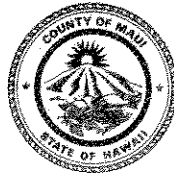


ALAN M. ARAKAWA
Mayor

MICHAEL W. FOLEY
Director

DON COUCH
Deputy Director



COUNTY OF MAUI
DEPARTMENT OF PLANNING

July 25, 2006

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

RECEIVED
06 JUL 27 AM 05:57
OFFICE OF ENVIRONMENTAL
QUALITY CONTROL

Dear Ms. Salmonson:

RE: Final Environmental Assessment for the Proposed Garcia Family
Subdivision Located at TMK: 2-1-007: 067, Makena, Island of Maui,
Hawaii (EA 2002/0008) (CPA 2002/0009) (CIZ 2002/0013)
(DBA 2002/0004) (SM1 2002/0016)

The Maui Planning Commission at its regular meeting on July 25, 2006, accepted the Final Environmental Assessment (FEA) for the subject project, and issued a Finding of No Significant Impact (FONSI). Please publish the FEA in the **August 8, 2006**, Office of Environmental Quality Control (OEQC) Environmental Notice.

We have enclosed a completed OEQC Publication Form and four (4) copies of the FEA. If you have any questions, please call Ms. Kivette Caigoy, Environmental Planner, of our office at 270-7735.

Sincerely,

JEFF HUNT, AICP, Staff Planner
FOR MICHAEL W. FOLEY
Planning Director

MWF:KAC:jmu

Enclosures

c: Kivette A. Caigoy, Environmental Planner
Joe Alueta, Staff Planner
Raymond Cabebe, Chris Hart & Partners
EA Project File
General File

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FILE COPY

FINAL ENVIRONMENTAL ASSESSMENT

GARCIA FAMILY SUBDIVISION

*TMK: (2) 2-1-007:067
Makena · Maui · Hawaii*

Prepared for:
Mr. Samuel M. Garcia, Jr.
Mr. Jon E. Garcia
193 Makena Road
Makena, Maui, Hawaii 96753

Submitted by:
Chris Hart and Partners
Landscape Architecture and Planning
1955 Main Street, Suite 200
Wailuku, Hawaii 96793
Phone: 242-1955
Fax: 242-1956

OFFICE OF ENVIRONMENTAL
QUALITY CONTROL

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CHRIS
HART
& PARTNERS, INC.

JUNE 2006



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APPENDICES

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Appendix D	State Historic Preservation Letter dated May 10, 2001
Appendix E	Maui Scenic Coastal Resources Study, Kihei Map
Appendix F	Preliminary Engineering and Drainage Report
Appendix G	Traffic Assessment
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Appendix I	Preservation Plan for Kalani Heiau

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I. PROJECT INFORMATION

A. PURPOSE OF THE REQUEST

This Environmental Assessment has been prepared on behalf of Sam and John Garcia in support of an application for a State Land Use Commission District Boundary Amendment (DBA) from Agricultural to Urban, County Change in Zoning (CIZ) from Interim to R-3 Residential, Community Plan Amendment from Hotel to Single-Family, and a Special Management Area (SMA) Permit in order to allow for an eleven unit single-family residential subdivision on a 5.497-acre parcel at Makena, Maui, Hawaii; TMK: (2) 2-1-007:067.

B. PROJECT PROFILE

Proposed Project:	10 unit single-family residential subdivision
Lot Sizes:	13,000 SF - 33,350 SF
Existing Land Use:	3 residential structures
Project Area:	5.497 acres
Access:	Makena-Keoneoio Road

C. IDENTIFICATION OF THE APPLICANT

Land Owner:	Mr. Samuel M. Garcia, Jr. Mr. Jon E. Garcia
Contact:	Same
Address:	193 Makena Road Makena, Maui, Hawaii 96753
Phone/Fax:	Phone: (808) 879-5903 Fax: (808) 879-5903

D. CONSULTANT

Land Use Planners:	Chris Hart & Partners, Inc.
--------------------	-----------------------------



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1955 Main Street, Suite 200
Wailuku, Maui, Hawaii 96793-1706
Phone: 808-242-1955, Fax: 808-242-1956
Mr. Rory Frampton

E. ACCEPTING AGENCY

Agency:

Maui Planning Commission
C/O Department of Planning
250 South High Street
Wailuku, Maui, Hawaii 96793
Phone: 808-270-7735, Fax: 808-270-7634

Phone/Fax:

F. PRE-CONSULTED AGENCIES & PRIVATE INTERESTS

A. COUNTY OF MAUI

1. Department of Planning
2. Department of Public Works and Waste Management

B. PRIVATE INTERESTS

1. Makena Homeowners Association
2. Neighboring property owners

G. COMMENTING AGENCIES (APPENDIX H)

- State Department of Accounting and General Services
- State Department of Land and Natural Resources
- State Department of Transportation
- State Land Use Commission
- Natural Resources Conservation Service
- State Office of Environmental Quality Control
- Office of Hawaiian Affairs
- State Office of Planning
- State Department of Health
- County of Maui, Department of Parks and Recreation
- Department of Water Supply
- Maui Electric Company



II. DESCRIPTION OF THE PROPERTY AND PROPOSED ACTION

A. PROPERTY LOCATION

The subject property is located within Makena, approximately one-mile south of the intersection of Makena-Keoneoio Road and Makena Alanui Road, Makena, Honuauia, Hawaii; TMK: (2) 2-1-007:067 (See: Figure Nos. 1a, 1b, and 2 "Regional Location", "Surrounding Uses", and "Tax Map Key").

B. EXISTING LAND USE

The subject property currently supports three (3) residential dwellings situated on the western portion of the site. The remainder of the property is currently undeveloped and overgrown with Kiawe trees, cactus, weeds, and grasses.

C. LAND USE DESIGNATIONS

State Land Use Classification:	Agricultural (See: Figure No. 5, "State Land Use")
Kihei-Makena Community Plan:	Hotel (See: Figure No. 3, "Community Plan Map")
County Zoning:	Interim* (See: Figure No. 4, "Zoning Map")
Flood Zone Designation:	C (See: Figure No. 6, "Flood Insurance Rate Map")

* Although the subject property is shown as B-R, Resort Commercial, on the County's Land Zoning Map No. 5, it has been determined that the property must comply with the standards in the interim district since the B-R zoning designation was improperly applied when the property was within the State Agricultural District.

D. DESCRIPTION OF PROPOSED ACTION

Originally, the Garcia family proposed to subdivide a 5.497-acre parcel into ten (10) residential lots ranging in size from approximately 13,500 SF to 34,000 SF in order to allow for the construction of eleven single-family residential dwellings. The project plans have been revised by reducing the number of lots from 11 to 10 with the new lot sizes ranging from 11,700 SF to 51,430 SF.

A primary design objective of the project is to maintain the rural residential feel of Makena-Keoneoio Road. As such the project incorporates relatively large lot sizes as well as rural design standards for the proposed road improvements. Lot configurations were developed by identifying preferred house sites based on existing topography with the goal of respecting existing land forms (See: Figure No. 12, "Concept Subdivision/Site Plan").

