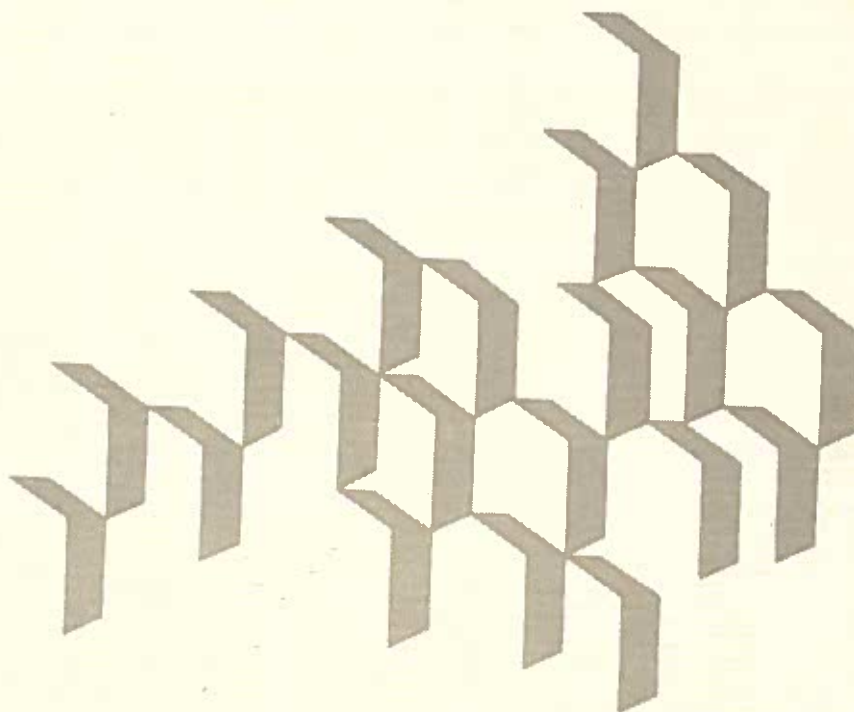


**Environmental Impact Assessment**

**ONOULI  
RESIDENTIAL  
SUBDIVISION**

For Onouli and Keopuka  
Kealakekua, South Kona, Hawaii



prepared by:  
**WILSON OKAMOTO & ASSOCIATES, INC.**  
ENGINEERS, ARCHITECTS and PLANNERS

September 1980

# 1. Location Map

ONOULI  
RESIDENTIAL  
SUBDIVISION

## I. INTRODUCTION

### A. Location

The Property is located in the South Kona District on the Island of Hawaii within the Onouli and Keopuka Ahupuaa. It consists of approximately 165+ acres and is situated along the makai or western side of the Mamalahoa Highway, between the towns of Kealahou and Captain Cook. The tax map key number for the site is 8-1-07: portion of 1. (See Figure 1)

### B. Land Ownership (See Figure 2)

The Property consists of a portion of the parcel of land (TMK: 8-1-7:1) owned in fee by Hubert F. Richards and others.<sup>1</sup> In addition to the 165+ acre project site, the parcel also includes 495+ acres of land that extends from the project site to the ocean, totalling 660+ acres.

Much of the land in the South Kona District is owned in large parcels of 200 acres or more. The largest private landowner in the region is the Bishop Estate.

Government owned lands are for the most part, relatively limited in area and scattered throughout the region. The most significant Federal land holdings are located in the immediate vicinity of the Napoopoo Lighthouse, at Cook Point, on the northern shore of Kealahou Bay.

---

<sup>1</sup>Hubert F. Richards and Elizabeth A. Richards (593/625); Miles H. Wilson and Marilyn S. Wilson (8/625); Charles W. Coupe and Joan E Coupe (8/625); Joan E. Coupe, Trustee (8/625); Marilyn S. Wilson, Trustee (8/625).

