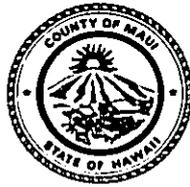


JAMES "KIMO" APANA
MAYOR



OFFICE OF THE MAYOR
Ke'ena O Ka Meia
COUNTY OF MAUI
Kalana O Maui

200 South High Street
Wailuku, Maui, Hawaii USA
96793-2155
Telephone (808) 270-7855
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'02 DEC -3 P12:06

November 18, 2002

OFFICE OF ENVIRONMENTAL
QUALITY CONTROL

Ms. Genevieve Salmonson, Director
Office of Environmental Quality Control
Department of Health
235 South Beretania Street, #702
Honolulu, Hawaii 96813

Dear Ms. Salmonson:

SUBJECT: FINAL ENVIRONMENTAL ASSESSMENT (FEA) FOR THE
PROPOSED 16-BED EXPANSION AND RELATED IMPROVEMENTS
AT HALE MAKU, KAHULUI

In accordance with the provisions of the Chapter 343, Hawaii Revised Statutes, and Title 11, Chapter 200 of the Administrative Rules of the State Department of Health, a Final Environmental Assessment (FEA) has been prepared for the subject project.

As the approving agency, the County of Maui, Office of the Mayor, respectfully requests that the Final EA be published as a Finding of No Significant Impact (FONSI) in the upcoming edition of the OEQC's Environmental Notice.

Enclosed is one (1) copy of the OEQC Publication form. Four (4) copies of the Final EA will be submitted under separate cover by Hale Makua. In addition, the project summary will be e-mailed to the OEQC by Hale Makua.

Thank you for your cooperation. If additional clarification is required, please contact Lance Taguchi of this office at 270-7855.

Sincerely,

A handwritten signature in black ink, appearing to read "James Apana".

JAMES "KIMO" APANA
Mayor, County of Maui

Enclosures
c: Anthony Krieg, Hale Makua

Quality Seamless Service - Now and for the Future

113

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2002-12-08-MA-FEA-

(HALE MAKUA KAHULUI)
16 BED EXPANSION AND
RELATED IMPROVEMENTS

Final Environmental
Assessment

Prepared by:
Hale Makua

Prepared for the
Accepting Authority:
County of Maui, Office of the Mayor

November 2002

**HALE MAKUA KAHULUI
16 BED EXPANSION AND
RELATED IMPROVEMENTS**

**Final Environmental
Assessment**

**Prepared by:
Hale Makua**

**Prepared for the
Accepting Authority:
County of Maui, Office of the Mayor**

November 2002

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I.
PROJECT OVERVIEW

**HALE MAKUA
DRAFT ENVIRONMENTAL ASSESSMENT**

I. PROJECT OVERVIEW

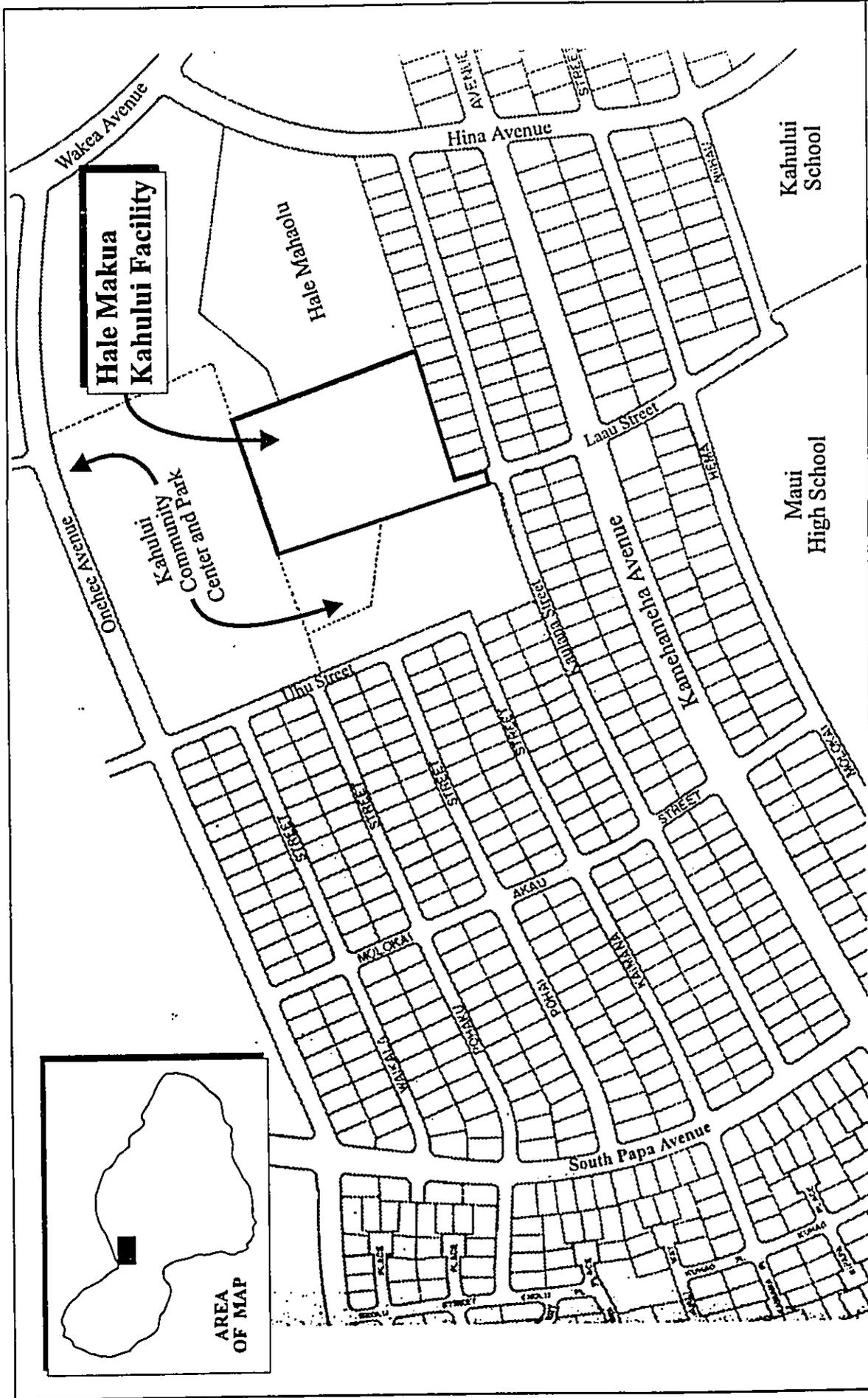
Hale Makua is a non-profit organization providing diverse healthcare services involving long-term nursing, rehabilitation, home health, day health, and foster family programs. Its Kahului facility, located on an approximately 8-acre parcel identified as TMK 3-8-07:84, currently provides 238 skilled/intermediate care facility nursing beds. See Figure 1. With growing demand for such beds, Hale Makua proposes to expand its Kahului facility with the addition of 16 new beds. Additional facility modifications are also proposed to improve patient services and operational efficiencies.

Facility improvements, depicted in Figure 2 and Figure 3, are as follows:

1. Sixteen (16) new skilled nursing beds (eight 2-bed units) are proposed to be located between the existing north and east wings. In addition to the new bed space, a nurse's station and common area are proposed.
2. The existing dining/activities room will be modified for use for rehabilitation services. This improvement will provide approximately 1,370 s.f. for rehabilitation services.
3. A new 1,451 sq. ft. dining/activities area is proposed for an area currently occupied by an open courtyard.
4. Approximately 29 new paved parking stalls in vicinity of the existing entry drive would be provided to meet additional parking requirements.
5. New storage rooms for medical equipment and supplies are proposed at strategically identified locations.

Total project cost is estimated to be \$1.9 million. Privately raised funds, as well as State funding will be used for project implementation.

Inasmuch as lands underlying the Kahului facility are leased from the County of Maui, and as State funding will be used for project construction, this environmental assessment has been

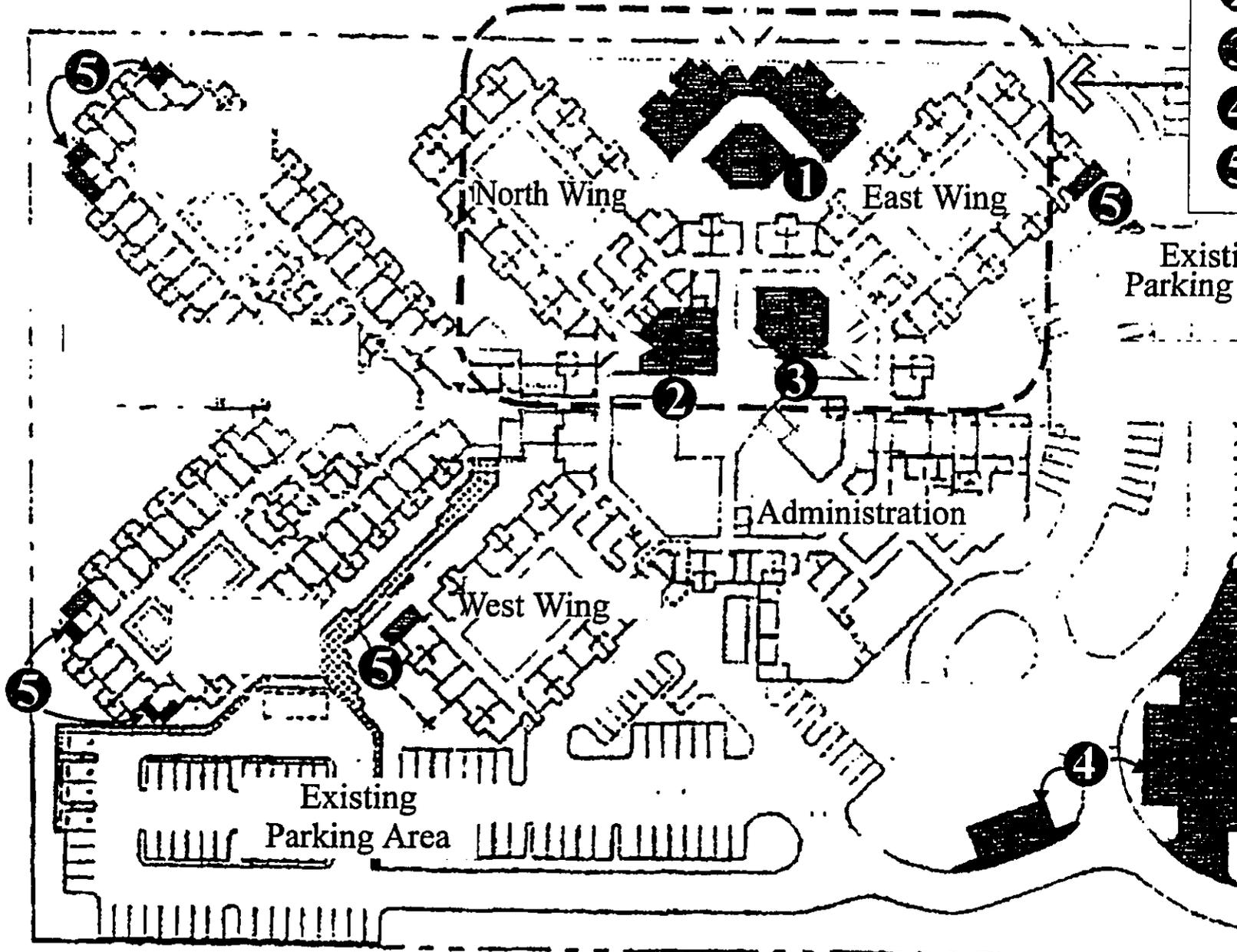


NOT TO SCALE

Hale Makua Kahului Expansion
Property Location Map

Figure 1





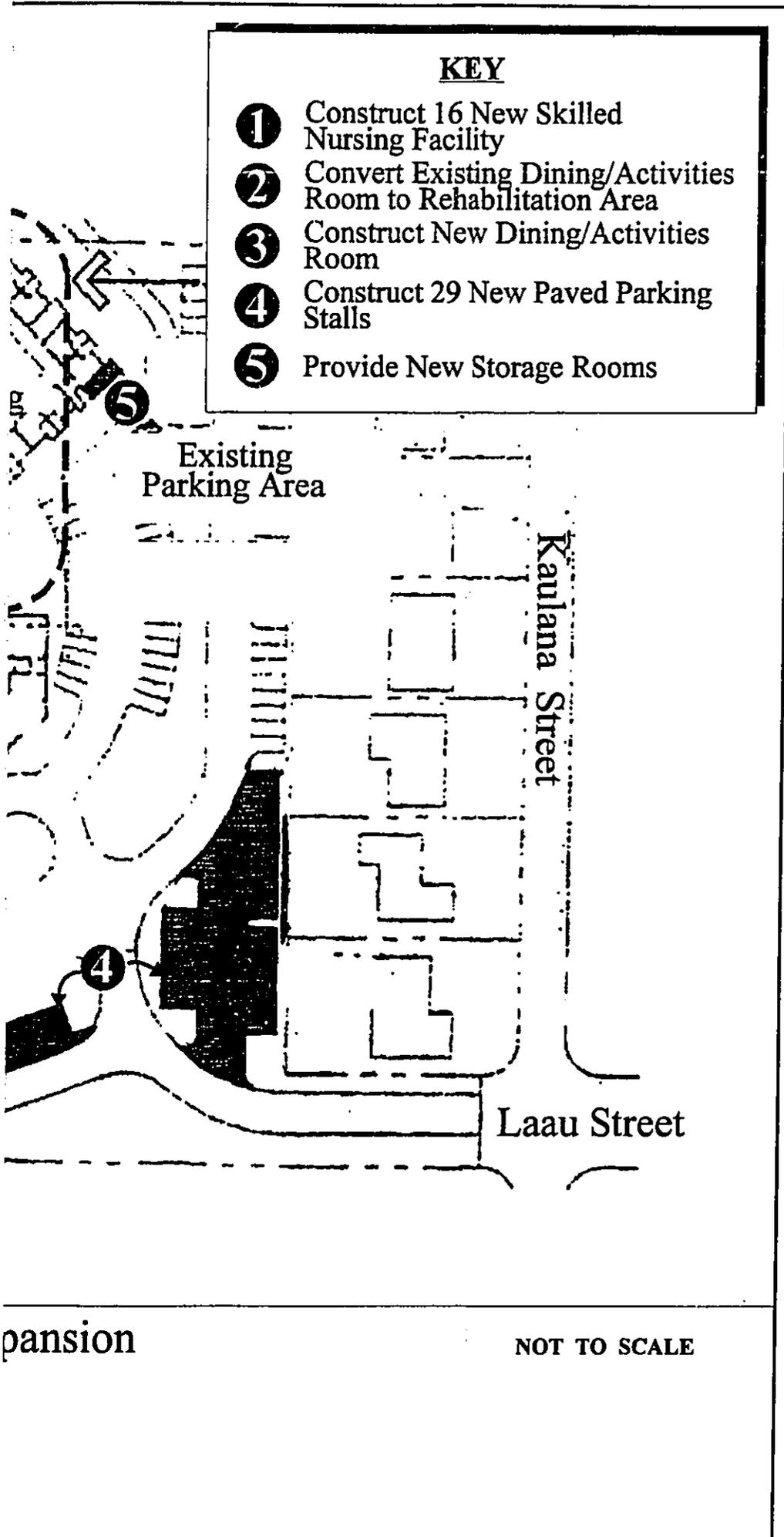
Source: Brian Shimomura & Associates, LLC

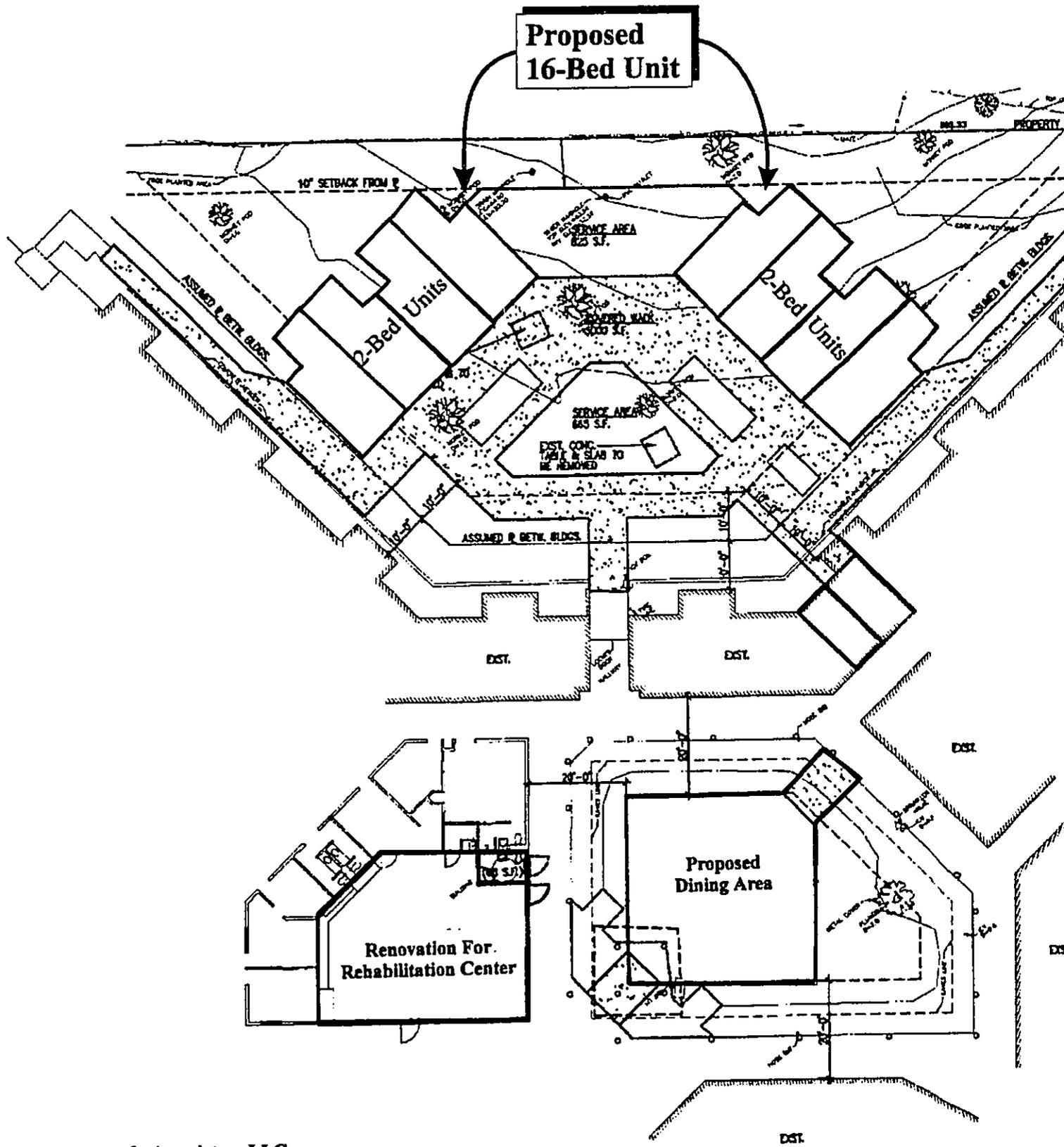
Figure 2

Hale Makua Kahului Expansion
Site Plan



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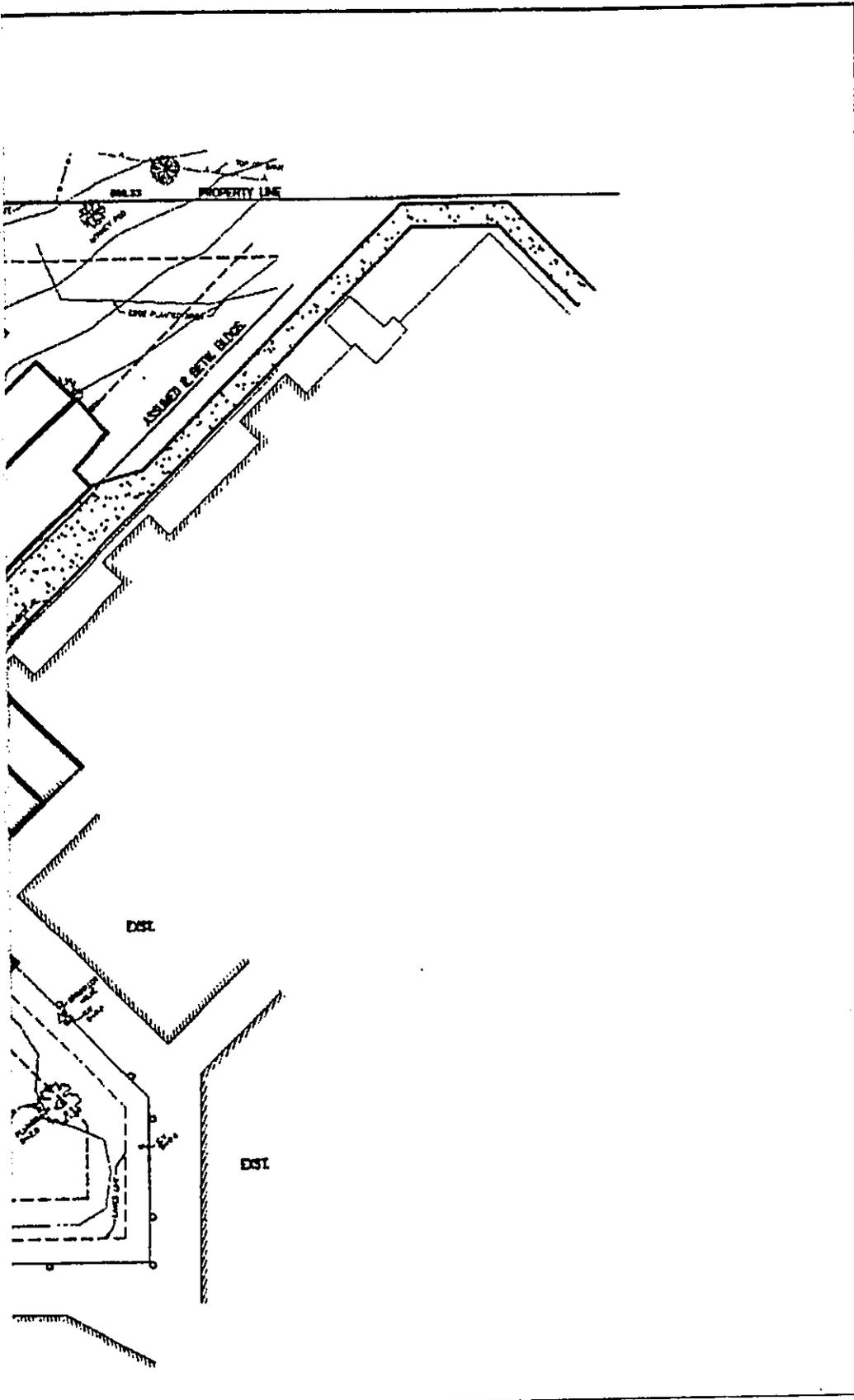
Source: Brian Shimomura & Associates, LLC

Figure 3

Hale Makua Kahului Expansion Partial Site Plan



DOCUMENT CAPTURED AS RECEIVED



Expansion

NOT TO SCALE

prepared pursuant to Chapter 343, Hawaii Revised Statutes.

A. OPERATIONS AND MANAGEMENT

Hale Makua is a diversified health care system providing skilled nursing, intermediate care nursing, home health care and related services and programs. Hale Makua facilities are located in Kahului and Wailuku. Key programs and services provided at the Kahului facility include long-term health care services and Day Health services. The 238 existing beds at Kahului are used for around-the-clock nursing care, while other onsite facilities support the Day Health program which offer day services to patients needing nursing care. The Day Health currently serves an average of 37 patients per day, Monday through Friday, between 7:30 a.m. and 5:00 p.m.

The existing Kahului facility includes physical and occupational therapy facilities, kitchen and dining facilities, and storage and maintenance areas. In addition, the Kahului facility houses administrative offices (e.g., executive offices, human resources, accounting) for the Hale Makua system.

The Kahului facility employs a staff of approximately 204 employees. The proposed 16-bed expansion would increase staffing by approximately 9 employees.

Key programs and services provided at the Wailuku facility also include long-term health care services and home health services. Accommodating a total of 124 beds, the Wailuku facility specializes in intermediate care.

II.
DESCRIPTION OF THE
EXISTING ENVIRONMENT

II. DESCRIPTION OF THE EXISTING ENVIRONMENT

A. PHYSICAL ENVIRONMENT

1. Surrounding Land Uses

The proposed project site is located in Kahului Town. Kahului is home to Kahului Harbor, the island's only deep water port, and the Kahului Airport, the second busiest airport in the State. With its proximity to the Harbor and the Airport, the Kahului region has emerged as the focal point for heavy industrial, light industrial and commercial activities and services such as warehousing, baseyard operations, automotive sales and maintenance, and retailing for equipment and materials suppliers. The region is considered Central Maui's commercial retailing center with the Kaahumanu Center, the Maui Mall and the Kahului Shopping Center.

Surrounding this commercial core is an expansive residential area comprised principally of single-family residential units. Residential uses encompass the area extending from Maui Memorial Hospital to Puunene Avenue.

The proposed improvements will be implemented at the existing Hale Makua Kahului facility. Land uses in proximity to the project site include the Kahului Community Center and Park located to the immediate west and north of the property. To the east of the project site is the Hale Mahaolu Elua and Ekahi elderly housing complex. Further to the northeast, across Wakea Avenue, are the Maui Pineapple Company, Ltd.'s Cannery and Kaahumanu Center. Single-family residences are generally located in adjacent areas to the south, east and west.

2. Climate

Like most areas of Hawaii, Maui's climate is relatively uniform year-round. Characteristic of Hawaii's climate, the project site experiences mild and uniform temperatures year round, moderate humidity and a relatively consistent northeasterly tradewind. Variation in climate on the island is largely left to local terrain.