Access to the project will be from Makena-Keoneoio Road. Nine lots will be provided access via an existing roadway easement abutting the northern property boundary. An existing driveway off of Makena-Keoneoio Road will serve the remaining lot.

Two permanent preservation areas will be established on the property as shown on Figure 16. The preservation area for *Kalani Heiau* (site 196) will be located within Lot 4 and is approximately 37,400 sq. ft. in size (.86 acre) and will include the entire knoll upon which *Kalani Heiau* is situated. The preservation area for Site 5036 AA will be located within Lot 6 and is approximately 10,430 sq. ft. in size. The two preservation areas are situated such that they form one larger contiguous area free of residential related structures. (A right of way for vehicular access and underground utilities separates the two preservation areas. The surface of the vehicular access will be color molded concrete or asphalt where it abuts the two preservation areas.) The two preservation areas will total approximately 47,830 sq. ft., or about 1.1 acre, roughly 20% of the Garcia Family property.



In addition to the preservation areas, additional building setbacks or no build zones will be placed on lots 4, 6 and 10. The no build zones on lots 4 and 10 will establish minimum building setbacks of 50 feet from *Kalani Heiau*.

Maximum building heights of 40 ft. above mean sea level will be established on Lot 3 and a portion of Lot 2. This will reduce the potential visual impact from future residential structures.

The applicant intends to establish a minimum set of architectural design guidelines through the establishment of Protective Covenants, Conditions and Restrictions (CC&Rs). The architectural design standards will encourage the use of traditional Hawaiian architectural elements such as large roof overhangs, covered lanais, and split pitch roofs. Reflective roof materials and siding will be prohibited. Landscape architecture guidelines will incorporate the use of large shade trees and expansive lawns. Lots 9 and 10 will be limited to one story in order to preserve views for lots 6, 7, and 8.

Associated infrastructure and site improvements include a sewer collection system which will tie into Makena Resort's wastewater collection and treatment system; paved roadways; underground utilities; water distribution and fire protection system improvements; and a drainage collection and retention system.

E. ALTERNATIVES

1. No action

Analysis. The subject property was originally zoned for hotel use in the late 1960's, and is adjacent to the Maui Price Hotel and existing single-family residences. Surrounding properties are either developed, being developed, or are zoned and community planned for residential, hotel, commercial, or multi-family residential use.

The "No Action" alternative would leave the landowner with a significantly underutilized parcel since the subject property currently supports just three single-family residences on 5.497-acres.

2. Alternative uses, size, and configuration



Analysis. Various alternative uses and configurations were considered during the design phase of the project. A summary of these alternatives is presented below:

Hotel Use. The applicant desires to continue living on the subject property and would like to preserve, to the extent practical, the traditional character and lifestyle that exists along Makena-Keoneoio Road. Development of a hotel on the subject property would require considerably more density to support the high costs associated with hotel development. The additional density associated with a hotel development is inconsistent with the applicant's desire to maintain the traditional character and lifestyle of the immediate area.

More Lots. Increasing the number of lots would result in smaller lot sizes and therefore greater density on the subject property. However, the applicant desires to maintain, to the extent practical, the traditional character and lifestyle that exists along Makena-Keoneoio Road and therefore desires to maintain an overall density of approximately one dwelling per one-half acre.

Fewer Lots. Increasing the lot sizes or maintaining more land area in open space would produce fewer lots; thereby, minimizing the project's impact on infrastructure and services. However, decreasing the number of lots would require that certain fixed development costs, i.e. land costs, planning and design studies, and on-site infrastructure improvements, be amortized over fewer lots thus increasing the cost per lot. As per the applicant's objective, an 10-lot subdivision provides a settlement pattern that will neither compromise the area's rural/residential character nor over-burden the area's off-site infrastructure.

III. DESCRIPTION OF THE EXISTING
ENVIRONMENT, POTENTIAL IMPACTS AND
MITIGATION MEASURES

A. PHYSICAL ENVIRONMENT

1. Land Use

Existing Conditions. The subject property is located on the leeward facing shore of Maui, in Makena, approximately 2 miles south of Wailea. A patchwork of undeveloped urban-zoned land, intermixed with high-end visitor oriented development that includes condominiums, hotels, golf courses, and residential beach estates characterizes the Makena area (See Figure Nos. 1a-b, 3, and 9). Development generally occurs in a linear pattern between the shoreline and Makena Alanui Road, a major County roadway connecting Makena and Wailea. Zoning throughout Makena, and in the immediate vicinity of the subject property, is predominantly urban with a significant amount of land community planned for apartment, hotel, commercial, residential, and recreational uses (See Figure Nos. 3, 4, and 9). Beyond the urban-zoned areas are arid agricultural lands being used for low intensity cattle grazing. Makena is still largely undeveloped and therefore a significant amount of urban-zoned land remains in open space.

The subject property is situated adjacent to a range of land uses including hotel, single-family residential, and park uses. To the north is a sewer pump station, public parking lot, and restroom serving Maluaka Beach, as well as, undeveloped land zoned for residential and resort-commercial development. To the west, across Makena-Keoneoio Road, are the historic Keawala`i Church, single-family residences, and Maluaka Beach. To the south is undeveloped land proposed for residential development and the Maui Prince Hotel. To the east is undeveloped land zoned for resort-commercial use.

The Community Plan map presents an illustration of the range of potential future land uses planned within the immediate area (See Figure Nos. 3 and 9). The following is a description of zoning, community plan designations, and existing land uses adjacent to the subject property:

North:

Zoning: R-2, Residential; B-R, Resort Commercial
Community Plan: Commercial; Public/Quasi-
public



State Land Use: Urban

Existing uses. Public parking and restroom serving Maluaka Beach; Sewer Pump Station; Undeveloped land

South:

Zoning: H-M, Hotel Medium; Interim

Community Plan: Hotel

State Land Use: Agricultural; Urban

Existing uses. Undeveloped land; Maui Prince Hotel

East:

Zoning: B-R, Resort Commercial

Community Plan: Commercial; Hotel

State Land Use: Urban

Existing uses. Undeveloped land

West:

Zoning: Interim; R-3, Residential; B-R, Resort Commercial

Community Plan: Single-family; Public/Quasi-public; Park

State Land Use: Rural; Urban

Existing uses. Keawala'i Church; Single-family residences; Maluaka aka "King's" Beach

Potential Impacts and Mitigation Measures. From a regional planning perspective, urban land uses should occur within areas that offer compatible land uses, as well as, proximate infrastructure and services capable of serving the development.

The proposed 10-lot single-family project is located within an area that offers a mixture of lower density single-family residential, hotel, and park uses. Supporting urban infrastructure is proximate to the subject property and capable of servicing the proposed development. The requested Community Plan Amendment from Hotel to Single Family Residential would result in a less intense land use than currently planned.