# 1. Location Map

## ONOULI RESIDENTIAL SUBDIVISION

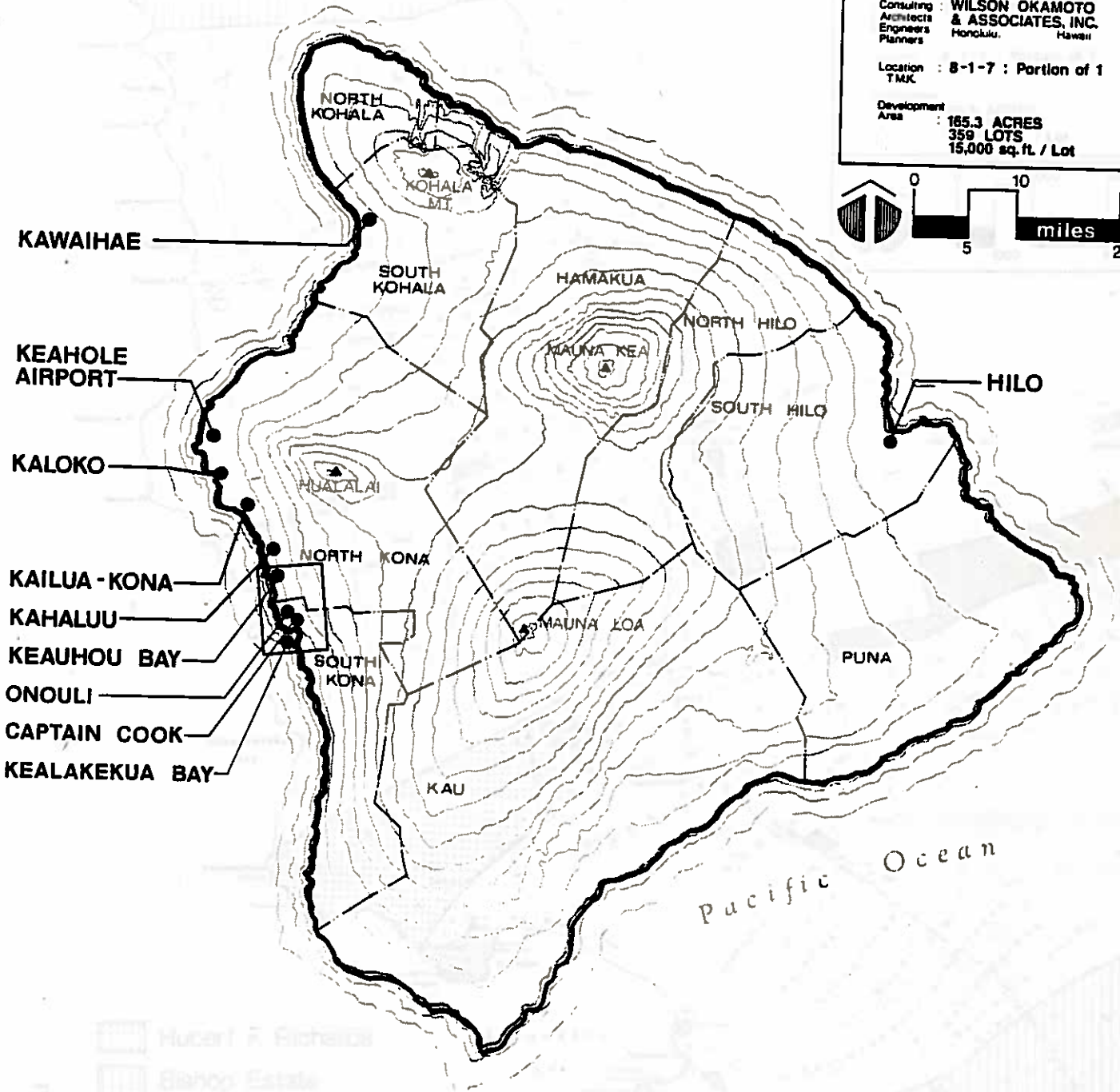
For ONOULI & KEOPUKA  
Kealahou, South Kona, Hawaii

Landowner: HUBERT F. RICHARDS

Consulting: WILSON OKAMOTO  
Architects & ASSOCIATES, INC.  
Engineers Honolulu, Hawaii  
Planners

Location: 8-1-7 : Portion of 1  
TMK

Development  
Area: 165.3 ACRES  
359 LOTS  
15,000 sq. ft. / Lot



- Hubert F. Richards
- Bishop Estate
- Other Private Lands
- County
- State
- Federal