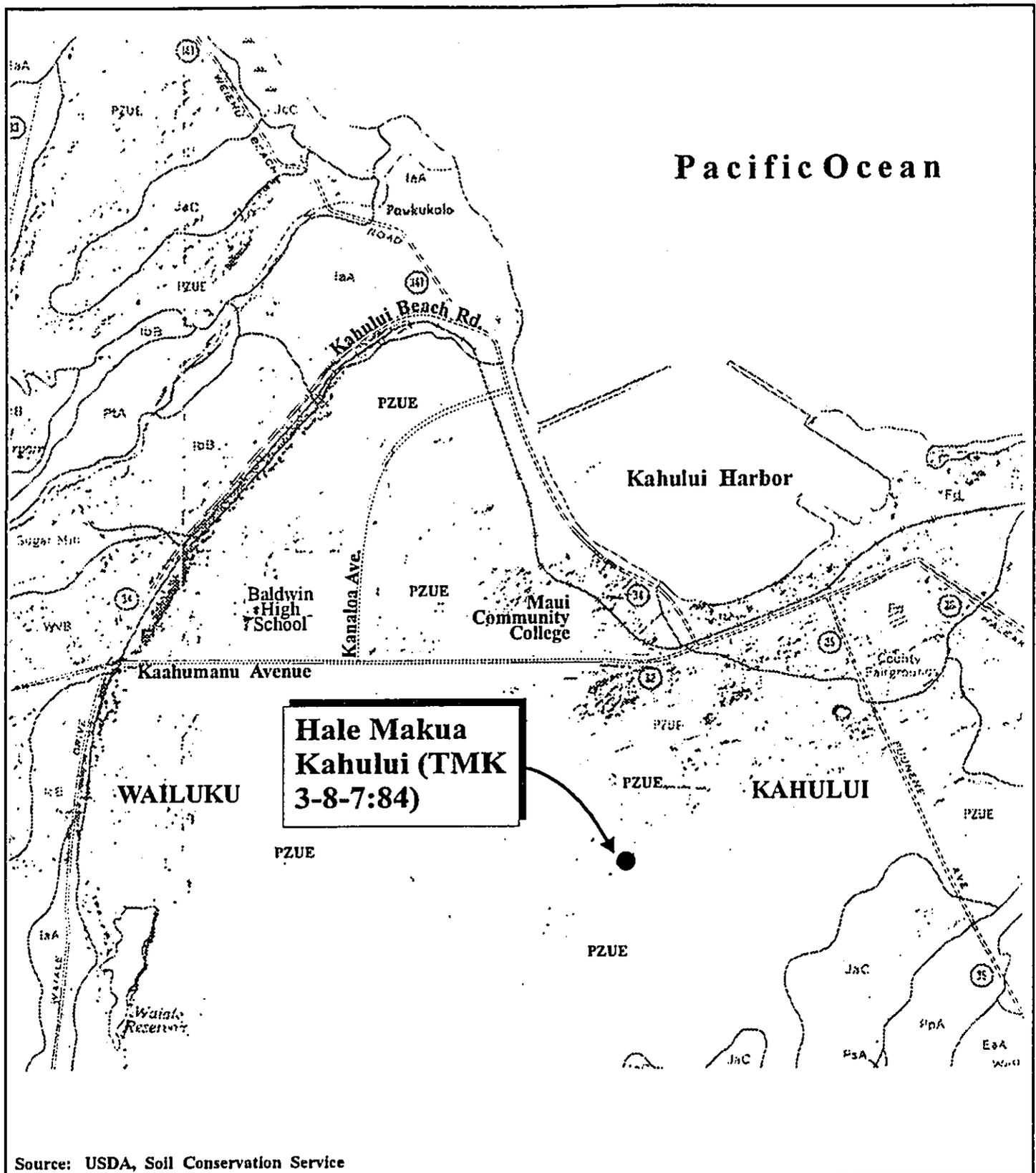
Average temperatures at the project site (based on temperatures recorded at Kahului Airport) range from lows in the 60's to highs in the 80's. August is historically the warmest month, while January and February are the coolest. Rainfall at the project site averages less than twenty (20) inches per year (Atlas of Hawaii, 1983). Winds in the Kahului region are predominantly out of the north-northeast and northeast.

3. Topography and Soil Characteristics

The project site is located on Maui's flat central isthmus. Underlying the subject property and surrounding lands are soils belonging to the Pulehu-Ewa-Jaucas association. The soil type specific to the project site is Puuone Sand, 7 to 30 percent slopes (PZUE). See Figure 4. PZUE soils are predominate in the Kahului region and are typified by a sandy surface layer underlain by cemented sand. Characteristics of this soil type are rapid permeability, slow runoff, and a moderate to severe erosion hazard. Naturally occurring vegetation in this series include bermuda grass, kiawe, and lantana.

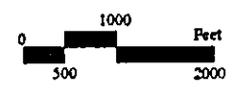
4. Flood and Tsunami Hazard

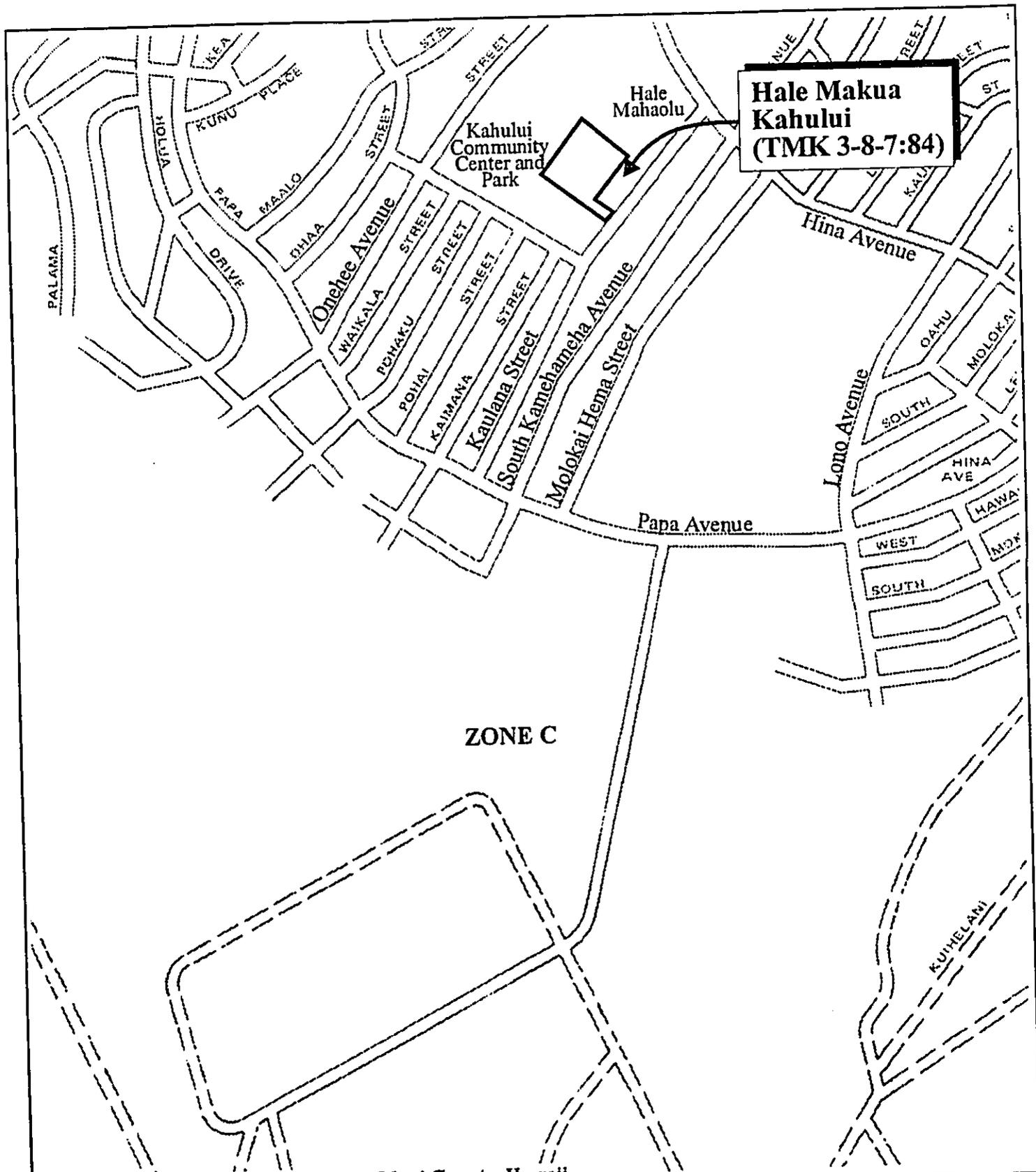
The project site is identified as Zone "C", an area of minimal flooding as determined by the Flood Insurance Rate Map for this region. See Figure 5. The site is located well beyond coastal inundation areas.



Source: USDA, Soil Conservation Service

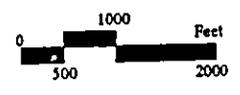
Figure 4 Hale Makua Kahului Expansion
Soils Classifications Map





Source: Flood Insurance Rate Map, Maui County, Hawaii

Figure 5 Hale Makua Kahului Expansion
Flood Insurance Rate Map



5. *Flora and Fauna*

The existing Hale Makua Kahului facility is fully improved and landscaped. The grounds include maintained grassed areas as well as trees and shrubs typically found in the surrounding residential areas. There are no rare or endangered species of plants found at the site.

Fauna and avifauna are also characteristic of urban areas. Fauna typically found in the vicinity include mongoose, rats, dogs and cats. Avifauna typically include mynas, several types of doves, and house sparrows. There are no endangered species of fauna or avifauna at the project site.

6. *Archaeological Resources*

An archaeological inventory survey was previously conducted in 1992 for Hale Makua's 118-bed expansion located at the western portion of the subject property. A copy of the 1992 report is incorporated herein as Appendix "A". The inventory survey included nine (9) test trenches in the 118-bed expansion area. No archaeological resources were encountered during this testing.

7. *Air Quality*

Air quality in the Wailuku-Kahului region is considered good as point sources (e.g., Maui Electric Power Plant, HC&S Mill) and non-point sources (e.g. automobile emissions) of emission are not significant to generate high concentration of pollutants. The relatively high quality of air can also be attributed to the region's constant exposure to winds which quickly disperse concentrations of emissions. This rapid dispersion is evident during burning of sugar cane in fields located to the southeast of the Kahului residential core.

8. Noise

Traffic noise is the predominant source of background noise in the vicinity of the project. To the north and west of the property, use of Kahului Community Center and Park, and the Kokua Pool facilities could also add to background noise levels in the surrounding neighborhood on an occasional basis.

9. Visual Resources

The West Maui Mountain Range and Haleakala are visible from the subject property. However, given its relatively low elevation in the flat central isthmus, the project site is not considered unique or special in terms of visual resource value.

B. SOCIO-ECONOMIC ENVIRONMENT

1. Population

The population of the County of Maui has exhibited relatively strong growth over the past decade with the 1990 population of 100,504, increasing by 27.6 percent to 128,241 in the year 2000 (U.S. Bureau of Census, Census 2000). Growth in the County is expected to continue, with resident population for the year 2010 estimated to be 145,872 (Community Resources, Inc., 1994).

Just as the County's population has grown, the resident population of the island of Maui and the Wailuku-Kahului region has increased dramatically over the past two (2) decades. Population gains were especially pronounced in the 1970's due to the growth of the visitor industry. The year 2000 population estimates for the island and the Wailuku-Kahului region are 112,349 and 40,452, respectively. By the year 2010, the population for the island of Maui and the Wailuku-Kahului region are projected to be 127,670 and 46,026, respectively.

2. *Economy*

The Kahului region is the Island's center of commerce. Combined with neighboring Wailuku, the region's economic character encompasses a broad range of commercial, service, and governmental activities. In addition, the region is surrounded by significant agricultural acreages which include sugar cane fields and pineapple fields. The vast expanse of agricultural land, managed by Hawaiian Commercial & Sugar (HC&S) is considered a key component of the local economy.

C. *PUBLIC SERVICES*

1. *Recreational and Social Services*

The Wailuku-Kahului region encompasses a full range of recreational opportunities, including numerous County facilities such as Pomaikai Park, Kahului Park and Community Center, Kanaha Beach Park and the War Memorial Complex.

2. *Police and Fire Protection*

Police protection for the Wailuku-Kahului region is provided by the County Police Department headquartered at the Wailuku Station, approximately one (1) mile from the project site. The region is served by the Department's Central Maui patrol.

Fire prevention, suppression, and protection services for the Wailuku-Kahului region are provided by the County Department of Fire Control's Kahului and Wailuku Stations. The Kahului Station, located on Dairy Road, is approximately 1.9 miles from the project site. The Wailuku Station, located in Wailuku town near Wells Park, is approximately 1.9 miles from the site.

3. **Solid Waste**

Single-family residential solid waste collection service is provided by the County of Maui on a once-a-week basis. Residential solid waste collected by County crews are disposed at the County's 55-acre Central Maui Landfill, located four miles southeast of the Kahului Airport. In addition to County-collected refuse, the Central Maui Landfill accepts commercial waste from private collection companies. Refuse collection for Hale Makua is provided by a private collection company.

4. **Health Care**

Health care services provided by Hale Makua have been previously described in Chapter I.

Health care services are also provided by Maui Memorial Hospital, the only major medical facility on the Island. Acute, general and emergency care services are provided by the 196-bed facility. The hospital is located approximately 1.2 miles from the project site. In addition, numerous privately operated medical/dental clinics and offices are located in the Wailuku-Kahului area to serve residents of the project as well as the region.

5. **Schools**

The Wailuku-Kahului region is served by the State Department of Education's public school system as well as several privately operated schools accommodating elementary, intermediate and high school students. Department of Education facilities in the Kahului area include Lihikai and Kahului Schools (Grades K-5), Maui Waena Intermediate School (Grades 6-8), and Maui High School (Grades 9-12). Existing facilities in the Wailuku area include Wailuku Elementary School (Grades K-5), Iao Intermediate School (Grades 6-8), and Baldwin High

School (Grades 9-12).

Maui Community College, a branch of the University of Hawaii, serves as the Island's only Community College.

D. INFRASTRUCTURE

1. Roadways

The Wailuku-Kahului region is served by a roadway network which includes arterial, collector and local roads. Major roadways include Kaahumanu Avenue, the principal linkage between Wailuku and Kahului, Hana Highway and Puunene Avenue.

Access to the subject property is off of Laau Street, via Kamehameha Avenue. Both Laau Street and Kamehameha Avenue are two-lane, two-way paved County roadways. Secondary access to the subject property is also offered from Kaulana Street, via Hina Avenue or South Papa Avenue.

2. Water

The Wailuku-Kahului region is served by the Department of Water Supply's (DWS) domestic water system. Existing waterlines in the vicinity of the proposed project site include a 12-inch distribution line located along the southeastern boundary of the existing Hale Makua parking area. In addition, connecting to this existing 12-inch line near the southern corner of the existing Hale Makua parking area is an 8-inch distribution line, which runs approximately 100 feet west along the existing Hale Makua driveway.

Other distribution lines in the vicinity include an 8-inch distribution line along Kaulana Street and Laau Street.

3. Wastewater

Domestic wastewater generated in the Wailuku-Kahului region is conveyed to the County's Wailuku-Kahului Wastewater Reclamation Facility located one-half mile south of Kahului Harbor. The design capacity of the facility is 7.9 million gallons per day (MGD).

Existing sewerlines located within the vicinity of the project site include an 8-inch gravity line located along the northeastern boundary of the existing Hale Makua property, between the existing Hale Makua and Hale Mahaolu facilities. This 8-inch line connects to an existing 8-inch sewerline located along Hina Avenue, near the intersection of Wakea Avenue and Hina Avenue.

4. Drainage

Storm runoff generated onsite sheetflows into a natural drainage channel located about 100 feet north of the project site. The natural drainageway traverses through the Kahului Community Park in a generally east to west direction to a sump area located near the intersection of Wakea Avenue and Hina Avenue.

5. Electric Power and Telephone Service

Electrical and telephone services are provided by Maui Electric Company and Verizon Hawaii, respectively.

**III.
POTENTIAL IMPACTS
AND MITIGATION MEASURES**

III. POTENTIAL IMPACTS AND MITIGATION MEASURES

A. PHYSICAL ENVIRONMENT

1. Surrounding Use

The proposed 16-bed expansion together with interior space improvements, parking lot improvements and provision of new storage areas, are compatible in use and scale with the existing Hale Makua facility. Located within the residential areas of Kahului Town, the project is adjacent to the Kahului Community Center and Park, Hale Mahaolu elderly complex, the Kokua Pool, and single-family residences. The proposed expansion is not anticipated to alter land use relationships between Hale Makua and surrounding properties.

2. Flora and Fauna

There are no known significant habitats or rare, endangered or threatened species of flora and fauna located within the project site. The proposed project is therefore not considered an adverse impact upon these environmental features.

3. Archaeology

As previously noted, an archaeological inventory survey with subsurface testing was conducted for the 118-bed expansion project in 1992. The expansion project site is located in the western portion of the subject property. The proposed 16-bed addition and parking lot improvements (representing the exterior elements of the proposed action) are located in areas previously disturbed during the initial construction of the Hale Makua facility.

In their response to the 1992 study, the State Historic Preservation Division (SHPD) noted that human burials were predicted to be present

on the project area based on previous findings from the sand dunes in the surrounding area. However, since the archaeological testing results yielded no evidence of burials, the SHPD determined that work in the 118-bed expansion area would have "no effect" on significant historic sites. See Appendix "A-1".

Early consultation comments from the SHPD recommends that archaeological monitoring be undertaken during all ground disturbing activities. See Chapter IX. Hale Makua will coordinate with SHPD to address monitoring requirements.

4. *Cultural Resources*

A detailed historical background of the project area is provided in the 1992 archaeological inventory report. Refer to Appendix "A". The report notes that the eastern area of the ahupua'a of Wailuku, encompassing the project site is not cited as a major area for habitation or agriculture. As shown on a 1882 map, the subject property and surrounding area south of Kahului was known as the "Wailuku Commons" which was shown to be vacant. It was not until the growth of the sugar industry did the Kahului area begin to grow.

The subject property is located in the midst of Kahului's residential area. The Kahului Hale Makua Facility was originally constructed in 1978. With the exception of the 118-unit expansion area which was developed in 1996, the surrounding lands were developed for residential or park use. Employees who have been at the Kahului facility since its initial opening in 1978 have indicated that the subject property has not been used for cultural practices or access.

5. *Air Quality*

Air quality impacts attributed to the project will include dust generated by short-term, construction-related activities. Site work such as grading and utilities and parking lot construction, for example, will generate airborne particulates. Dust control measures such as regular watering and sprinkling will be implemented as needed to minimize wind-blown emissions.

There are no long-term air quality impacts associated with the proposed action.

6. *Noise*

As with air quality, ambient noise conditions will be impacted by construction activities. Heavy construction equipment, such as bulldozers, front end loaders, and materials-carrying trucks and trailers, would be the dominant source of noise during the site construction period. To aid in the mitigation of construction noise impacts upon surrounding uses, construction activities will be conducted during the daylight hours only. If construction noise is anticipated to exceed the maximum allowable levels set forth in Hawaii Administrative Rules, Chapter 11-46, "Community Noise Control", a noise permit will be obtained.

The use of the property for a nursing facility is compatible with surrounding uses. On a long-term basis, the project will not generate adverse noise conditions.

7. *Visual Resources*

Areas surrounding the 16-bed addition and new parking stalls will be fully landscaped to create a site visually and aesthetically integrated with the surrounding developed properties. The expansion complements the existing Hale Makua facility as well as the single-family residential character of the surrounding community. There are no adverse impacts to scenic corridors anticipated as a result of the proposed action.

IMPACTS TO COMMUNITY SETTING

1. *Local Economy*

On a short-term basis, the project will support construction and construction-related employment. Over the long-term, the project will provide limited support to the service sector for project operations and maintenance. Direct onsite employment generated by the project will include new positions in nursing and housekeeping.

2. *Public Services*

The proposed expansion project is not anticipated to affect the service capabilities of educational, recreational, police, fire and emergency medical operations. The project will not extend existing service area limits for emergency services.

3. *Solid Waste*

Solid waste services for Hale Makua will continue to be provided by a private refuse collector. The proposed improvements will not adversely impact County solid waste services.

IMPACTS TO INFRASTRUCTURE

1. *Roadways*

Access to the subject property is off of Laau Street, via Kamehameha

Avenue. Both Laau Street and Kamehameha Avenue are two-lane, two-way paved County roadways. Secondary access to the property is also offered from Kaulana Street, via Hina Avenue or Papa Avenue.

Local streets serving the surrounding single family residences do not carry high traffic volumes. Because of the work shift distribution for Hale Makua's employees, trip generation is spread throughout the 24-hour operating day. Approximately nine (9) additional employees are anticipated to be required for the 16 new beds. Four (4) of the added employees are expected to work during the 7:00 a.m. to 3:00 p.m. shift, with three (3) working the 3:00 p.m. to 11:00 p.m. shift and two (2) working the 11:00 p.m. to 7:00 a.m. shift. It is noted that employee arrival and departure times for the work shifts are earlier than the normal morning and afternoon peak hours. From a traffic impact standpoint, therefore, the proposed 16-bed expansion is not anticipated to adversely affect existing intersection and roadway operating service levels.

Visitor traffic is confined to the day and evening shifts. The estimated number of additional visitor families to the facility due to the expansion are 4 and 10 for the day and evening shifts, respectively. The volume of visitor traffic is distributed throughout the day and early evening, and is not anticipated to result in any traffic delay problems at surrounding local street intersections.

Day Health traffic include families dropping off and picking up patients from the Day Health program. An average of 37 patients participate in the program each day. The majority of these patients are transported to the facility via a Maui Economic Opportunity van. Accordingly, the volume of traffic associated with the Day Health Program is not

considered significant.

2. Water

Average daily domestic water demand at the existing facility is estimated at approximately 13,900 gallons per day (gpd) or 58 gallons per patient per day. An existing private brackish water irrigation well is located onsite and serves as the water source for exterior landscaping. Landscaped areas within the building facilities are irrigated from the domestic (County) system.

Based on the 58 gallons per patient per day ratio, it is estimated that the proposed 16 additional beds will generate an additional average daily domestic water demand of 928 gpd (58 gallons X 16 beds). The increase in demand can be accommodated by the existing infrastructure serving Hale Makua.

3. Wastewater

Wastewater from the Kahului Facility is collected by the County's collection and transmission system and treated and disposed at the Wailuku-Kahului Wastewater Reclamation Facility.

As previously noted, the total additional water demand for the 16-bed expansion is estimated at approximately 928 gpd. This volume excludes irrigation demand which is met through an existing onsite brackish water well. However, a portion of the landscaped area found within the facility is served by the domestic system. With these factors, a wastewater generation rate of 85% of total domestic water demand is assumed. This basis is considered a best estimate only and is intended to provide an order of magnitude estimate of wastewater contribution from the facility.

With this assumption, it is estimated that the additional wastewater contribution from the 16 additional beds would be approximately 790 gpd (928 gpd domestic water use X 0.85). Existing wastewater collection, transmission and disposal facilities will not be negatively impacted by the proposed action.

4. Drainage

The majority of runoff generated onsite sheet flows to a natural drainage channel located north of the project site. It is anticipated that the existing drainage patterns will be maintained.

Runoff from the new parking area will be directed to drain inlets which will convey flows to subsurface perforated drain pipes. Accordingly, there will be no increase in stormwater runoff resulting from the parking lot improvements.

The nominal amount of storm runoff generated from the 16-bed addition and the new dining area (which will replace an open courtyard) will be conveyed either to an existing drainline along the facility's eastern property line (abutting Hale Mahaolu) or to subsurface perforated drain pipes.

Development of the proposed project is not expected to cause any adverse effects to adjacent or downstream properties.

**IV.
RELATIONSHIP TO
GOVERNMENTAL PLANS,
POLICIES AND CONTROLS**

***IV. RELATIONSHIP TO GOVERNMENTAL PLANS,
POLICIES AND CONTROLS***

A. STATE LAND USE DISTRICTS

Chapter 205, Hawaii Revised Statutes, relating to the Land Use Commission, establishes the four major land use districts in which all lands in the State are placed. These districts are designated "Urban", "Rural", Agricultural" and "Conservation". The subject parcel is within the "Urban" District. The proposed action involves the use of the property for the expansion of the existing Hale Makua facility which is compatible with the "Urban" designation.

B. MAUI COUNTY GENERAL PLAN

The Maui County General Plan (1990 Update) sets forth broad objectives and policies to help guide the long range development of the County. As stated in the Maui County Charter, "The purpose of the General Plan is to recognize and state the major problems and opportunities concerning the needs and the development of the County and the social, economic and environmental effects of such development and set forth the desired sequence, patterns and characteristics of future development."

The proposed action is in keeping with the following General Plan objective and policy:

Objective:

1. To meet the health needs of all residents and visitors.
2. To create a community in which the needs of all segments of the population will be recognized and met.

Policies:

1. Encourage the expansion and improvement of our hospitals and our public and private medical facilities.
2. Provide a variety of services and programs that meet the special needs of recent immigrants and of the young, the elderly and the handicapped.

C. WAILUKU-KAHULUI COMMUNITY PLAN

The subject parcel is located in the Wailuku-Kahului Community Plan region which is one of nine Community Plan regions established in the County of Maui. Planning for each region is guided by the respective Community Plans, which are designed to implement the Maui County General Plan. Each Community Plan contains recommendations and standards which guide the sequencing, patterns and characteristics of future development in the region.

The Community Plan's land use designation for the subject property is Public/Quasi-Public consistent. The proposed action is consistent with the Public/Quasi-Public designation.

The proposed project conforms with the Wailuku-Kahului Community Plan's recommendation to improve health and public safety services and facilities.

D. ZONING

The subject property is County zoned Public/Quasi-Public. The proposed improvements are consistent with County of Maui zoning provisions.

E. COASTAL ZONE MANAGEMENT OBJECTIVES AND POLICIES

Pursuant to Chapter 205A, Hawaii Revised Statutes, all lands within the State are considered within the coastal zone. This section addresses the project's relationship to applicable coastal zone management considerations as set forth in Chapter 205A. It is noted that the project site is outside of the County

Special Management Area.

Recreational Resources

Objective: Provide coastal recreational opportunities accessible to the public.

Policies:

- a. Improve coordination and funding of coastal recreational planning and management; and
- b. Provide adequate, accessible, and diverse recreational opportunities in the coastal zone management area by:
 - (i) Protecting coastal resources uniquely suited for recreational activities that cannot be provided in other areas;
 - (ii) Requiring replacement of coastal resources having significant recreational value, including but not limited to surfing sites, fishponds, and sand beaches, when such resources will be unavoidably damaged by development; or requiring reasonable monetary compensation to the state for recreation when replacement is not feasible or desirable;
 - (iii) Providing and managing adequate public access, consistent with conservation of natural resources, to and along shorelines with recreational value;
 - (iv) Providing an adequate supply of shoreline parks and other recreational facilities suitable for public recreation;
 - (v) Ensuring public recreational use of county, state, and federally owned or controlled shoreline lands and waters having recreational value consistent with public safety standards and conservation of natural resources;
 - (vi) Adopting water quality standards and regulating point and non-point sources of pollution to protect, and where feasible, restore the recreational value of coastal waters;
 - (vii) Developing new shoreline recreational opportunities, where appropriate, such as artificial lagoons, artificial beaches, and artificial reefs for surfing and fishing; and

- (viii) Encouraging reasonable dedication of shoreline areas with recreational value for public use as part of discretionary approvals or permits by the land use commission, board of land and natural resources, county planning commissions; and crediting such dedication against the requirements of Section 46-6, HRS.

Response: The proposed project is not located on the shoreline and is not anticipated to affect existing coastal or inland recreational resources.

Historic Resources

Objective: Protect, preserve and, where desirable, restore those natural and manmade historic and prehistoric resources in the coastal zone management area that are significant in Hawaiian and American history and culture.

Policies:

- a. Identify and analyze significant archeological resources;
- b. Maximize information retention through preservation of remains and artifacts or salvage operations; and
- c. Support state goals for protection, restoration, interpretation, and display of historic resources.

Response: The project site has been previously disturbed in connection with the development of the existing Hale Makua Kahului facility. An archaeological monitoring plan will be implemented during ground disturbing activities. Should any cultural materials be uncovered during construction, the applicant intends to notify and work closely with the SHPD in implementing applicable mitigation measures. Further, if human burials are inadvertently discovered, work shall stop immediately, and both the SHPD and the Maui/Lanai Islands Burial Council will be notified.