2. Topography and Soils



Existing Conditions. The northwesterly section of the project site is partially developed with 3 existing residences and other miscellaneous structures. The remainder of the site is vacant and is overgrown with Kiawe trees and weeds. An archaeological site occupies the center portion of the parcel.

The elevation of the site ranges from 49 feet above mean sea level at the southeasterly corner to 10 feet above mean sea level at the westerly boundary, averaging approximately 5.6%.

According to the "Soil Survey of the Islands of Kauai, Oahu, Maui, Molokai, and Lanai, State of Hawaii (August, 1972)," prepared by the United States Department of Agriculture Soil Conservation Service, the soil within the project site is classified as Makena loam, stony complex (MXC). Makena loam, stony complex occurs on the lower leeward slopes of Haleakala, between Makena and Kamaole. On the Makena part of the complex, permeability is moderately rapid, runoff is slow to medium, and the erosion hazard is slight to moderate. On the stony land part, permeability is very rapid and there is no erosion hazard.

Potential Impacts and Mitigation Measures. The topographic and soil analysis suggests that the proposed land uses are suitable for the site, including roadways and housing. Pursuant to comments received by the Natural Resources Conservation Service in their December 10, 2002, letter, the soil in the area may not be suitable for compaction.

3. Flood and Tsunami Zone

Existing Conditions. According to Panel Number 15003 0330 B of the Flood Insurance Rate Map, June 1, 1981, prepared by the United States Federal Emergency Management Agency, the project site is situated in Flood Zone C. Flood Zone C represents areas of minimal flooding.

Potential Impacts and Mitigation Measures. Thus, the proposed project should not be affected by or have adverse impacts upon its neighbors or downstream properties with regards to flood hazard potential.

4. Terrestrial Biota (Flora and Fauna)

Existing Conditions. Based upon a site reconnaissance survey of the subject property, it appears that much of the subject property has previously been used for animal grazing.



and vegetation has therefore been altered from its natural state. Existing vegetation on the property primarily consists of Cactus, Kiawe, and low grasses with scattered Koa Haole. No wetland indicator plants were found on the property. Avifauna typically found in the area includes the common myna, several species of dove, cardinal, house finch, and house sparrow. Mammals common to this area include cats, dogs, rats, mice, mongoose, and occasionally deer. No known rare, endangered, or threatened species of flora or fauna were discovered on the subject property.

Potential Impacts and Mitigation Measures. There are no known significant habitats of rare, endangered or threatened species of flora and fauna located on the subject property. Thus, rare, endangered, or threatened species of flora and fauna will not be impacted by the proposed project.

5. Air Quality

Existing Conditions. Air quality refers to the presence or absence of pollutants in the atmosphere. It is the combined result of the natural background and emissions from many pollution sources. The impact of land development activities on air quality in a proposed development's locale differs by project phase (site preparation, construction, occupancy) and project type. In general, air quality in Makena is considered relatively good. Non-point source emissions (automobile) are not significant to generate a high concentration of pollutants. The relatively high quality of air can also be attributed to the region's exposure to wind, which quickly disperses concentrations of emissions. The Makena area is currently in attainment of all criteria pollutants established by the Clean Air Act, as well as, the State of Hawaii Air Quality Standards.

Potential Impacts and Mitigation Measures. Air quality impacts attributed to the proposed project could include dust generated by the short-term construction related activities. Site work such as grading and building construction, for example, could generate airborne particulate. Standard dust control measures such as regular watering, sprinkling, and the installation of dust screens will be implemented to minimize the potential impact from wind-blown emissions.

The increase in the number of residents may result in a slight increase in the volume of traffic in the region, which would increase vehicular emissions such as carbon monoxide. However, this increase is not considered significant when compared to the overall number of vehicles in Makena and in consideration of existing ambient conditions. Thus, the proposed project is not anticipated to be detrimental to local air quality.



6. Noise Characteristics

Existing Conditions. The noise level is an important indicator of environmental quality. In an urban environment, noise is due primarily to vehicular traffic, air traffic, heavy machinery, and heating, ventilation, and air-conditioning equipment. Ramifications of various sound levels and types may impact health conditions and an area's aesthetic appeal. Noise levels in the vicinity of the project area are generally low. Traffic noise from Makena-Keoneoio Road is the predominant source of background noise in the vicinity of the subject property.

Potential Impacts and Mitigation Measures. In the short-term, the proposed project could generate some adverse impacts during construction. Noise from heavy construction equipment, such as bulldozers, front-end loaders, and material-carrying trucks and trailers, would be the dominant source of noise during the construction period. To minimize construction related impacts to the surrounding neighbors, the developer will limit construction activities to normal daylight hours, and adhere to the State Department of Health's noise regulations for construction equipment. In the longer-term, the proposed project should not significantly impact existing noise conditions in the area due to the relatively small increase in traffic generated by the project.

7. Archaeological/Historical/Cultural Resources

Existing Conditions. Haun & Associates, of Keaau, Hawaii, conducted an archaeological inventory survey of the subject property in October 2000. The objective of the inventory survey was to satisfy historic preservation regulatory review inventory requirements of the Department of Land and Natural Resources-Historic Preservation Division (DLNR-HPD), as contained within the Hawaii Administrative Rules, Title 13, DLNR, Subtitle 13, State Historic Preservation Rules. In addition, based on comments received during the original review of this Environmental Assessment, additional work was performed and documenting in an Addendum Inventory Survey. (See: Appendix B, C, and D "Archeological Inventory Survey", "Revised Addendum Archaeological Inventory Survey", and "State Historic Preservation Division Letter dated May 10, 2001"). The objectives of the additional fieldwork were to (a) test for the presence of subsurface deposits in the western portion of the project area and around Kalani Heiau; (b) better define the boundaries of Kalani Heiau; and (c) verify the function of Site 5036, Feature AA knoll.



The inventory survey recorded seven (7) sites with 35 component features. See Figure 14. The sites consist of five single feature sites and two complexes of features. Formal feature types consist of mound, wall, modified out crop, enclosure, terrace, lava blister, modified knoll, and heiau. Probable prehistoric to early historic remains include Kalani Heiau, a temporary habitation feature, a habitation deposit and several agricultural mounds and modified outcrops. Mid-1800s to mid-1900s sites and features consist of ranch walls and enclosures, a garden enclosure, a probable pigpen, and agricultural clearing mounds.

Site 5079, a partially intact subsurface cultural deposit, situated in the yards of and potentially beneath, the residences in the northwest corner of the project area, potentially included additional intact deposits and datable materials. As part of the addendum study, additional excavations were undertaken in the west portion of the project site (TU-15, -16 and -17). The findings were identical to the results of the testing during the inventory survey and confirmed the original conclusions that Site 5079 is a probable prehistoric truncated remnant of a habitation deposit, approximately 8-10 cm thick.