Island of Hawaii

# 2. Landownership

## ONOULI RESIDENTIAL SUBDIVISION

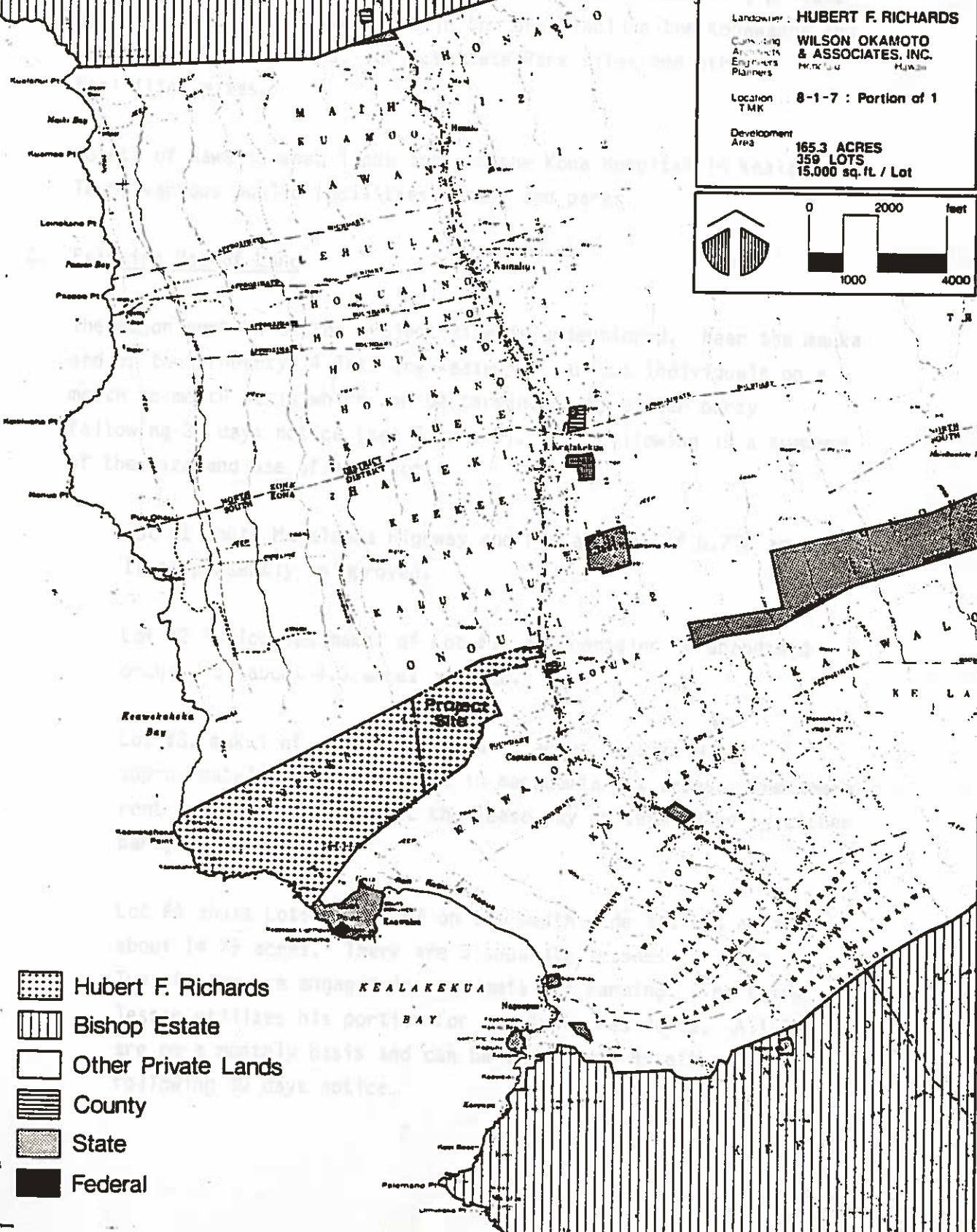
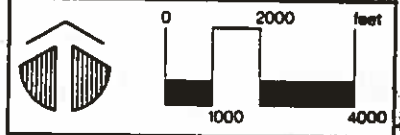
For ONOULI & KEOPUKA  
Kealahoukua, South Kona, Hawaii







Landowner: **HUBERT F. RICHARDS**

Consulting  
Architects  
Engineers  
Planners  
**WILSON OKAMOTO  
& ASSOCIATES, INC.**  
Honolulu Hawaii

Location  
TMK **8-1-7 : Portion of 1**

Development  
Area  
**165.3 ACRES  
359 LOTS  
15,000 sq. ft. / Lot**



-  Hubert F. Richards
-  Bishop Estate
-  Other Private Lands
-  County
-  State
-  Federal

d  
V  
C  
I



### 3. Project Site

The largest parcel owned by the State of Hawaii is situated about 1/2 mile due East of the project site and totals approximately 423 acres. The entire parcel is presently under lease to a private individual. Other State lands in the area include the Konawaena and Napoopoo School grounds, various State Park sites and other facilities sites.

County of Hawaii owned lands include the Kona Hospital in Kealahou Town, various public facilities sites, and parks.

#### C. Existing Use of Land

The major portion of the project site is undeveloped. Near the mauka end of the property, 4 lots are leased to various individuals on a month to month basis which can be terminated by either party following 30 days notice (see Figure 3). The following is a summary of the size and use of each lot:

Lot #1 abuts Mamalahoa Highway and has an area of 0.779 acre. It is presently unimproved.

Lot #2 is located makai of Lot #1, and contains an abandoned orchard of about 4.0 acres in area.

Lot #3, makai of Lot #2, is about 8 acres in size with approximately 7 acres planted in macadamia nut trees. The lease rent agreement states that the lease may be terminated by either party.

Lot #4 abuts Lots #2 and #3 on the south side and has an area of about 14.75 acres. There are 3 separate lessees for this lot. Two of them are engaged in macadamia nut farming. The third lessee utilizes his portion for a private residence. All leases are on a monthly basis and can be terminated by either party following 30 days notice.

