting of a shoreline setback variance would be a rational solution to correcting the property owner's Notice of Violation. There would be no perceived risk to individuals or to the public health and safety through the granting of the variance.

\*\*\*\*\*

*Appendix A, Comments &  
Responses to Draft EA*

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City Department of Parks and Recreation

City Department of Public Works

State Department of Health

Department of the Army

State Office of Environmental Quality Control

State Department of Land and Natural Resources

Lanikai Community Association

DEPARTMENT OF PARKS AND RECREATION  
**CITY AND COUNTY OF HONOLULU**  
300 SOUTH KING STREET  
HONOLULU, HAWAII 96813



September 26, 1996

**TO:** PATRICK T. ONISHI, DIRECTOR  
DEPARTMENT OF LAND UTILIZATION

**FROM:** DONA L. HANAIKE, DIRECTOR

**SUBJECT:** ENVIRONMENTAL ASSESSMENT (EA), CHAPTER 343, HRS  
PROJECTS WITHIN THE SHORELINE SETBACK  
SAGARA AFTER-THE-FACT CRM WALL AND CONCRETE STAIRWAY  
1607 MONULUA DRIVE, LANIKAI  
TAX MAP KEY 4-3-001:016  
PROJ. REF. NO. 96/SV-007

Thank you for the opportunity to review the draft environmental assessment and Shoreline Setback Variance for the Sagara property.

Based upon the information presented in the application and the EA, we have determined that the cited shoreline encroachment does not have any significant impact on recreational resources in the area.

Should you have any questions or comments, please contact Terry Hildebrand of our Advance Planning Branch at extension 4246.

DLH:el

*Dona L. Hanaike*  
DONA L. HANAIKE  
Director

DONAL HANAIKE  
DIRECTOR  
ALVIN K. CHU  
DEPUTY DIRECTOR

18 SEP 27 AM 11:40  
DEPT. OF LAND UTILIZATION  
CITY & COUNTY OF HONOLULU

MIKI HANAIKE ARCHITECT  
**LAND ARCHITECT**  
PLANNING • LANSING AVE. SUITE 1107 • HONOLULU, HI

20 November 1996

Ms. Dona Hanaike, Director  
City and County of Honolulu  
Department of Parks and Recreation  
650 S. King Street  
Honolulu, HI 96813

**SUBJECT:** Comments on Draft Environmental Assessment  
Sagara After the Fact CRM Wall and Concrete Stairway, Lanikai,  
Oahu

Dear Ms. Hanaike:  
Thank you for taking the time for reviewing our Draft Environmental Assessment. Based on your letter dated September 26, 1996 we understand your department has concluded that the application has no significant impact on recreational resources in the area.

Yours Truly  
cc: Gary Slovin

*Michael S. Chu*  
MICHAEL S. CHU

DEPARTMENT OF PUBLIC WORKS  
**CITY AND COUNTY OF HONOLULU**  
 400 SOUTH KING STREET  
 HONOLULU, HAWAII 96813



STEWART SPRAGUE  
 DIRECTOR AND CHIEF ENGINEER  
 DEPARTMENT OF PUBLIC WORKS  
 ENV 88-88-225

September 10, 1996

SEP 19 AM 11:32  
 DEPT. OF LAND UTILIZATION  
 CITY & COUNTY OF HONOLULU

**MEMORANDUM**

**TO:** PATRICK T. ONISHI, DIRECTOR  
 DEPARTMENT OF LAND UTILIZATION

**FROM:** *for* KENNETH E. SPRAGUE  
 DIRECTOR AND CHIEF ENGINEER

**SUBJECT:** ENVIRONMENTAL ASSESSMENT (EA)  
 SAGARA AFTER-THE-FACT CRM WALL AND CONCRETE STAIRWAY  
 TMKI 4-1-011-16

We have reviewed the subject EA and have no comments to offer at this time.  
 If you have any questions, please contact Alex Ho, Environmental Engineer, at Local 4150.

MICHAEL S. CHU  
**LAND ARCHITECT**  
 PLANNING • LANDMARK ARCHITECTURE • URBAN DESIGN

20 November 1996

Mr. Kenneth E. Spragues, Director and Chief Engineer  
 City and County of Honolulu  
 Department of Public Works  
 650 S. King Street  
 Honolulu, HI 96813

**SUBJECT:** Comments on Draft Environmental Assessment  
 Sagara After the Fact CRM Wall and Concrete Stairway, Lanikai,  
 Oahu

Dear Mr. Spragues:  
 Thank you for taking the time for reviewing our Draft Environmental Assessment. Based on your letter dated September 18, 1996 we understand that your Department has no comments to offer at this time.

Yours Truly  
 cc: Gary Slovin

*Michael S. Chu*

MICHAEL S. CHU

RECEIVED  
OCT 31 11 00  
DEPT. OF LAND UTILIZATION  
CITY & COUNTY OF HONOLULU



STATE OF HAWAII  
DEPARTMENT OF HEALTH  
P.O. BOX 3378  
HONOLULU HAWAII 96813

October 25, 1996

96-153/epo

Mr. Patrick Oniehi  
Director, Department of Land Utilization  
City and County of Honolulu  
650 South King Street  
Honolulu, Hawaii 96813

Dear Mr. Oniehi:

Subject: Environmental Assessment, Chapter 343, HRS  
Projects Within the Shoreline setback (96/SV-007)

Project Name: Sagara After-the-Fact CRM Wall And  
Concrete Stairway  
Location : 1607 Mokuua Drive, Lanikai, Oahu  
TXK : 4-3-01: 16

Thank you for allowing us to review and comment on the subject  
after-the-fact project. We do not have any comments to offer at  
this time.

Sincerely,

BRUCE S. ANDERSON, Ph.D.  
Deputy Director for Environmental Health

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96-01804

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10/25/96 10:00 AM

MR. MICHAEL S. CHU  
LAND ARCHITECT  
125 QUEEN STREET, SUITE 306 • HONOLULU, HAWAII 96813 • TELEPHONE (808) 537-4674 • FAX (808) 521-9054

20 November 1996

Mr. Bruce S. Anderson, Ph.D.  
Department of Health  
P.O. Box 3378  
Honolulu, HI 96801

SUBJECT: Comments on Draft Environmental Assessment  
Sagara After the Fact CRM Wall and Concrete Stairway, Lanikai,  
Oahu

Dear Mr. Anderson:

Thank you for taking the time for reviewing our Draft Environmental  
Assessment. Based on your letter dated Oct. 25, 1996 we understand that your  
Department has no comments to offer at this time.

Yours Truly

MICHAEL S. CHU

cc: Gary Slovin

125 QUEEN STREET, SUITE 306 • HONOLULU, HAWAII 96813 • TELEPHONE (808) 537-4674 • FAX (808) 521-9054



DEPARTMENT OF THE ARMY  
U.S. ARMY ENGINEER DISTRICT, HONOLULU  
FT. SHAWNEE, HAWAII 96813-9000

ATTENTION OF

Operations Branch

October 3, 1996

Mr. Patrick T. Onishi  
Director

Department of Land Utilization  
City and County of Honolulu  
650 South King Street  
Honolulu, Hawaii 96813

Dear Mr. Onishi:

This is in reply to your request dated September 11, 1996, for comments on the draft Environmental Assessment to issue a variance for the Sagara property After-the-Fact CRM Wall and Concrete Stairway, located at 1607 Mokuia Drive (TMK 4-3-01: 16), Lanikai, Oahu Island. Based on the information provided, I have determined that the DEIS does not involve any specific activities or structures involving work in waters of the United States. Therefore a DA permit is not required. In the future, if the applicant proposes activities in or near jurisdictional waters, consultation should take place with our Operations Branch at 438-9258 to determine if a DA permit may be required.

*Rosemary C. Hargrave*  
ROSEMARY HARGRAVE  
Acting Chief, Operations Branch

MICHAEL S. CHU  
LAND ARCHITECT  
PLANNING, DESIGN AND ARCHITECTURE CONSULTANTS

20 November 1996

Ms. Rosemary Hargraves  
Department of the Army  
U.S. Army Engineer District, Honolulu  
 Ft. Shaller, Hawaii 96858

SUBJECT: Comments on Draft Environmental Assessment  
Sagara After the Fact CRM Wall and Concrete Stairway, Lanikai,  
Oahu

Dear Ms. Hargraves:

Thank you for taking the time for reviewing our Draft Environmental Assessment. Based on your letter dated October 3, 1996 we understand that your Department has no comments to offer at this time.