The Kalani Heiau, Site 196, was described by Walker in 1931 as follows (as reported by Haun):

A large heiau said to be of sacrificial class but now reduced largely to a shapeless pile of rocks. It measures 126 feet across the front and has a width of 98 feet. No walls are in evidence, it being apparently an open platform 8 feet above the surrounding country build of rough Aa blocks with some coral and pebbles on top. Interior structure has been demolished by cattle. (1931:267)

The site was later examined by Bruce in 1973 who found it in the same shapeless condition as Walker. Bruce noted the presence of ranch walls along the west face and along the back of the heiau that were not noted by Walker and surmised that these walls had been built in modern times using rock from the heiau.

Haun provides a detailed description of the site along with sketches and photos. (See Figure No. 15 and Appendix C.) The site consists of the remains of a large notched platform located on a knoll, with an upper elevation of 38-40 ft. above sea level. The site's location on a prominent knoll, which would have commanded a view of the coastal waters of Makena Bay and Haleakala, and stepped construction are attributes typically characteristic of heiau.



The sides of the structure are collapsed. Most of the rubble surrounding the structure consists of small cobble to pebble-size stones that probably represent fill that was previously retained by walls faced with large cobble to small boulder-size stones. The surface scatters of *`ili`ili* and coral on the slopes of the knoll probably represent portions of paving that were scattered after the structure's retaining walls were removed. All that remains of the walls, except a portion of the southern, side, are alignments of small boulders imbedded in the ground. A ranch wall extends across the top of the site and a second wall is located at the base of the knoll to the west.

Haun notes that the poor condition of the structure is undoubtedly largely due to removal of stones to construct the wall on the site and walls to the south and west of the site. Given the large size of the structure he notes that it was probably a source of building material for other walls or buildings in the area. Haun has noted that it is possible that stone from the heiau could have been used in the original construction of Keawala'i Church, which was built in 1832, after the abolition of traditional Hawaiian religion. Similar to Bruce's conclusion, Haun notes that the wall that bisects the site was not mentioned by Walker, indicating that it may have been constructed after Walker's visit.

Current views of the ocean are blocked by vegetation and structures on the project site and neighboring properties. See Figures 9 and 10 in Appendix A. However, in the absence of existing vegetation and neighboring structures, the knoll would have had views of Makena Bay and beyond to Molokini and Kahooloawe. The site would have overlooked portions of the coastal areas from just north of Keawala'i Church to the southern end of Maluaka Beach.

Feature AA of Site 5036, the modified knoll, consists of a leveled knoll with a sparse scatter of waterworn pebbles (*ili ili*) indicating the former presence of a pavement or prepared floor, and a sparse scatter of marine shell. The upper elevation of this knoll is approximately 46 ft. above sea level. During the original inventory survey, a shovel test on the upper surface of the knoll encountered a 25 cm thick deposit containing sparse *`ili`ili* and marine shell, but no charcoal or other artifacts. Haun's conclusion is that the remains suggest the knoll was used for a limited period of time for temporary habitation.

Comment letters from the State Historic Preservation Division, Ms. Dana Hall, and Ms. Theresa Donham, have suggested that Feature AA, could have had a "ritual or ceremonial function, due to its setting, the spatial association of the site with Kalani



Heiau and its location on a promontory overlooking the heiau.”¹ Haun maintains that a habitation function for the knoll is supported by the additional archaeological data collected during the Addendum study, however, he does note that consulted individuals suggested that the function of the knoll may have changed over time and that its prominent nature may have had ritual significance, and that a potential ritual function cannot be ruled out.

In 2005, based on the comments by community members and a request by the Maui County Cultural Resources Commission, *Kumu Pono Associates LLC* undertook a detailed study of archival documentary accounts and oral history interviews with *kūpuna* and *kama’āina*, known to be familiar with the history of lands in the Ka’eo-Makena vicinity (Maly and Maly, 2005). The resulting study includes first-hand descriptions of the land of Ka’eo and the larger Makena-Honua’ula region dating from the 1820s, and oral historical accounts dating from ca. 1915. The research provides readers with a rich collection of cultural narratives for lands of the Honua’ula District—many of which had not been previously translated or cited in cultural studies. Specific emphasis in the study focused on the land of Ka’eo and cultural features documented on the Garcia family property.

In conducting the research for the ethnographic study, the only historical record found that specifically described a *heiau* or ceremonial feature—that is directly associated with the Garcia property—is that of Walker’s, “Site 196–*Kalani Heiau*” (Walker, ms. 1930-1931). While there are references to a “*Kalani Heiau*,” dating from 1916 to the 1930s (in Stokes and Thrum), there was no specific locational information given. There was also no reference found for the feature now identified as Site 5036 AA (Site 50-Ma-B8-99), though native land descriptions and maps dating from the 1840s and 1850s do reference the “*Aupuni Wall*” (Government Wall)—apparently being the same wall at the back end of the Garcia property (Site 5036 B), and being claimed as the lot of Maaweiki (*Helu Kuleana* 3676) — indicating early historical activity on the land. Native tenant land claims of 1848, registered by residents of Ka’eo with tenancy predating 1819, also identify *kuleana* and walled features adjoining the *heiau* in what Haun described as Sites 5037, 5038 5039, and 5040 (Haun et al., 2000 & 2003) (See: Figure 16).

As a part of the detailed ethnographic study prepared by Maly and Maly (2005), nine oral history interviews were conducted with eight individuals ranging in age from their 50s to 90s. Also, one informal interview—in which handwritten notes were taken—was conducted with a ninth individual. Seven of the interviewees are descended from

¹ Letter from Theresa K. Donham to Dana Naone Hall dated July 14, 2003, transmitted to State Historic Preservation Division by Dana Naone Hall via letter dated July 22, 2003.



families whose residency in the Makena region, and whose ties to the Keawala'i church post date the 1840s. The eighth interviewee (also a native Hawaiian), married a native of the Honua'ula District, and moved with her husband to Makena in the early 1950s; the ninth individual, who participated in both a brief telephone interview and in a follow up discussion in person, purchased 'Ulupalakua Ranch in the early 1960s. The first eight interviewees shared intimate knowledge of the lands, families, customs and practices of residents in the Honua'ula region, with historical accounts spanning from ocean fisheries to the mountain lands of the 'Ulupalakua region.

All but one of the primary interviewees shared that as children—dating from 1911 to the 1940s—they had not heard about the site known as "*Kalani Heiau*." All but two interviewees had learned of the site later in their lives, some as a result of the archaeological work conducted on behalf of the Garcia family. One interviewee, in his 60s, a member of the Lono-Kalani family learned of the *heiau* as a child, from his *kūpuna* and an uncle, who associated the site with the family's fishing customs. The second interviewee, moved to Makena in the early 1950s, and she reported that by the time Mrs. Marjorie Kalehua Cockett-Garcia acquired the parcel from 'Ulupalakua Ranch in 1957, it was known that a *heiau* was situated on the property.

The names and functions of *Kalani Heiau* and other sites on the Garcia property were not known to the interviewees. The interviewees attribute this in part, to the fact that their parents and *kūpuna* generation did not talk to them in detail about many traditional sites, except for those that were specifically associated with their families—some of these sites did include *heiau* at other locations. They also recalled that from the early 1900s, the area of the Garcia property, the land above the Makena-Keone'ō'io Road, except for where houses were situated, was fairly overgrown with *kiawe* and other introduced plants. Thus, travel *mauka*, off trails, was deterred.