# 3. Project Site

## ONOULI RESIDENTIAL SUBDIVISION

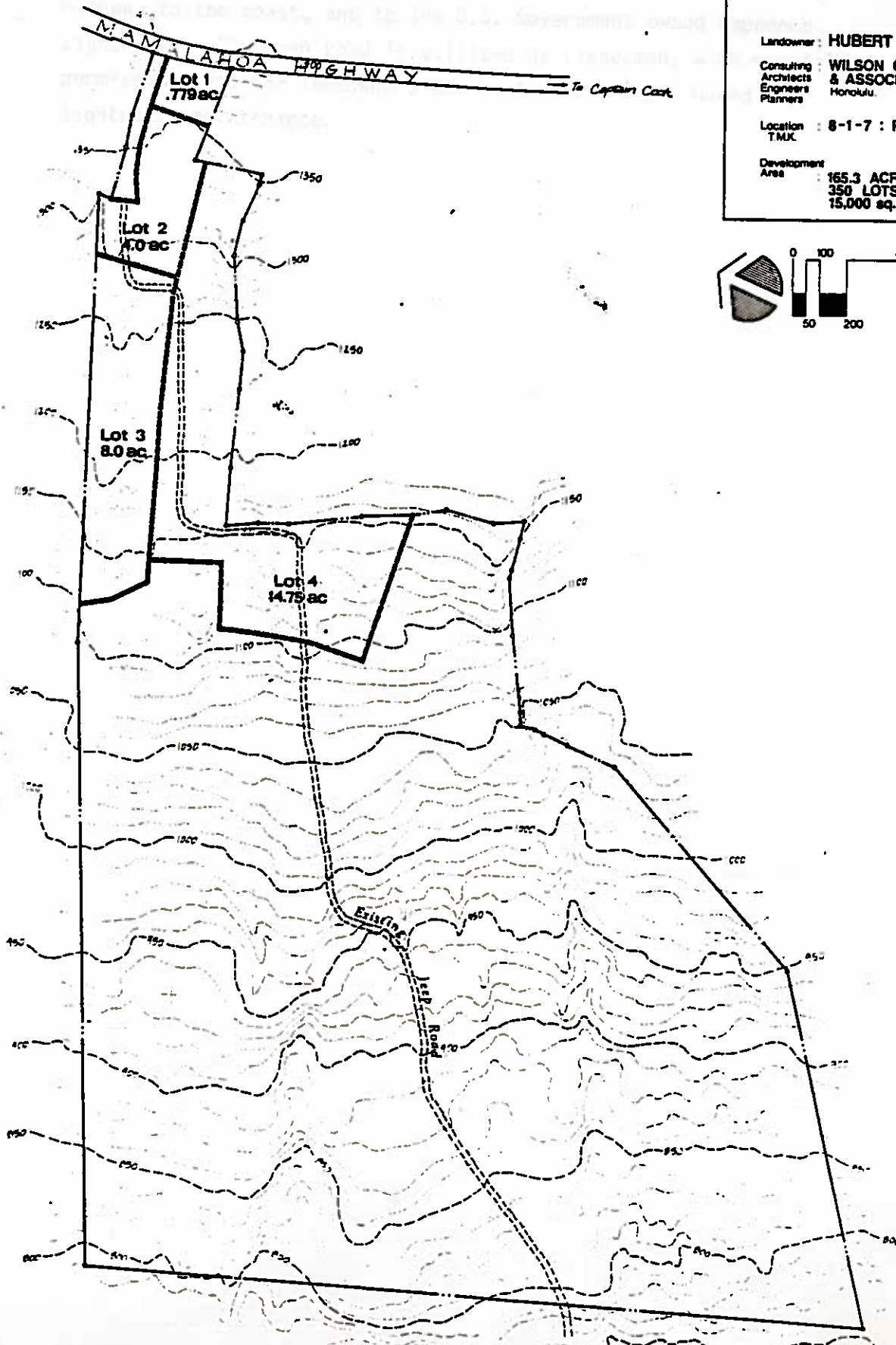
For ONOULI & KEOPUKA  
Kealahou, South Kona, Hawaii

Landowner: HUBERT F. RICHARDS

Consulting Architects & ASSOCIATES, INC.  
Engineers Honolulu, Hawaii  
Planners

Location: 8-1-7 : Portion of 1'  
TMK

Development Area: 165.3 ACRES  
350 LOTS  
15,000 sq. ft. / Lot



The only improvement on the lower portion of the site is an unpaved, privately owned "jeep road" that provides access from Mamalahoa Highway to the coast, and to the U.S. Government owned Napoopoo Lighthouse. The jeep road is utilized by fishermen, with special permission from the landowner, and by the U.S. Coast Guard for lighthouse maintenance.

II  
Project  
Description

### Effect on Ground Water

A tentative site for a domestic well is located within the proposed project site. The Department of Land and Natural Resources, State of Hawaii, will be planning, constructing, and testing the well if the site is selected. Potential for contamination of this well is minimal due to the great distance between the ground surface (1000+ feet elev.) and the basal water surface (4+ feet elev.).

### Effect on Coastal Water

Domestic sewage from the proposed development will be disposed of by a secondary sewage treatment plant and injection wells located at the makai end of the project site (800+ feet elev.), or by individual cesspools, in accordance with Chapter 38 of the Public Health Regulations, Department of Health, State of Hawaii. No major impact on coastal waters is expected, since the nearest point of the subject parcel to the coastline is approximately one mile distant.

If lava tubes are encountered, they will either be filled with suitable materials, or sealed to preclude the unimpeded flow of sewage or storm waters to the coast.