Yours Truly

cc: Gary Slovin

MICHAEL S. CHU

44-01209

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DEPT OF LAND UTILIZATION  
650 S KING ST 7TH FL  
HONOLULU HI 96813

44-01209 15:51 96.02 NOV 0885475888:10 07NOV09H 11150009

126 QUEEN STREET, SUITE 306 • HONOLULU, HAWAII 96813 • TELEPHONE (808) 537-4674 • FAX (808) 571-9054

BENJAMIN J. CAVETAKO  
DIRECTOR



STATE OF HAWAII  
OFFICE OF ENVIRONMENTAL QUALITY CONTROL

220 SOUTH KING STREET  
FOURTH FLOOR  
HONOLULU, HAWAII 96813  
TELEPHONE: 586-4185  
FACSIMILE: 586-4185

October 22, 1996

GARY GILL  
DIRECTOR

Mr. Patrick T. Onishi  
Director of Land Utilization  
City and County of Honolulu  
650 South King Street  
Honolulu, Hawaii 96813

Dear Mr. Onishi:

Subject: Comments on the Draft Environmental Assessment for the  
Sagara After-the-Fact CRM Wall and Concrete Stairway

Thank you for the opportunity to review the subject document. We  
have the following comments.

1. Makai of Sagara's retaining wall and stairway there exists a  
seawall, lot 234, and a 12-foot wide private beach road.  
The Department of Land and Natural Resources believes that  
the existing seawall is located makai of the Shoreline.  
Should the State decide to remove the existing seawall, what  
would the impacts be on lot 234, the private beach road and  
Sagara's retaining wall and stairway?
2. Please provide reasons for supporting the determination  
based on an analysis of the significance criteria in section  
11-200-12 of the 1996 Hawaii Environmental Impact Statement  
Rules.
3. Please specify in the environmental assessment the name of  
the approving agency.

Should you have any questions please call Jeyan Thirugnanam at  
586-4185.

Sincerely,

Gary Gill  
Director

c: Michael Chu

21 November 1996

Mr. Gary Gill  
Office of Environmental Quality Control  
220 South King Street 4th Flr.  
Honolulu, HI 96813

SUBJECT: Comments on Draft Environmental Assessment  
Sagara After the Fact CRM Wall and Concrete Stairway, Lanikai,  
Oahu

Dear Mr. Gill:

Thank you for taking the time for reviewing our Draft Environmental  
Assessment. Our response to your comments are provided and will be  
incorporated into the final EA.

\*\*\*\*\*

Removal of Seawall

According to the R.M. Towill topographic survey, the seawall lies makai of the  
Sagara property (Lot 234). It is unknown when or under what conditions this  
seawall was built. A review of aerial photos indicate that the seawall existed  
at least prior to 1961. Sagara did not acquire his property until 1985.

Should the State decide to remove the seawall, it would not be  
unreasonable to expect rapid erosion to occur at Lot 234 as a result of wave  
action along the unprotected shoreline. The erosion may advance beyond  
the lot and undermine the Beach Road, exposing the underground utilities  
(sewer). The erosion process may also move laterally and affect the  
properties adjacent to Lot 234.

The act of removing the seawall may require temporary construction activity  
in coastal waters. Based on comments received from the Department of the  
Army, a Department of the Army (DA) permit may be required. Because the  
seawall is located on State land (Conservation District) a CDUA permit may  
also be required for its demolition. These permits may trigger the need for  
more detailed evaluation of impacts associated with such action.

Because this application is focused on the CRM wall and not the seawall  
(not its removal), this evaluation has not been performed.



**Accepting Agency**  
The accepting agency for this application is the City and County of Honolulu,  
Department of Land Utilization. This will stated in the final EA.

**Significance Criteria, section 11-200-12**  
We have reviewed the significance criteria and have determined that no  
significant impacts, either short, long term or cumulative, would occur  
through the granting of the variance. Our final EA will contain a detailed  
response to each of the eleven items contained in this section.

Please feel free to call me if you have any further comments or questions  
regarding our response.

Yours Truly

cc: Gary Slovin



MICHAEL S. CHU



STATE OF HAWAII

DEPARTMENT OF LAND AND NATURAL RESOURCES

HONOLULU, HAWAII 96813

36 OCT 16 PM 12 07

DEPUTY DIRECTOR

ROBERT S. COLOMAGARAN

AGRICULTURE DEVELOPMENT

PLANNING

PLANNING AND OCEAN RECREATION

RESOURCES DEVELOPMENT

CONSERVATION AND

LAND DIVISION

STATE PARKS

WATER RESOURCES MANAGEMENT

Hon. Patrick T. Onishi, Director  
Page 2

The two remedies to correct the encroachment would be 1) removal of the encroachment from the State lands, or 2) the issuance of a legal land disposition to the Board of Land and Natural Resources to legalize the seawall which is located on the land. We would like to point out that at this time, the Land Board is not in a position to issue seawalls or ocean revetments which are located on sandy beaches due to the effect of the hardening of the beaches.

LAND DIVISION - PLANNING AND TECHNICAL SERVICES BRANCH

If the subject wall was built outside of the property metes and bounds, subsequent adoption of the Conservation in 1964, a violation of the Conservation District Rules have occurred.

HISTORIC PRESERVATION DIVISION

A review of our records shows that there are no known historic sites at this location. Because this is an after-the-fact application, and additional erosion control measures were not planned, we believe that this after-the-fact authorization has "no effect" on the sites.

Thank you for the opportunity to review the Environmental Assessment. We have further comments to offer at this time. Should you have any questions, please contact Patti Miyashiro at 587-0430 of our Land Division.

Aloha,

*Michael D. Wilson*  
MICHAEL D. WILSON

cc: Oahu Land Board Member  
Member at Large

Ref.: LD-PEM

Honorable Patrick T. Onishi, Director  
Department of Land Utilization  
City and County of Honolulu  
650 South King Street  
Honolulu, Hawaii 96813

Dear Mr. Onishi:

File No. PM-96-025

Subject: Request for Comments - Environmental Assessment, Sagara After-The-Fact CRM Wall and Concrete Stairway, Lanikai, Oahu

The following is additional comments regarding the subject Environmental Assessment prepared for the above project:

Land Division - Oahu District Land Office

The Oahu District Office of the Land Division has been unable to prevent the construction of revetment walls and other improvements within the forty foot setback area as designated by the City and County of Honolulu, if the improvements are mauka of the shoreline (not in the conservation district), and are located on private property.

However, as the shoreline certification for the subject property, as applied for by R.M. Towill, was rejected by the Department of Land and Natural Resources on May 20, 1996 due to encroachment upon State land, we insist that the encroachment be resolved. As it stands, the property would be ineligible to receive a shoreline certification as issued by the Department of Land and Natural Resources, State of Hawaii.

As we understand it, the violations of the shoreline setback involve an existing retaining wall and concrete stairway constructed within the forty foot setback area, while the encroachment on State-owned lands involve an existing seawall which was obviously built on State land. The violations appear flagrant and without adherence to regulations governing littoral lands.

# CORRECTION

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



MICHAEL S. CHIU  
**LAND ARCHITECT**  
PLANNING • LANDSCAPE ARCHITECTURE • URBAN DESIGN

2 December 1996

Mr. Michael D. Wilson  
Department of Land and Natural Resources  
1151 Punchbowl Street  
Honolulu, HI 96813

**SUBJECT:** Comments on Draft Environmental Assessment  
Sagara After the Fact CRM Wall and Concrete Stairway, Lanikai,  
Oahu

Dear Mr. Wilson:

Thank you for taking the time for reviewing our Draft Environmental Assessment. Our response to your comments are as follows:

Based on your comments, it is understood that the seawall may be in violation of the Conservation District Rules. The subject of the draft EA however is focused on an existing CRM wall and concrete stairway which are located mauka of the shoreline area and within the applicants property. Removal of the seawall or a request for a legal land disposition to legalize the seawall is not proposed under the subject application.

We understand that the requested variance has "no effect on historic sites."

Please feel free to contact me if you have any further comments or questions.

Yours Truly



MICHAEL S. CHIU



SENT BY: 10-10-96 13:48 PACIFIC LAND 80AS276743: # 2/ 2

Mr. Patrick T. Onishi  
Page 2  
October 10, 1996

Mr. Onishi, we appreciate your asking our thoughts on the variance applications by Sagara Trucking. Frankly, the real situation is of much greater concern to the Association.