While only limited documentation about the "*Kalani Heiau*" and other features on the Garcia property was recorded in the interviews, detailed descriptions of other Makena region sites, families, traditional and customary practices, transitions in residency and land use, traditions, practices associated with the area fisheries, and descriptions of the ranching era were recorded. The interviewees shared rich and vivid accounts, and add significant documentation to the community history base.

Potential Impacts and Mitigation Measures. In the inventory survey report, six sites were assessed as significant solely for their information content under Criterion "d", pursuant to DLNR (1998) Chapter 275. Five of these sites have yielded information important for understanding late prehistoric to historic land use in the project area. The



mapping, written descriptions, photography, and test excavations at the sites adequately documents them and no further work or preservation is recommended with one exception. Although the additional testing for Site 5079 did not obtain any dating material, it is recommended that the area be archaeologically monitored during construction to recover dating samples if other intact deposits containing datable materials are revealed.

Site 196, Kalani Heiau, is assessed as significant under Criteria "d" and "e". The site has yielded and retains the potential to yield important information for understanding prehistoric settlement and ritual architecture. The site is also assessed as having traditional cultural value to native Hawaiian people. It is proposed that the Kalani Heiau along with Site 5036 Feature AA will be preserved in place.

The specific plans for preservation have been detailed in a Preservation Plan prepared for DLNR-SHPD review and approval (See: Appendix I). The following is a summary of the preservation plan components:

Two permanent preservation areas will be established as shown on Figure 16. The preservation area for Kalani Heiau (site 196) will be located within Lot 4 and is approximately 37,400 sq. ft. in size (.86 acre) and will include the entire knoll upon which Kalani Heiau is situated. The preservation area for Site 5036 AA will be located within Lot 6 and is approximately 10,430 sq. ft. in size. The two preservation areas are situated such that they form one larger contiguous area free of residential related structures. (A right of way for vehicular access and underground utilities separates the two preservation areas. The surface of the vehicular access will be color molded concrete or asphalt where it abuts the two preservation areas.) The two preservation areas will total approximately 47, 830 sq. ft., or about 1.1 acre, roughly 20% of the Garcia Family property.

The boundary of the Kalani Heiau preservation area follows historic stone walls along the west and southwestern sides. A historic stone wall also establishes the northeast boundary, running in a *mauka* direction towards site 5036 AA. The width of the Kalani Heiau preservation area ranges from a minimum of 27 feet from the southwest corner foundation to a maximum of 120 feet from the northwestern foundation corner.

In addition to the preservation areas, additional building setbacks or no build zones will be placed on lots 4, 6 and 10. The no build zones on lots 4 and 10 will establish minimum building setbacks of 50 feet from Kalani Heiau.



The combination of preservation areas and no build zones will result in an area free of structures measuring 460 feet in a *mauka-makai* direction. The maximum width of the structure free area running north and south through *Kalani Heiau* is approximately 250 feet.

It should be noted that the proposed subdivision plan has been amended by reducing the number of lots *makai* of the *heiau* from four to three. This has resulted in a larger area free of structures abutting the project access road as well as a greater building setback to the northwest of the *heiau*.

Maximum building heights of 40 ft. above mean sea level will be established on Lot 3 and a portion of Lot 2. This will reduce the potential visual impact from future residential structures.

Mauka portions of the preservation area on Lot 6 will be filled, this will establish level building pads for abutting areas to be used for future residential structures. The *makai* portion of the modified *'āhua* will remain unmodified in order to preserve the natural topography as viewed from *Kalani Heiau*.

View Planes

Currently, trees obscure the coastline view plane from the *heiau*. Haleakalā and the Prince Hotel are visible to the east and south, respectively. The proposed preservation measures for the site include creation of a view corridor to the ocean on the west side of the *heiau*. The adjacent property owner has already agreed to a 20 feet wide view corridor along the northern property boundary that generally follows a historic wall (Site 5037). The Garcia Family proposes a corridor of similar width on their property that will form a combined 40 ft wide view corridor to the ocean within which no vertical structures will be constructed (see Figure 8).

Proposed residences adjacent to the preservation sites will be screened using native plants. The trees and plantings on the south side of the site will also partially screen the hotel from view. A no build zone will also be created on Lot 6 in order to preserve *mauka* views from the *heiau* across Site 5036 AA towards Pu'u Ke'eke'ehia, Pu'u Ka'eo and other features near the summit of Haleakalā.

Other components of the preservation plan include:

- Ground work and excavation will be monitored by an archaeologist and cultural monitor (ideally an individual with genealogical ties to traditional



families of the Ka'eo-Makena vicinity) to ensure no impacts to cultural resources occur; and also during any site stabilization and landscape work within the preservation areas.

- Inappropriate alien vegetation (e.g., *kinawe*, lantana, *'ēkoa* and *pānini*) will be carefully removed from *Kalani Heiau*, Site No. 5036 AA, and the dedicated preservation buffer zones.
- Planting of native species known to occur naturally in the Makena-Honua'ula region, near shore lands, will be done for interpretive and restorative qualities; and to foster a buffer between residences to be developed on adjacent lands, and the preservation sites.
- Keawala'i Church, including native Hawaiian residents of the Makena region, descended from traditional families of the area, will organize a cultural stewardship program, and become partners with the Garcias and future home/land owners in the long-term care and interpretation of the preservation sites on the property.
- Some level of interpretive programs and exhibit materials will be developed as a means to inform the local and visiting public about the history of the Ka'eo-Makena region, and about the sites preserved on the property.
- A maintenance and monitoring program will be developed by which long-term preservation, conservation and education will be fostered for the preservation sites.
- A program of controlled access—in order to ensure protection of *Kalani Heiau* and associated preservation sites—and wise use will be developed for long-term care of the cultural resources.
- The Keawala'i Church partnership in association with the home owners will serve as the point of contact for conducting educational/interpretive programs for schools and special groups who may wish to visit *Kalani Heiau* and the associated preservation areas. The level and extent of the programs will be determined by members of the partnership in consultation with DLNR-SHPD.



- A funding base for program management will be developed to ensure success in long-term preservation and interpretation of the *Kalani Heiau* and preservation areas.

8. Visual Resources

Existing Conditions. The subject property is located within the destination resort area of Makena, which is renowned for its significant views of the Pacific Ocean and Haleakala. The Pacific Ocean and the islands of Molokini and Kaho`olawe are visible from the property.

The project site is visible from Makena-Keoneoio Road but is not visible from Makena Alanui due the presence of vegetation and topography. The mauka portion of the subject property is undeveloped and vegetated with Keawe trees, bushes, and grasses and contains no unique scenic resources. The makai portion of the subject property contains three existing dwellings and supports verdant and lushly landscaped grounds. Mauka views from Makena-Keoneoio Road are currently obstructed due to the presence of existing ground cover.