### 3. Public Services

The project site is ideally located, approximately midway between Kealahou and Captain Cook, to conveniently utilize all the necessary public services required by a residential subdivision.

Konawaena Elementary, Intermediate, and High School is located within a mile from the project site.



Recreational fields and park space are also located at the Konawaena Schools. Fire and Police Stations are located at Captain Cook, about 1.5 miles south along Mamalahoa Highway from the project site.

The project site has direct access onto Mamalahoa Highway. Long-range plans of the State of Hawaii, Department of Transportation show a future 160 ft. minimum right-of-way highway alignment passing through the project site. Presently, only a 1,000 foot corridor has been tentatively identified and the State is unable, at this time to designate the exact alignment of the ROW within the corridor, scheduling, or funding of the project.

An alternative development plan layout has been prepared for the proposed subdivision to show that an alignment within the designated corridor could be accommodated (See Figure 18). Although it is possible to accommodate the new highway alignment through the proposed subdivision, a more suitable alignment would be about a half a mile makai (west). This alignment would avoid the proposed subdivision, and the adjoining property makai (west) of the proposed subdivision is also owned by Hubert F. Richards. The landowner presently does not have any plans for this property, and would be willing to reserve the necessary land area for the highway right-of-way.

#### 4. Utilities

Improvements required to infrastructure will be borne entirely by the developer. There will be no cost to the Federal, State, or County governments, to provide infrastructure.

# Alternative Subdivision Plan

## 18.

(Proposed Subdivision Layout with R.O.W.  
Reserved for Proposed Hawaii Belt Road)

# ONOULI RESIDENTIAL SUBDIVISION

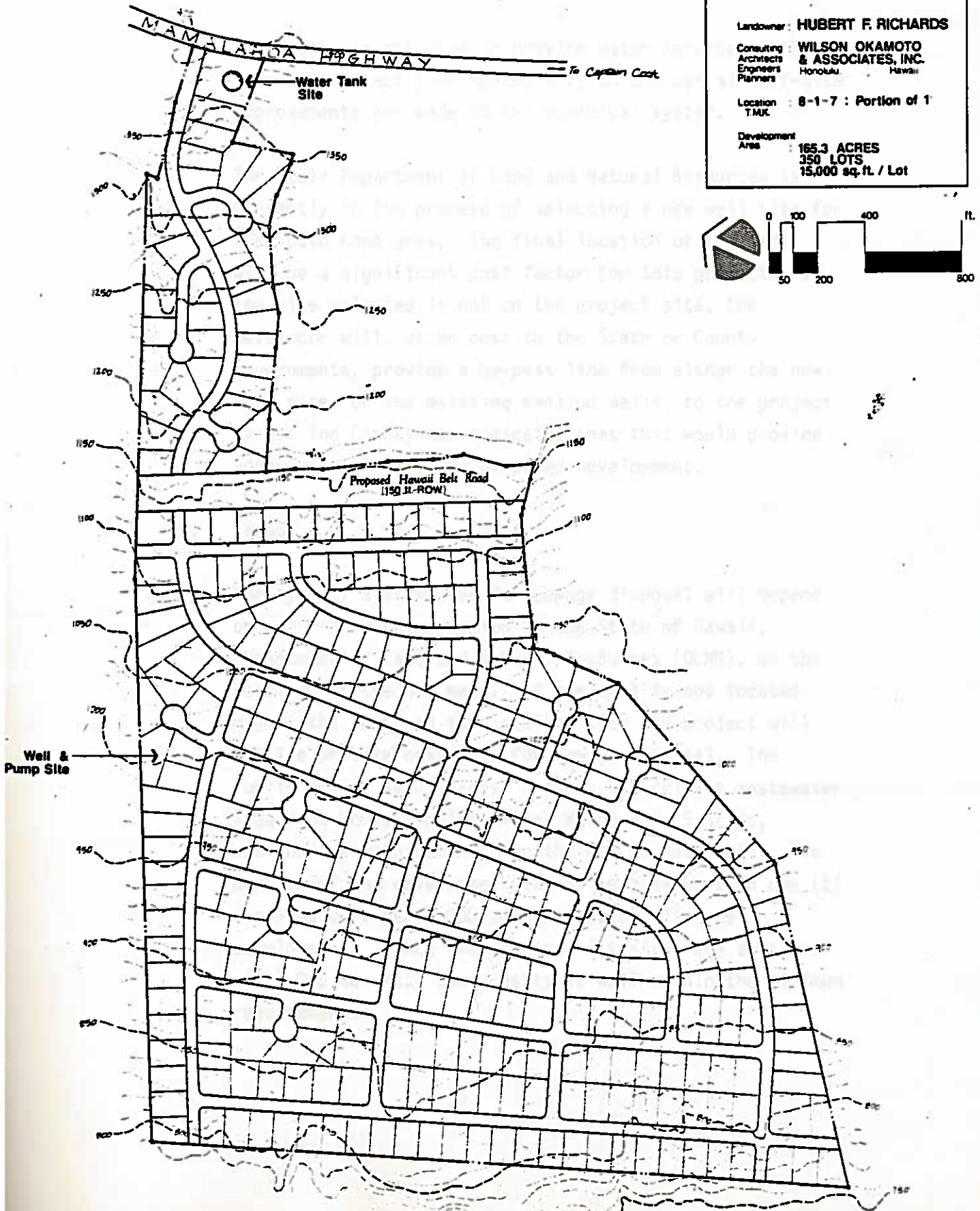
For ONOULI & KEOPUKA  
Kealahou, South Kona, Hawaii