Sincerely,

THE LANIKAI ASSOCIATION

*Ned Dewey*  
By Ned Dewey  
Its President

cc: Gary Slavia  
Goodall, Anderson, Quinn & Sibley

October 10, 1996

VIA FACSIMILE 217-6743  
Mr. Patrick T. Onishi  
Director, Department of Land Utilization  
City & County of Honolulu  
650 S. King Street  
Honolulu, Hawaii 96813

Re: TMK: 4-3-0116, Sagara Trucking Request for Variances

Dear Mr. Onishi:

On October 8, 1996, the Land Use Board of Directors reviewed the two requests for variance at the above referenced property. It is our understanding that the property owner, Sagara Trucking, is requesting a variance for the CRM wall and concrete stairway which encroaches into the 40' shoreline setback area and the portion of the structure which contains an elevator which encroaches into another setback area.

While it is the policy of the Lanikai Association to not support variance requests after the fact, the Board of Directors unanimously voted to support these two requests for variance. It was determined that the encroachments were benign and that there was no demonstrated intent by the applicant to circumvent the regulations at the time of construction and seek approval after the fact.

At our site visit to the property, we noticed that concrete walls had been constructed along the access easement to Wailea Point. It appears that these walls are only 12' apart. We are very concerned that these walls will prevent emergency vehicle, and especially fire truck, access to residences at the end of Wailea Point. Did the City issue permits for these walls?

OCT 10 PM 4:30  
REPT. OF LAND UTILIZATION  
& COUNTY ENGINEERING

96-07354  
96-07355

10-10-96 13:48 PACIFIC LAND 80AS276743: # 2/ 2

## *Appendix B, List of Exhibits*

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Exhibit 1:	Location Map
Exhibit 2:	TMK Map
Exhibit 3:	Site Photos and Maps
Exhibit 4:	Site Cross Section
Exhibit 5:	Site Plan, 1985
Exhibit 6:	Site Plan, 1986
Exhibit 7:	Topographic Survey, 1996
Exhibit 8:	Scenario A, Extent of Encroachment
Exhibit 9:	Scenario B, Extent of Encroachment









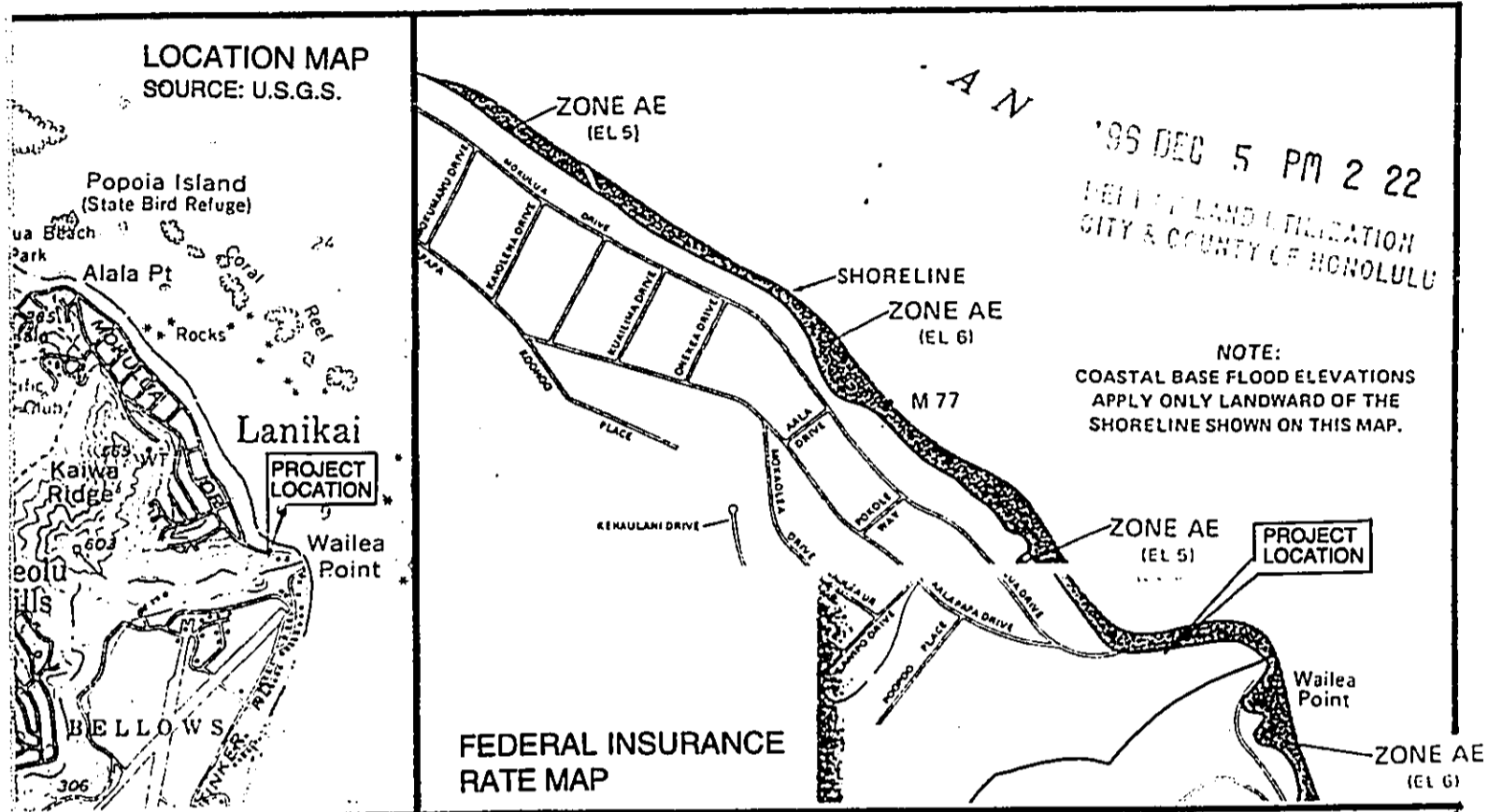


PHOTO B

**PHOTO A**

View of existing CRM retaining wall looking SE toward Waimanalo. Photo shows wall design with planteras located between terraces. Note continuation of beach road to property beyond. Bottom of wall is located inside Lot 238. Bottom of wall= 10 ft. (approx). Top of wall= 30.3 ft. (approx.).

**PHOTO B**

View of existing CRM retaining wall looking NW towards Kailua. The beach road extends to Mokulua Drive. The grassy area to the right is the Sagara property, Lot 234.