Scenic and Open Space Resources

Objectives: Protect, preserve and, where desirable, restore or improve the quality of coastal scenic and open space resources.

Policies:

- a. Identify valued scenic resources in the coastal zone management area;
- b. Ensure that new developments are compatible with their visual environment by designing and locating such developments to minimize the alteration of natural landforms and existing public views to and along the shoreline;
- c. Preserve, maintain, and, where desirable, improve and restore shoreline open space and scenic resources; and
- d. Encourage those developments which are not coastal dependent to locate in inland areas.

Response: The proposed action will not adversely impact coastal scenic or open space resources.

Coastal Ecosystems

Objective: Protect valuable coastal ecosystems, including reefs, from disruption and minimize adverse impacts on all coastal ecosystems.

Policies:

- a. Improve the technical basis for natural resource management;
- b. Preserve valuable coastal ecosystems, including reefs, of significant biological or economic importance;
- c. Minimize disruption or degradation of coastal water ecosystems by effective regulation of stream diversions, channelization, and similar land and water uses, recognizing competing water needs; and
- d. Promote water quantity and quality planning and management practices which reflect the tolerance of fresh water and marine ecosystems and prohibit land and water uses which violate state water quality standards.

Response: The proposed improvements are not expected to adversely impact coastal ecosystems. The project will comply with applicable County drainage provisions.

Economic Uses

Objective: Provide public or private facilities and improvements important to the State's economy in suitable locations.

Policies:

- a. Concentrate coastal dependent development in appropriate areas;
- b. Ensure that coastal dependent development such as harbors and ports, and coastal related development such as visitor facilities and energy generating facilities, are located, designed, and constructed to minimize adverse social, visual, and environmental impacts in the coastal zone management area; and
- c. Direct the location and expansion of coastal dependent developments to areas presently designated and used for such developments and permit reasonable long-term growth at such areas, and permit coastal dependent development outside of presently designated areas when:
 - (i) Use of presently designated locations is not feasible;
 - (ii) Adverse environmental effects are minimized; and
 - (iii) The development is important to the State's economy.

Response: The project would have a beneficial short-term impact on the economy during construction. In the long term, the project provides employment relating to the operation of the 16 additional beds. The proposed action is not inconsistent with the objectives and policies for economic use.

Coastal Hazards

Objective: Reduce hazard to life and property from tsunami, storm waves, stream flooding, erosion, subsidence and pollution.

Policies

- a. Develop and communicate adequate information about storm wave, tsunami, flood, erosion, subsidence, and point and nonpoint source pollution hazards;

- b. Control development in areas subject to storm wave, tsunami, flood, erosion, hurricane, wind, subsidence, and point and nonpoint pollution hazards;
- c. Ensure that developments comply with requirements of the Federal Flood Insurance Program;
- d. Prevent coastal flooding from inland projects; and
- e. Develop a coastal point and nonpoint source pollution control program.

Response: Erosion control measures will be incorporated during the construction period to minimize soil loss and erosion hazards. No significant adverse drainage impacts to downstream properties will result from the proposed project.

Managing Development

Objective: Improve the development review process, communication, and public participation in the management of coastal resources and hazards.

Policies:

- a. Use, implement, and enforce existing law effectively to the maximum extent possible in managing present and future coastal zone development;
- b. Facilitate timely processing of applications for development permits and resolve overlapping of conflicting permit requirements; and
- c. Communicate the potential short and long-term impacts of proposed significant coastal developments early in their life-cycle and in terms understandable to the public to facilitate public participation in the planning and review process.

Response:

Early consultation and public review are required as part of the Environmental Assessment process. Applicable State and County requirements will be adhered to in the design and construction of the proposed project.

Public participation

Objective: Stimulate public awareness, education, and participation in coastal management.

Policies:

- a. Maintain a public advisory body to identify coastal management problems and to provide policy advice and assistance to the coastal zone management program;
- b. Disseminate information on coastal management issues by means of educational materials, published reports, staff contact, and public workshops for persons and organizations concerned with coastal-related issues, developments, and government activities; and
- c. Organize workshops, policy dialogues, and site-specific mediations to respond to coastal issues and conflicts.

Response: Comments have been solicited as part of the Environmental Assessment process. The proposed project is not contrary to the objective of public awareness, education and participation.

Beach protection

Objective: Protect beaches for public use and recreation.

Policies:

- a. Locate new structures inland from the shoreline setback to conserve open space and to minimize loss of improvements due to erosion;
- b. Prohibit construction of private erosion-protection structures seaward of the shoreline, except when they result in improved aesthetic and engineering solutions to erosion at the sites and do not interfere with existing recreational and waterline activities; and
- c. Minimize the construction of public erosion-protection structures seaward of the shoreline.

Response: The project site is not located adjacent to any beach or shoreline. There are no adverse impacts to this component of the environment.

Marine Resources

Objective: Implement the State's ocean resources management plan.

Policies:

- a. Exercise an overall conservation ethic, and practice stewardship in the protection, use, and development of marine and coastal resources;
- b. Assure that the use and development of marine and coastal resources are ecologically and environmentally sound and economically beneficial;
- c. Coordinate the management of marine and coastal resources and activities management to improve effectiveness and efficiency;
- d. Assert and articulate the interests of the State as a partner with federal agencies in the sound management of ocean resources within the United States exclusive economic zone;
- e. Promote research, study, and understanding of ocean processes, marine life, and other ocean resources in order to acquire and inventory information necessary to understand how ocean development activities relate to and impact upon ocean and coastal resources; and
- f. Encourage research and development of new, innovative technologies for exploring, using, or protecting marine and coastal resources.

Response: The proposed project is not anticipated to have adverse effects upon marine and coastal resources in the vicinity.

V.
**SUMMARY OF ADVERSE
ENVIRONMENTAL EFFECTS
WHICH CANNOT BE AVOIDED**

***V. SUMMARY OF ADVERSE ENVIRONMENTAL EFFECTS
WHICH CANNOT BE AVOIDED***

The proposed improvements to the Hale Makua Kahului Facility will result in unavoidable construction-related impacts as described in Chapter III, Potential Impacts and Mitigation Measures.

Potential effects include noise generated impacts occurring from site preparation and construction activities. In addition, there may be temporary air quality impacts associated with dust generated from construction activities, and exhaust emissions discharged by construction equipment. Best management practices will be implemented, as appropriate, to mitigate and minimize the effects of construction.

The proposed project is not anticipated to create any significant, long-term adverse environmental effects.

VI.
ALTERNATIVES ANALYSIS

VI. ALTERNATIVES ANALYSIS

The proposed improvements to Hale Makua's Kahului facility are designed to expand and improve patient services. The primary work element of providing 16 additional beds is deemed essential in addressing the continuing shortage of skilled nursing bed space. An alternative, which in the past has been considered but not deemed feasible as a near term solution, is the development of a new skilled nursing facility at a new campus site. This option involves long-term planning and fundraising and was not considered in light of the additional capacity potential available at the existing Kahului facility.

**VII.
IRREVERSIBLE AND
IRRETRIEVABLE COMMITMENT
OF RESOURCES**

***VII. IRREVERSIBLE AND IRRETRIEVABLE
COMMITMENT OF RESOURCES***

The proposed project would involve the commitment of fuel, land, labor and material resources. Portions of existing landscaped areas would be occupied by the proposed improvements. The commitment of physical space at the Kahului property will yield community-wide benefits without compromising the operations of the facility.

VIII.
FINDINGS AND CONCLUSIONS

VIII. FINDINGS AND CONCLUSIONS

The proposed project involves the construction of a 16-bed addition, new parking and interior renovations to Hale Makua's Kahului facility. Every phase of the proposed action, expected consequences, both primary and secondary, and the cumulative as well as the short-term and the long-term effects of the action have been evaluated in accordance with the Significance Criteria of Section 11-200-12 of the Hawaii Administrative Rules. Based on the analysis, the proposed project will not result in any significant impacts. Discussion of project conformance to the criteria is noted as follows:

1. ***No Irrevocable Commitment to Loss of Destruction of any Natural or Cultural Resources Would Occur as a Result of the Proposed Project***

Previous archaeological inventory work (1992) for Hale Makua's 118-bed expansion found no evidence of archaeological resources in the undeveloped portion of the property. The areas proposed for the 16-bed expansion and the 29 new parking stalls have been previously disturbed as part of the original construction of Hale Makua. Hale Makua will coordinate with SHPD to address monitoring requirements during ground disturbing activities. Additionally, if human burials are inadvertently discovered, work shall stop immediately, and both the SHPD and the Maui/Lanai Islands Burial Council will be notified.

2. ***The Proposed Project Would Not Curtail the Range of Beneficial Uses of the Environment***

The project site is located within a parcel substantially developed for health care services. The commitment of land resources would not curtail the range of beneficial uses of the environment.

3. *The Proposed Action Does Not Conflict With the State's Long-Term Environmental Policies or Goals or Guidelines as Expressed in Chapter 344, Hawaii Revised Statutes*

The State Environmental Policy and Guidelines are set forth in Chapter 344, Hawaii Revised Statutes. The proposed action is in consonance with policies and guidelines set forth in Chapter 344.

4. *The Economic or Social Welfare of the Community or State Would Not Be Substantially Affected*

The proposed project provides a direct economic benefit during the construction phase of the project. In the long term, there would be support to the service sector. The project will have a beneficial effect upon the social welfare of the community by providing additional skilled nursing beds.

5. *The Proposed Action Does Not Affect Public Health*

No negative impacts to the public's health and welfare are anticipated as a result of the proposed action.

6. *No Substantial Secondary Impacts Such as Population Changes or Effects on Public Facilities Are Anticipated*

The proposed project is not anticipated to have an effect upon the island's population base and should not place significant new demands on the island's public services.

7. *No Substantial Degradation of Environmental Quality is Anticipated*

As the proposed project is implemented, appropriate Best Management Practices will be used to ensure that adverse environmental effects are mitigated. No substantial degradation of environmental quality resulting from the proposed

project is anticipated.

8. *The Proposed Action Does Not Involve a Commitment to Larger Actions Nor Would Cumulative Impacts Result in Considerable Effects Upon the Environment*

The proposed project will be integrated with Hale Makua's Kahului facility. There are no larger actions which are linked to the proposed action. The action is not anticipated to create any significant long-term environmental effects.

9. *No Rare, Threatened or Endangered Species or Their Habitats Would Be Adversely Affected by the Proposed Project*

There are no known significant habitats or rare, endangered or threatened species of flora and fauna at the project site. The removal of existing flora and displacement of fauna or avifauna from the area due to construction activities are not considered a negative impact upon these environmental features.

10. *Air Quality, Water Quality or Ambient Noise Levels Would Not Be Detrimentially Affected by the Proposed Project*

Appropriate best management practices will be used during construction to ensure that adverse environmental effects on air quality and noise are minimized. The project should have no adverse effect upon water quality.

In the long term, the proposed project is not anticipated to have a significant impact on air quality, water quality or noise parameters.

11. *The Proposed Project Would Not Affect Environmentally Sensitive Areas Such as Flood Plains, Tsunami Zones, Erosion-prone Areas, Geologically Hazardous Lands, Estuaries, Fresh Waters, or Coastal Waters*

The subject property is not located within or would not affect environmentally sensitive areas. The site is located in an area of minimal flooding and not subject to tsunami inundation. The underlying soils are not erosion-prone. There are no geologically hazardous lands, estuaries or coastal areas within or adjacent to the subject property.

12. *The Proposed Action Would Not Substantially Affect Scenic Vistas and Viewplanes Identified in County or State Plans or Studies*

The proposed 16-bed addition will be one-story in height and compatible with building heights of the adjacent wings. The proposed project will be complementary to the surrounding neighborhood and its scenic character.

13. *The Proposed Action Would Not Require Substantial Energy Consumption*

The construction of the proposed improvements will involve the short-term commitment of fuel for equipment, vehicles and machinery during construction activities. However, this use is not anticipated to result in substantial consumption of energy resources. In the long term, the project will create an additional demand for electricity. However, this demand is not substantive or excessive within the context of the region's overall energy consumption.

Based on the foregoing findings, it is anticipated that the proposed action will not result in any significant adverse impacts.

IX.
AGENCIES CONSULTED

IX. AGENCIES CONSULTED

The following agencies were consulted prior to the preparation of the Draft Environmental Assessment. Letters received and responses to substantive comments are included in this section.

1. Neal Fujiwara, Soil Conservationist
Natural Resources Conservation Service
U.S. Department of Agriculture
210 Imi Kala Street, Suite 209
Wailuku, Hawaii 96793-2100
2. William Lennan
Department of the Army
U.S. Army Engineer District, Hnl.
Attn: Operations Division
Bldg. T-1, Room 105
Fort Shafter, Hawaii 96858-5440
3. Robert P. Smith
Pacific Islands Manager
U. S. Fish and Wildlife Service
P.O. Box 50167
Honolulu, Hawaii 96850
4. David Blane, Director
State of Hawaii
Office of Planning
Department of Business, Economic
Development and Tourism
P.O. Box 2359
Honolulu, Hawaii 96804
5. Patricia Hamamoto, Superintendent
State of Hawaii
Department of Education
P.O. Box 2360
Honolulu, Hawaii 96804
6. Denis Lau, Chief
Clean Water Branch
State of Hawaii
Department of Health
919 Ala Moana Blvd., Room 300
Honolulu, Hawaii 96814
7. Herbert Matsubayashi
District Environmental Health
Program Chief
State of Hawaii
Department of Health
54 High Street
Wailuku, Hawaii 96793
8. Gilbert Coloma-Agaran
State of Hawaii
Department of Land and Natural
Resources
P. O. Box 621
Honolulu, Hawaii 96809
9. Don Hibbard
State of Hawaii
Department of Land and Natural
Resources
State Historic Preservation Division
601 Kamokila Blvd., Room 555
Kapolei, Hawaii 96707
10. Fred Cajigal, Maui District Engineer
State of Hawaii
Department of Transportation
Highways Division
650 Palapala Drive
Kahului, Hawaii 96732
11. Colin Kippen, Deputy Administrator
Office of Hawaiian Affairs
711 Kapiolani Boulevard, Suite 500
Honolulu, Hawaii 96813
12. Clayton Ishikawa, Chief
County of Maui
Department of Fire Control
200 Dairy Road
Kahului, Hawaii 96732

13. Alice Lee, Director
County of Maui
**Department of Housing and
Human Concerns**
200 S. High Street
Wailuku, Hawaii 96793
14. John Min, Director
County of Maui
Department of Planning
250 South High Street
Wailuku, Hawaii 96793
15. Floyd Miyazono, Director
County of Maui
Department of Parks and Recreation
1580 Kaahumanu Avenue
Wailuku, Hawaii 96793
16. David Goode, Director
County of Maui
**Department of Public Works and
Waste Management**
200 S. High Street
Wailuku, Hawaii 96793
17. Tom Phillips, Chief
County of Maui
Police Department
55 Mahalani Street
Wailuku, Hawaii 96793
18. David Craddick, Director
County of Maui
Department of Water Supply
200 S. High Street
Wailuku, Hawaii 96793
19. **Maui Electric Co., Ltd.**
P. O. Box 398
Kahului, Hawaii 96732



210 Iml Kala Street
Suite 209
Wailuku, HI 96793
Ph: 244-3100 ext.3

Our People...Our Islands...In Harmony

December 20, 2001

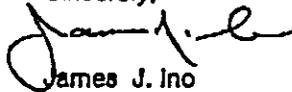
Mr. Tony Krieg, President, CEO
Hale Makua, Kahului
472 Kaulana Street
Kahului, HI 96732-2099

Dear Mr. Krieg,

SUBJECT: Proposed Improvements at Hale Makua Kahului; TMK: 3-8-07:84

Erosion control plan is adequate.

Sincerely,


James J. Ino
Soil Conservationist

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DEC 21 2001

HALE MAKUA



REPLY TO
ATTENTION OF

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

January 3, 2002 .

Regulatory Branch

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JAN 8 2002

HALE MAKUA ADMINISTRATION

Mr. Tony Krieg
President and CEO
Hale Makua
472 Kaulana Street
Kahului, Hawaii 96732-2099

Dear Mr. Krieg:

This responds to your letter dated December 11, 2001 requesting comments on plans for improvements to Hale Makua. Based on the information you provided it appears that a Department of the Army permit will not be required for the project. Please provide us a copy of the draft environmental assessment when it is completed.

If you have any questions concerning this determination please contact Mr. William Lennan of my staff at 438-6986 or FAX 438-4060 and mention File Number 200200149.

Sincerely

A handwritten signature in cursive script that reads "George P. Young".

George P. Young, P.E.
Chief, Regulatory Branch

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BENJAMIN J. GAYETANO
GOVERNOR



PATRICIA HAMAMOTO
SUPERINTENDENT

STATE OF HAWAII
DEPARTMENT OF EDUCATION
P.O. BOX 2280
HONOLULU, HAWAII 96804

OFFICE OF THE SUPERINTENDENT

December 26, 2001

Mr. Tony Krieg
President and CEO
Hale Makua
472 Kaulana Street
Kahului, Hawai'i 96732-2099

Dear Mr. Krieg:

Subject: Proposed Improvements at Hale Makua Kahului

The Department of Education has no comment on the proposed improvements.

Thank you for the opportunity to respond.

Very truly yours,

Patricia Hamamoto
Superintendent

PH:hy

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DEC 31 2001

HALE MAKUA

BENJAMIN J. CAYETANO
GOVERNOR



BRUCE S. ANDERSON, Ph.D., M.P.H.
DIRECTOR OF HEALTH

STATE OF HAWAII
DEPARTMENT OF HEALTH
P.O. BOX 3378
HONOLULU, HAWAII 96801-3378

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JAN 14 2002

HALE MAKUA ADMINISTRATION

In reply, please refer to:
EMD / CWD
01007PSS.02

January 8, 2002

Mr. Tony Krieg, President and CEO
Hale Makua Board of Trustees
472 Kaulana Street
Kahului, Maui, Hawaii 96732-2099

Dear Mr. Krieg:

**Subject: Proposed Improvements at Hale Makua Kahului
TMK: 3-8-07:84
Kahului, Maui, Hawaii**

The Department of Health (Department) acknowledges receipt of your submittal dated December 11, 2001, and has the following comments:

1. The applicant should contact the Army Corps of Engineers to identify whether a Federal permit (including a Department of Army permit) is required for this project. A Section 401 Water Quality Certification is required for "Any applicant for Federal license or permit to conduct any activity including, but not limited to, the construction or operation of facilities, which may result in any discharge into the navigable waters..." pursuant to Section 401(a)(1) of the Federal Water Pollution Act (commonly known as the "Clean Water Act (CWA)").
2. A National Pollutant Discharge Elimination System (NPDES) general permit coverage is required for each of the following activities which discharges into State Waters:
 - a. Discharge of storm water runoff associated with industrial activities, as defined in Title 40, Code of Federal Regulations, Sections 122.26(b)(14)(i) through 122.26(b)(14)(ix) and 122.26(b)(14)(xi);
 - b. Discharge of storm water runoff associated with construction activities that involve the disturbance of five (5) acres or greater, including clearing, grading, and excavation;
 - c. Discharge of treated effluent from leaking underground storage tank remedial activities;
 - d. Discharge of once through cooling water less than one million gallons per day;

Mr. Tony Krieg, President and CEO
January 8, 2002
Page 2

- e. Discharge of hydrotesting water;
- f. Discharge of construction dewatering effluent;
- g. Discharge of treated effluent from petroleum bulk stations and terminals; and
- h. Discharge of treated effluent from well drilling activities.

Any person wishing to be covered by the NPDES General Permit for any of the above discharge activities shall file a Notice of Intent with the Department's Clean Water Branch at least thirty (30) days prior to the commencement of any discharges to State waters. Discharges shall be permissible following issuance of a Notice of General Permit Coverage.

- 3. If the construction activities involve the disturbance of one acre or greater, including clearing, grading, and excavation, and will take place or extend after March 10, 2003, an NPDES general permit coverage is required for discharges of storm water runoff into State waters.
- 4. The applicant may be required to apply for an Individual NPDES Permit if there is any type of process wastewater discharge from the project into State waters.

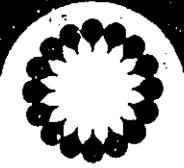
Should you have any further questions regarding this matter, please contact Mr. Shané Sumida of the Engineering Section, Clean Water Branch, at (808) 586-4309.

Sincerely,



DENIS R. LAU, P.E., CHIEF
Clean Water Branch

SS/nk



HALE MAKUA
A Tradition of Caring

SEP 16 2002

The logo is symbolic of our warm, personal health services. The sun never sets within this community trust, where a half-century ago, the people of our island home breathed into our walls and people a special spirit of care which has become the tradition of Hale Makua.

September 13, 2002

Denis R. Lau, P.E., Chief
Clean Water Branch
Department of Health
P. O. Box 3378
Honolulu, Hawaii 96801-3378

**HALE MAKUA
BOARD OF TRUSTEES**

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B. Martin Luna, Esq.

Alice McBarnet, Jr.

Howard Nakamura

Joseph M. Souki

Cliff Tokumaru

**SUBJECT: Proposed Improvements at Hale Makua Kahului
(TMK 3-8-07:84)**

Dear Mr. Lau:

Thank you for your letter of January 8, 2002 regarding the subject matter. We offer the following information in response to your comments.

1. Coordination with the U.S. Department of the Army has been initiated. They have indicated that a Department of the Army Permit will not be required for the proposed action.
2. As applicable, a National Pollutant Discharge Elimination System (NPDES) permit application/Notice of Intent will be filed with the Department's Clean Water Branch.

Thank you again for providing your comments on this important project.

Sincerely,

Tony Krieg
President and CEO

AJK:lfm:dlh

472 Kaulana Street
Kahului, Maui, HI 96732-2099

(808) 877-2761

Fax (808) 871-9262

The Hale Makua Board of Trustees meets at noon on the third Wednesday of each month in the Hale Makua, Kahului Board Room.

Our Mission:

Excellence in Healthcare in Our Home and Yours

halemakua.com

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GOVERNOR



BRUCE S. ANDERSON, Ph.D., M.P.H.
DIRECTOR OF HEALTH

LORRIN W. PANG, M.D., M.P.H.
MAUI DISTRICT HEALTH OFFICER

STATE OF HAWAII
DEPARTMENT OF HEALTH
MAUI DISTRICT HEALTH OFFICE
64 HIGH STREET
WAILUKU, MAUI, HAWAII 96783

December 27, 2001

Mr. Tony Krieg
President and CEO
Hale Makua
472 Kaulana Street
Kahului, HI 96732

Dear Mr. Krieg:

**Subject: Proposed Improvements at Hale Makua Kahului
TMK: (2) 3-8-07:84**

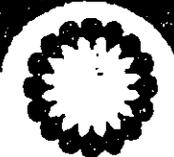
Thank you for the opportunity to comment on the proposed facility improvements. The following comment is offered:

The Environmental Assessment (EA) report should address the noise impact created during the construction phase of the project. If it exceeds the maximum allowable levels as set forth in Hawaii Administrative Rules, Chapter 11-46 "Community Noise Control", a noise permit may be required and should be obtained before the commencement of work.

Should you have any questions, please call me at 984-8230.

Sincerely,

Herbert S. Matsubayashi
District Environmental Health Program Chief



HALE MAKUA
A Tradition of Caring

The logo is symbolic of our warm, personal health services. The sun never sets within this community trust, where a half-century ago, the people of our island home breathed into our walls and people a special spirit of care which has become the tradition of Hale Makua.

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H. Mark Linn, Esq.

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Edward Nakamoto

Robert Rowland, Esq.

Joseph M. Smith

Chit Takamura

The Hale Makua Board of Trustees meets at noon on the third Wednesday of each month in the Hale Makua, Kahului Board Room.

Our Mission:

Excellence in Healthcare in Our Home and Yours

January 14, 2002

Herbert S. Matsubayashi
District Environmental Health Program Chief
Department of Health
Maui District Health Office
54 High Street
Wailuku HI 96793

RE: Proposed Improvements at Hale Makua Kahului

Dear Mr. Matsubayashi:

Thank you for your comment letter of December 27, 2001 regarding the *Proposed Improvements at Hale Makua Kahului*. In response to your comments, the environmental assessment will note the requirements of Hawaii Administrative Rules, Chapters 11-46, relating to "Community Noise Control".

Thank you for your interest in this project.

Sincerely,

Anthony S. Krieg
President & Chief Executive Officer

472 Kaulana Street
Kahului, Maui, HI 96732-2099

(808) 877-2761

Fax (808) 871-9262

HALE MAKUA CHIEF

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STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION
P.O. BOX 821
HONOLULU, HAWAII 96808

- AQUACULTURE DEVELOPMENT PROGRAM
- AQUATIC RESOURCES
- BOATING AND OCEAN RECREATION
- CONSERVATION AND RESOURCES ENFORCEMENT
- COMMITTEES
- FORESTRY AND WILDLIFE
- HISTORIC PRESERVATION
- LAND DIVISION
- STATE PARKS
- WATER RESOURCE MANAGEMENT

January 11, 2002

LD-NAV

Ref.: HALEMAKUAHULUI.RCM

Hale Makua
Tony Krieg, President & CEO
472 Kaulana Street
Kahului, Maui, Hawaii 96732-2099

RECEIVED

JAN 14 2002

Dear Mr. Krieg:

HALEMAKUA ADMINISTRATION

SUBJECT: Pre-Consultation for Draft Environmental Assessment
... covering the Proposed Improvements at Hale Makua
Kahului - Tax Map Key (2) 3-8-07: 84

This is to acknowledge receipt of your Pre-Consultation letter dated December 11, 2001 requesting a Department review of the proposed project.

Your letter and exhibits covering the proposed improvement at Hale Makua Kahului Facility was submitted to the following Department of Land and Natural Resources' Divisions for their review and comment:

Commission on Water Resource Management - Land Division
Engineering Branch - Maui District Land Office

Attached herewith is a copy of the Commission on Water Resource Management comment.

The Department of Land and Natural Resources has no other comment to offer at this time.

Thank you for the opportunity to review and comment on the subject matter.

Should you have any questions, please contact Nicholas A. Vaccaro of the Land Division Support Services Branch at 1-808-587-0438.

Very truly yours,

HARRY M. YADA
Acting Administrator

c: Maui Land Office

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BENJAMIN J. CAYETANO
GOVERNOR OF HAWAII



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HERBERT M. RICHARDS, JR.

LINNEL T. NISHIOKA
DEPUTY DIRECTOR

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT
P.O. BOX 621
HONOLULU, HAWAII 96809

January 3, 2002

TO: Mr. Harry Yada, Acting Administrator
Land Division

FROM: Linnel T. Nishioka, Deputy Director
Commission on Water Resource Management (CWRM)

SUBJECT: Hale Makua Kahului Expansion

RECEIVED
LAND DIVISION
2002 JAN - 8 P 3 56
DEPT. OF LAND &
NATURAL RESOURCES
STATE OF HAWAII

Thank you for the opportunity to review the subject document. Our comments related to water resources are marked below.