Landowner: **HUBERT F. RICHARDS**

Consulting  
Architects: **WILSON OKAMOTO  
& ASSOCIATES, INC.**  
Engineers  
Planners: Honolulu, Hawaii

Location: **8-1-7 : Portion of 1'  
T.M.K.**

Development  
Area: **165.3 ACRES  
350 LOTS  
15,000 sq. ft. / Lot**



Feeding and habitat area for introduced birds and mammals will be altered. The fauna inhabiting the project site are expected to readily relocate to suitable surrounding areas.

#### 7. Archaeological/Historical

The State Department of Land and Natural Resources has indicated that portions of the proposed project lie within the Kealakekua Bay Archaeological and Historic District, which is listed on the National Register of Historic Places (See Appendix C). The Department suggested that a reconnaissance survey be conducted to evaluate the impact to the Historic District.

A reconnaissance survey of the project site was conducted by Mr. Lloyd Soehren, consulting archaeologist, on July 21, 1980. The survey did not reveal any archaeological or historic features, nor was it his opinion that any reasonable prospect of such features existed. (Appendix A)

If however, during the clearing and construction phases of this project, features of possible archaeological interest or significance are encountered, further archaeological studies will be conducted.

#### 8. Traffic

The existing capacity of Mamalahoa Highway is equal to 1,840 vehicles per hour (The Highway Capacity Manual 1965, Highway Research Board Report 87, Washington, D.C.). Based on 1978 traffic counts taken by the State of Hawaii, Department of Transportation, along Mamalahoa Highway, the following traffic volumes were determined:

## 11. Population

Utilizing the State of Hawaii Data Book, 1979, average household size of 3.28 persons/household, the population of the proposed subdivision will be 1,171 persons (357 new houselots). This is an increase of about 20% over the 1980 population of South Kona. Over a 5-year period, this represents an annual average increase of about 3.5%. This is compared to the 4.8% average annual increase experienced by South Kona over the last 10 years.

## 12. Employment

South Kona has in the past served as a "bedroom" community for the Kailua businesses and commercial activities. Employment centers served by the proposed subdivision would primarily be Captain Cook, Kealakekua, Keahou, and Kailua Village. To a limited extent, some residents may commute to the Ke-Ahole Airport area, or to South Kohala for employment.

## 13. Land Use Compatibility

The proposed project is compatible with existing, surrounding land uses.

The property along the north boundary is undeveloped and is currently zoned for agricultural use (A-5a). The parcels across the highway to the east are in residential use, and zoned for single-family residential and village commercial development.

Just south of the project site along the highway are some single-family residences and an automotive parts and repair shop. The County also has a baseyard in this area.



The properties abutting the southeast boundary are zoned for 5-acre farmlots and have existing single-family dwellings. The southern boundary is abutting lands that are vacant and undeveloped.

The western limit of the project abuts property that is under the same ownership as the project site. The land is undeveloped with the most significant improvement being a "jeep road" that provides private access to the coastline.

14. U.S. Coast Guard (Access to Napoopoo Lighthouse)

The U.S. Coast Guard operates and maintains the Napoopoo Lighthouse at Cook Point. The Coast Guard presently utilizes the private "jeep road" that passes through the project site to the coast, to gain access to their lighthouse as a matter of convenience, since another permanent easement is available. This access is permitted on an informal basis, by permission of the Landowner. The Coast Guard will be allowed continued access for as long as desired to maintain and operate the lighthouse.

Appendixes

RR 1, Box 581  
Captain Cook, HI 96704  
21 July, 1980

Wilson, Okamoto & Associates  
P. O. Box 3530  
Honolulu, HI 96811

RECEIVED

Att.: Mr. Gary Okamoto

WILSON OKAMOTO & ASSOCIATES

Gentlemen:

In accordance with our letter of agreement dated 11 July, 1980, I have searched for archaeological features on the parcel identified by Tax Map Key 8-1-07:por. 1, situated at Keopuka, South Kona, Hawaii, as shown on the accompanying plan.

The land of Keopuka was set aside for the Government by Kamehameha III at the Great Mahele in 1848, while Onouli 2 was reserved to the Crown. Portions of both were subsequently sold. Much of Keopuka and parts of Onouli 2 are covered by an aa lava flow of such recent origin as to be almost devoid of vegetation near the shore. In the project area it is classified by the Soil Conservation Service as "Kaimu extremely stony peat" with numerous rock outcrops.