Public views of the Pacific Ocean and Haleakala exist in various locations from Makena Alanui, which is a major County roadway connecting Makena and Wailea. Numerous scenic resources have been identified in the Kihei-Makena area, which are identified and discussed in the Maui Scenic Coastal Resources Study, August 1990 (See: Appendix E). The resource/inventory map, which is located in Appendix D in this report, does not identify any significant view occurring across the subject property that will be affected by the development.

Potential Impacts and Mitigation Measures. As discussed, no unique scenic resources will be impacted by the development. However, from an urban design perspective, the proposed development will serve to create a more unified and cohesive residential development pattern in the area.

As such, the proposed project is not anticipated to significantly impact public view corridors, or the visual character of the site and its immediate environs.

9. Agricultural Resources

In May 1967 the Land Study Bureau (LSB) established a five-class rating system to determine the relative productivity of agricultural lands in the County, using the letters



A, B, C, D, and E, with A representing the class of highest productivity and E the lowest. The LSB ratings have become the standard by which the productivity of agricultural land is measured in the State.

The subject property affected by the proposed subdivision maintains an overall productivity rating of "E" by the LSB, indicating a low productive agricultural capacity.

Potential Impacts and Mitigation Measures. The subject property is not identified on the State of Hawaii's Agricultural Lands of Importance to the State of Hawaii's (ALISH) classification system.

The proposed action will not displace or conflict with land currently being utilized for active agricultural purposes.

B. SOCIO-ECONOMIC ENVIRONMENT

1. Population

Existing Conditions. Maui County experienced relatively strong population growth during the past decade with the 2000 resident population expanding to 128,241, an 80.6% increase over the 1980 population of 70,991 (United States Department of the Census, 2000). Population growth is projected to continue with the year 2020's resident population projected to reach 175,136 (SMS Research and Marketing Services, Inc., June 2002). Similarly, visitor growth has increased significantly in the County over the last decade with the average daily visitor count increasing from 15,363 in 1980 to 43,854 in 2000, a 285% increase in visitors per day. Thus, the County's defacto population, defined as all persons physically present in an area, grew to 168,544 in 2000, an 88% increase over 1990 levels (SMS Research and Marketing Services, Inc., June 2002).

Likewise, Kihei-Makena experienced high growth rates as the population grew to 22,870 in 2000, up from 15,365 in 1990, and 7,263 in 1980 (SMS Research and Marketing Services, Inc., 2002). The anticipated 2020 population of the Kihei-Makena region is projected to reach 31,576. The average daily visitor population of the region in 1990 was 16,079 and is anticipated to reach 19,161 in 2020, a 19% increase over 1990 levels (SMS Research and Marketing Services, Inc., June 2000).

Potential Impacts and Mitigation Measures. Using national demographic multipliers for standard housing types (American Housing Survey, 1987), the proposed project may



produce a net increase in the population of the immediate Makena area by approximately 25 persons.

2. Economy

Existing Conditions. The Kihei-Makena economy is based primarily upon the visitor industry. Visitor accommodations are located along the shoreline along with various support facilities, multi-family, and single-family residential developments. Kihei and Wailea have developed into important visitor destination anchors. Makena is significantly less developed. Much of the region's economic activity is derived directly or indirectly from tourism. In addition to tourism, high technology promises to be an increasingly important component of the Kihei-Makena economy. Most existing and projected employment in high technology will occur at the Maui Research and Technology (R&T) Park located in North Kihei, which is likely to become a major employment center.

Countywide, unemployment has decreased from a recent high of 7.5% in 1997 to a rate of 5.7% in 1999 (County of Maui, Office of Economic Development, April 1999). Full employment in an economy generally occurs at a rate of approximately 4.5% - 5% (Dornbusch and Fisher, 1990).

Potential Impacts and Mitigation Measures. The project will generate construction-phase economic impacts that are generally short-term effects. They include employment, income, and expenditure impacts that are created by on-site and off-site construction employment, on-site and off-site trade/transportation/service employment, and manufacturing employment in support of construction.

Short-term construction related impacts. Using the State of Hawaii, Department of Business Economic Development and Tourism's Input-Output Model (1998), the direct employment impact is estimated to be approximately 16 jobs during the construction phase of the development. The direct, indirect, and induced employment impact during this period is approximately 47 jobs.

3. Cultural Resources

Existing Conditions. A Cultural Impact Assessment Report was prepared by Rory Frampton, Principal Planner, Chris Hart & Partners, Inc., which describes the potential impact on cultural practices and beliefs resulting from the proposed action. The report has been revised to include additional information from native Hawaiian individuals,



analysis of views from the Site 196, and other supportive information and analysis (See: Appendix A, "Revised Draft Cultural Impact Assessment"). The assessment covers the entire project site. In addition to this study, an additional detailed study was prepared in 2005, based on the comments by community members and a request by the Maui County Cultural Resources Commission. *Kumu Pono Associates LLC*, undertook a detailed study of archival documentary accounts and oral history interviews with *kūpuna* and *kama'āina*, known to be familiar with the history of lands in the Ka'eo-Makena vicinity (Maly and Maly, 2005). The resulting study includes first-hand descriptions of the land of Ka'eo and the larger Makena-Honua'ula region dating from the 1820s, and oral historical accounts dating from ca. 1915. The research provides readers with a rich collection of cultural narratives for lands of the Honua'ula District—many of which had not been previously translated or cited in cultural studies. Specific emphasis in the study focused on the land of Ka'eo and cultural features documented on the Garcia family property.

The subject property is the site of archaeological sites which provide information important for research on prehistoric as well as early historic periods in Makena. In addition, the Kalani Heiau represents a site which has traditional cultural value to the native Hawaiian people due to associations with traditional cultural practices once carried out at the property and due to associations with traditional beliefs. Aside from the presence of archaeological sites, the property does not contain other cultural resources, nor is it in a location where traditional and customary Hawaiian practices for subsistence, cultural, medicinal, or religious purposes take place.

Potential Impacts and Mitigation Measures. The proposed subdivision will eventually result in the construction of ten dwelling sites on the property. No activities, uses, or structures, other than landscaping, are proposed within a minimum of 50-feet of the Kalani Heiau and the feature as well as the knoll that it sits on will be preserved in place. Similarly, Site 5036 Feature AA the modified knoll also would be preserved via a no-build easement. As such, there will be no direct impact to these sites themselves, and therefore, potential impacts of the project are related to changes in the surrounding setting, views to and from the site and access.

A view analysis is presented in Appendix A. Due to existing vegetation and structures located on the Garcia's Property, as well as, on neighboring properties to the west, there are no existing view corridors to the ocean from Site 196. Partial views of the upper slopes of Haleakala, exist, however, these views are also severely impacted by existing vegetation. Clearing of vegetation and erection of new structures on lots 1 through 3 would have minimal to no impact on ocean views since structures and vegetation on properties makai of Makena-Keoneoio Road already block ocean views from Site 196. A



20-foot side yard setback has been incorporated along the property line makai of the heiau in order to maintain a line of site to the ocean. The abutting property owner has also incorporated a 20 ft. setback. In both of the side yard setbacks, landscape materials will be maintained in order to preserve views to the ocean from the heiau.