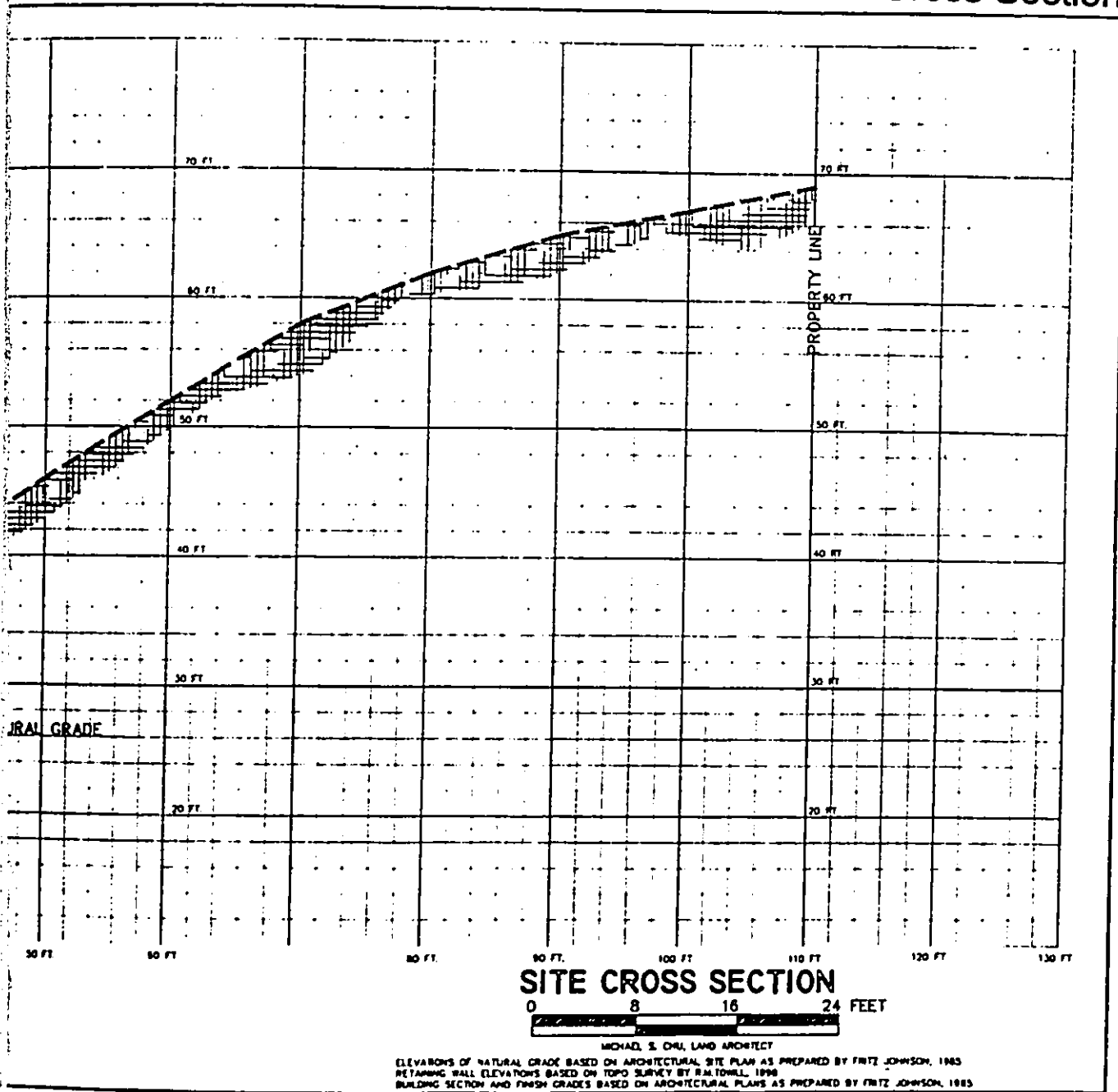
**Exhibit 3  
Site Photos and  
Reference Maps**



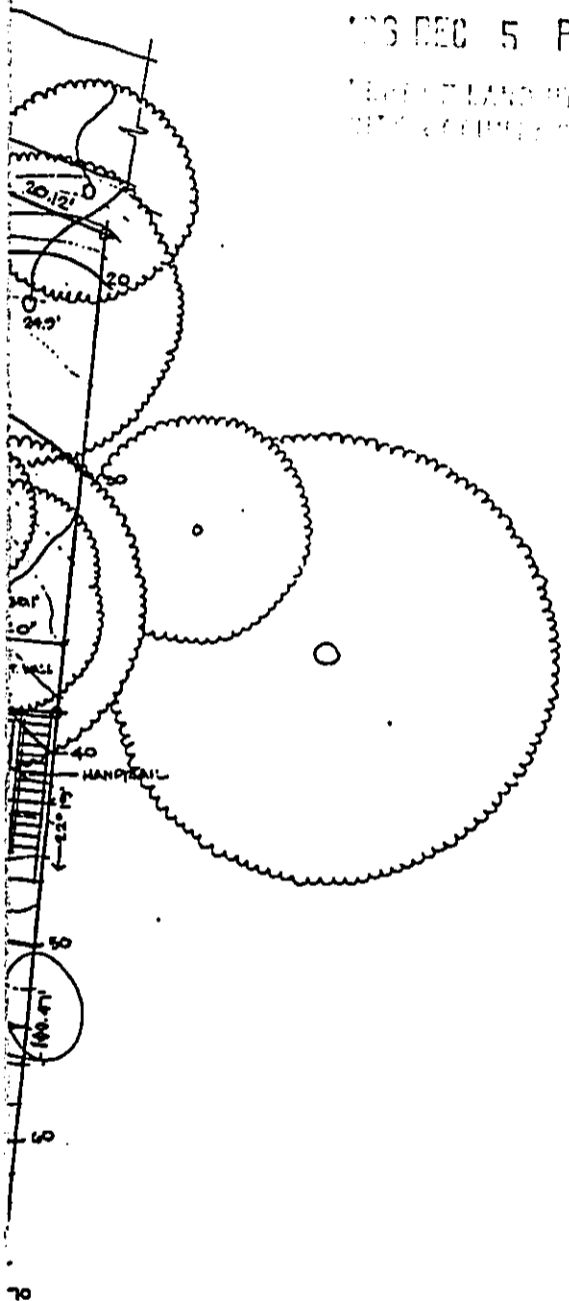
'96 DEC 5 PM 2 22

DEPT OF LAND UTILIZATION  
CITY & COUNTY OF HONOLULU

### Exhibit 4 Site Cross Section







1985 DEC 5 PM 2 22  
 LAND UTILIZATION  
 CITY & COUNTY OF HONOLULU

**PROJECT INFORMATION**

ADDRESS: 1607 Mokulua Drive, Lanikai  
 T.M.K.: 4-3-1-16: 238 & 239  
 ZONE: R-3  
 LOT AREA: 17,791 sq. ft.  
 ALLOWABLE LOT COVERAGE: 8,895.5 sq. ft. (50% of Lot area)  
 LOT COVERAGE: 68,51.71 sq. ft.

**GENERAL NOTES**

1. CONTRACTOR TO VERIFY ALL FIELD DIMENSIONS & CONDITIONS PRIOR TO STARTING WORK. ALL OMISSIONS BETWEEN VARIOUS ELEMENTS OF THE WORKING DRAWINGS AND OR SPECS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT STARTING.
2. ALL DIMENSIONS ARE FROM FACE OF STUD TO FACE OF STUD, UNLESS OTHERWISE NOTED.
3. ELEVATOR TO BE INSTALLED BY OTHERS. CONTRACTOR TO COORDINATE ELEVATOR SHAFT W/ INSTALLER. (PERMIT BY OTHERS)
4. A.C. SYSTEM TO BE INSTALLED BY OTHERS. CONTRACTOR TO COORDINATE CONSTRUCTION WITH INSTALLER. (PERMIT BY OTHERS)
5. FISH POND & FOUNTAINS TO BE INSTALLED BY OTHERS. CONTRACTOR TO COORDINATE CONSTRUCTION WITH INSTALLER.
6. SOLAR ENERGY SYSTEM TO BE INSTALLED BY OTHERS. CONTRACTOR TO COORDINATE CONSTRUCTION WITH INSTALLER.

**GRADING INFORMATION**

TOTAL AREA TO BE GRADED: 16,000 sq. ft.  
 TOTAL EXCAVATION: 0  
 TOTAL FILL: 381 cu. yds.

WAIVER OF SHORELINE SURVEY  
 A waiver of the instrument survey requirement of Rule 10.1 in accordance with Rule 10.3 of the Shoreline Setback Rules and Regulations is hereby approved.  
 [Signature] Date  
 (for) Director of Land Utilization