In general, the CWRM strongly promotes the efficient use of our water resources through conservation measures and use of alternative non-potable water resources whenever available, feasible, and there are no harmful effects to the ecosystem. Also, the CWRM encourages the protection of water recharge areas, which are important for the maintenance of streams and the replenishment of aquifers.

- We recommend coordination with the county government to incorporate this project into the county's Water Use and Development Plan.
- We recommend coordination with the Land Division of the State Department of Land and Natural Resources to incorporate this project into the State Water Projects Plan.
- We are concerned about the potential for ground or surface water degradation/contamination and recommend that approvals for this project be conditioned upon a review by the State Department of Health and the developer's acceptance of any resulting requirements related to water quality.
- A Well Construction Permit and/or a Pump Installation Permit from the Commission would be required before ground water is developed as a source of supply for the project.
- The proposed water supply source for the project is located in a designated water management area, and a Water Use Permit from the Commission would be required prior to use of this source.
- Groundwater withdrawals from this project may affect streamflows, which may require an instream flow standard amendment.
- We are concerned about the potential for degradation of instream uses from development on highly erodible slopes adjacent to streams within or near the project. We recommend that approvals for this project be conditioned upon a review by the corresponding county's Building Department and the developer's acceptance of any resulting requirements related to erosion control.
- If the proposed project includes construction of a stream diversion, the project may require a stream diversion works permit and amend the instream flow standard for the affected stream(s).
- If the proposed project alters the bed and banks of a stream channel, the project may require a stream channel alteration permit.
- OTHER: The net change in water supply requirements is not indicated in the general project description, although it appears likely to be small. We note that the aquifer that serves as the water supply source for this project has been overpumped beyond its sustainable yield in the recent past, and the aquifer continues to show signs it has not fully recovered. If the Commission has to designate the aquifer as a water management area, all ground-water withdrawals to the purveyor would be subject to water use permits. The service area would be subject to a declaration of a water shortage or a water emergency. If withdrawals are constrained, uses may be subject to allocation to users by the purveyor.

If there are any questions, please contact Charley Ice at 587-0251.



SEP 16 2002

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September 13, 2002

Ms. Diedre Mamiya
Administrator
Department of Land and Natural
Resources-Land Division
P. O. Box 621
Honolulu, Hawaii 96808-0621

**HALE MAKUA
BOARD OF TRUSTEES**

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Joseph M. Souki

Cliff Tokumaru

**SUBJECT: Proposed Improvements at Hale Makua Kahului
(TMK 3-8-07:84)**

Dear Ms. Mamiya:

We are responding to the Commission on Water Resource Management's (CWRM) memorandum of January 3, 2002 regarding the subject matter. We note that an estimate of additional water use attributed to the 16 new beds will be included in the Draft Environmental Assessment (EA). A copy of the Draft EA will be provided to your office for review and comment.

Thank you again for submitting comments on this important project.

Sincerely,

Tony Krieg
President and CEO

AJK:lfm:dlh

472 Kaulana Street
Kahului, Maui, HI 96732-2099

(808) 877-2761

Fax (808) 871-9262

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DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION
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HONOLULU, HAWAII 96809

ACQUACULTURE DEVELOPMENT PROGRAM
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STATE PARKS
WATER RESOURCE MANAGEMENT

January 15, 2002

LD-NAV
Ref.: HALEMAKUAHULUI.RCM2

RECEIVED

JAN 17 2002

Hale Makua
Tony Krieg, President & CEO
472 Kaulana Street
Kahului, Maui, Hawaii 96732-2099

HALE MAKUA ADMINISTRATION

Dear Mr. Krieg:

SUBJECT: Pre-Consultation for Draft Environmental Assessment covering the Proposed Improvements at Hale Makua Kahului - Tax Map Key (2) 3-8-07: 84

This is a follow-up to our letter (Ref.: HALEMAKUAHULUI.RCM) to you dated January 11, 2002 regarding the subject matter.

Attached herewith is a copy of the Land Division Engineering Branch comment.

The Department of Land and Natural Resources has no other comment to offer at this time.

Should you have any questions, please contact Nicholas A. Vaccaro of the Land Division Support Services Branch at 1-808-587-0438.

Very truly yours,

HARRY M. YADA
Acting Administrator

c: Maui Land Office

DLNR-LAND DIVISION
ENGINEERING BRANCH

COMMENTS

LD/NAV/LOG 1899
Ref.: HALEMAKUAKAHULKUL.COM

COMMENTS

The proposed improvements to Hale Makua Facility do not affect our current projects.

The project site, according to FEMA Community Panel Number 150003 0190 D, is in Zone C.
This is an area of minimal flooding (No Shading).

However, if further studies determined that the project site is within the Flood Zone, the project site must comply with rules and regulations of the National Flood Insurance Program (NFIP) and all applicable County Flood Ordinances. If there are questions regarding the NFIP, please contact the State Coordinator, Sterling Yong, of the Department of Land and Natural Resources at 587-0248. If there are questions regarding flood ordinances, please contact the applicable County representative.



SEP 16 2002

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B. Martin Luna, Esq.

Alec McBarnet, Jr.

Howard Nakamura

Joseph M. Souki

Cliff Tokumaru

September 13, 2002

Ms. Diedre Mamiya
Administrator
Department of Land and Natural
Resources-Land Division
P. O. Box 621
Honolulu, Hawaii 96808-0621

**SUBJECT: Proposed Improvements at Hale Makua Kahului
(TMK 3-8-07:84)**

Dear Ms. Mamiya:

Thank you for providing us with the comments of the Land Division's Engineering Branch. We acknowledge should further studies determine that the project site is within the flood zone, applicable rules and regulations of the County of Maui and the National Flood Insurance Program will be addressed.

Thank you again for submitting comments on this important project.

Sincerely,

Tony Krieg
President and CEO

AJK:lfm:dlh

472 Kaulana Street

Kahului, Maui, HI 96732-2099

(808) 877-2761

Fax (808) 871-9262

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DEPUTIES
JANET E. KAWILO
UNNEL NISHIOKA

STATE OF HAWAII

DEPARTMENT OF LAND AND NATURAL RESOURCES

HISTORIC PRESERVATION DIVISION
Kakuhewa Building, Room 555
601 Kamohila Boulevard
Kapolei, Hawaii 96707

January 22, 2002

Tony Krieg, President and CEO
472 Kaulana Street
Kahului, Hawaii 96732-2099

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
COMMISSION ON WATER RESOURCE
MANAGEMENT
CONSERVATION AND RESOURCES
ENFORCEMENT
CONVEYANCES
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
LAND
STATE PARKS

LOG NO: 29023
DOC NO: 0201CD17

Dear Mr. Krieg,

SUBJECT: Chapter 6E-42 Historic Preservation Review Pertaining to the Information Request Regarding the Proposed Improvements at Hale Makua Kahului Wailuku Ahupua'a, Wailuku District, Island of Maui
TMK: 3-8-007-084

Thank you for the opportunity to review and comment on the information request regarding the proposed improvements at Hale Makua Kahului. Our review is based on reports, maps, and aerial photographs maintained at the State Historic Preservation Division; no field inspection was conducted of the subject parcel.

Based on the submitted information request, we understand the proposed improvements include the following facility improvements:

1. Sixteen new skilled nursing beds, a nursing station, and a common area to be located between the existing north and east wings.
2. The existing dining/activities room will be modified and will occupy approximately 1420 sq. ft.
3. A new 1400 sq. ft. dining commons is proposed for an area currently an open courtyard.
4. Approximately 24 new paved parking stalls to be located in the vicinity of the existing drive.
5. New storage rooms are proposed at strategically identified locations.

A search of our records indicates the subject property has not undergone an archaeological inventory survey. The USDA Soil Survey indicates the subject property is located within the Pu'uone Sand Dune deposit. Based on previous archaeological investigations in the area, these deposits are known to contain both isolated and clusters of human burials. Given the known cultural sensitivity of this area, we believe it is possible that these types of sites are present in the subsurface deposits of this property and may be encountered during ground altering activities related to the proposed improvements.

Given the above information, we recommend a qualified archaeological monitor be present during all ground disturbing activities in order to identify and document any historic sites that might be present (such as the possibility of burials), and to provide appropriate mitigation measures, as necessary. This should mitigate any adverse effects to significant historic sites that might occur. An acceptable archaeological monitoring plan will need to be submitted to this office for review prior to the commencement of any ground altering activities.

Please call Cathleen Dagher at 692-8023 if you have any questions.

Aloha,


Don Hibbard, Administrator
State Historic Preservation Division

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JAN 29 2002

HALE MAKUA

CD:jen



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September 13, 2002

Don Hibbard
State of Hawaii
Department of Land and Natural Resources
State Historic Preservation Division
601 Kamokila Blvd., Room 555
Kapolei, Hawaii 96707

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B. Martin Luna, Esq.

Alec McBarnet, Jr.

Howard Nakamura

Joseph M. Souki

Cliff Tokumaru

SUBJECT: **Proposed Improvements at Hale Makua Kahului**
(SHPD Log No. 29023)

Dear Mr. Hibbard:

Thank you for your letter of January 22, 2002 regarding the subject matter. In response to your Division's recommendations, archaeological monitoring will be undertaken for work involving ground-disturbing activities.

We look forward to working with your staff to ensure that appropriate mitigation measures are formulated for this project.

Sincerely,

Tony Krieg
President and CEO

AJK:lfm:dlh

472 Kaulana Street
Kahului, Maui, HI 96732-2099

(808) 877-2761

Fax (808) 871-9262

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GOVERNOR



**STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION**

MAUI DISTRICT
650 PALAPALA DRIVE
KAHULUI, HAWAII 96732

BRIAN K. MINAII
DIRECTOR

DEPUTY DIRECTORS
JADINE Y. URASAKI
Jean L. Oshita

IN REPLY REFER TO:
HWY-M2.370-01

December 20, 2001

MEMORANDUM

TO: Tony Krieg
Hale Makua

FROM: Paul M. Chung 
State Highways

SUBJECT: Proposed Improvements at Halemakua
Kahului, Maui, Hawaii

Thank you for the opportunity to review and comment on the proposed development. Based upon our review of the proposal, it appears that this project should not have any significant impacts to our facilities, therefore, we have no objection to this project.

If there are any questions or concerns, please call me at 873-3535.

/pmc

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DEC 24 2001
HALE MAKUA**

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JAN 4 2002

HALE MAKUA ADMINISTRATION

FAX (808) 594-1865

PHONE (808) 594-1868



STATE OF HAWAII
OFFICE OF HAWAIIAN AFFAIRS
711 KAPOLANI BOULEVARD, SUITE 600
HONOLULU, HAWAII 96813

HRD01-410

December 26, 2001

Tony Krieg
President and CEO
Hale Makua
472 Kaulana Street
Kahului, Maui, HI 96732-2099

Subject: Proposed Improvements at Hale Makua Kahului (TMK 3-8-07:84)

Dear Mr. Krieg:

Thank you for the opportunity to comment on the above referenced project. At this time, OHA has no comments on the proposed improvements. If you have questions, please contact Sharla Manley, policy analyst at 594-1944 or email her at sharlam@oha.org.

Sincerely,

A handwritten signature in black ink, appearing to read "Colin C. Kippen, Jr." with a stylized flourish at the end.

Colin C. Kippen, Jr.
Deputy Administrator

CK: sam

cc: Board of Trustees
Clyde W. Namu'o, Administrator
Maui CAC

JAMES "KIMO" APANA
MAYOR



CLAYTON T. ISHIKAWA
CHIEF
RICHARD A. FERNANDEZ
DEPUTY CHIEF

COUNTY OF MAUI
DEPARTMENT OF FIRE CONTROL

200 DAIRY ROAD
KAHULUI, MAUI HAWAII 96732
(808) 270-7561
FAX (808) 270-7919

December 18, 2001

Tony Krieg
President and CEO
Hale Makua
472 Kaulana Street
Kahului, HI 96732-2099

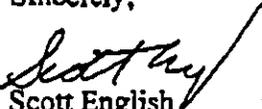
Subject: Proposed Improvements at Hale Makua
TMK: (2) 3-8-007:084

Dear Mr. Krieg:

Thank you for the opportunity to review and comment of the subject application. At this time the Fire Prevention Bureau has no comments on subject application. All comments if any would be done during building permit plans review.

If you have any questions, please call me at 270-7122.

Sincerely,


Scott English
Fire Plans Examiner

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HALE MAKUA

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DEPARTMENT OF
HOUSING AND HUMAN CONCERNS
COUNTY OF MAUI

JAMES "KIMO" APANA
Mayor
ALICE L. LEE
Director
PRISCILLA P. MCKELL
Deputy Director

200 SOUTH HIGH STREET • WAILUKU, HAWAII 96793 • PHONE (808) 270-7805 • FAX (808) 270-7165

December 17, 2001

Mr. Tony Krieg
President and CEO
Hale Makua
472 Kaulana Street
Kahului, Hawaii 96732-2099

Dear Mr. Krieg:

Subject: Proposed Improvements At Hale Makua
Kahului (TMK: 3-8-07:84)

Thank you for your December 11, 2001 letter and enclosures regarding the proposed improvements at the Hale Makua Kahului facility.

We wish you success in developing the proposed improvement. We have no other comments to offer.

Very truly yours,

ALICE L. LEE
Director

ETO:df

c: Housing Administrator

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DEC 24 2001

HALE MAKUA

13

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JAMES "KIMO" APANA
Mayor

JOHN E. MIN
Director

CLAYTON I. YOSHIDA
Deputy Director



COUNTY OF MAUI
DEPARTMENT OF PLANNING

December 31, 2001

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JAN .. 4 2002

HALE MAKUA ADMINISTRATION

Mr. Tony Krieg
President and CEO
Hale Makua
472 Kaulana Street
Kahului, Hawaii 96732-2099

Dear Mr. Krieg:

RE: Proposed Improvements to Hale Makua Kahului at Maui
Tax Map Key No.: 3-8-007:084

The Maui Planning Department has reviewed the proposed improvements to Hale Makua Kahului and has the following comments to offer:

1. The project property is designated "Urban" by the State Land Use Commission; identified as "Public/Quasi-Public" on the Wailuku-Kahului Community Plan Map; and zoned "P-1 Public/Quasi-Public."
2. The project property is located outside of the Special Management Area designated by the Maui Planning Commission.

Thank you for the opportunity to comment. Should you have any questions, please contact Ms. Robyn Loudermilk, Staff Planner, of this office at 270-7735.

Very truly yours

A handwritten signature in black ink, appearing to read "John E. Min".

JOHN E. MIN
Planning Director

250 SOUTH HIGH STREET, WAILUKU, MAUI, HAWAII 96793
PLANNING DIVISION (808) 270-7735; ZONING DIVISION (808) 270-7253; FACSIMILE (808) 270-7634

Quality Seamless Service - Now and for the Future

Mr. Tony Krieg
December 31, 2001
Page 2

JEM:RLL:smb

c: Clayton I. Yoshida, AICP, Deputy Planning Director
Aaron Shinmoto, Planning Program Administrator (2)
LUCA (2)
Robyn L. Loudermilk, Staff Planner
General File
K:\WP_DOCS\PLANNING\LETTERS\ltr2001\Hale makua kahului\preeconsultation.wpd



**DEPARTMENT OF
PARKS AND RECREATION
COUNTY OF MAUI**

1580-C KAAHUMANU AVENUE WAILUKU, HAWAII 96793

JAMES "KIMO" APANA
Mayor

FLOYD S. MIYAZONO
Director

GLENN T. CORREA
Deputy Director

(808) 270-7230
FAX (808) 270-7934

December 31, 2001

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JAN 10 2002

HALE MAKUA ADMINISTRATION

Mr. Tony Krieg, President and CEO
Hale Makua Board of Trustees
472 Kaulana Street
Kahului, Hawaii 96732-2099

Dear Mr. Krieg:

SUBJECT: PROPOSED IMPROVEMENTS AT HALE MAKUA KAHULUI

Thank you for the opportunity to review and comment on the subject project. We are in support of the proposed expansion and have no other comments at this time.

If there are any questions, please contact Mr. Patrick Matsui, Chief of Parks Planning and Development, at 270-7387.

Sincerely,

Floyd S. Miyazono
FLOYD S. MIYAZONO
Director

c: Patrick Matsui, Chief of Planning and Development

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JAMES "KIMO" APANA
MAYOR

OUR REFERENCE
TV
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**POLICE DEPARTMENT
COUNTY OF MAUI**

55 MAHALANI STREET
WAILUKU, HAWAII 96793
(808) 244-6400
FAX (808) 244-6411

January 15, 2002



THOMAS M. PHILLIPS
CHIEF OF POLICE

KEKUHAUPIO R. AKANA
DEPUTY CHIEF OF POLICE

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JAN 23 2002

HALE MAKUA ADMINISTRATION

Mr. Tony Krieg
President and CEO
Hale Makua
472 Kaulana Street
Kahului, HI 96732-2099

Dear Mr. Krieg:

SUBJECT: Proposed Improvements at Hale Makua Kahului
TMK: 3-8-07:84

Thank you for your letter of December 11, 2001 requesting comments on the above subject.

We have reviewed the proposed summary and have no comments or recommendations at this time. Thank you for giving us the opportunity to comment on the proposed project.

Very truly yours,

Assistant Chief Robert Tam Ho
for: Thomas M. Phillips
Chief of Police

Enclosure

c: John E. Min, Planning Department

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JAN 17 2002

HALE MAKUA ADMINISTRATION

**DEPARTMENT OF WATER SUPPLY
COUNTY OF MAUI**

P.O. BOX 1109
WAILUKU, MAUI, HAWAII 96793-6109
Telephone (808) 270-7816 • Fax (808) 270-7189

December 28, 2001

Mr. Tony Krieg
Hale Makua
472 Kaulana Street
Kahului, Maui, Hawaii 96732-2099

Subject: Proposed Improvements at Hale Makua Kahului (TMK 3-8-07:084)

Dear Mr. Krieg,

Thank you for the opportunity to provide comments in preparation of the draft Environmental Assessment (EA).

The EA should include the sources and expected potable and non-potable water usage. This project area is served by the Central Maui System. The major source of water for this system is the Iao Aquifer. Rolling annual average groundwater withdrawals from the Iao Aquifer as of December 1, 2001 were 17.54 MGD. The regulatory sustainable yield of this aquifer is 20 MGD. If rolling annual average withdrawals exceed 20 MGD, the State Commission on Water Resource Management will designate Iao Aquifer. Two wells in North Waihee were brought on-line in July 1997 and another two adjacent wells were brought on-line during 2000. The Department is continuing to implement a plan to bring new sources on-line and to mitigate withdrawals. No guarantee of water is granted or implied as a result of these comments. Water availability will be reviewed at the time of application for meter or meter reservation.

The applicant will be required to provide domestic service and fire protection to Department standards. All domestic, fire, and irrigation calculations will be reviewed in detail during the development process.

Brackish and/or reclaimed water sources should be used for all non-potable uses, including irrigation and dust control during construction, if such alternative sources are or will become available. We recommend that the following water conservation measures be implemented:

Use Climate-adapted Plants: The project site is located in "Maui County Planting Plan" - Plant Zone 3. We encourage the applicant to review the Maui Planting Plan and attached document and use climate-adapted and salt-tolerant native plants for all landscaping purposes. Native plants adapted to this area, conserve water and further protect the watershed from degradation due to invasive alien species.

Eliminate Single-Pass Cooling: Single-pass, water-cooled systems should be eliminated per Maui County Code Subsection 14.21.20. These units pass water once-through for cooling, and then dispose of the water into the drain. Although prohibited by code, single-pass water cooling is still manufactured into some models of air conditioners, freezers, and commercial refrigerators.

Utilize Low-Flow Fixtures and Devices: Maui County Code Subsection 16.20.675 requires the use of low flow water fixtures and devices in faucets, showerheads, urinals, water closets and hose bibs. Water conserving

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washing machines, ice-makers and other units are also available.

Maintain Fixtures to Prevent Leaks: A simple, regular program of repair and maintenance can prevent the loss of hundreds or even thousands of gallons a day. Refer to the attached handout, "The Costly Drip". The applicant should establish a regular maintenance program.

Prevent Over-Watering By Automated Systems: Provide rain-sensors on all automated irrigation controllers. Check and reset controllers at least once a month to reflect the monthly changes in evapotranspiration rates at the site.

Limit Irrigated Turf: Limit irrigated turf to 25% or less of total landscaped area. Select turf species with low water use requirements. Low-water use shrubs and groundcovers can be equally attractive and require substantially less water than turf.

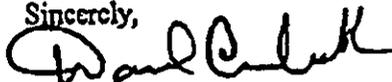
The project overlies the Kahului aquifer. The Department of Water Supply strives to protect the integrity of surface water and groundwater resources by encouraging applicants to adopt best management practices (BMPs) relevant to potentially polluting activities. We list a few BMP references here. Additional information can be obtained from the State Department of Health.

"The Megamanual - Nonpoint Source Management Manual - A Guidance Document for Municipal Officials." Massachusetts Department of Environmental Protection.

"Guidance Specifying Management Measures For Sources of Nonpoint Pollution In Coastal Waters." United States Environmental Protection Agency, Office of Water.

If you need additional information, please call the Water Resources and Planning Division at: 270-7199.

Sincerely,



David Craddick
Director
emb

C:\WP\doc\EA\EA\EA\table\table\imprv\DLA.wpd

cc: engineering division

Attachments:

- 1) "The Costly Drip"
- 2) Maui County Department of Water Supply, "Saving Water in The Yard - What and How to Plant in Your Area."
- 3) Ordinance 2108 - "An ordinance amending Chapter 16.20 of the Maui County Code, pertaining to the plumbing code"
- 4) A Checklist of Water Conservation Ideas For Cooling
- 5) A Checklist of Water Conservation Ideas For Condominiums

By Water All Things Find Life



SEP 16 2002

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Harriette Holt

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B. Martin Luna, Esq.

Alec McBarnet, Jr.

Howard Nakamura

Joseph M. Souki

Cliff Tokumaru

September 13, 2002

David Craddick, Director
Department of Water Supply
P. O. Box 1109
Wailuku, Hawaii 96793-6109

**SUBJECT: Proposed Improvements at Hale Makua Kahului
(TMK 3-8-07:84)**

Dear Mr. Craddick:

Thank you for your letter of December 28, 2001 regarding the subject matter.

In response to the Department's comments, this letter confirms that the project will provide domestic and fire protection services in accordance with applicable standards. Additionally, engineering calculations for water demand will be submitted as part of the building permit package.

We appreciate receiving your input on this important project.

Sincerely,

Tony Krieg
President and CEO

AJK:lfm:dlh

472 Kaulana Street

Kahului, Maui, HI 96732-2099

(808) 877-2761

Fax (808) 871-9262

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Our Mission:

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halemakua.com



December 24, 2001

Mr. Tony Kreig
President and CEO
Hale Makua
472 Kaulana Street
Kahului, HI 96732

Dear Mr. Kreig:

Subject: Proposed Improvements at Hale Makua Kahului (TMK: 3-8-07:84 Kahului)

Thank you for allowing us to comment on the subject project.

In reviewing the information transmitted and our records, Maui Electric Company (MECO) at this time has no objections to the proposed project.

MECO encourages the project's consultant meet with us as soon as practical so that we may discuss the electrical requirements of this project.

If you have any questions or concerns, please call Fred Oshiro at 872-3202.

Sincerely,

A handwritten signature in dark ink, appearing to read "Neal Shinyama". The signature is fluid and cursive, written in a professional style.

Neal Shinyama
Manager, Energy Delivery

FO

X.
**LETTERS RECEIVED DURING THE DRAFT
ENVIRONMENTAL ASSESSMENT PUBLIC
COMMENT PERIOD AND RESPONSES TO
SUBSTANTIVE COMMENTS**

***X. LETTERS RECEIVED DURING THE DRAFT ENVIRONMENTAL
ASSESSMENT PUBLIC COMMENT PERIOD AND RESPONSES TO
SUBSTANTIVE COMMENTS***

Pursuant to the requirements of the environmental review process, letters received during the Draft Environmental Assessment public comment period, as well as responses to substantive comments, are included in this section.



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NOV 5 2002

HALE MAKUA ADMINISTRATION

DEPARTMENT OF WATER SUPPLY
 COUNTY OF MAUI
 P.O. BOX 1109
 WAILUKU, MAUI, HAWAII 96793-6109
 Telephone (808) 270-7816 • Fax (808) 270-7199

October 31, 2002

Mr. Tony Krieg
 Hale Makua
 472 Kaulana Street
 Kahului, Maui, Hawaii 96732-2099

Subject: Hale Makua 16-bed Expansion and Related Improvements
 Request for Written Comments re Draft Environmental Assessment

Dear Mr. Krieg,

Thank you for the opportunity to provide comments in to this draft Environmental Assessment (DEA).

The additional consumption estimate for the improvements of 928 gallons per day is consistent with current consumption at the existing facility and system standards.

The facility is served by a 3-inch meter, a 12-inch water line and three fire hydrants on the property. Domestic, fire and irrigation calculations will be required in the building process.

We understand that the brackish well on the property is used for outdoor irrigation purposes. We recommend that the following additional water conservation measures be implemented:

Use Climate-adapted Plants: In case of any landscaping alterations, consider using climate-adapted and salt-tolerant native plants. The project site is located in "Maui County Planting Plan" - Plant Zone 3. Please refer to the attached Planting Plan brochure.

Eliminate Single-Pass Cooling: Single-pass, water-cooled systems should be eliminated per Maui County Code

Subsection 14.21.20. These units pass water once-through for cooling, and then dispose of the water into the drain.

Although prohibited by code, single-pass water cooling is still manufactured into some models of air conditioners, freezers, and commercial refrigerators.

Utilize Low-Flow Fixtures and Devices: Maui County Code Subsection 16.20.675 requires the use of low flow water fixtures and devices in faucets, showerheads, urinals, water closets and hose bibs. Water conserving washing machines, ice-makers and other units are also available.

Maintain Fixtures to Prevent Leaks: A simple, regular program of repair and maintenance can prevent the loss of hundreds or even thousands of gallons a day. Refer to the attached handout, "The Costly Drip". The

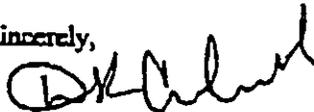
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applicant should establish a regular maintenance program.

Prevent Over-Watering By Automated Systems: Provide rain-sensors on all automated irrigation controllers. Check and reset controllers at least once a month to reflect the monthly changes in evapotranspiration rates at the site.

Should you have any questions, please call the Water Resources and Planning Division at: 270-7199.

Sincerely,



David Craddick
Director
emb

C:\WPdoc\VEAs EIS\Halo M\lan imprv DEA 2.wpd

cc: engineering division

Attachments:

- 1) "The Costly Drip"
- 2) Miami County Department of Water Supply, "Saving Water in The Yard - What and How to Plant in Your Area."
- 3) Ordinance 2102 - "An ordinance amending Chapter 16.20 of the Miami County Code, pertaining to the plumbing code"
- 4) A Checklist of Water Conservation Ideas For Cooling
- 5) A Checklist of Water Conservation Ideas For Condominiums

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November 26, 2002

David Craddick
Director
County of Maui
Department of Water Supply
200 South High Street
Wailuku, Hawaii 96793

SUBJECT: Hale Makua 16-Bed Expansion and Related Improvements

Dear Mr. Craddick:

Thank you for your letter of October 31, 2002, commenting on the Draft Environmental Assessment for the subject action. We offer the following information in response to the comments noted.