The project area lies between 7400 feet and 11,700 feet from the shore at Keawekaheka Point, and rises from about 850 feet to 1400 feet in elevation at the Mamalahoa Highway on the eastern side. Average annual rainfall is from 50 to 75 inches. A part of the northeast corner of the parcel, extending about 2000 feet west of the Mamalahoa Highway, has been planted to macadamia nuts and coffee. The ground appears to have been prepared by bulldozers, however, which obliterated any traces of previous crops or agricultural systems.

The entire area is within the Kona Field System (Hawaii Register of Historic Places number 10-37-6601) which has been declared eligible for the National Register of Historic Places. A small portion of the southwest corner is included within the Kealakekua Bay Archaeological and Historic District (HRHP number 10-47-7000) which is listed on the National Register. That distinction, however, is due more to the requirement that such districts be defined as quadrilaterals than to any intrinsic archaeological or historic values.

While the project area is within the Kona Field System, the ground is generally so rough and stony that it is highly improbable that it was utilized to any extent, if at all, by the aboriginal Hawaiian farmer. Better suited land was available immediately to the north and also farther to the south in Kaawaloa. Remnants of the Field System are clearly visible on aerial photographs of those areas but no such features can be seen in the project area. Even though sugarcane had been grown commercially

Wilson, Okamoto & Associates, page two

21 July, 1980

to the north and pineapple to the south, the outlines of the ancient fields can still be seen from the air. Unfortunately they are often far less distinct to an observer on the ground.

Examination of the parcel by jeep and on foot revealed no features attributable to the aboriginal Hawaiian culture, nor any reasonable prospect of there being any such features. Although the often dense vegetation makes a thorough search difficult, there is in my opinion no need for further archaeological research within the project area.

If I can be of further assistance, please call. My invoice is enclosed.