DIVISION OF ENGINEERING  
 SEP 1 1985

ENGINEERING DEPARTMENT  
 FILE COPY

NO.	DATE	DESCRIPTION	BY
1	12		Pick
2	2-3		
3			
4			
5			
6			
7			
8			
9			
10			

PROJECT: ESTIMATA  
 DATE: 4-3-1-16  
 E.P.O. NUMBER: 214135

**Exhibit 5**  
**Site Plan, 1985**

9-12-88



Professional Engineer  
 State of Hawaii  
 License No. 1147  
 Fritz Johnson

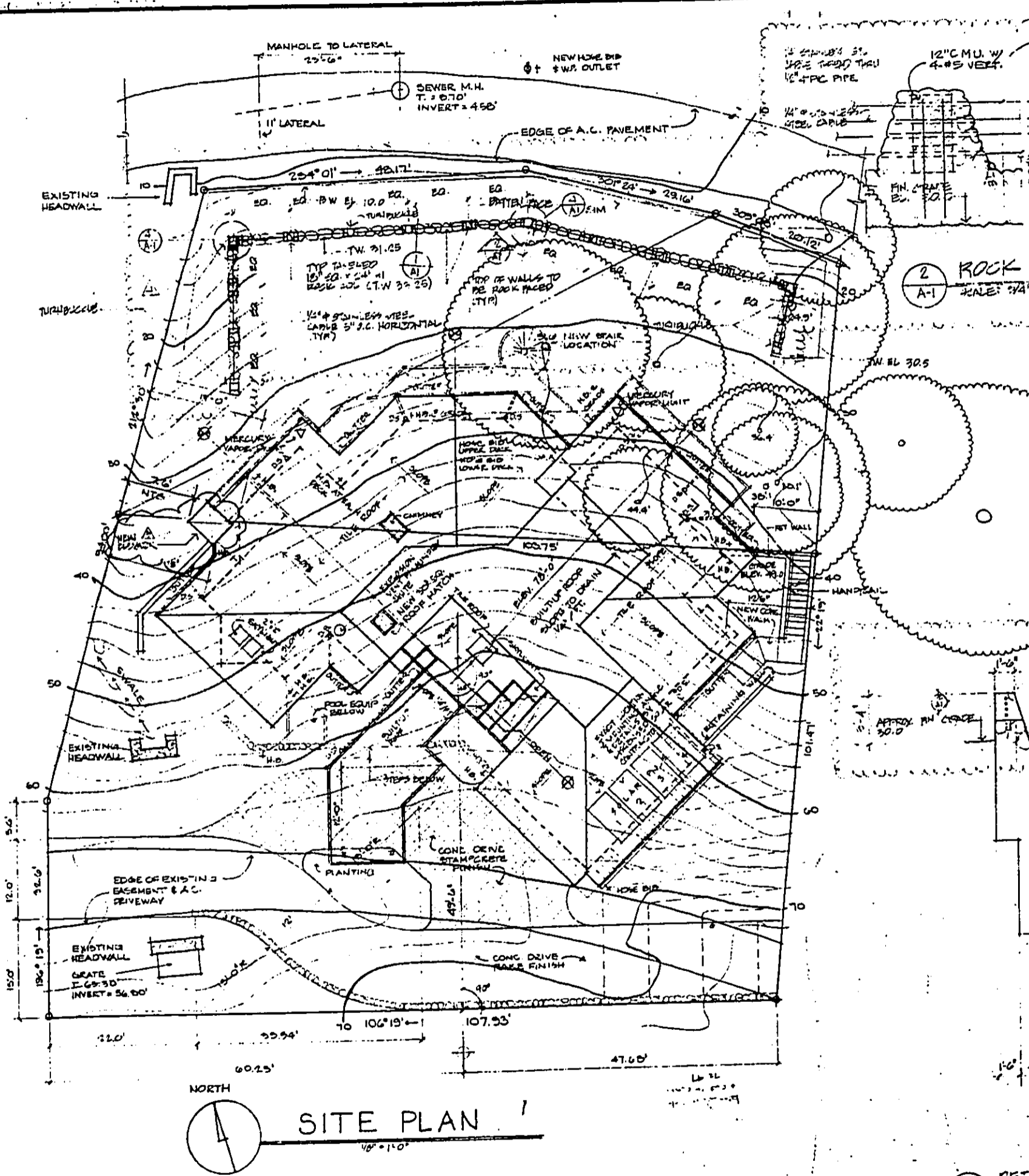
**architect**

98 PORT STREET SUITE 807 HONOLULU HAWAII 96813 PHONE 534-5171

**fritz johnson inc.**

revisions

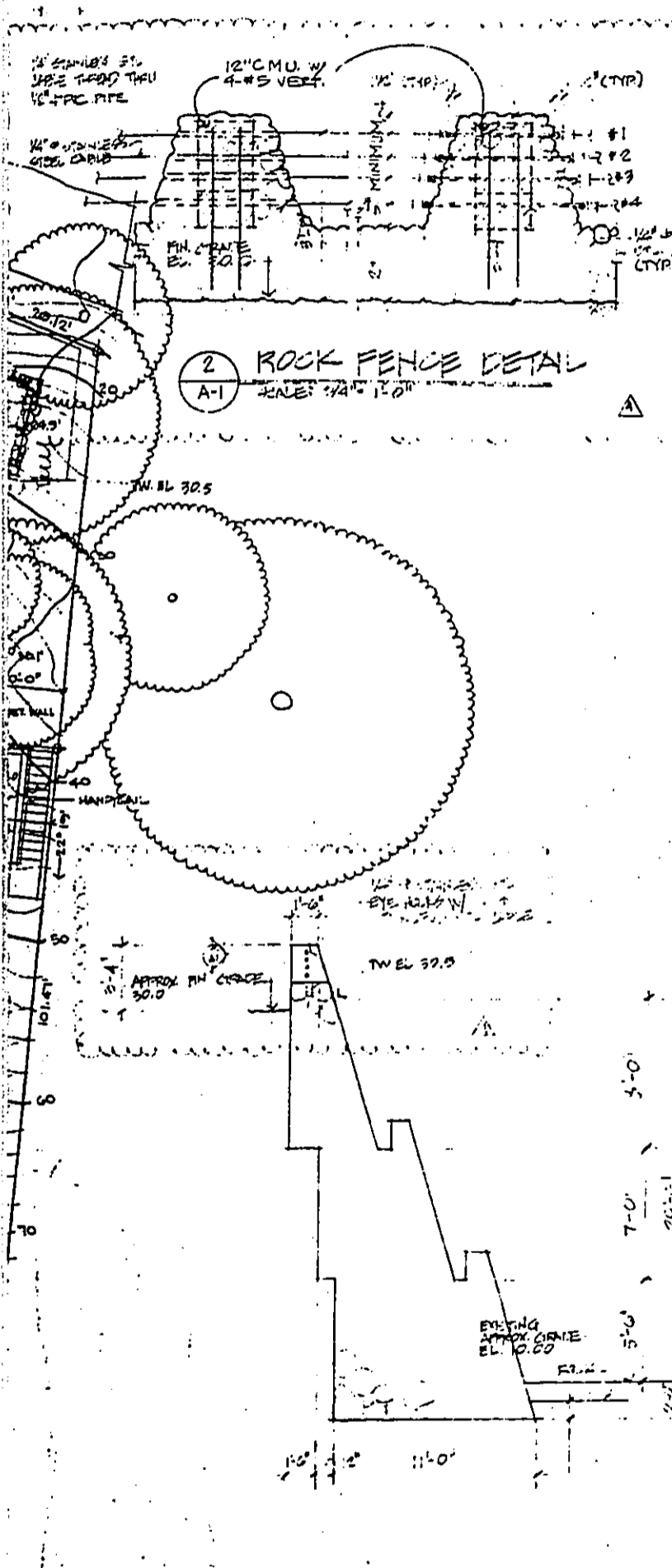
DATE



2 ROCK  
A-1 SCALE: 3/4\"/>

1 RET  
A-1 SCALE: 1/4\"/>





**PROJECT INFORMATION**

ADDRESS: 1607 Mokulua Drive, Lanikai  
 T.H.T.: 4-3-1-16: 238 & 239  
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**GRADING INFORMATION**

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 TOTAL EXCAVATION: 0  
 TOTAL FILL: 381 cu. yds.