1. Domestic, fire and irrigation calculations will be provided in connection with building permit processing.
2. As appropriate, the additional water conservation measures suggested will be considered during the design process.

Thank you again for the input provided. If there are any questions, or if additional information is needed, please do not hesitate to call.

Sincerely,

Tony Krieg
President & CEO

TK:cem

472 Kaulana Street

Kahului, Maui, HI 96732-2099

(808) 877-2761

Fax (808) 871-9262

JAMES "KIMO" APANA
Mayor

DAVID C. GOODE
Director

MILTON M. ARAKAWA, A.I.C.P.
Deputy Director

Telephone: (808) 270-7845
Fax: (808) 270-7955



2002 NOV 12 PM 1:29
COUNTY OF MAUI
**DEPARTMENT OF PUBLIC WORKS
AND WASTE MANAGEMENT**
200 SOUTH HIGH STREET
WAILUKU, MAUI, HAWAII 96793

RALPH NAGAMINE, L.S., P.E.
Land Use and Codes Administration

TRACY TAKAMINE, P.E.
Wastewater Reclamation Division

LLOYD P.C.W. LEE, P.E.
Engineering Division

BRIAN HASHIRO, P.E.
Highways Division

JOHN D. HARDER
Solid Waste Division

November 6, 2002

Mr. Tony Krieg, President
HALE MAKUA
472 Kaulana Street
Kahului, Maui, Hawaii 96732

Dear Mr. Krieg:

**SUBJECT: DRAFT ENVIRONMENTAL ASSESSMENT HALE MAKUA
KAHULUI
TMK: (2) 3-8-007:084**

We have reviewed the subject draft environmental assessment and have the following comments:

1. Submit a solid waste management plan for construction waste recycling and disposal at C & D landfill.
2. Although wastewater system capacity is currently available as of October 21, 2002, the developer should be informed that wastewater capacity cannot be ensured until the issuance of the building permit.
3. The developer shall pay assessment fees of treatment plant expansion costs and fund any necessary off-site improvements to collection system and wastewater pump stations.
4. Wastewater contribution calculations for each facility are required before a building permit is issued. Indicate on the plans the ownership of each easement. The County will not accept sewer easement or lines that traverse private property.

Quality Seamless Service – Now and for the Future

Mr. Tony Krieg, President
November 6, 2002
Page 2

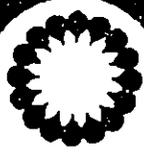
5. A signed Hold-Harmless Agreement should be executed and will be required before Wastewater Reclamation Division will give recommendations for final subdivision approval.
6. It appears that the new Kitchen/Dining facility will require a grease interceptor and sample box installation. Plumbing plans and sizing calculations shall be submitted to the Wastewater Reclamation Division for approval.
7. The project shall comply with the provisions of Chapter 20.08, Maui County Code, the grading ordinance and the Maui County drainage rules; and shall provide erosion-, sediment- and dust-control measures during construction.

If you have any questions regarding this letter, please call Milton Arakawa at 270-7845.

Sincerely,


for DAVID GOODE
Director

RMN:msc
S:\LUCA\cm\Hale Makua Kahului-dea.wpd



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November 26, 2002

David Goode, Director
County of Maui
Department of Public Works and Waste Management
200 South High Street
Wailuku, Hawaii 96793

SUBJECT: Hale Makua 16-Bed Expansion and Related Information

Dear Mr. Goode:

Thank you for your letter of November 6, 2002, commenting on the Draft Environmental Assessment for the subject action. We offer the following information in response to the comments noted:

1. As applicable, a solid waste management plan will be submitted for construction waste and recycling.
2. We acknowledge that wastewater capacity cannot be ensured until issuance of the building permit.
3. Wastewater system assessments will be paid as applicable.
4. Wastewater contribution calculations will be provided as required. Easement ownerships will be noted on the plans. We acknowledge that the County will not accept sewer easements or lines that traverse private property.
5. The proposed action does not involve the subdivision of land. Accordingly, we understand that a hold-harmless agreement will not be required.
6. The new dining area will not include a new kitchen facility. The existing kitchen facility will continue to be utilized.
7. The proposed action will comply with Chapter 20.08 of the Maui County Code.

Thank you again for the input provided. If there are any questions or if additional information is needed, please do not hesitate to call.

Sincerely,

Tony Krieg

Tony Krieg
President & CEO

TK:cm

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JAMES "KIMO" APANA
MAYOR

OUR REFERENCE
YOUR REFERENCE

POLICE DEPARTMENT
COUNTY OF MAUI

55 MAHALANI STREET
WAILUKU, HAWAII 96793
(808) 244-6400
FAX (808) 244-6411

October 18, 2002



THOMAS M. PHILLIPS
CHIEF OF POLICE

KEKUHAUPIO R. AKANA
DEPUTY CHIEF OF POLICE

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OCT 28 2002

HALE MAKUA ADMINISTRATION

Mr. Tony Krieg
President and CEO
Hale Makua
472 Kaulana Street
Kahului, HI 96732-2099

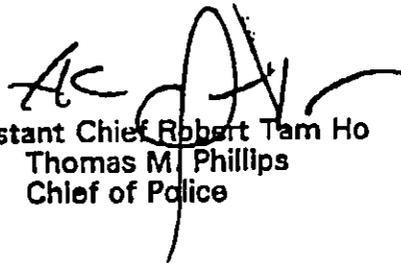
Dear Mr. Krieg:

**SUBJECT: Hale Makua 16-Bed Expansion and Related Improvements
Request for Written Comments re Draft Environmental Assessment**

Thank you for your letter of October 4, 2002, requesting comments on the above subject.

We have reviewed the proposed summary and have no comments or recommendations at this time. Thank you for giving us the opportunity to comment on the proposed project. We are returning the Draft Environmental Assessment which was submitted for our review.

Very truly yours,


Assistant Chief Robert Tam Ho
for: Thomas M. Phillips
Chief of Police

Enclosure

c: John E. Min, Planning Department

JAMES "KIMO" APANA
Mayor



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OCT 18 2002
HALE MAKUA ADMINISTRATION

FLOYD S. MIYAZONO
Director

GLENN T. CORREA
Deputy Director

(808) 270-7230
Fax (808) 270-7934

DEPARTMENT OF PARKS & RECREATION

1380-C Kaahumanu Avenue, Wailuku, Hawaii 96793

October 15, 2002

Mr. Tony Krieg, President and CEO
Hale Makua
472 Kaulana Street
Kahului, Hawaii 96732-2099

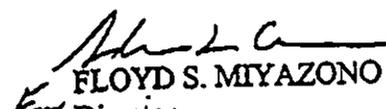
Dear Mr. Krieg:

**SUBJECT: HALE MAKUA 16-BED EXPANSION AND RELATED
IMPROVEMENTS
DRAFT ENVIRONMENTAL ASSESSMENT**

Thank you for the opportunity to review and comment on the subject project. We have no comments or objections to the proposed action.

If there are any questions, please contact Mr. Patrick Matsui, Chief of Parks Planning and Development, at 270-7387.

Sincerely,


FLOYD S. MIYAZONO
Director

c: Patrick Matsui, Chief of Planning and Development

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DEPARTMENT OF
HOUSING AND HUMAN CONCERNS
COUNTY OF MAUI

JAMES "KIMO" APANA
Mayor
ALICE L. LEE
Director
PRISCILLA P. MCKELL
Deputy Director

200 SOUTH HIGH STREET • WAILUKU, HAWAII 96793 • PHONE (808) 270-7805 • FAX (808) 270-7165

October 10, 2002

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OCT 17 2002

HALE MAKUA ADMINISTRATION

Mr. Tony Krieg
President and CEO
Hale Makua
472 Kaulana Street
Kahului, Hawaii 96732-2099

Dear Mr. Krieg:

Subject: Hale Makua 16-Bed Expansion and
Related Improvements

We have reviewed the draft Environmental Assessment (EA) for the subject project and have no comments to offer. We are returning the draft EA for your use.

Thank you for the opportunity to comment and much success in the development of this greatly needed project.

Very truly yours,


for ALICE L. LEE
Director

ETO:df

Enclosure

c: Housing Administrator

TO SUPPORT AND ENHANCE THE SOCIAL WELL-BEING OF THE CITIZENS OF MAUI COUNTY

PRINTED ON RECYCLED PAPER

BENJAMIN J. CAYETANO
GOVERNOR



GENEVIEVE SALMONSON
DIRECTOR

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

November 14, 2002

Mr. Lance Taguchi
County of Maui
Office of the Mayor
250 South High Street
Wailuku, Hawaii 96793

Dear Mr. Taguchi:

Subject: Draft EA for Hale Mauka Kahului

Thank you for the opportunity to review the subject document. We have no comment.

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

Sincerely,

A handwritten signature in cursive script, appearing to read "Genevieve Salmonson".

Genevieve Salmonson
Director

c: Hale Mauka

BENJAMIN J. CAYETANO
GOVERNOR

PATRICIA HAMAMOTO
SUPERINTENDENT



STATE OF HAWAII
DEPARTMENT OF EDUCATION
P.O. BOX 2360
HONOLULU, HAWAII 96804

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OCT 25 2002

HALE MAKUA ADMINISTRATION

OFFICE OF BUSINESS SERVICES

October 23, 2002

Mr. Tony Krieg
President and CEO
Hale Makua
472 Kaulana Street
Wailuku, Hawai'i 96732-2099

Dear Mr. Krieg:

Subject: Draft Environmental Assessment (DEA) for
Hale Makua Expansion and Related Improvements
Kahului, Maui, TMK: 3-8-07:84

The Department of Education (DOE) has reviewed the DEA for the 16-bed expansion to Hale Makua's skilled/intermediate care facility; modifications to its rehabilitation, storage, and parking areas; and a new dining and activities area.

The DOE has no comment on the DEA and appreciates the opportunity to review the plans.

Should you have any questions, please call Ms. Heidi Mecker of the Facilities and Support Services Branch at 733-4862.

Sincerely yours, -

A handwritten signature in cursive script, appearing to read "Raynor M. Minami".

Raynor M. Minami, Director
Facilities and Support Services Branch

RMM:hy

cc: P. Hamamoto, Supt.
A. Suga, OBS

AN AFFIRMATIVE ACTION AND EQUAL OPPORTUNITY EMPLOYER

PHONE (808) 594-1888



FAX (808) 594-1885

STATE OF HAWAII
OFFICE OF HAWAIIAN AFFAIRS
711 KAPI'OLANI BOULEVARD, SUITE 500
HONOLULU, HAWAII 96813

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NOV 19 2002

HALE MAKUA ADMINISTRATION

HRD#02-410B

Mr. Tony Krieg
President and CEO
Hale Makua
472 Kaulana Street
Kahului, HI 96732-2099

SUBJECT: HALE MAKUA 16-BED EXPANSION AND RELATED
IMPROVEMENTS - DEA

Dear Mr. Krieg:

Thank you for the opportunity to review the above referenced proposal, which will result in the expansion of the Kahului facility and additional modifications to the building..

The Office of Hawaiian Affairs (OHA) requests that you amend the language on pages 26 and 35 to reflect that if human burials are inadvertently discovered, work should stop immediately, and both the State Historic Preservation Division (SHPD) and the Maui Island Burial Council should be notified.

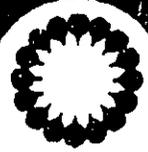
If you have questions, please contact Jerry B. Norris at 594-1847 or email him at jerryn@oha.org.

Sincerely,

A handwritten signature in cursive script, appearing to read "Jalna S. Keala".

Jalna S. Keala
Acting Director
Hawaiian Rights Division

cc: Ms. Thelma Shimaoka, Maui CRC



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Howard Nakamura

Joseph M. Sould

CH/ Tokumaru

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November 26, 2002

Jalna S. Keala, Acting Director
Office of Hawaiian Affairs
711 Kapiolani Boulevard, Suite 500
Honolulu, Hawaii 96813

SUBJECT: Hale Makua 16-Bed Expansion and Related Improvements

Dear Ms. Keala:

Thank you for your letter commenting on the Draft Environmental Assessment for the subject action. In response to your comments, we will revise the text on pages 26 and 35 to indicate that in the event of an inadvertent discovery of human burials, work shall stop immediately and both the State Historic Preservation Division and the Maui/Lanai Islands Burial Council will be notified.

Thank you again for the input provided. If there are any questions, or if additional information is needed, please do not hesitate to call.

Sincerely,

Tony Krieg
President & CEO

TK:cem

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BENJAMIN J. CAYETANO
GOVERNOR



BRUCE S. ANDERSON, Ph.D., M.P.H.
DIRECTOR OF HEALTH

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OCT 22 2002

STATE OF HAWAII
DEPARTMENT OF HEALTH
P.O. BOX 3378
HONOLULU, HAWAII 96801-3378

HALE MAKUA ADMINISTRATION In reply, please refer to:
EMD / CWB

10027PKP.02

October 17, 2002

Mr. Tony Krieg
President and CEO
Hale Makua
472 Kaulana Street
Kahului, Hawaii 96732-2099

Dear Mr. Krieg:

**Subject: Draft Environmental Assessment
Hale Makua 16-Bed Expansion and Related Improvements**

The Department of Health, Clean Water Branch (CWB) has reviewed the subject document and has the following comments:

1. The Army Corps of Engineers should be contacted to identify whether a Federal permit (including a Department of Army permit) is required for this project. If it is determined that a Federal permit is required for the subject project, then a Section 401 Water Quality Certification would also be required from our office.
2. If the construction project involves any of the following activities, a National Pollutant Discharge Elimination System (NPDES) permit coverage is required for each activity:
 - a. Construction activities, including clearing, grading, and excavation that result in the disturbance of equal to or greater than five (5) acres of total land area. The total land area includes a contiguous area where multiple separate and distinct construction activities may be taking place at different times on different schedules under a larger common plan of development or sale. An NPDES permit is required before the commencement of the construction activities.

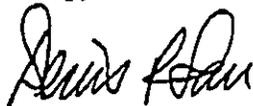
Note: After March 10, 2003, an NPDES permit will be required for construction activities, including clearing, grading, and excavation that result in the disturbance of one (1) acre or more.
 - b. Discharges of hydrotesting water.
 - c. Discharges of construction dewatering effluent.

Mr. Tony Krieg
October 17, 2002
Page 2

The CWB requires that Notices of Intent (NOI) for NPDES general permits be submitted 30 days before the commencement of the respective activities. The proposed amendments to HAR, Chapter 11-55 may also require a copy of the NOI or NPDES permit application to be submitted to the State Department of Land and Natural Resources, State Historic Preservation Division. NOI forms can be picked up at our office or downloaded from our website at <http://www.state.hi.us/doh/eh/cwb/forms/index.html>.

Should you have any questions, please contact Ms. Kris Poentis of the Engineering Section, CWB, at (808) 586-4309.

Sincerely,



DENIS R. LAU, P.E., CHIEF
Clean Water Branch

KP:cu



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Cliff Tokumura

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November 26, 2002

**Denis Lau, Chief
Clean Water Branch
State of Hawaii
Department of Health
919 Ala Moana Blvd., Room 300
Honolulu, Hawaii 96814**

SUBJECT: Hale Makua 16-Bed Expansion and Related Improvements

Dear Mr. Lau:

Thank you for your letter of October 17, 2002, commenting on the Draft Environmental Assessment for the subject action. We offer the following information in response to the comments noted.

1. The Department of the Army has been contacted with regard to federal permitting requirements. In their letter of October 8, 2002, the Department of the Army confirmed that a DA permit will not be required for the project.
2. As required, a National Pollutant Discharge Elimination System Permit will be obtained for applicable construction and discharge activities.

Thank you again for the input provided. If there are any questions or if additional information is needed, please do not hesitate to call.

Sincerely,

**Tony Krieg
President & CEO**

TK:cm

472 Kaulaā Street

Kahului, Maui, HI 96732-2099

(808) 877-2761

Fax (808) 871-9262

BENJAMIN J. CAYETANO
GOVERNOR



BRUCE E. ANDERSON, Ph.D., M.P.H.
DIRECTOR OF HEALTH

LORRIN W. FANG, M.D., M.P.H.
MAUI DISTRICT HEALTH OFFICER

STATE OF HAWAII
DEPARTMENT OF HEALTH
MAUI DISTRICT HEALTH OFFICE
54 HIGH STREET
WAILUKU, MAUI, HAWAII 96793

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OCT 28 2002

HALE MAKUA ADMINISTRATION

October 25, 2002

Mr. Tony Krieg
President and CEO
Hale Makua
472 Kaulana Street
Kahului, Hawai'i 96732-2099

Dear Mr. Krieg:

**SUBJECT: DRAFT ENVIRONMENTAL ASSESSMENT - HALE
MAKUA 16-BED EXPANSION
TMK: (2) 3-8-007:084**

Thank you for the opportunity to comment on the Draft Environmental Assessment.
We have no comments to offer at this time.

Should you have any questions, please call me at 984-8230.

Sincerely,

A handwritten signature in black ink, appearing to read "H. Matsubayashi".

Herbert S. Matsubayashi
District Environmental Health Program Chief

dy:HM

BENJAMIN J. CAYETANO
GOVERNOR



**STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION**

MAUI DISTRICT
650 PALAPALA DRIVE
KAHULUI, HAWAII 96732

October 8, 2002

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HALE MAKUA ADMINISTRATION

BRIAN K. MINAII
DIRECTOR

DEPUTY DIRECTORS
GLENN M. OKIMOTO
JADINE Y. URASAKI

IN REPLY REFER TO:
HWY-M2.325-02

MEMORANDUM

TO: Tony Krieg
Hale Makua Board of Trustees

FROM: Paul M. Chung 
State Highways

SUBJECT: Hale Makua 16-Bed Expansion and Related Improvements
TMK: 3-8-07: 84
Kahului, Maui, Hawaii

Thank you for the opportunity to review and comment on the Draft Environmental Assessment for the subject project. Based upon our review of the assessment, it appears that the subject project will not have any significant impacts to our facilities.

If there are any questions or concerns, please call me at 873-3535.

/pmc



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Cliff Tokumaru

The Hale Makua Board of Trustees meets at noon on the third Wednesday of each month in the Hale Makua, Kahului Board Room.

November 26, 2002

Paul Chung
State of Hawaii
Department of Transportation
Highways Division
650 Palapala Drive
Kahului, Hawaii 96732

SUBJECT: Hale Makua 16-Bed Expansion and Related Improvements

Dear Mr. Chung:

Thank you for your memorandum of October 8, 2002, commenting on the Draft Environmental Assessment for the subject action. We acknowledge your indication that the proposed project will not have any significant impacts to our facilities.

Thank you again for the input provided. If there are any questions, or if additional information is needed, please do not hesitate to call.

Sincerely,

Tony Krieg
President & CEO

TK:cm

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**DEPARTMENT OF BUSINESS,
ECONOMIC DEVELOPMENT & TOURISM**

OFFICE OF PLANNING

235 South Beretania Street, 8th Floor, Honolulu, Hawaii 96813
Mailing Address: P.O. Box 2369, Honolulu, Hawaii 96804

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CELI F. NAYA, Ph.D.
DIRECTOR
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DEPUTY DIRECTOR
DAVID W. BLANE
DIRECTOR, OFFICE OF PLANNING

Telephone: (808) 587-2848
Fax: (808) 587-2824

Ref. No. P-9874

November 1, 2002

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HALE MAKUA ADMINISTRATION

Mr. Tony Krieg
President and CEO
Hale Makua
472 Kaulanā Street
Kahului, Hawaii 96732-2099

Dear Mr. Krieg:

**Subject: Hale Makua 16-Bed Expansion and Related Improvements
Request for Written Comments re Draft Environmental Assessment**

We have reviewed the Draft Environmental Assessment (DEA) for the proposed expansion and other improvements for the Hale Makua health care facility in Kahului, Maui. A DEA is required because the project is located on County land and State funding will be used to implement the proposed improvements. The subject project is in the State Urban District.

Hale Makua is a private, non-profit corporation providing skilled nursing, intermediate care nursing, home health care and related services and programs to 238 residents needing "skilled" or "intermediate" level nursing care. Services include short-stay, in-patient, comprehensive physical and occupational therapy facilities, long-term intermediate and skilled nursing care, kitchen and dining facilities, and storage and maintenance. Further, all of the administrative offices for the Hale Makua system are located at the Kahului facility.

Pursuant to Section 343-5a (1) an environmental assessment is required for actions which "propose the use of state or county lands or the use of state or county funds...." The subject parcel is owned by the County of Maui and approximately 47 percent of the estimated \$1.9 million required for the improvement costs was appropriated by the 2001 State Legislature. The source of the remaining funds will be from grants and donations raised by Hale Makua. The State Department of Health has submitted its request to the State Department of Budget and Finance for the release of \$500,000 from the \$900,000 appropriation by the 2001 Legislature, to assist in project improvements for the skilled/intermediate care facility.

Mr. Tony Krieg
Page 2
November 1, 2002

We have no objections to the proposed improvements that include construction of eight (8) 2-bed units, new dining and activities area, storage rooms and additional parking stalls. The 16-bed expansion would relieve the overcrowding of acute-care beds at Maui Memorial Hospital and provide for a better quality of care at Hale Makua.

However, we recommend that the final Environmental Assessment include information regarding the status of the release for the remaining \$400,000.

Thank you for the opportunity to comment. Should you have any questions, please call Judith Henry at 587-2803.

Sincerely,



David W. Blane
Director
Office of Planning

c: Jeff Tsuda, Branch Chief
Program Budget Analysis & Evaluation, B&F

Ronald Kurasaki, CIP Coordinator
Administrative Services Office, DOH

Anthony Ching, Land Use Commission



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November 26, 2002

David Blane, Director
State of Hawaii
Office of Planning
Department of Business, Economic Development and Tourism
P.O. Box 2359
Honolulu, Hawaii 96804

SUBJECT: Hale Makua 16-Bed Expansion and Related Improvements

Dear Mr. Blane:

Thank you for your letter of November 1, 2002, commenting on the Draft Environmental Assessment for the subject action. In response to your inquiry regarding the release of the remaining \$400,000.00 of State funds, we have been and we will continue to work with the State administration to ensure the timely availability of these monies.

Thank you again for the input provided. If there are any questions, or if additional information is needed, please do not hesitate to call.

Sincerely,

Tony Krieg
President & CEO

TK:cem

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REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
U. S. ARMY ENGINEER DISTRICT, HONOLULU
FT. SHAFTER, HAWAII 96858-5449
HALE MAKUA

2002 OCT 10 PM 3:25

October 8, 2002

Regulatory Branch

Mr. Tony Krieg
President and CEO
Hale Makua
472 Kkaulana Street
Kahului, HI 96732-2099

Dear Mr. Krieg:

This responds to your letter dated October 4, 2002 requesting comments on the Draft Environmental Assessment (DEA) for improvements to Hale Makua. Based on the information in the DEA I have determined that a Department of the Army permit will not be required for the project.

If you have any questions concerning this determination please contact Mr. William Lennan of my staff at 438-6986 or FAX 438-4060 and mention File Number 200200149.

Sincerely

George P. Young, P.E.
Chief, Regulatory Branch



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Cliff Tokumaru

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November 26, 2002

George Young
Department of the Army
U.S. Army Engineer District, Hnl.
Attn: Operations Division
Bldg. T-1, Room 105
Fort Shafter, Hawaii 96858-5440

SUBJECT: Hale Makua 16-Bed Expansion and Related Improvements

Dear Mr. Young:

Thank you for your letter of October 8, 2002, commenting on the Draft Environmental Assessment for the subject action. We acknowledge your determination that a Department of the Army permit will not be required for the project.

Thank you again for the input provided. If there are any questions, or if additional information is needed, please do not hesitate to call.

Sincerely,

Tony Krieg
President & CEO

TK:cem

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United States Department of Agriculture

USDA

 NRCS Natural Resources
Conservation Service

Our People...Our Islands...In Harmony
210 Iml Kala Street, Suite #209, Wailuku, HI 96793-2100

October 24, 2002

Mr. Tony Krieg, President & CEO
Hale Makua
472 Kaulana Street
Kahului, Hawaii 96732-2099

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HALE MAKUA ADMINISTRATION

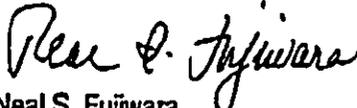
Dear Mr. Krieg,

SUBJECT: Hale Makua 16-Bed Expansion and Related Improvements
TMK: 3-8-007: 084

We have no comment on the prepared Environmental Impact Statement for the subject parcel.

Thank you for the opportunity to comment.

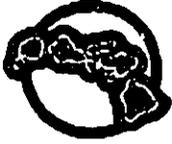
Sincerely,


Neal S. Fujiwara
District Conservationist

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OCT 17 2002

HALE MAKUA ADMINISTRATION



October 15, 2002

Mr. Tony Kreig
President and CEO
Hale Makua
472 Kaulana Street
Kahului, HI 96732

Dear Mr. Kreig:

Subject: Hale Makua 16-Bed Expansion and related Improvements
Request for Written Comments re Draft Environmental Assessment
(TMK: 3-8-07:84 Kahului)

Thank you for allowing us to comment on the subject project.

In reviewing the information transmitted and our records, Maui Electric Company (MECO) at this time has no objections to the proposed project.

MECO encourages the project's consultant meet with us as soon as practical so that we may discuss the electrical requirements of this project.

If you have any questions or concerns, please call Fred Oshiro at 872-3202.

Sincerely,

A handwritten signature in black ink, appearing to read "Neal Shinyama".

Neal Shinyama
Manager, Energy Delivery

NS/fo:ikh



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November 26, 2002

Neal Shinyama, Manager
Maui Electric Company, Ltd.
P. O. Box 398
Kahului, Hawaii 96733

SUBJECT: Hale Makua 16-Bed Expansion and Related Improvements

Dear Mr. Shinyama:

Thank you for your letter of October 15, 2002, commenting on the Draft Environmental Assessment for the subject action. We have asked our project consultants to coordinate with your office to ensure the timely provision of electrical service to the project.

Thank you again for the input provided. If there are any questions, or if additional information is needed, please do not hesitate to call.

Sincerely,

Tony Krieg
President & CEO

TK:cem

472 Kaulana Street
Kahului, Maui, HI 96732-2099

(808) 877-2761

Fax (808) 871-9262

halemakua.com

REFERENCES

References

Community Resources, Inc., Maui County Community Plan Update Program Socio-Economic Forecast Report, January 1994.

County of Maui, Wailuku-Kahului Community Plan, December 1987.

Department of Geography, University of Hawaii, Atlas of Hawaii, Second Edition, University of Hawaii Press, 1983.

Michael T. Munekiyo Consulting, Inc., Proposed Hale Makua 80-Bed Expansion-Project Assessment Report, September 1992.

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State of Hawaii, Department of Business and Economic Development, Data Book, 1990.