There are partial views of the upper slopes of Haleakala from Site 196 through and over the existing Kiawe trees. These views would be maintained or improved upon with the clearing of vegetation and erection of single family homes on lots 4 and 5, since the proposed structures would be lower than the existing trees which are estimated to be well over 30 ft. in height.

Although there are no traditional and customary Hawaiian practices occurring on the property today, there is a potential that in the future the Kalani Heiau could be used as a site for educational, cultural, religious or spiritual activities. The change in setting should have minimal to no impact on the opportunity to conduct educational, interpretative, or research activities. However, the potential future use of the site for spiritual or religious purposes could be impacted by the presence of the residential dwellings. Although it is difficult to quantify or even qualify, some practitioners may feel intimidated by the presence of the residential homes, and similarly, the transformation of the site's setting may affect the overall feeling of the practitioner. Spiritual practitioners may have a different experience in the middle of a residential setting verses a rural setting insulated by dense vegetation. In order to mitigate these effects, height restrictions will be placed on parcels 3 and a portion of parcel 2, which would limit future structures to no more than 40 feet above mean sea level (msl).

Currently, there is no legal access provided to the Kalani Heiau. In addition, physical access to the site is limited due to the overgrown nature of the surrounding vegetation. A pedestrian access easement will be created in order to allow for access to the Kalani Heiau. The terms of the pedestrian access as well as other care and maintenance issues, has been incorporated into a preservation plan which has been submitted to the DLNR-SHPD for review and approval (See: Appendix I). The additional side yard setbacks and buffer areas will be incorporated into the deeds of the affected properties to ensure that the measures remain in place in perpetuity.

C. PUBLIC SERVICES

1. Recreational Facilities



Existing Conditions. Kihei-Makena has a wide reputation as a recreational destination, particularly for ocean related activities. Ocean sports and recreation available in the region include golfing, swimming, fishing, surfing, scuba diving, snorkeling, sailing, and kayaking. As of June 23, 1999, there were 18 State and County parks in South Maui providing approximately 108 developed acres of parkland, of which there are nine beach parks, three neighborhood parks, one community park, one district complex, one community complex, and one shoreline area reserve. State and County beach parks within close proximity to the project area include Maipoina Oe Iau Beach Park, Kalama Park, Kamaole Beach Park, the Kihei Aquatic Center, and numerous other beach parks along the Kihei coastline.

Potential Impacts and Mitigation Measures. The project will comply with the park dedication requirements established in MCC, Chapter 18.16.320, "Parks and Playgrounds". However, given the size of the project, no significant impacts to public recreational facilities in the region are anticipated.

2. Police and Fire Protection

Existing Conditions. There are two fire stations serving this community. The fire station is located at 11 Wamahaihai Street at Kalama Park, which is about four miles north of the subject site. The Kihei Fire Station is equipped with a 1,500-gallon pumper, and is staffed by one captain and five firefighters per twenty-four hour shift. Fire flow requirements are addressed in Section III.D.1.

Patrol officers on assignment provide police services for the Kihei-Makena sub district from a new police sub-station at the Kihei Town Center.

Potential Impacts and Mitigation Measures. In the context of the overall projected population growth for the Kihei-Makena region, the proposed project will not result in an overall significant increase in population; thus, the proposed project is not anticipated to have an adverse impact upon existing police and fire protection services.

3. Schools

Existing Conditions. There are two public elementary schools and one public intermediate school in the area. Kihei and Kamalii Elementary and Lokelani Intermediate Schools serve the Makena region. In addition, Montessori Hale O'Keiki provides private education for grades PreK-4. Until recently, Kihei students attended H.P. Baldwin High School in Wailuku but are now required to attend Maui High School in Kahului. The newly constructed Kamalii Elementary School is the closest elementary



school to the project site, and is located about 5 mile from the project. The Department of Education provided enrollment figures but did not provide capacity information.

The enrollment figures are:

	<u>2000</u>
Kihei Elementary School	779
Kamalii Elementary School	848
Lokelani Intermediate	673
Maui High	1,734

Potential Impacts and Mitigation Measures. Using State of Hawaii, Department of Education, multipliers for standard housing types of school aged children, the proposed project may increase the student population of the affected schools by approximately:

Grade	Students
K-6	3
JHS	1
HS	1

It is not anticipated that the proposed project will significantly impact public education facilities, given the projected demographic profile of prospective purchasers and given the minimal population increase generated by the project.

4. Medical Facilities

Existing Conditions. The Wailuku based Maui Memorial Medical Center provides centralized medical services for the Island. Medical and dental offices are located in Kihei and Wailea to serve the Makena region's residents.

Potential Impacts and Mitigation Measures. In the context of the overall projected population growth for the Kihei-Makena region, the proposed project will not result in an overall significant increase in population; thus, the proposed project is not anticipated to have an adverse impact upon existing medical facilities.

5. Solid Waste

Existing Conditions. Only two landfills are currently operating on Maui, the Central Maui Landfill in Puunene, and the Hana landfill. Residential solid waste collection is



provided by the County and taken to the Central Maui Landfill, which also accepts waste from private refuse collection companies.

Potential Impacts and Mitigation Measures. Based upon figures provided by the County of Maui, Curbside Refuse Collection System Plan, September 2000, the subject project will generate approximately 1.72 tons per household per year, which is equivalent to 3,440 pounds/year of solid waste. Thus, the project is anticipated to generate approximately 37,840 pounds/year or 104 pounds per day of solid waste. Solid waste collection for the proposed project will be contracted to a private collection company. Green waste from initial clearing of the site will be either mulched on site or deposited at the Central Maui landfill's green waste recycling facility. It is envisioned that some of the green waste may also be used as mulch for other projects in South Maui.

D. INFRASTRUCTURE

A Preliminary Engineering and Drainage Report was prepared by Stacy Otomo Engineering, Inc., which analyzes existing infrastructure systems accessible to the subject property and proposed improvements to accommodate the proposed development. The report addresses water, sewer, drainage, flooding, roadway, and electrical and telephone systems (See: Appendix F, "Preliminary Engineering and Drainage Report").

1. Water

Existing Conditions. Domestic water and fire flow for the proposed project will be provided by the County's water system. Presently, there is an existing 8-inch waterline along Makena-Keoneoio Road, which will service the project.

Potential Impacts and Mitigation Measures. Based on a single dwelling on each lot, the estimated domestic water demand is 6,600 gallons per day. The required fire flow for the residential project is 1,000 gallons per minute.

As part of the subdivision improvements, an onsite water system will be constructed to provide water service and fire protection to each lot, in accordance with the rules of the Department of Water Supply.