1986 DEC 5 PM 2 22  
 DEPT OF LAND UTILIZATION  
 CITY & COUNTY OF HONOLULU

1 RETAINING WALL  
 A-1 SCALE: 1/4" = 1'-0"

Exhibit 6  
 Site Plan, 1986



915 FORT STREET SUITE 607 HONOLULU HAWAII 96813 PHONE 308-2787

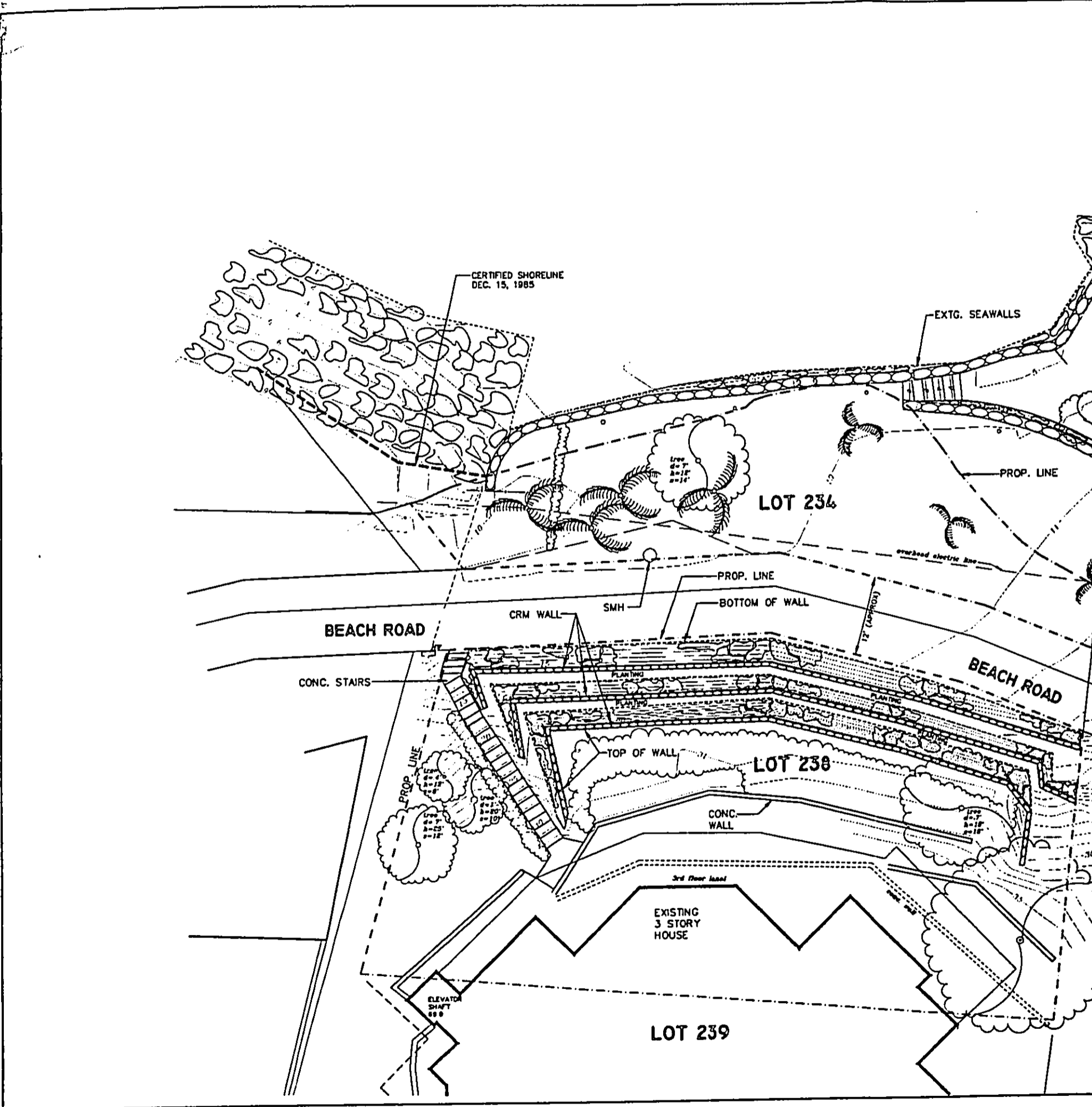
architect

fritz johnson inc.

NO.	DATE	DESCRIPTION

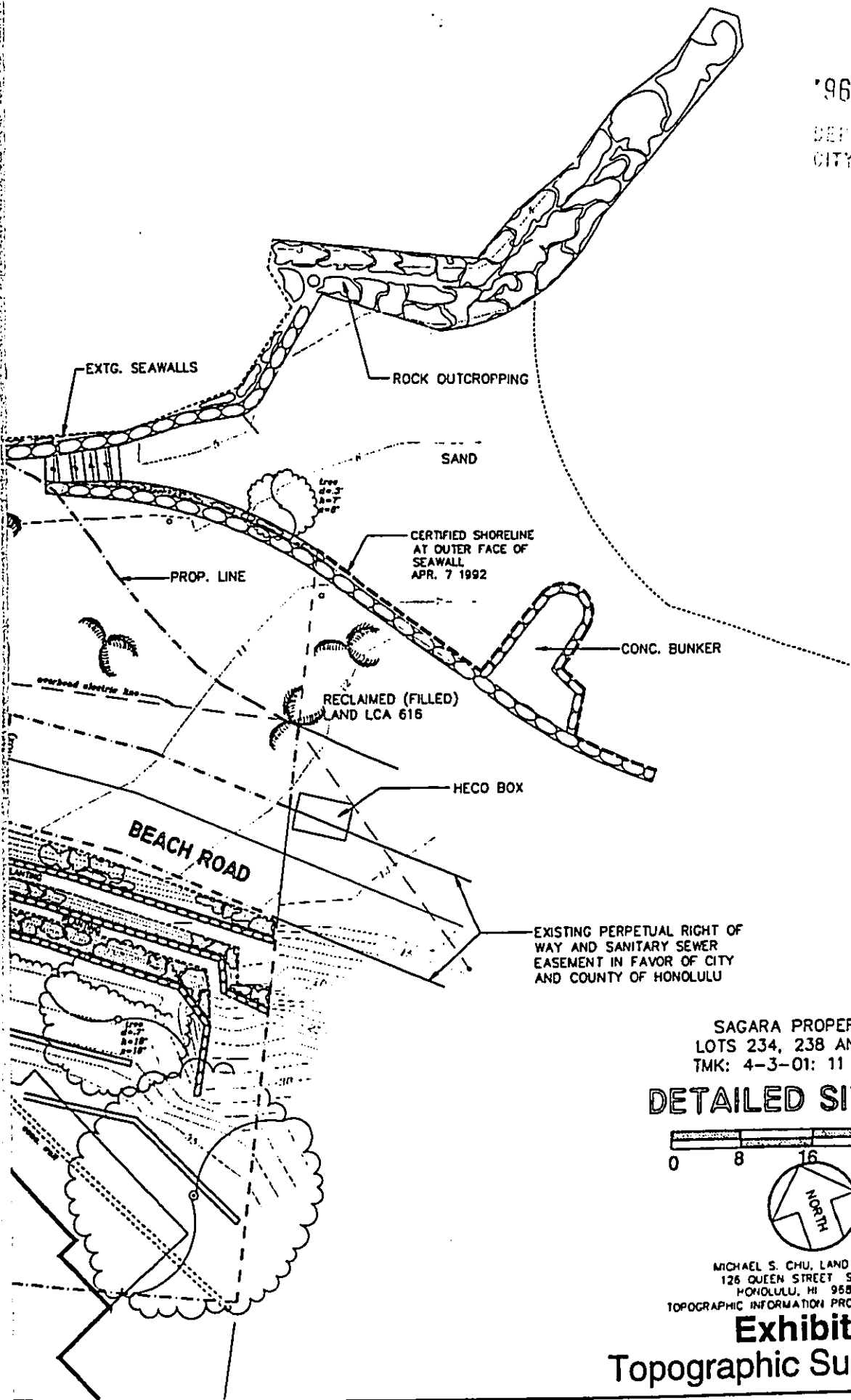
A-1

MAY 13 1986



'96 DEC 5 PM 2 22

DEPT. OF LAND UTILIZATION  
CITY & COUNTY OF HONOLULU



SAGARA PROPERTY  
LOTS 234, 238 AND 239  
TMK: 4-3-01: 11 AND 16  
**DETAILED SITE PLAN**

0 8 16 24 32 FEET



MICHAEL S. CHU, LAND ARCHITECT  
126 QUEEN STREET, SUITE 306  
HONOLULU, HI 96813  
TOPOGRAPHIC INFORMATION PROVIDED BY R.M. TOWLL