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U.S. Census Bureau, Census 2000 (<http://www.hawaii.gov/dbedt/censuszk/uscb-sf1.html>)

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Appendix A
Archaeological Inventory Report

**INVENTORY SURVEY WITH SUBSURFACE TESTING
REPORT FOR A PROPERTY LOCATED AT
TMK: 3-8-07:97 (POR), IN THE AHUPUA'A OF WAILUKU,
DISTRICT OF WAILUKU, ON THE ISLAND OF MAUI
SEPTEMBER 1992**

**Prepared for: Mr. Tony Krieg
Hale Makua
472 Kaulana St.
Kahului, Hawaii 96732**

**Prepared by: Archaeological Consultants of Hawaii, Inc.
Joseph Kennedy, M.A.
Peter Brennan, M.A.
David Soldo, B.A.
59-624 Pupukea Rd.
Haleiwa, Hawaii 96712**

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Inventory Survey with Subsurface Testing Report for a
Property Located at TMK: 3-8-7:97 (por.), in the Ahupua'a of
Wailuku, in the District of Wailuku, on the Island of Maui.

ABSTRACT

On August 12, 13, and 14, 1992 an archaeological inventory survey with subsurface testing was conducted on a 2.4 acre property which is proposed as an extension to Hale Makua. A 100% surface survey was undertaken. No significant historic sites were encountered. Given the absence of surface sites, the subsurface trenches were excavated across the testable portion of the subject property. Nine test trenches, totalling 226 meters in length, were mechanically excavated. Portions of the project area had been impacted by previous construction activities at Kahului Park; a bike path, the development of adjacent commercial buildings, and bulldozing on portions of the property. These areas were not subject to archaeological testing. The topography of the project area, including steep slopes and drainage channels, precluded other portions of the property from being tested. No archaeological sites of any significance were encountered. No cultural materials, historic or prehistoric, were collected. Archaeological Consultants of Hawaii, Inc., concludes that future construction activities on the subject property will have "no effect" on significant historic resources.

Section 1: INTRODUCTION

On August 4th, 1992, Archaeological Consultants of Hawaii, Inc., (ACH) was contacted by Mr. Tony Krieg, the director of Hale Makua, to conduct an archaeological inventory survey with subsurface testing within the proposed project area. The subject property is owned by Hale Makua. The project area is located at TMK: 3-8-07: portion 97, in Wailuku Ahupua'a, Wailuku District, on the Island of Maui (see Map 1). An archaeological survey with subsurface testing was necessary on this property in order to identify significant prehistoric and historic sites on the property.

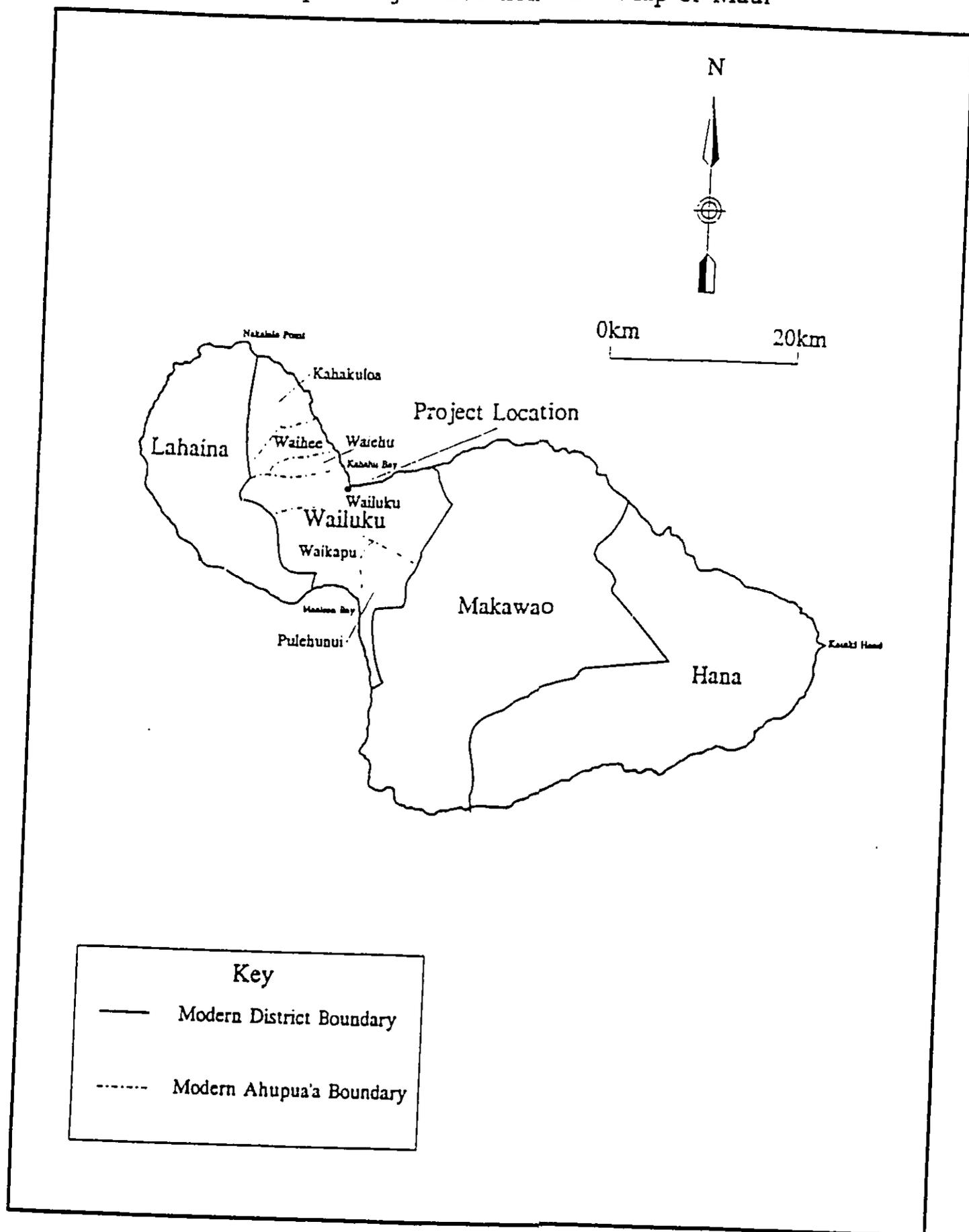
This study became necessary after Ms. Theresa Donham, the State Historic Preservation Division staff archaeologist on Maui, had conducted an inspection of the property (letter dated August 4th, 1992, Ms. A. Griffin, SHPD, to Mr. B. Miskae). She recommended that subsurface testing should be conducted in the relatively undisturbed sand dune on the property in order to determine whether human burials were present. Human burials have been encountered in sand deposits along this coast; those discovered so far have been isolated and dispersed. It was thus reasonable to expect that human remains could be encountered during subsurface testing on the sand dune on this property.

Section 2: PHYSICAL SETTING

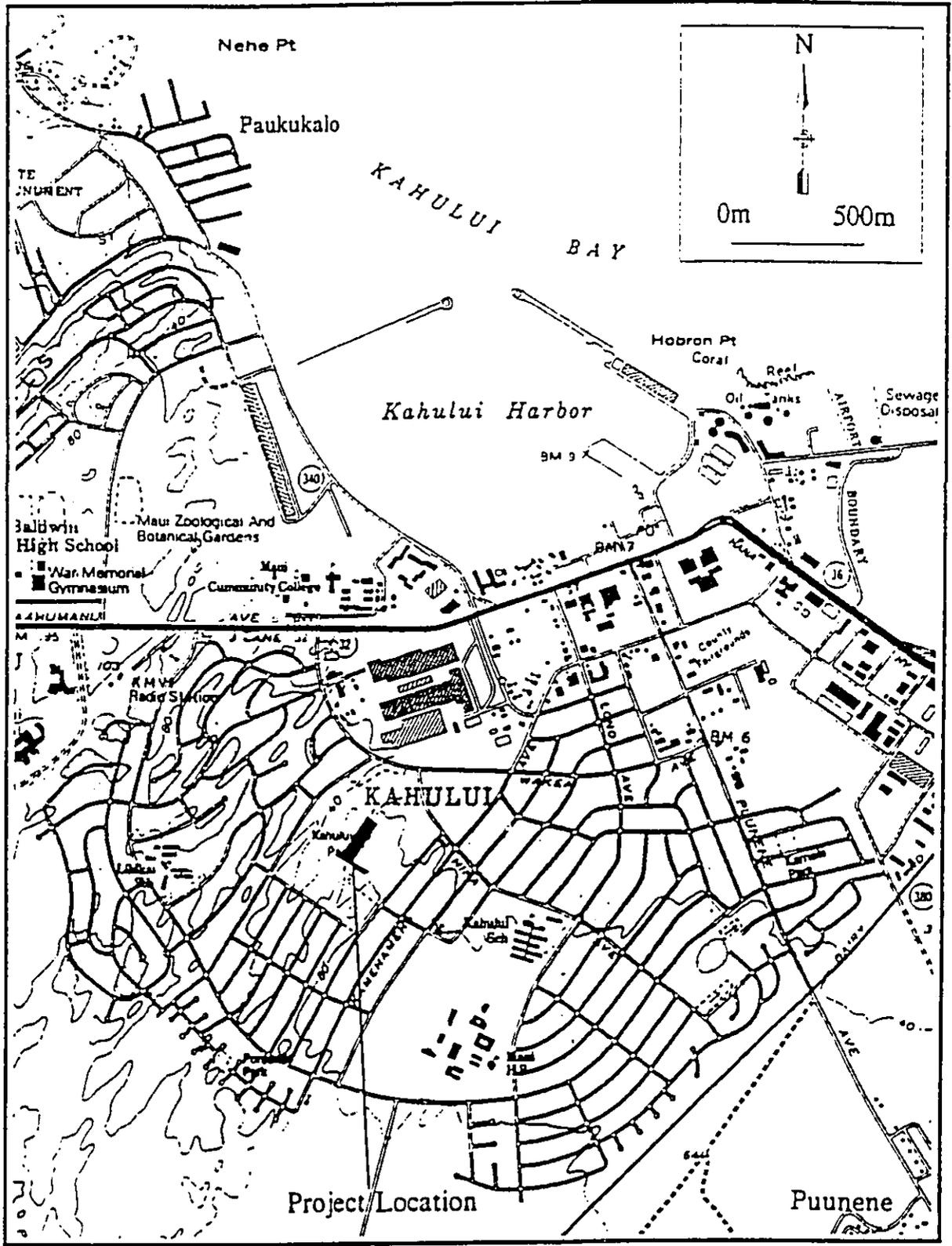
The proposed project is located at geographic grid coordinates 20 52'50"N, 156 28'45"W, and at UTM (Universal Transverse Mercator) co-ordinates 2311500mN, 762214mE. The project area is located approximately 1200m (meters), or 4000ft (feet) inland from Kahului Harbor, and is between 40ft and 80ft above mean sea level (AMSL) (see Map 2).

The irregularly shaped project area encompasses 2.41 acres. The property is to be an expansion to the existing Hale Makua. On its western border are the existing Hale Makua facilities; the other boundaries adjoin Kahului community park. It is an area of rolling sand dunes dissected by small natural drainages which only flow intermittently. Portions of the proposed project area have already been developed with the building of the park, a bike path, and the surrounding commercial buildings. A pile of burnt trees in the northern section of the project area indicates previous clearing of a small portion of the project area. A rough track running through the project area is probably the result of previous construction at Kahului Park. No other indications of disturbance were noted in the project area and much of the property consisted of a relatively undisturbed sand dune.

Map 1: Project Location on a Map of Maui



Map 2: Project Location on a U.S.G.S. Topographic Map



Source: U.S.G.S. 7.5 Minute Series (Topographic), Wailuku Quadrangle 1983

Average annual rainfall on the property is less than 20 inches (Armstrong 1973:56). Discontinuous clumps of pili grass (Heteropogon contortus) accounted for ninety percent of the floral cover; 'ilima (Sida fallax), kiawe or mesquite (Prosopis pallida), and haole-koa (Leucaena glauca) accounted for the remaining ten percent of vegetative cover.

Soils consisted of fine, well rounded, mixed calcareous and basaltic sands. According to Foote et al. the soils should be characteristic of the Puuone sand series (1972:117 and Sheet 99). Small amounts of slightly loamy sand were present in the upper few centimeters of the stratigraphy in some places. The loaminess of these deposits was almost certainly a product of A-horizon development within the sands. The soils are discussed in more depth below (refer to Section 7).

Section 3: HISTORICAL BACKGROUND

Wailuku District includes the entire eastern flank of the West Maui Mountains, and all of the flat land on the isthmus between West and East Maui, including the coastal portions of Kahului and Maalaea bays (see Map 1). Wailuku Ahupua'a is a relatively large political and economic land unit of Wailuku District, comprising nearly half of its land area; it includes the coastal area of Kahului Bay from Kapukaulua to Paukukalo, all of 'Iao Valley, and the northern half of the isthmus between Haleakala and the West Maui Mountains.

Early references to Wailuku note it as a gathering place and residence of important chiefs and their retinues (I'i 1959:135). This section details the land use history of the eastern portion of the ahupua'a of Wailuku. For a detailed account of the land use history of the western portion of the ahupua'a see Kennedy et al. (1992).

Section 3.1: Pre-European Contact History

In chants recorded by Fornander in the mid-1800's occasional references to Wailuku can be found. Maui place names are listed within the tradition of Lonoikamakahiki, where Wailuku Ahupua'a is numbered tenth, as one of the divisions of Wailuku District. Other placenames listed as divisions of Wailuku include Nuailua, Makaiwa, the uplands of Halehaku, and Waipio; all of which are located on the windward coast of Haleakala, at a considerable distance from the Wailuku District of the late prehistoric period. In several chants, Wailuku is referred to as a locality of flying and sometimes dark clouds, a sheltered and shady valley locale, the place of an iaiki rain, and a "broad plain where councils are held." (Fornander in Silva n.d.:3-7).

In legends, Wailuku is remembered as a burial place of

In legends, Wailuku is remembered as a burial place of chiefs, and an area of much warfare. In one tradition, Wailuku takes its name from a legendary battle fought between owls and men. A cruel act was committed by a man and the owls punished him by flocking to Wailuku and descending upon him. The battle place is called Wailuku, (literally, "water of destruction") (Pukui-Curtis 1974:179 in Silva n.d.:9).

In another tradition, Wailuku is the name of a chiefess of the ancient past. In the legend of Lepeamoa, Mauinui (the high chief of Maui) challenged his brother-in-law, an Oahu chief, to a cockfight:

"As Mauinui possesses a rooster of extraordinary powers, he fully expects to win. At his urging the stakes were set exceedingly high; to the winner belongs the privilege of claiming all property and the life of the opponent. Kakuhihewa, however, is able to enlist the help of two demi-gods, Lepeamoa and Kauilani, and they assure his victory. Kakuhihewa then refuses his right to take Mauinui's life and his island and peace between the dominions of Maui and Oahu are established." (Westervelt 1973:204-245, in Silva n.d.:7)

In another story about ancient times, Wakalama, principal chief of the windward side, lived in Wailuku. He rescued five foreigners from a shipwreck, and took them into his court. One foreigner had an extraordinary sword, and became a captain of Wakalama's warriors. In a battle between Hawaii and Maui, this sword was taken by warriors from Hawaii Island. This sword became known as "the lost knife of Wailuku", and was eventually bartered for the return of the High Chief of Hawaii, captured and held captive in Maui (Kalakaua 1975:177-205).

An early Chief of Wailuku, Hua, was known for his wickedness and detested by his people. During a period of severe drought, he died of starvation. When he fell, his people allowed his bones to be bleached in the sun and rattle in the wind. This is the origin of a saying, "The bones of Hua rattle in the sun." (Fornander 1918-19:V:516, in Silva n.d.:8)

In the 16th century two major fresh water fish ponds were reportedly constructed near Kahului; Kanaha and Mau'oni. The date for the construction of the ponds is based on a story related by Kamakau (1961:42):

"Keawe-nui-a'Umi sailed from Hilo to Kapu'ekahi in Hana and from Hana to Kahului of Wailuku. There the chief of Hawaii met Kiha-a-Pi'i-lani, ruler of Maui. Kiha-a-Pi'i-lani was building walls of the pond of Mau'oni. A wide expanse of water lay between Kaipu'ula and Kanaha, and the sea swept into Mau'oni."

Fornander (in Walker 1931) suggests that Kiha-a-Pi'ilani lived around 1550, thus giving the sixteenth century date. The ponds may have been expanded or modified in the early eighteenth century by Ka-pi'i-oho-o-ka-lani, an Oahu high chief, who named the ponds after his children (Summers as quoted in Kikuchi 1973).

The Kanaha pond is still in existence today and is an important wildlife sanctuary, being a critical habitat for the endangered Hawaiian stilt. Mau'oni pond was not noted on a 1903 Hawaiian Government Survey map (Dodge 1885), nor on any subsequent maps examined.

During the seventeenth and eighteenth centuries, a period of frequent warfare within and between Maui, Oahu, and Hawai'i islands, Wailuku was the center of political and military power on Maui. High Chief Pi'ilani, who had unified the districts of Maui by war, had two sons, Lono-a-Pi'ilani and Kiha-a-Pi'ilani, who fought for political control of the island after the death of their father (Speakman 1978:9).

Two battles fought at Wailuku involved Kiha-a-Pi'ilani. The first was fought in 'Iao Valley, and Kiha-a-Pi'ilani barely escaped alive. The second battle was fought with the assistance of Hawai'i Island warriors, and Kiha-a-Pi'ilani was victorious, eventually becoming ruler of Maui (Thrum 1923:77-86, in Silva n.d.:9).

Around 1700 one chief, Kekaulike, a descendant of the Pi'ilani chiefs, established through war a powerful and united 'kingdom' on Maui. In 1736 Kekaulike, residing at Kaupo and fatally ill, heard that Hawai'i Island Chief Alapa'i was preparing to attack Maui. Kekaulike and his retinue fled in his double war canoe to West Maui where they landed below Kula. The dying king was carried overland to Haleki'i Heiau near Wailuku. His body was burned, and his ashes tossed into 'Iao Stream, and his bones were hidden in a cave near Haleki'i Heiau. He was the last ali'i to be interred there (Speakman 1978:13).

Before he died, Kekaulike had designated one of his sons, Kamehameha-nui, as his successor. However, another son, Ka-uki, challenged his half brother and a battle for succession ensued. The major and final battle in this war took place at Pu'unene on the plains of Wailuku just south of Kahului. Ka-uki fought in alliance with the ruling chief of Oahu and although there was a great slaughter on both sides, peace was made and Kamehameha-nui's rule was confirmed. There then ensued a period of peace on Maui for over 30 years (Speakman 1978: 13 & 14).

During the reign of Kamehameha-nui's successor and brother, the powerful King Kahekili (from 1765 to 1790), warfare between Maui and Hawai'i became intense once again. Wailuku was the site of Kalanihale, the royal residence of Kahekili. In the mid 1770's, Kalani'opu'u of Hawai'i marched with his well trained (Alapa) forces towards Wailuku. Kahekili hid his defending troops in the sand dunes above Haleki'i Heiau, where they surprised Kalani'opu'u's warriors. A battle took place seaward of the sand dunes, and the Alapa were slaughtered (Speakman 1978:16-17). An account of this battle was published in "Paradise of the Pacific" in September of 1900. It included a description of Wailuku at that time, received from a native Hawaiian of "considerable age":

"The district was called Nawaieha (the four streams) and was famous throughout the group, not only for the magnificence of Kahekili's court but for the vastness of its products. The shores of Kahului harbor, from Waihee Point to Haiku, were surrounded with the grass huts of the fishermen and of those connected with the innumerable war canoes of the king. Myriads of coconut trees lined the beach from Kahakuloa to Wailuku, the trunks of many of which are found in the marshes at Wailuku at this day, the trees having been destroyed by a conquering army from Hawaii." (Paradise of the Pacific, Sept. 1900, in Silva n.d.:10)

Neither Handy (1940), nor Handy and Handy (1972) mention the Kahului area, or any area in the eastern portion of the ahupua'a, as being major areas for habitation or agriculture.

The Alaloa or 'Long Road' was a paved way that ran around the whole island and was built by Kiha-a-Pi'ilani in 1516 after his conquest and unification of the whole island. However, between Hamakua and Waiehu the road was located on the beach (Handy & Handy 1972). Thus there would be no traces of it within this section of the ahupua'a.

The pre-contact history of the ahupua'a indicates that the western portion of the ahupua'a supported the majority of the population and agriculture. The only mention of habitation sites in the eastern portion that could be found is that referring to the fishermen's huts fronting Kahului bay. Mention of place names in the eastern portion of the ahupua'a is also relatively rare. This pattern could reflect the environmental differences within the ahupua'a. The western portion is relatively moist and has permanent streams, while the eastern portion is drier with no permanent streams.

Section 3.2: Post European Contact History

The post-contact history begins with the arrival of Captain Cook off the north shore of Maui on November 26th, 1778. Cook was returning from his search for the north-west passage after visiting Kaua'i earlier in the year. He first sighted Maui off the Hamakua coast and headed north-west along the coast towards Kahului at a distance of approximately three miles offshore. Cook gave the following description of his encounters near Kahului:

"At Noon the coast extended from S 81 degrees E to N 56 degrees West, a low flat like isthmus bore S 42 degrees W the nearest shore being 3 or 4 Miles distant. ...Seeing some Canoes coming off to us I brought to: as soon as they got a long side many of the people who conducted them came into the Ships without the least hesitation. ...We got from these people in exchange for nails and pieces of iron a quantity of Cuttle fish: fruit and roots they brought very little, but told us they had plenty ashore, as also hogs and fowls. ...Having no doubt that these people would come off with produce the next day, I kept plying off all night and in the Morning stood close in shore. At first but a few people visited us, but towards noon we had the company of a good many who brought with them bread fruit, Potatoes, Tarra or eddy roots, a few plantains and small pigs, all of which they exchanged for Nails and iron tools; indeed we had nothing else to give them." (Beaglehole 1969: 474-5)

Captain Clerke, the captain of the Discovery, the ship accompanying the Resolution, made the following observations of the encounter:

"One of the Aree's or principal People came on board, and made me a present of 2 small hogs: one of his Attendants had 2 large, long Iron Skewers; I was not master enough of the language to learn the proper history of them, as where he got them ...but its pretty clear from them having them at all, either that their connections do extend to where European exchanges have taken place, or that Europeans have some time or other been in the neighbourhood." (Beaglehole 1969:475)

This first day off Maui, "five or six hundred" persons came out to the ships in canoes and began trading. On the second day, Cook brought his ships closer to shore and continued trading. Kahekili had heard from his brother Ka'eo, the ruling Chief of Kaua'i, of Cook's visit ten months earlier to that island; so, when he saw the tall ships approaching, he decided to pay Cook an official visit in his royal canoe. Kahekili, accompanied by ten lesser chiefs in red feather cloaks, approached the Discovery, and were

received by Captain Charles Clerke. Reciprocal presents were exchanged in the Captain's cabin, including Kahekili's red and yellow feather (i'iwi and mamo) cloak (Speakman 1978:22-25). The journals of Cook's expedition unfortunately do not give any description of the land in this area.

By 1786 Kahekili controlled Maui, Moloka'i, Lana'i and Oahu. He also had an agreement with Ka'eokulani, the ruler of Kaua'i. In 1790 Kamehameha launched his bid for control of all the Hawaiian Islands from Hawaii Island. He landed at Kahului and joined battle with the ali'i prince, the son of Kahekili who was waiting there. The defenders retreated into 'Iao Valley (Speakman 1978:52-54). It has been reported that the name Kahului means 'the gathering place' and became attached to this area as a result of Kamehameha gathering his forces there (Burns 1991:47).

The battle of Kepaniwai (literally, "damming of the waters"), was a massacre of Maui forces by Kamehameha I and his warriors from Hawai'i. The Maui forces were led by Kalanikapule, son of Kahekili, and the Hawaii forces were accompanied by John Young, Isaac Davis, and a cannon. This was the first battle in Hawai'i in which gun powder was used. During the battle, women, children, and the elderly were sent up the side of 'Iao Valley where they looked down upon the slaughter. After the battle of Kepaniwai, Maui was added to the domain of Kamehameha the Great (Kamakau 1961:148).

The post-contact history of land use in this section of the ahupua'a is the history of the development of the sugar industry. The following account of that history is based on Speakman (1978) except where otherwise referenced.

The first commercial sugar production on Maui had begun at Wailuku in 1828 when two Chinese merchants established the Hungtai sugar works. Over the next half century, sugar production continued to develop in the western half of the ahupua'a, mainly centered on Wailuku and Waihe'e. Sugar production did not begin in the eastern portion of the ahupua'a until after the reciprocity treaty between Hawai'i and the United States became effective on September 9th, 1876, and after the arrival of Claus Spreckels. The treaty gave a great boost to sugar prices and production in Hawai'i and within five years exports of sugar had quadrupled. The higher prices allowed expansion of the industry into more marginal drier areas such as the eastern portion of the ahupua'a.

Exclusive ownership of land by the King had ended in 1847. A search of the native and foreign registers and testimonies showed that numerous Land Commission Awards (L.C.A.'s) were awarded in the western portion of the ahupua'a but none in the east. Portions of two L.C.A.'s were

located in this eastern section of the ahupua'a. L.C.A. #7713:23 was awarded to Princess Victoria Kamamalu. This L.C.A. represented the former ili of Kalua and consisted of 391 acres stretching from the town of Wailuku to include a small portion of the western part of Kahului bordering the bay. L.C.A. #420 took up the major part of the ili of Owa which was the land north of Kalua and stretched from Wailuku Stream in the west, to Kahului Bay in the east. This L.C.A. was awarded to Kuihelani whose claim derived from Auwae who had been konohiki. The testimony described a stone house and walls at the western end of the L.C.A. near Wailuku, but did not give any information about the eastern end near Kahului Bay. A large portion of land (24,000 acres) stretched from Wailuku in the west to Paia in the east and known as the Ka'a lands, or Wailuku Commons, was designated as crown lands. A description of these lands in the 1860's is contained in Burns (1991:72):

"The land around Puunene was a complete desert, a great, barren stretch of sand and dust spread from Wailuku to Paia, except for a little cattle grazing land around the present location of Spreckelsville."

Another description is given in Baldwin (1915:47):

"Central Maui was once a bare waste where little existed besides the prickly pear, the razor back hog and the wild indigo."

An 1882 map of Kahului Harbor (Monsarratt 1882) designated the area south of Kahului, including the subject property, as 'Wailuku Commons' and showed it to be vacant. Apparently this portion of the ahupua'a was designated as crown lands following the Mahele. The same map showed numerous L.C.A.'s further to the west in the vicinity of Wailuku and 'Iao Valley. The town of Kahului, itself, was depicted as consisting of about 20 buildings with E. Bailey and T. Hobron being the only names shown. Bailey was a missionary who had arrived in Maui in 1837, eventually settling in Wailuku, where he was involved in a wide range of activities including the manufacture of sugar in Wailuku. Hobron had set up a cane plantation at Waihe'e in the 1860's and was involved in running a schooner between Kahului and Honolulu. A wharf was shown on Monsarratt's map.