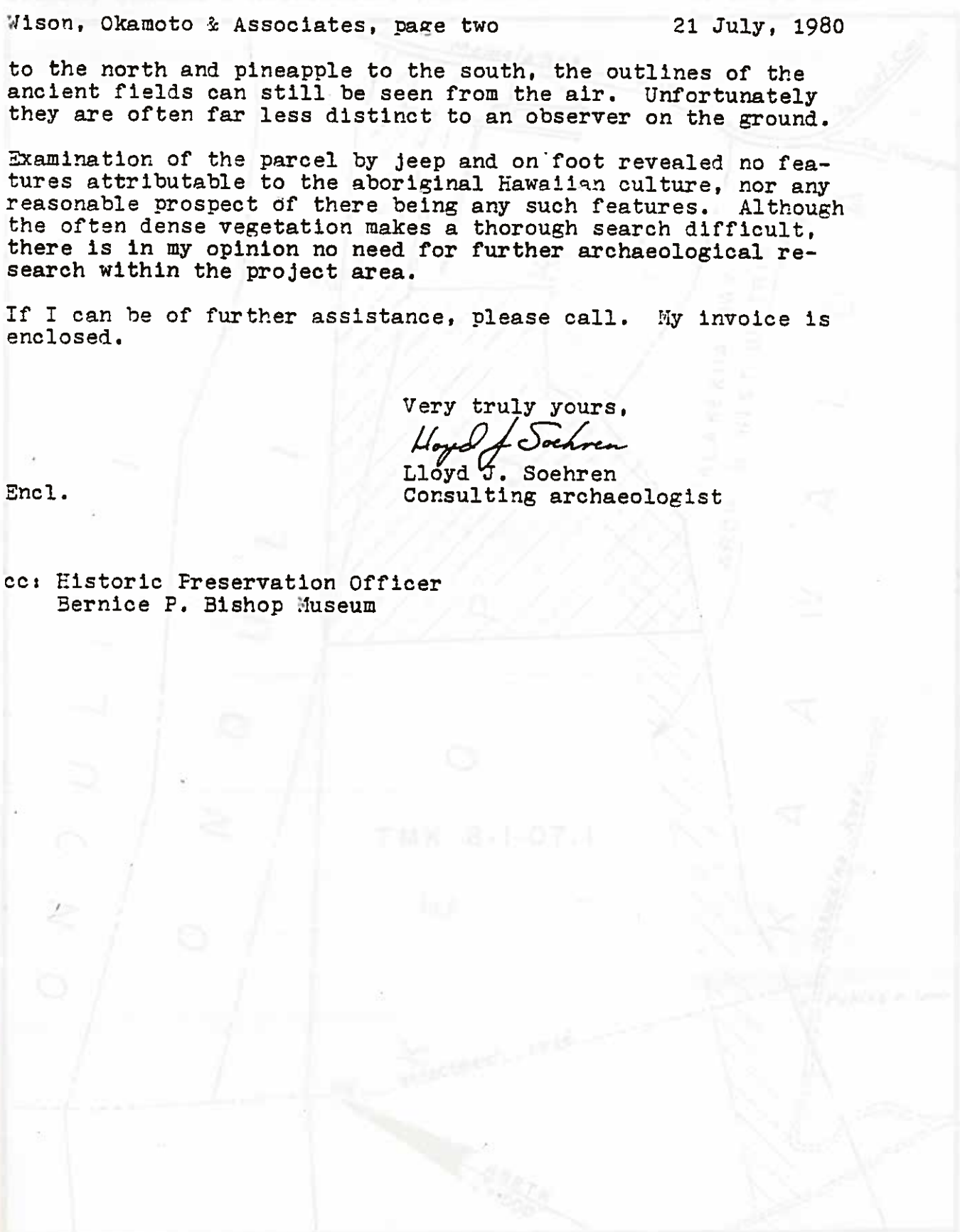
Very truly yours,

*Lloyd J. Soehren*

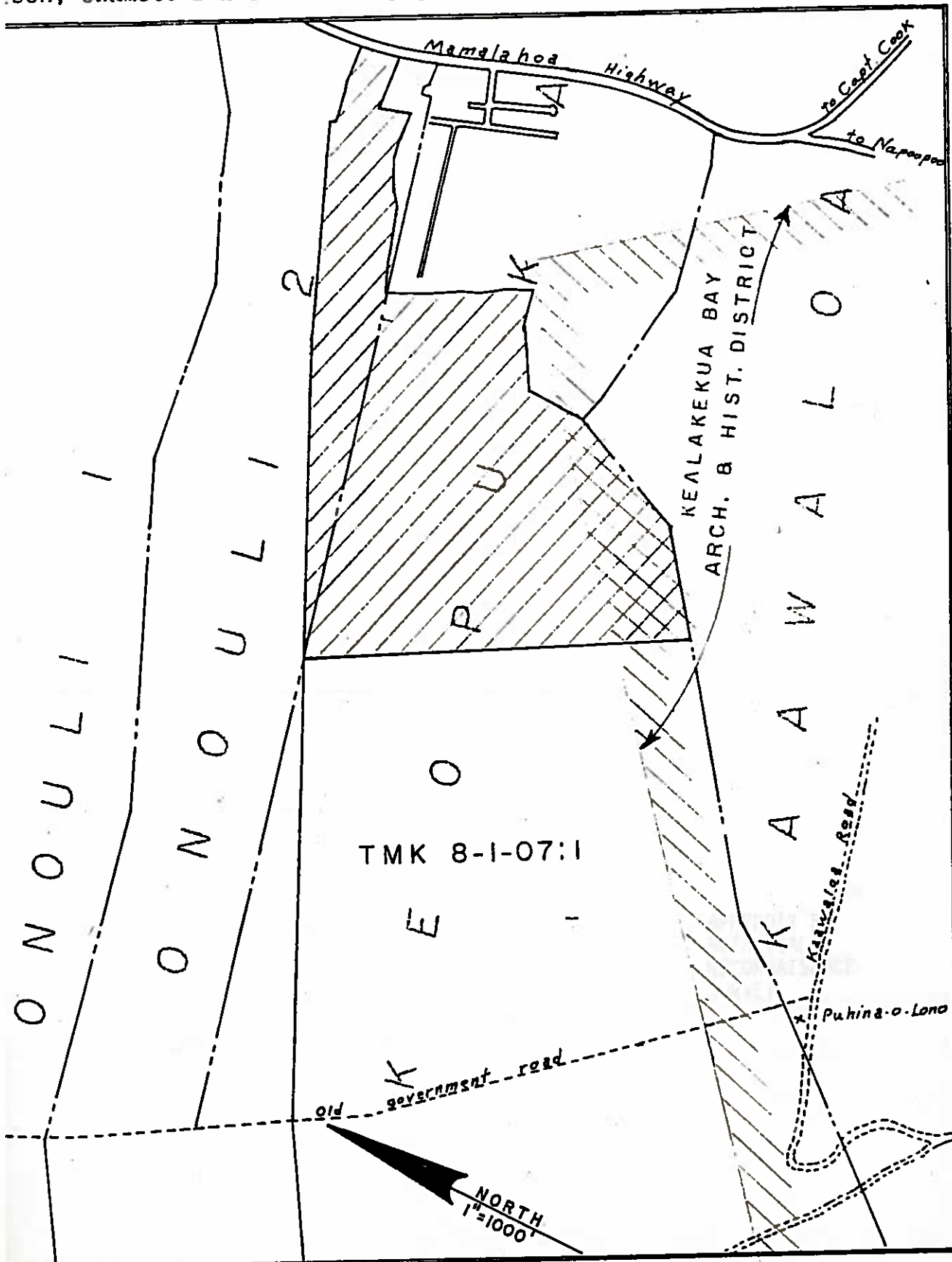
Lloyd J. Soehren  
Consulting archaeologist

Encl.

cc: Historic Preservation Officer  
Bernice P. Bishop Museum



Plan showing location of the Project Area (shaded) and the approximate boundaries of the Kaulaokoa Bay Archaeological and Historic District.



Plan showing location of the Project Area (shaded) and the approximate boundaries of the Kealakekua Bay Archaeological and Historic District.