**Exhibit 7**  
**Topographic Survey, 1996**

# ANALYSIS A

ACCRETED LAND  
 LOT 234  
 BEACH ROAD

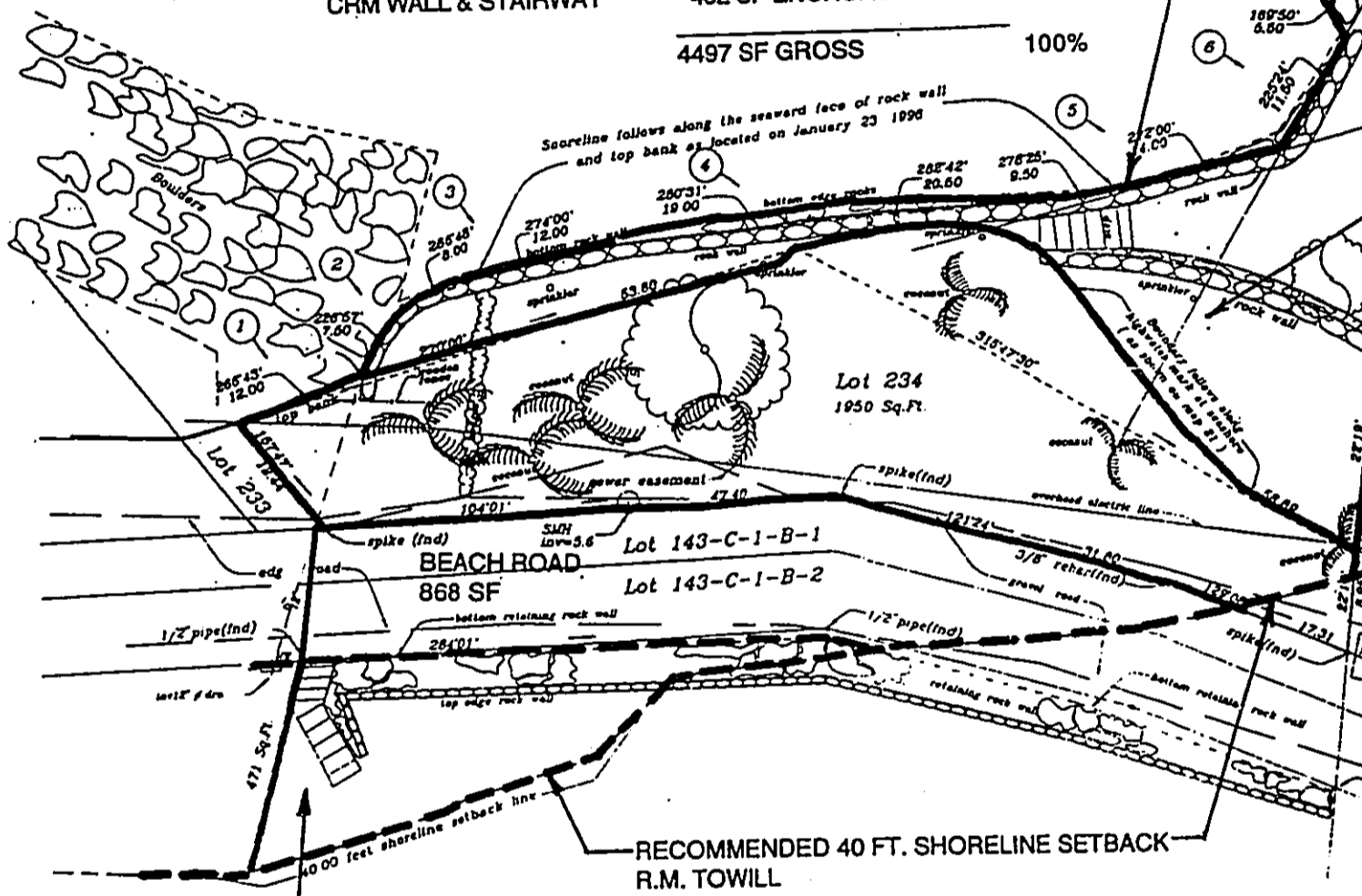
1217 SF  
 1950 SF  
 868 SF

4035 SF OPEN SPACE 90%

CRM WALL & STAIRWAY

462 SF ENCROACHMENT 10%

4497 SF GROSS 100%



EXTENT OF CRM WALL AND  
 STAIRWAY ENCROACHMENT  
 462 SF

PHOTO INDEX MAP

## SHORELINE SURVEY

OF LOT 234

LAND COURT APPLICATION 616

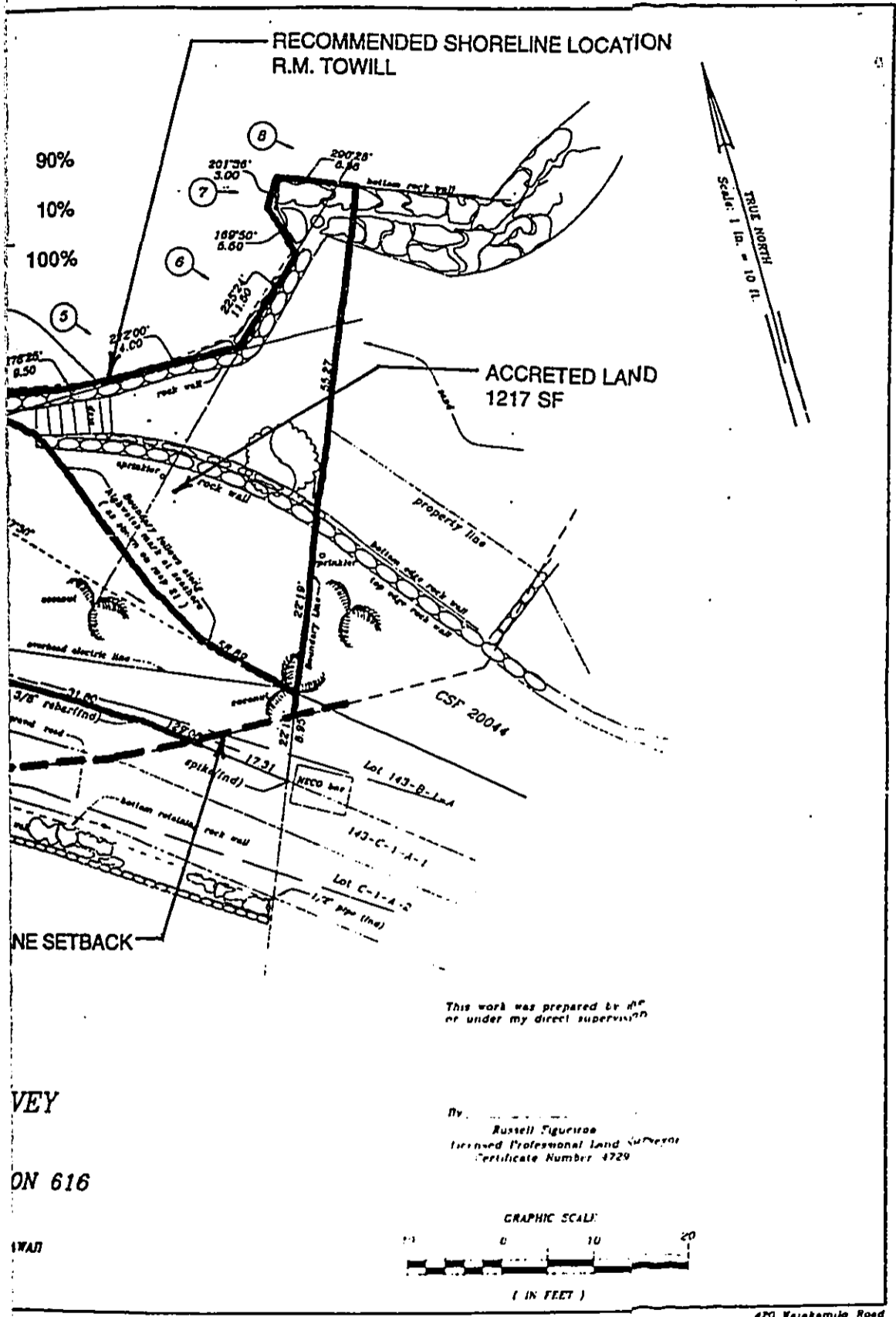
( Map 21 )