Spreckels developed a friendship with King Kalakaua, and through him secured purchase and lease in 1878 of 40,000 acres of the dry plains that make up the eastern portion of Wailuku Ahupua'a. Among the leased lands were the Wailuku Commons on which the subject property is located. Spreckels later used a contested claim to one half of the crown lands of all Hawai'i, which he had purchased from Princess Ruth Ke'elikolani for \$10,000, in 1880, as a bargaining tool to get control in fee simple of the Wailuku Commons in 1882 as

Grant 3343. He also secured water rights for the northern slope of Haleakela and the right to transport the water to his lands on the isthmus to irrigate the sugar cane. For this purpose he constructed a huge ditch which delivered 60 million gallons of water a day. King Kalakaua dismissed a cabinet which had held up the granting of these rights and in return Spreckels loaned the King \$40,000.

In 1882 Spreckels founded the Hawaiian Commercial and Sugar Company (HC&S). Meanwhile his cane fields on the isthmus were expanding so rapidly that they had outstripped the supply of water from the existing ditch. In the same year he leased water rights from the Waihee Sugar Company and constructed another ditch to bring water from the west Maui mountains to the isthmus. In the course of a few years Spreckels had totally transformed the landscape of Wailuku Commons. A state-of-the-art sugar mill was developed at a site near Spreckelsville and railways developed to bring the cane to the mill.

Concomitant with the development of the sugar industry in the ahupua'a was the rise of Kahului as a major port. As early as 1840 there may have been a small jetty about where the Maui palms hotel is now located (Burns 1991:47). By the mid-1870's T. H. Hobron was running a schooner, the Ka Moi, between Honolulu and Kahului (Thomas 1983). Spreckels built a HC&S store, office, and shipping facilities at Kahului around 1877 (Burns 1991:47). In 1879 a small commercial landing was opened in Kahului for the sugar trade (Goodfellow 1991). Soon afterwards, Spreckels' Oceanic Steamship Lines began operating between Kahului and North America. Kahului was by far the major shipping point for the sugar from the Maui plantations. In 1904 Samuel Wilder built the first harbor breakwater wall at Kahului and had part of the bay dredged (Goodfellow 1991). Fill from the dredging was used to form the land on which the main business section now sits (Burns 1991:48). Even in 1914 Kahului was still the only port in Maui where a ship could tie up at a wharf and was therefore the cheapest port on Maui (Thomas 1983:133).

In 1881 the first commercial and passenger railroad in Hawai'i was founded by Thomas Hobron. It ran from Wailuku to Kahului and had its headquarters on the shore of Kahului Bay (Goodfellow 1991). The railroad expanded with the sugar industry over the years and continued its passenger service until 1936 (Schmitt 1977:425).

An 1885 Hawaiian Government Survey Map which was updated in 1903 (Dodge 1885) depicted the eastern portion of Wailuku Ahupua'a as being Grant 3343 to C. Spreckels. All of this area was designated as HC&S sugar plantation except the area immediately south and west of Kahului (which included the subject property) which was shown as vacant, sand dunes. Also shown on this map were schools at Kahului, Pu'unene and

south of Spreckelsville; and post offices at Kahului and Pu'unene. A mill was shown at Pu'unene and a reservoir near Pu'unene. The Pu'unene mill was built in 1900 to replace the Spreckelsville mill (Burns 1991:59).

An 1896 map (Howell 1896) of Kahului showed that the town had expanded substantially since Monsarratt's 1882 map but still not as far south-west as the project area. Buildings represented on the 1896 map included a wharf, a school, Kahului Railroad, the Kahului store of H.C.&S.Co., Maui Telephone office, Chinese and Japanese stores, shops, warehouses, a Customs House, a saloon, a fishery, a lumberyard, an office, and the Maui Soda Works. The fishery, Chinese and Japanese stores, school, church, and soda works were all added after the 1882 map (Jackson 1882).

In 1897 friction developed between Spreckels, whose HC&S owned all the land around Kahului Harbor, and Wilder, who owned the Kahului Railroad Company. Spreckels denied the railroad access to the port and Wilder in turn instigated legal proceedings. The situation was not resolved until 1899 when HC&S, then out of Spreckels control, bought the railroad. In the legal vacuum of these two years a squalid squatter's town sprang up and bubonic plague broke out in 1900. Kahului was burnt to the ground in order to control the plague outbreak. Modern Kahului dates from this time (Burns 1991:48).

The 1922 HTS & USGS Survey Map (Paia and Kihei Quadrangles) shows the area south and south-west of Kahului, including the subject property, as being vacant. Kahului, Pu'unene, and Spreckelsville are the only towns shown. Kahului has expanded since the 1896 map and two breakwaters are shown in the harbor. Throughout the eastern portion of the ahupua'a are scattered 13 sugar camps, many reservoirs and numerous railway lines used for hauling cane. The greatest concentration of camps is around present day Pu'unene with some being designated as Spanish, Portuguese, and Chinese. An alfalfa mill and a dairy are shown about half a mile south-east of Kahului.

In 1898 Spreckels lost control of HC&S, but even today the sugar plantation which he founded is still the principal land use in the area and the largest sugar producer on Maui. In 1942 the Government annexed 3,800 acres at Pu'unene and Kahului for the construction of naval air stations. The Kahului N.A.S. later became the site of the present airport.

In 1948 plans were unveiled by HC&S for the development of 'Greater Kahului' which was to occupy the "barren sand hills covered with kiawe" south of the existing town (Burns 1991:49). The goal was to provide the opportunity for company employees to own their own houses and to also sell fee simple lots to the general public to create a balanced

and unsegregated community. Kahului has continued to expand since the war as a commercial and residential center, and in the process has encompassed the project area.

During the historic period, Kahului has been subjected to a number of tsunamis. A 1923 tsunami destroyed the wharf at Kahului Harbor and inflicted \$1.5 million damage. An even worse tsunami was experienced in 1946. Other less serious tsunamis hit in 1952 and 1957. It would be safe to assume that the area was affected by tsunami in pre-contact times, even though no references to these could be found in the oral history.

Section 4: PREVIOUS ARCHAEOLOGY

The earliest archaeology conducted in Wailuku was part of an island wide inventory of religious structures performed by Thrum (1906, 1909, 1917), Stokes (1916), and Walker (1931). Walker listed 16 heiau sites in the vicinity of the towns of Wailuku and Kahului, however, only two of these, both located in 'Iao Valley were extant at the time of his survey in 1929. Walker did note that there had been a heiau at Pu'unene which had been destroyed before his survey (Papanene Heiau).

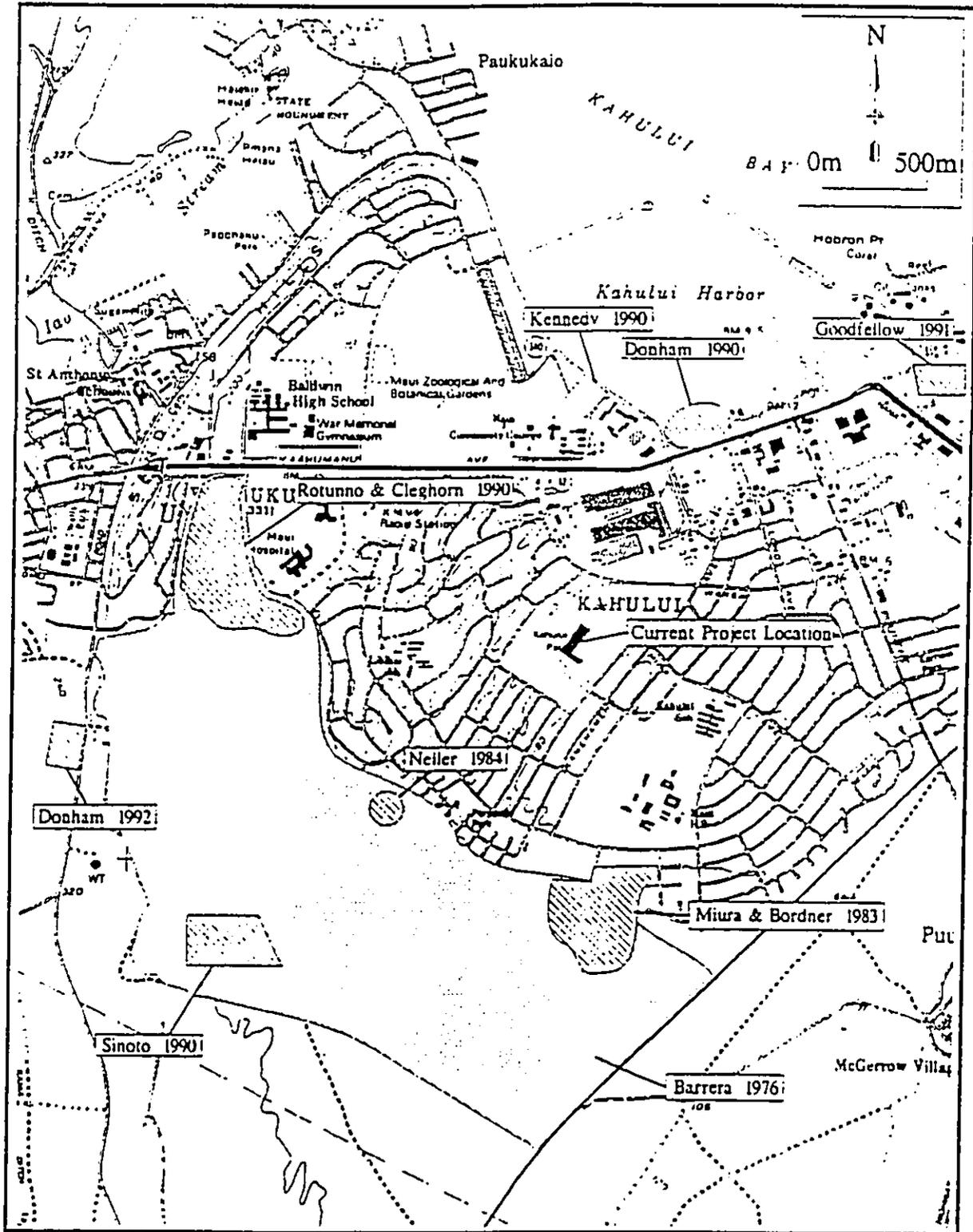
One site in the area, Kanaha and Mau'oni fishponds (State Site #50-50-05-1783) is known from traditional history (refer to Section 3.1). This site is located slightly inland from the coast and approximately 1.5 miles north-east of the project area. No archaeological investigations have been undertaken on the ponds.

A number of subsequent archaeological surveys and testing projects have been undertaken in the eastern portion of Wailuku Ahupua'a (see Map 3). None of these have covered the current project area.

The first such survey was conducted by Barrera (1976) and was a walk through surface survey of 1,020 acres at Waiale, about half a mile to the west of the current project area. Both areas consist of a similar sand dune environment. Barrera concentrated on disturbed areas in the hope of finding exposed sub-surface materials. No prehistoric cultural remains were found. Two artifacts, a piece of flaked basalt and a possible hammerstone were found in disturbed areas. It was noted that human skeletal remains had been previously found in cane fields to the south.

In 1981 Charles Keau surface surveyed Kanaha Beach Park and the Waste Water Treatment Plant fronting Kahului Bay approximately two miles north-east of the current project area. No evidence of sites was found.

Map 3: Previous Archaeological Studies in the Vicinity of the Project Location



Source: U.S.G.S. 7.5 Minute Series (Topographic), Wailuku Quadrangle 1983

Connolly (1981) conducted a reconnaissance survey at, and around, Kahului Airport. He spent only sixteen hours in the field. The area was divided into five zones, the first two zones were surveyed from a moving automobile, while the other three were surveyed on foot. Two sites were identified just north of the runway at the airport. One was an area where an undetermined number of burials had been unearthed during construction several years previously and then recovered. The other site consisted of two basalt stone alignments interpreted as a possible prehistoric house foundation.

A one day surface reconnaissance survey of a proposed housing development site in Kahului was undertaken by Environment Impact Study Corp. in 1983 (Miura & Bordner 1983). The site was located about half a mile south of the current project area. The site had previously been cleared and leveled for agriculture, and no prehistoric or historic cultural materials were observed.

In 1984 a human bone was recovered in sand shipped from a location within the area previously surveyed by Barrera in 1976. Earl Neller (1984) from the State Historic Preservation Office visited the sand mining site to try to locate the source of the bone. The remains of up to three individuals were located and one was identified as an Hawaiian juvenile male. This individual had been buried in a semi-flexed position.

A subsurface survey was conducted by International Archaeological Research Institute Inc. (I.A.R.I.I.) in 1988 at the mouth of Kalialinui Gulch where it enters Kahului Bay and the beach fronting the gulch (Welch 1988a). This site is approximately two miles north-east of the current project area. Two test pits and 25 auger cores were dug. No archaeological deposits were encountered in any of the excavation units.

I.A.R.I.I. also conducted a surface survey at Kahului Airport over two days in 1988 in connection with planned development of the airport (Welch 1988b). The survey was conducted north of the runway with the primary purpose of re-identified the sites recorded by Connolly in 1981. The sites were re-identified and assigned the State Site #50-50-05-1798 and #50-50-05-1799. No other sites were identified.

Surveys were conducted in 1988 by Xamanek Researches on 232 acres of sugar cane land just south of Kahului Airport, but there was no evidence of archaeological features (Xamanek Researches 1988). The surface survey located material which was originally thought to be volcanic glass, but mechanical subsurface testing failed to reveal additional cultural materials. Subsequent analysis of the material indicated it was probably sugar cane slag (Stevenson 1989).

Xamanek Researches surveyed 34 acres in Spreckelsville in 1988 (Fredericksen et al. 1988). A surface reconnaissance and excavation of nine backhoe trenches failed to locate any archaeological sites.

In 1990 Rotunno and Cleghorn (1990) conducted a surface survey of a 1,000 acre parcel just half a mile to the west of the current project area in a similar sand dune environment. Two possible archaeological sites, a rock mound and a possible walkway, were found but these were thought to be of possibly recent origin.

Archaeological Consultants of Hawaii, Inc., conducted a subsurface testing program at a site 300m mauka of Kahului Harbor just half a mile to the north of the current project area (Kennedy 1990). Fifty-one backhoe trenches 12m long and 2m deep were excavated. No cultural remains were discovered. The absence of cultural materials was attributed to previous leveling of the coastal dunes.

Sinoto (1990) conducted a walk-through surface survey of 70 acres at the Mauni Lani sand borrow site which is approximately half a mile south-west of the current project area. No archaeological sites were discovered.

An inventory survey of 4.6 acres at the Maui Palms Hotel was undertaken by PHRI in June 1990 (Donham 1990). The survey consisted of a surface inspection and 40 auger cores which terminated at the water table, or impenetrable rocks, at depths up to 4.6m. One surface site and one subsurface midden site were found but both were interpreted as historic, secondary deposits which had been brought to the area as fill.

Another two subsurface testing programs were conducted at Kahului Airport in 1990 by I.A.R.I.I. (Welch 1991) and Cultural Surveys Hawaii (Folk and Hammatt 1991). I.A.R.I.I. excavated a total of 82 backhoe trenches, 20m apart and varying in length from 20m to 50m. No evidence of traditional Hawaiian occupation or burials was found in any of these trenches. The only historic artifact found was a 2m long section of railroad track which was presumed to have been part of a sugar plantation railroad that formerly ran through the area. Folk and Hammatt found no cultural remains in 16 test trenches they excavated.

Cultural Surveys Hawaii conducted intensive subsurface testing in the northern coastal section of Kahului Airport and Kanaha Beach park (Hammatt and Toenjes 1991). While they did not detect structural cultural remains they identified soil strata which they interpreted as cultural on the basis of their containing charcoal, artifacts, and marine midden; and their different soil color and compaction. The

excavations demonstrated a history of rapid beach accretion and dune development. The exposed cultural deposits all originated on an old beach surface now 300m to 400m inland from the present shoreline.

An inventory surface and subsurface survey was undertaken at a warehouse site immediately west of the airport and about a mile north-east of the current project site by PHRI in 1991 (Goodfellow 1991). Sixty per cent of the surface area was visible during the survey; the rest being concealed by vegetation. Twenty-five backhoe trenches 2m long, up to 1.85m deep, and spaced at 10m to 15m intervals were dug. No significant cultural remains were encountered.

Donham (1992) reported on the discovery of two burial areas at the Maui Homeless Shelter construction site located in the Wailuku sand hills about a mile west of the subject property. One area consisted of a flexed adult burial. The second area contained skeletal scatter representing two individuals, an adult female and a smaller adult. These areas were given State Site #50-50-04-2916. Neither subsurface features suggestive of burial pits nor portable remains were observed in conjunction with the burials. Donham mentioned the recent discovery of human skeletal remains in sand hills at the Kahului Intermediate School just half a mile west of the subject property and at the Mauni Lani Development area, three quarters of a mile south-west of the project area (State Site #50-50-04-2797).

Section 5: Land Use Patterns

The following summary of pre-historic and historic land use patterns in the eastern portion of Wailuku Ahupua'a is based on the mythological, ethnographic, historical, and archaeological data presented above.

While there is an abundance of evidence indicating that the western portion of Wailuku Ahupua'a was an important political, religious, population, and agricultural center in pre-contact times (see Kennedy et al. 1992), there is very little such evidence for the eastern portion of the ahupua'a. The only mythological and ethnographic accounts of the area are the description of Kahului Bay as being ringed by fishermen's huts in the mid-eighteenth century and a battle occurring at Pu'unene around the same time.

The large number of archaeological studies conducted in this section of the ahupua'a has given us little further evidence. The studies undertaken have centered in three areas; Kahului Airport and surrounding areas, the commercial district of Kahului, and the Wailuku sand dunes area which includes the suburbs of Kahului where the project area is located. In none of the three areas have any pre-historic

structural remains been found. In the airport area close to the coast, there is evidence of a prehistoric cultural layer on a former beach. This beach, or strand line, is now located several hundred meters inland from the sea, probably due to coastal progradation as a result of rapid beach accretion and dune development. In the Wailuku sand dunes area, human skeletal remains have been found at a number of sites, although no other cultural materials have been found associated with them.

Several recent studies have attempted to address the question of the paucity of archaeological sites in this area. In the light of the above review, a number of possible reasons can be advanced:

i) pre-contact settlement may have been restricted to the immediate coastal areas by the dryness and sandy soils of much of the interior portion of this section of the ahupua'a.

ii) the lack of structural remains in the sand dune areas could be attributable to the natural absence of basalt building materials. If people were living in these areas, their residences may have been made of less permanent materials.

iii) natural and human disturbances may have hidden or destroyed evidence of occupation, especially in the coastal areas. Much of the current land near the harbor consists of fill dredged from the harbor in historic times. Tsunami may have destroyed or covered evidence of occupation, and the progradation of beaches and the development of dunes may also have covered sites.

In post-contact times, the evidence points to limited use of this section of the ahupua'a until the development of the sugar industry. Sugar cane became the dominant crop in this area following the introduction of irrigation in the 1880's. The development of the sugar industry contributed to the development of Kahului as a port and residential area, and the founding of sugar towns such as Pu'unene and Spreckelsville. Sugar was grown everywhere except in the Wailuku sand dunes which extended for approximately eight miles inland from Kahului Bay. The subject property is located within these uncultivable dunes.

For the project area itself, there is no evidence of use until its incorporation into Kahului after World War Two. Previous archaeological work in the vicinity indicates that subsurface skeletal remains may be present in the sand dunes on the property but that there is a low probability of finding other cultural material.

Section 6: METHODOLOGY

An archaeological inventory survey with subsurface testing was conducted between August 12, 1992 and August 14, 1992. Joseph Kennedy, M.A., was the Principal Investigator. Ms. MA. Maigret, B.A., was the field supervisor, and she was assisted by Mr. David Soldo, B.A., and Ms. E. Heather Caldwell.

Upon arriving on site, the property boundaries were determined and the three corner markers which were present, were located. These were located in the S.E., S.W., and the N.W. corners of the property. The permanent markers were fixed with flagging tape. The three existent boundary markers served as reference points for locating the missing boundary markers.

An arbitrary datum was established on the property and designated as 1000N, 1000E. From this datum tape was pulled and a baseline was established along magnetic north. The baseline was flagged at ten meter intervals, forming the basis of a grid with units ten meters square. The northing and easting of the southwestern corner of each grid unit served as a reference point. The baseline extended from 882N, 1000E to 1028N, 1000E.

Portions of the proposed project area were determined to be ineligible for testing. They were areas that had been previously developed or impacted by the movement of heavy equipment. These areas included: the jogging path, a bike path which cut through the western one third of the project area, a previously developed area immediately to the south of the Hale Makua grounds, and areas previously disturbed by heavy equipment during the construction and development of the adjacent park and commercial buildings.

After establishing the project area boundaries, the baseline, and the areas ineligible for testing, an intensive surface survey was conducted. Members of the field crew were spaced at five meter intervals parallel to each other and they made pedestrian sweeps across the property until 100% of the surface had been examined. Areas of dense vegetation were investigated more thoroughly.

Mechanical trenching was conducted using a John Deere model JD 410 rubber wheeled backhoe. The trenches were excavated arbitrarily into the portion of the property eligible for testing, in order to ensure the greatest coverage of the intact dune deposit. Each trench was approximately 70cm (centimeters) wide, and varied from 2m (meters) to 3m in depth. All mechanical trenching was monitored. Due to the lack of surface cultural indicators, random screening of the back fill at arbitrary distances, not exceeding five meters, was performed. This material was

passed through a 1/8 inch screen. In the event that any subsurface features or deposits were encountered, all back fill from the area would have been screened regardless of the distance from previous screenings. Soil samples were taken from every stratigraphic layer observed in each trench. Stratigraphic profiles were drawn for each of the trenches except Trenches 2, 7, 8, and 9. The stratigraphy in the trenches for which profiles were not drawn, was similar to that in trenches for which profiles were drawn.

Section 7: ARCHAEOLOGICAL FINDINGS

The soils encountered during subsurface testing were characteristic of the Puuone soil series as described by Foote et al. (1972:117), although many of the layers were slightly darker than would be expected. Three layers were recorded during test trenching. Each of the layers was a mixture of pale brown calcareous sand and black basaltic sand. The overall color of the mixed deposit was used for descriptive purposes and to differentiate between deposits. These deposits were:

- Layer I: consisted of a loose, very finely grained sand, which was nonsticky, nonplastic, friable and soft. The colors varied from grayish brown (Munsell color: 10YR 5/2) to brown (10YR 5/3) to yellowish brown (10YR 5/4). In places along the surface, this deposit was slightly loamy, no doubt due to the partial development of an A-horizon.
- Layer II: consisted of slight to medium compacted, fine grained sand. The sand was nonsticky, nonplastic, friable and soft. The color of this deposit was dark yellowish brown (10YR 4/4).
- Layer III: was a heavily compacted, fine to medium grained sand. The sand was nonsticky, nonplastic, friable and soft. The color of the deposit was dark yellowish brown (10YR 3/4).

Some deposits of each of these layers contained cemented laminae which formed bedding planes within the sand dune. In other deposits there were concretions of cemented sand occurring as clasts within the sand matrix.

The soil descriptions should be used as a key to understanding the profiles and the trench descriptions. If more than one outcrop of a soil layer was present in a given trench, the layers would be distinguished by hyphenated letter suffixes which increased in value with depth of occurrence.

Test Trench 1 was excavated on a small flat sandy area on the western edge of the proposed project area (see Map 4). The total trench length was 15m. The depth of the trench varied from 1.5m to 2.5m. The surface was sandy with no vegetation growing in the area. A single soil deposit was observed in this trench, Layer I, a brown sand (10YR 5/3) which extended from the surface to the limit of excavation at 2.5mbs (meters below surface) (see Figure 1). Portions of this deposit had been cemented into distinct laminae.

Test Trench 2 was located in the northern portion of the proposed project area immediately to the south of a large pile of burned kiawe trees (see Map 4). Trench 2 was 12m long. The depth of Trench 2 ranged from 2m to 2.5m. The ground surface was covered with 'ilima grass. No charcoal flecking was noted on the surface or in the trench walls, which was surprising due to the close proximity of the burned kiawe trees to the north. The stratigraphy in Trench 2 was homogeneously Layer I, a grayish brown sand (10YR 5/2), which extended from the surface to the base.

Test Trench 3 was located on a fairly flat sandy plain on the western edge of the area of the property which was determined as eligible for testing (see Map 4). Immediately to the east was a cut bank that appeared to have been the result of the construction of the bike path. The total length of this trench was 26m. Sparse grasses covered the ground surface. Three soil deposits were observed in this trench (see Figure 2): The upper deposit, Layer I, was a brown sand which extended from the surface to approximately 1-1.5mbs. Portions of this deposit contained cemented laminae. Layer I was underlain by Layer II, a dark yellowish brown sand. Within Layer II there were lenses of a slightly darker sand deposit, labeled as lens (i).

Test Trench 4 was located on a small hillock just to the west of a track created by previous construction on the neighboring property (see Map 4). The total length of the trench was approximately 14m. The ground surface was a loose sand with no vegetation. Two layers were observed in the profile of Trench 4 (see Figure 3): Layer I, a yellowish brown sand, extended from the surface to 80cmbs; and Layer II, extended from 80cmbs to the limit of excavation at 2.25mbs.

Test Trench 5 was located on a fairly flat area immediately to the east of the previously mentioned track, and to the west of a cut bank created by the construction of the bike path (see Map 4). Ground cover included assorted grasses and small kiawe trees. The trench was excavated in a zig-zag pattern to allow maximum coverage between the track and the cut bank. The zig-zag pattern created three sections which were labeled A, B and C, from south to north: Section A was 20m long; Section B was 23m long; and Section C was 26m long.