AT LANIKAI, KAILUA, OAHU, HAWAII

T.M.K. 4-3 01 11

**NOTE**

This shoreline survey is for permit/variance application



86 DEC 5 PM 2 22  
DEPT. OF LAND UTILIZATION  
CITY & COUNTY OF HONOLULU

VEY  
ON 616

WAD

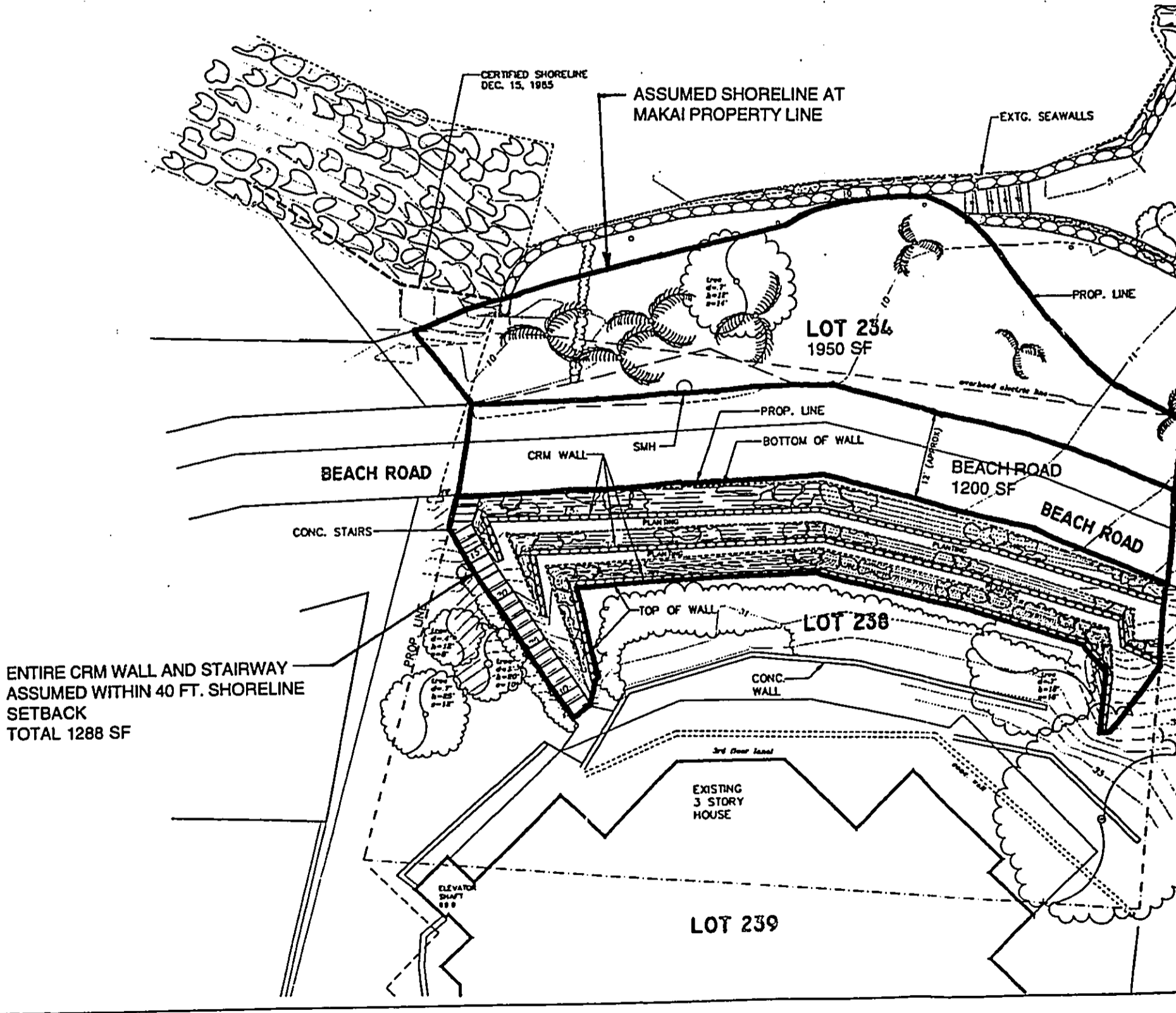
Structure Management

420 Waiakemika Road  
Suite # 411  
March 28, 1994

**Exhibit 8**  
SCENARIO A  
EXTENT OF ENCROACHMENT

# ANALYSIS B

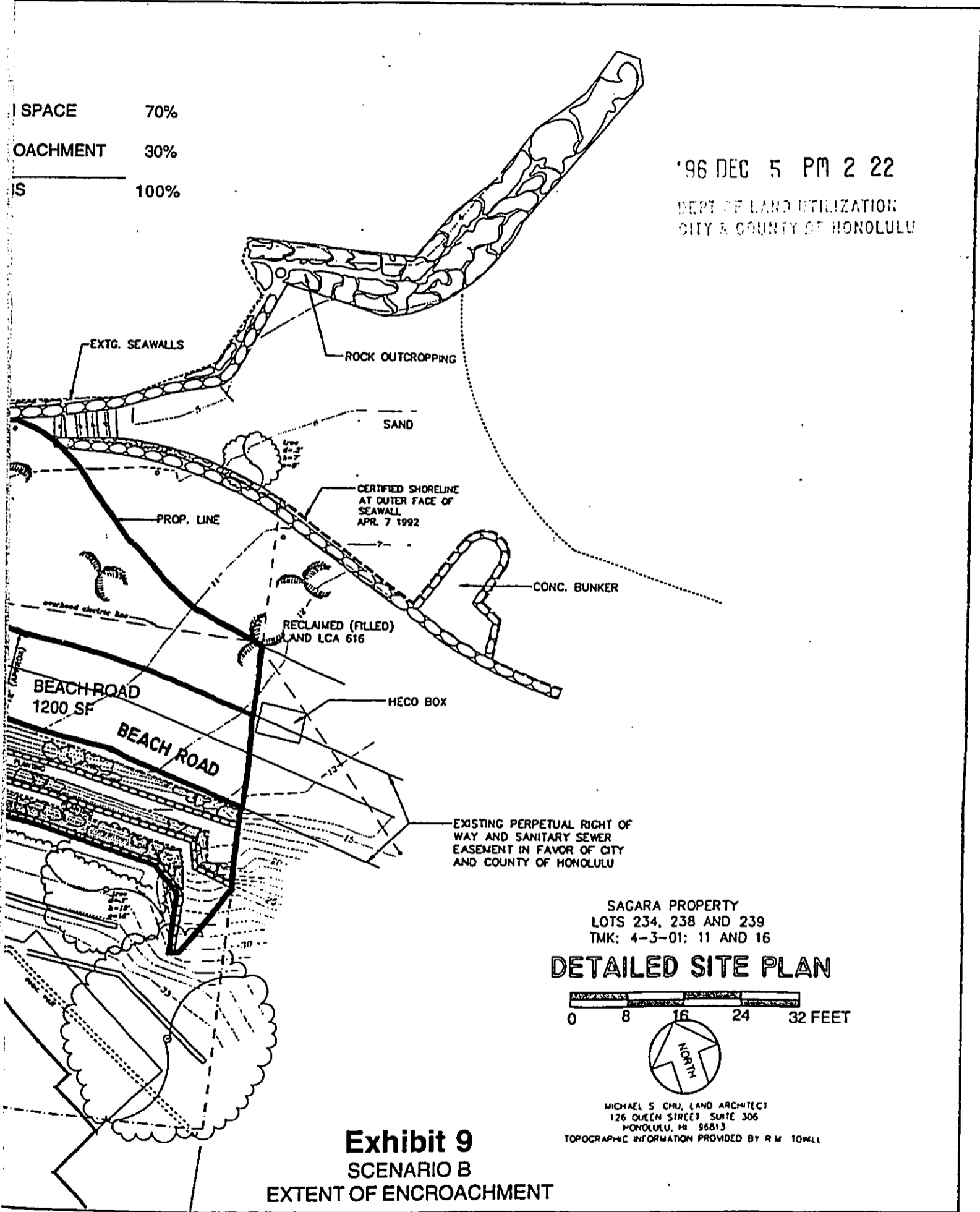
LOT 234	1950 SF	
BEACH ROAD	1200 SF	
	<hr/>	
	3150 SF OPEN SPACE	70%
CRM WALL & STAIRWAY	1288 SF ENCROACHMENT	30%
	<hr/>	
	4438 SF GROSS	100%



ENTIRE CRM WALL AND STAIRWAY  
ASSUMED WITHIN 40 FT. SHORELINE  
SETBACK  
TOTAL 1288 SF

OPEN SPACE      70%  
 ENCROACHMENT    30%  
 TOTAL              100%

'96 DEC 5 PM 2 22  
 DEPT OF LAND UTILIZATION  
 CITY & COUNTY OF HONOLULU



SAGARA PROPERTY  
 LOTS 234, 238 AND 239  
 TMK: 4-3-01: 11 AND 16  
**DETAILED SITE PLAN**  
 0    8    16    24    32 FEET  
 NORTH

**Exhibit 9**  
**SCENARIO B**  
**EXTENT OF ENCROACHMENT**

MICHAEL S. CHU, LAND ARCHITECT  
 126 QUEEN STREET, SUITE 306  
 HONOLULU, HI 96813  
 TOPOGRAPHIC INFORMATION PROVIDED BY R.M. TOWELL