Map 4: Trench Locations on the Subject Property

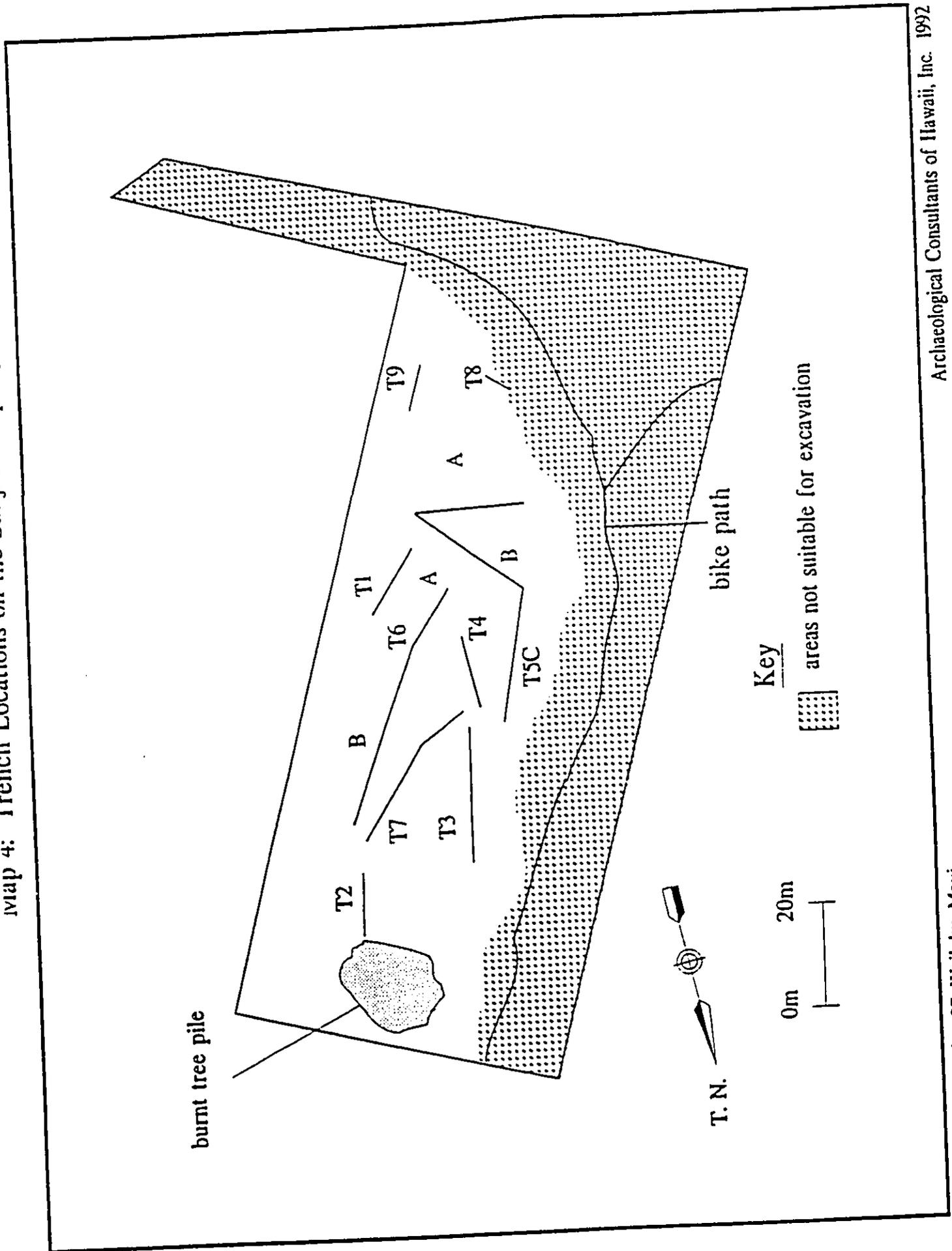
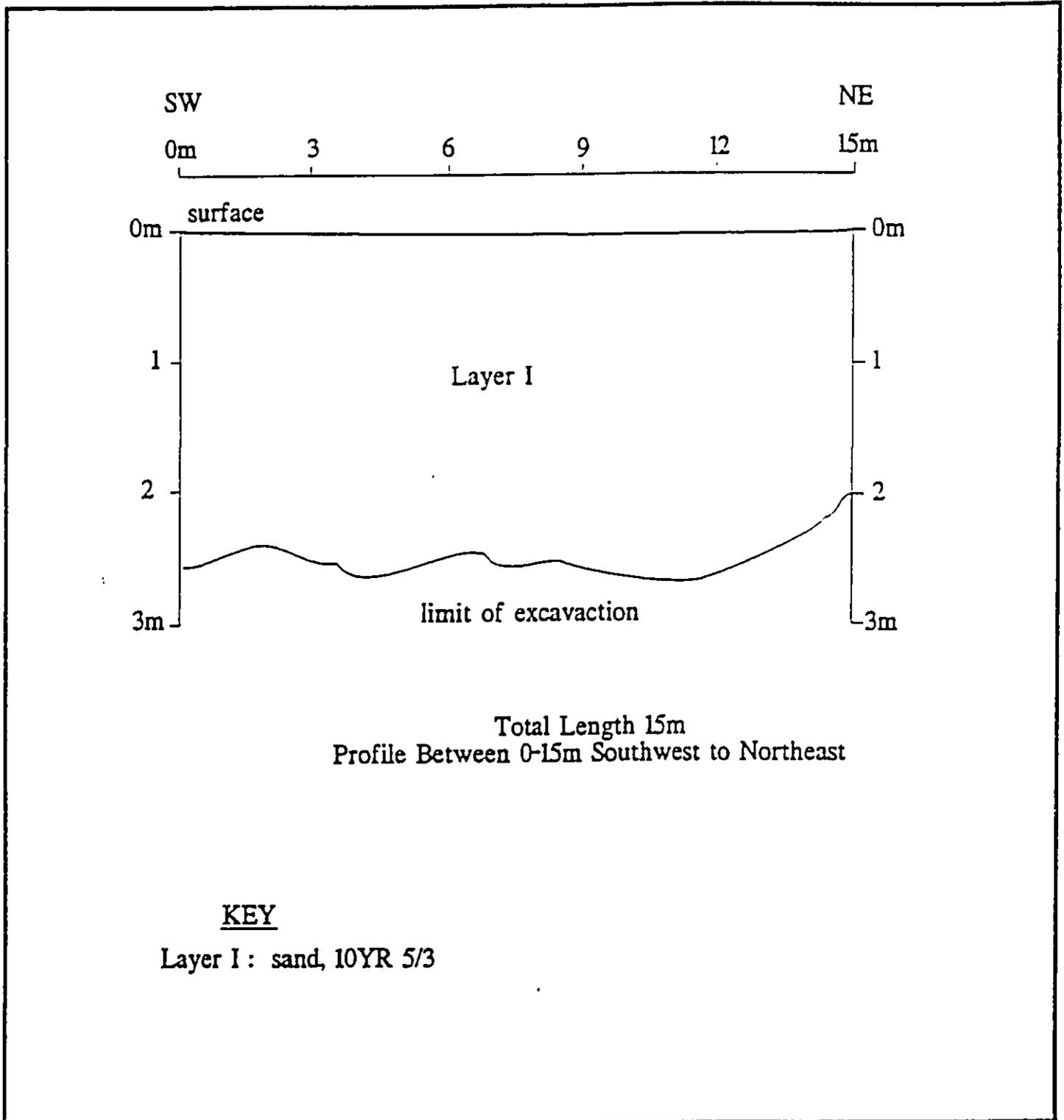


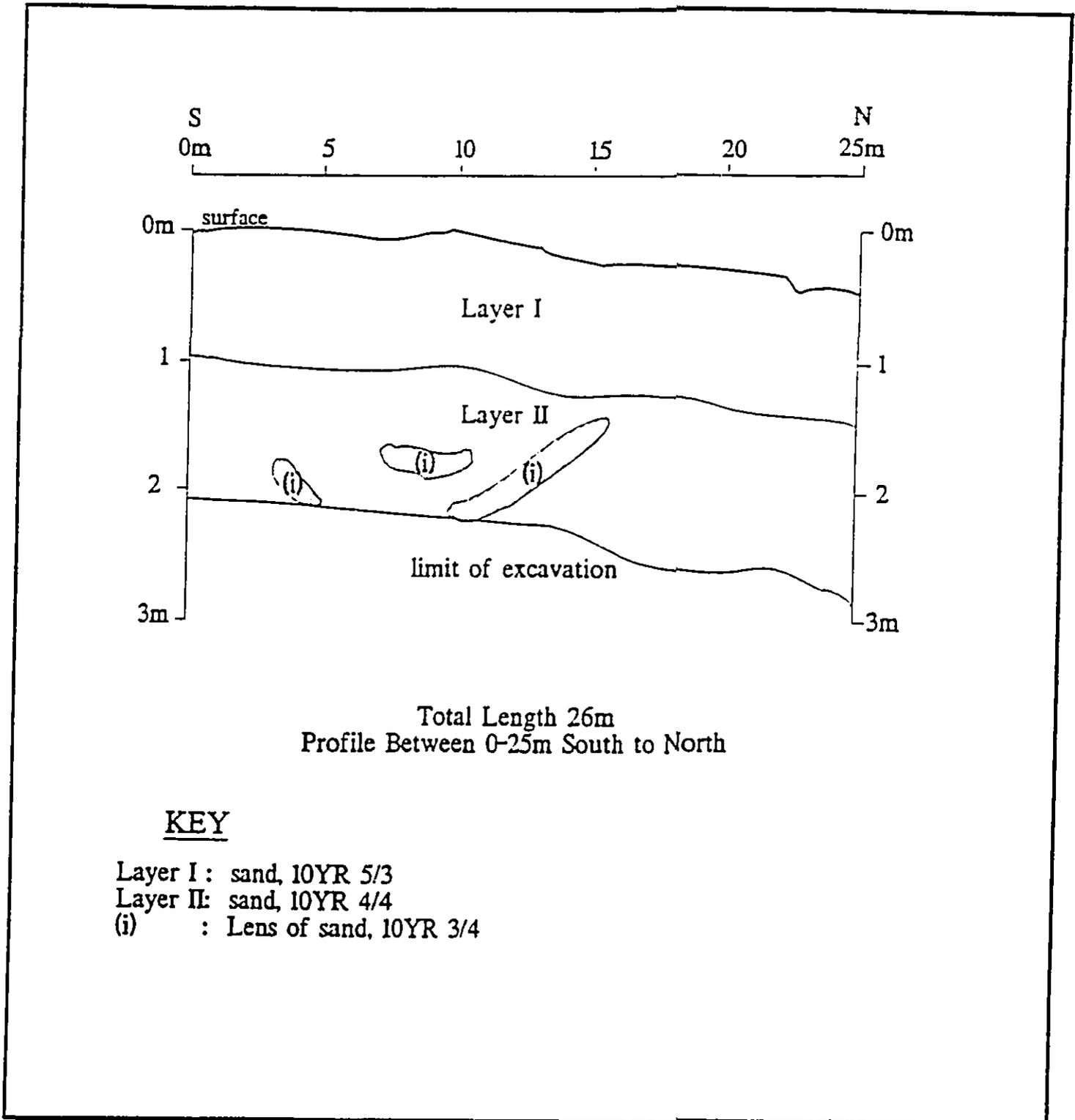
Figure 1: Trench 1 Profile, Northwest Face



TMK: 3-8-07; portion 97; Wailuku, Maui

Archaeological Consultants of Hawaii, Inc. 1992

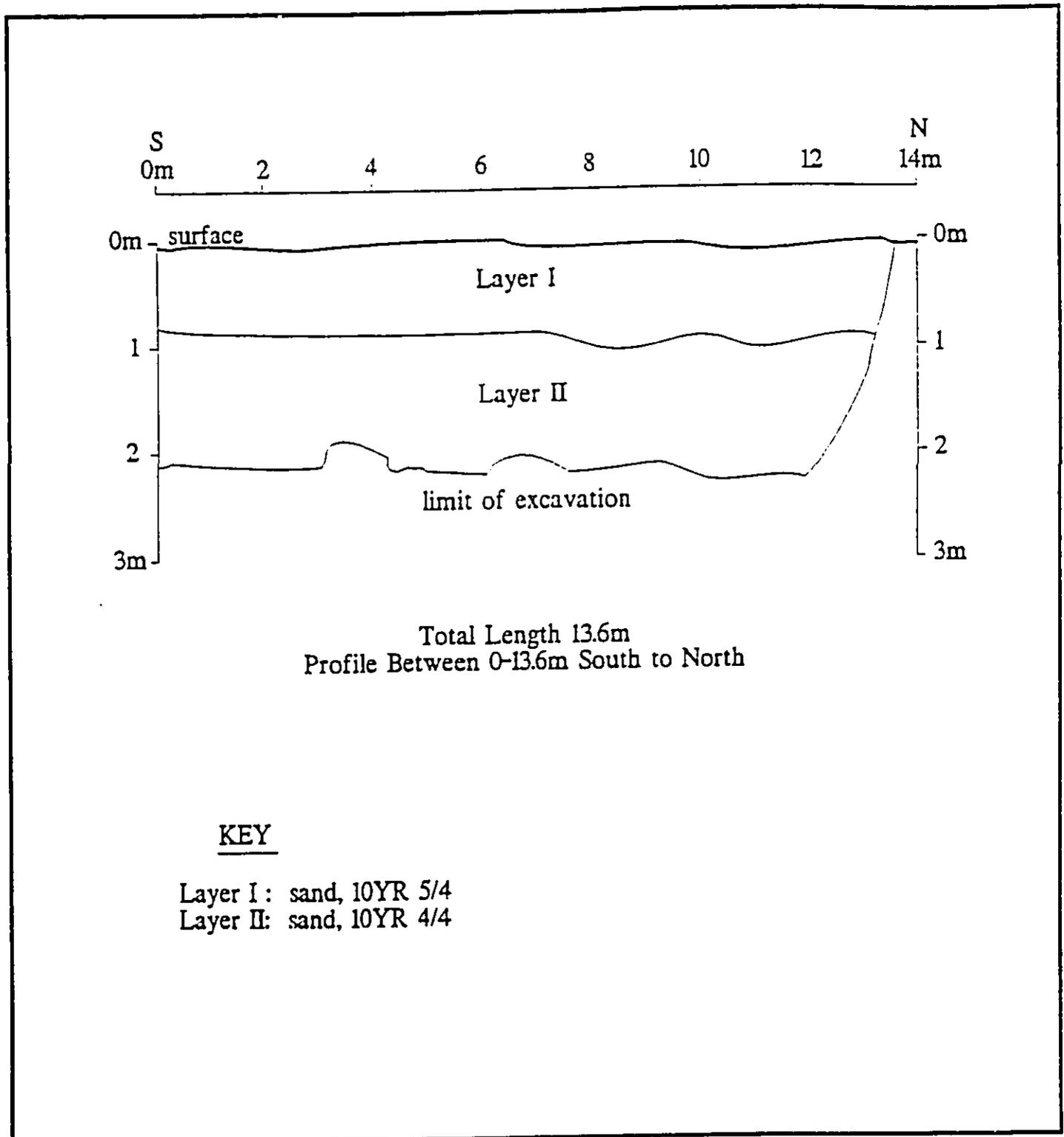
Figure 2: Trench 3 Profile, West Face



TMK: 3-8-07; portion 97; Wailuku, Maui

Archaeological Consultants of Hawaii, Inc. 1992

Figure 3: Trench 4 Profile, West Face



TMK: 3-8-07; portion 97; Wailuku, Maui

Archaeological Consultants of Hawaii, Inc. 1992

In total, Trench 5 measured 69m long. Two soil deposits were present in this trench: Layer I-1 was a brown sand; and Layer I-2 was a yellowish brown sand (see Figure 4). Much of Layer I-1 was cemented into laminae which formed bedding planes.

Test Trench 6 began downslope of a small hillock, and continued upslope to the top of the hillock onto a slightly sloping sandy plain (see Map 4). The total length of Trench 6 was 48m. Trench 6 had a slight bend forming two sections labeled A and B. The average depth of the trench varied from 2mbs to 2.1mbs. The ground cover was composed of assorted grasses. Two layers were observed in the trench profile (see Figure 5): Layer I was a brown sand; and Layer II was a dark yellowish brown sand.

Test Trench 7 was situated between Trench 2 and Trench 3 on a slightly sloping sandy plain directly to the south of the burnt tree pile (see Map 4). The total trench length was 30m. Dense grasses and small trees made up the ground cover. Two layers were present in the trench: Layer I was a brown sand (10YR 5/3) extending from the surface to 80cmbs; and Layer II was a dark yellowish brown sand (10YR 4/4) which extended from 80cmbs to the base of excavation at 1.8mbs.

Test Trench 8 was excavated at the edge of a cut bank created by the bike path (see Map 4). This location allowed a deep cross-section of the deepest undisturbed dunes in the project area. The total length of the trench was 4.5m. A single soil deposit was observed: Layer I which extended from the surface to a depth of 2.8mbs. Layer I was a yellowish brown (10YR 5/4) sand.

Test Trench 9 was situated in a small grove of trees in the southwestern corner of the project area (see Map 4). The total length of this trench was 9m. A single layer was present which extended from the ground surface to 1.8mbs, the base of excavation. Layer II was a dark yellowish brown (10YR 4/4) sand.

Section 8: DISCUSSION

From a review of the previous archaeological studies in the area, it was thought probable that the most likely finds on the subject property would be human burials. It is common for human burials to be found in coastal sand deposits, not only along this section of the Maui coast, but throughout the Hawaiian Islands. The likelihood of finding burials was a consideration because of the relatively intact dune deposit on the property.

Figure 4: Trench 5 Profile, Sections A and B

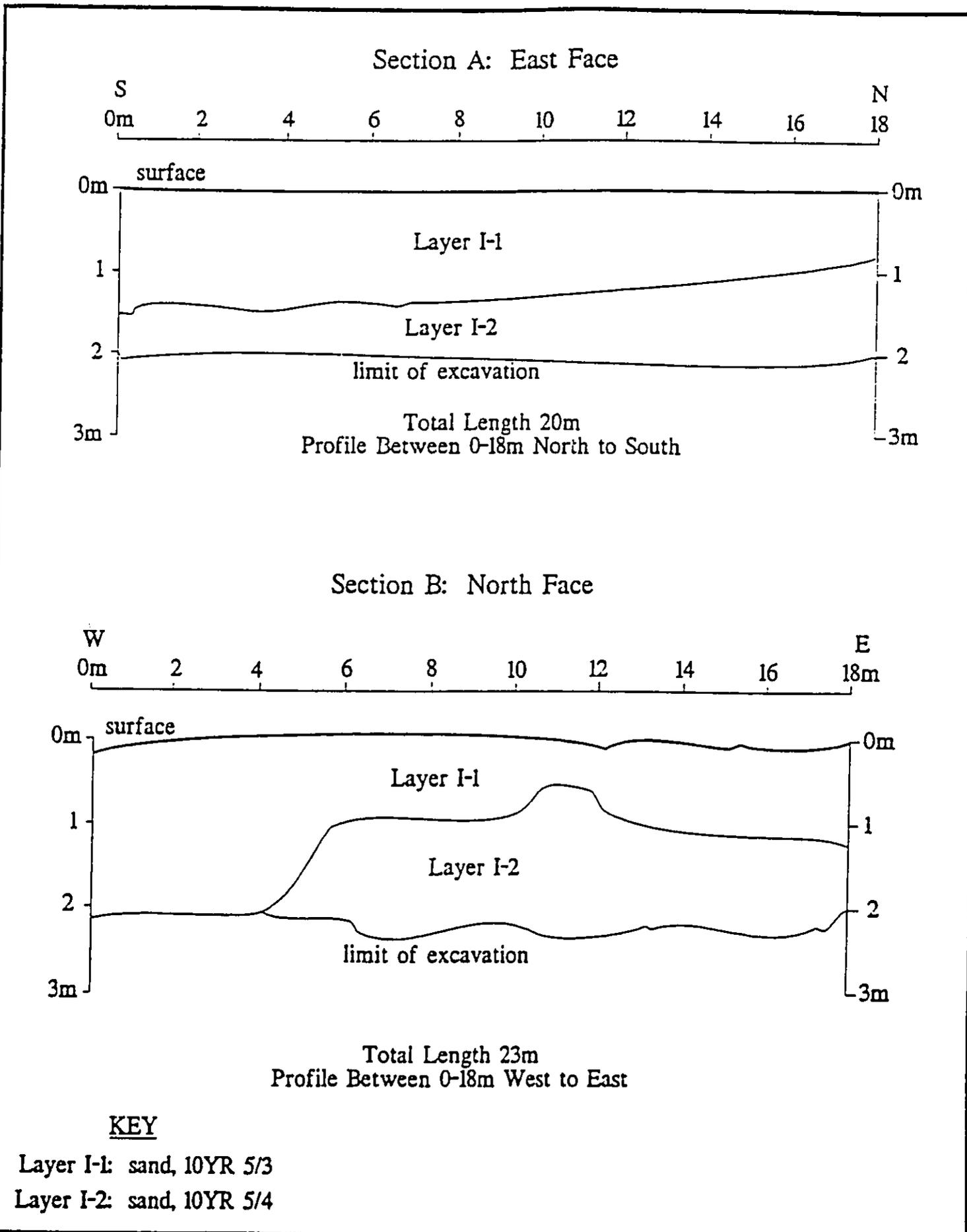
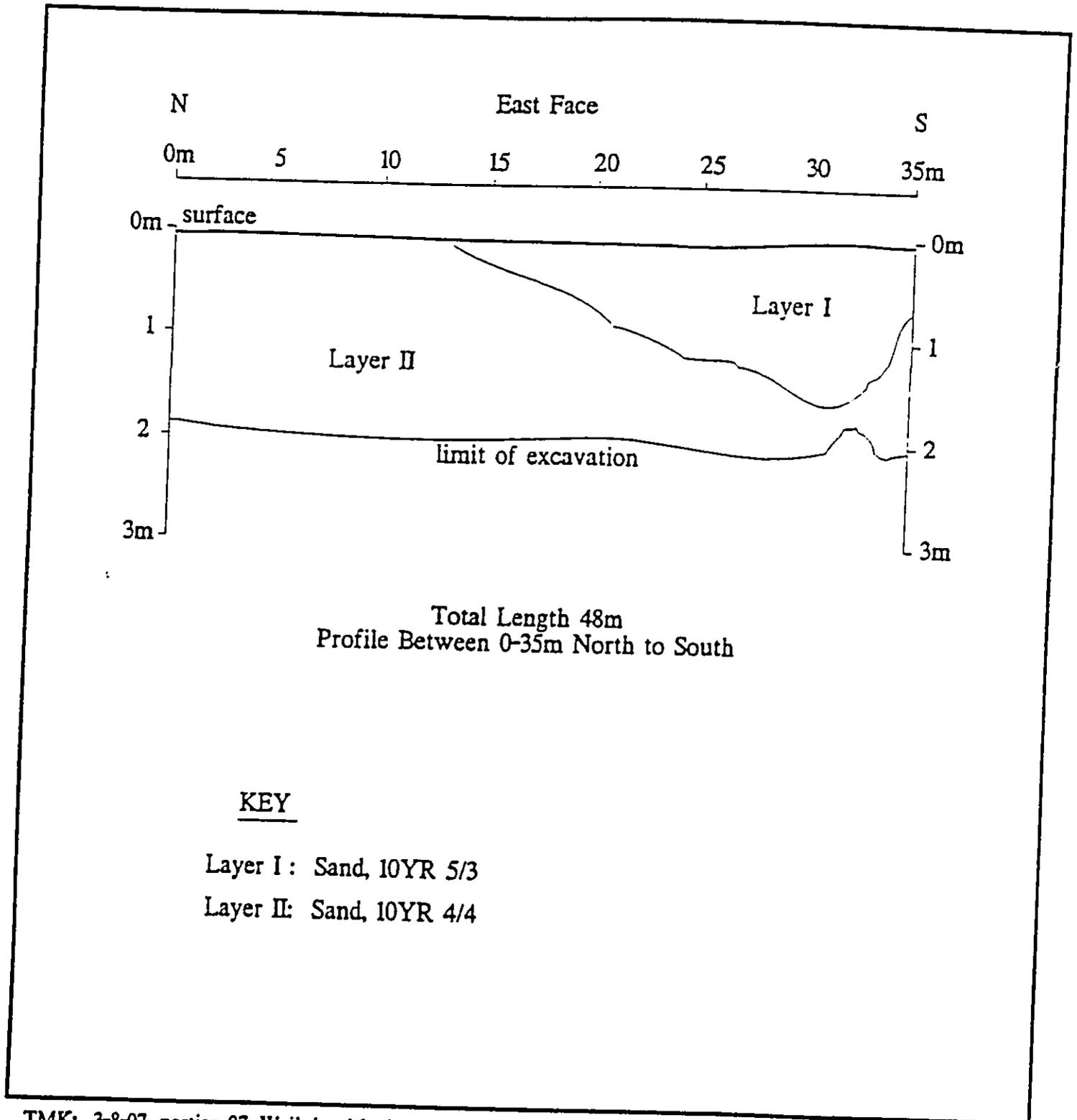


Figure 5: Trench 6 Profile, Section A



TMK: 3-8-07, portion 97; Wailuku, Maui

Archaeological Consultants of Hawaii, Inc. 1992

The excavations on the subject property did not encounter human remains in the sand dune. Indeed, no features or deposits of historic significance were encountered on the subject property.

Section 9: CONCLUSION

An inventory survey with subsurface testing was conducted on the subject property. Neither the 100% surface survey, nor the nine test trenches, encountered any historically significant structures or deposits. A large portion of the project area had previously been impacted by the construction of Kahului Park, bulldozing on the subject property, and the construction of a bike path. Testing occurred in areas which had not been obviously disturbed. Any future construction activities on the subject property will have "no effect" upon significant historic resources.

The owner and developer should be aware that human burials have been encountered in sand dunes in the Kahului area. It is possible that the testing undertaken during the present investigations did not locate human burials which are present within the sand dune. In the event that human remains are encountered during construction activities, the State Historic Preservation Division should be contacted immediately, in accordance with HRS Chapter 6E.

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Appendix A-1

**Letter from DLNR State Historic Preservation
Division**

DOCUMENT CAPTURED AS RECEIVED

JOHN WAIHII
GOVERNOR OF HAWAII



'92 SEP 16 10:47

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
STATE HISTORIC PRESERVATION DIVISION
33 SOUTH KING STREET, 6TH FLOOR
HONOLULU, HAWAII 96813

September 14, 1992

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

DEPUTIES

JOHN P. KEPPELER, II
DONA L. HANAUIKE

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

Mr. Brian Miskae, Director
Department of Planning
County of Maui
250 South High Street
Wailuku, Hawaii 96793

LOG NO.: 6318
DOC NO.: 2502a

Dear Mr. Miskae:

SUBJECT: Historic Preservation Review of a Community Plan Amendment and Change in Zoning Application for the Hale Makua Expansion (I. D. No. 92/CPA-005, 92/CIZ-012) Wailuku, Maui
TMK: 3-8-07: 97

This is a follow-up to our letter of August 4, 1992, concerning these applications. We have previously recommended that a decision on these applications be deferred until the applicant has conducted an archaeological inventory survey to determine whether significant historic sites are present.

On September 7, 1992, we received a draft copy of the final report presenting the results of an inventory survey that was conducted by Archaeological Consultants of Hawaii (Kennedy, Brennan and Soldo 1992. Inventory Survey with Subsurface Testing Report for a Property Located at TMK: 3-8-07:97 (por.), in the Ahupua'a of Wailuku, District of Wailuku, on the Island of Maui). We reviewed this report and it appears that the project area has been adequately surveyed and tested. It also appears that sufficient data from the background research and testing results were presented in the report.

Human burials were predicted to be present on the project area based on previous findings from the sand dunes in the surrounding area. However, no evidence of burials or other historic sites was found. We concur with this negative finding and we have determined that the proposed expansion of Hale Makua will have "no effect" on significant historic sites.

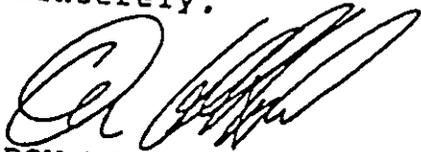
September 14, 1992
Page 2

However, there is still a possibility for an isolated burial to be encountered during massive grading of the dune. Therefore, we recommend that the following condition be attached to the permit, if approved:

- 1) An archaeologist shall monitor the grading of the dune. If a human burial is encountered, the remains shall be protected from further damage and the finding shall be reported to the State Historic Preservation Division (SHPD) immediately. The monitoring archaeologist shall undertake the mitigation measure as determined by SHPD. A monitoring report, whether or not historic sites were found, shall be submitted to SHPD.

Should you have any questions about these comments, please contact Annie Griffin at 587-0013.

Sincerely,



DON HIBBARD, Administrator
State Historic Preservation Division

AG:aal