2. Sewer



Existing Conditions. The existing dwellings on the property are serviced by onsite cesspools. There is no County wastewater system in this area of Makena. Makena Resort has recently constructed a private wastewater collection system and treatment plant. As part of their wastewater system, a new sewer pump station was constructed immediately north of the subject property.

Potential Impacts and Mitigation Measures. The sewer system for the proposed subdivision will connect to Makena Resort's collection and treatment system.

3. Drainage

Existing Conditions. Approximately one-half of the onsite runoff sheet flows across the project site in an east to west direction, then across T.M.K.: (2) 2-1-007:066. The runoff then sheet flows in a southerly direction along Makena-Keoneoio Road into a low lying area situated on M.M.K.: (2) 2-1-007:004.

The remainder of the runoff sheet flows across the project site in an east to west direction onto Makena-Keoneoio Road. A small portion of the runoff from the southwesterly corner of the project site, adjacent to Makena-Keoneoio Road flows in a southerly direction into the low lying area on Parcel 004. The remainder of the runoff sheet flows in a northerly direction on Makena-Keoneoio Road, then across said roadway via an existing concrete swale. This runoff eventually enters into the ocean.

Potential Impacts and Mitigation Measures. According to Stacy Otomo Engineering, Inc., it is estimated that the existing 50-year storm runoff from the project site is 6.6 cfs. After the development of the proposed project, it is estimated that the 50-year storm runoff will be 13.7 cfs, a net increase of 7.1 cfs. A table of pre-development and post-development onsite peak discharge is shown:

<u>Drainage Area</u>	<u>Pre.-Dev. Q (cfs)</u>	<u>Post-Dev. Q (cfs)</u>	<u>Increase (cfs)</u>
Project Site	6.6	13.7	+7.1

Presently, there is no drainage system in the vicinity of the project site. The onsite runoff will be intercepted by catch basins and diverted to an onsite underground subsurface drainage system or retention basin, which will be designed to accommodate the increase in runoff from a 50-year storm. No additional runoff generated from the project site will sheet flow onto Makena-Keoneoio Road. This is in accordance with

Chapter 4, Rules for the Design of Storm Drainage Facilities in the County of Maui (See: Appendix F, "Preliminary Engineering and Drainage Report").

The following measures will be taken to control erosion during the site development period (estimated 12 months).

- 1) Minimize time of construction.
- 2) Retain existing ground cover until latest date to complete construction.
- 3) Early construction of drainage control features.
- 4) Use temporary area sprinklers in non-active construction areas when ground cover is removed.
- 5) Use temporary berms and cut-off ditches, where needed, for control of erosion.
- 6) Graded areas shall be thoroughly watered after construction activity has ceased for the day and on weekends.
- 7) All cut and fill slopes shall be sodded or planted immediately after grading work has been completed.

The development project will be provided with adequate facilities for drainage control and storm water disposal. This, together with ultimate ground cover, shall preclude any appreciable onsite erosion.

4. Roadways and Traffic

Existing Conditions. A Traffic Assessment was prepared by The Traffic Management Consultant which describes the traffic characteristics of the proposed project and likely impacts to the adjacent roadway network. The report analyzes existing conditions in the area, cumulative and project-related traffic conditions, and discusses traffic impacts and mitigation measures (See: Appendix G, "Traffic Assessment").

As discussed, the subject project is located on the mauka (east) side of Makena-Keoneoio Road in Makena, Maui. The site is located immediately north of the Maui Prince Hotel. An eleven-lot subdivision is being proposed. Assuming a maximum of one (1) dwelling unit per lot, ten (10) single-family dwellings could be constructed on the proposed subdivision.

Access to nine lots would be provided by an existing easement, which is located immediately south of a beach access public parking lot and opposite the historic Keawalai Church. Access to two lots would be located directly on Makena-Keoneoio Road. Regional access is provided via Makena Alanui, via Honoiki Street.



The following is a summary of the major roadways in the study area:

Piilani Highway

Piilani Highway is a major State highway connecting Kihei and Wailea. In the vicinity of the proposed project, the highway is a two-lane, two-way facility with separate left turn lanes. The posted speed limit is 45 miles per hour (mph).

Makena Alanui

Makena Alanui is the primary access road in the Makena area. Makena Alanui is the continuation of Wailea Alanui, which is a two-way two- to four-lane collector roadway providing access to the Wailea and Makena Resorts.

Honoiki Street

Honoiki Street is a short two-way, two lane connector roadway between Makena Alanui and Makena-Keoneoio Road. Honoiki Street is stop controlled at Makena Alanui and at Makena-Keoneoio Road.

Makena-Keoneoio Road

Makena-Keoneoio Road is a two-way, two-lane curvilinear roadway, which begins at Makena Alanui, runs along the coast, and terminates at the Maui Prince Hotel. The property is located along the inside of a curved section of Makena-Keoneoio Road, which results in restricted sight distances caused by existing vegetation, fences, and topography.

Trip Generation

The trip generation characteristics for the proposed residential subdivision are based upon a total of 10 single-family dwelling units (one dwelling per lot). The proposed subdivision is expected to generate a total of 17 vehicle trips per hour (vph) during the AM peak hour of traffic - 4 vph entering the site and 13 vph exiting the site. During the PM peak hour of traffic, the proposed project is to generate a total of 14 vph - 9 vph entering the site and 5 vph exiting the site.

Conclusions



The peak hour trip generation of the proposed residential subdivision is not expected to significantly impact traffic operations in the surrounding streets.

The subject property fronts a curved section of Makena-Keoneoio Road, which limits sight distances along the roadway and from the proposed access points. Stopping sight distance should be considered the absolute minimum sight distance requirement, which would allow a vehicle traveling at the design speed to make an emergency stop under normal conditions. Intersection sight distance is a more desirable criterion because vehicles can turn onto the major roadway from the side street without significantly impeding through traffic.

Appropriate sight distances along Makena-Keoneoio Road and sight distance triangles from the proposed driveways and access easement should be determined and maintained. If appropriate sight distance cannot be maintained, consideration should be given to reducing the regulatory speed limit, as necessary, or posting advisory speed limit signs/warning signs on both approaches to the curved section of Makena-Keoneoio Road.

Planned Roadway Improvements. The right-of-way width of Makena-Keoneoio Road varies fronting the subject property. The existing pavement width is approximately 24 feet wide with a raised curb/sidewalk along the frontage of the property. No improvements are proposed for Makena-Keoneoio Road based on principles within the Kihei-Makena Community Plan, which states that the traditional rural scale and character of existing portions of the roadway should be preserved in a manner to that existing at Keawalai Church.

Access to the property will be provided by a private roadway from Makena-Keoneoio Road along the northern boundary of the parcel. Private driveways will provide access to the lots within the subdivision.

5. Electrical and Telephone

Existing Conditions. Existing overhead utility lines are located along the frontage of the property on Makena-Keoneoio Road. The installation of electrical, telephone and cable TV systems for the project will be coordinated with Maui Electric Company, Verizon Hawaii, and Hawaiian Cablevision.

Potential Impacts and Mitigation Measures. Existing electrical and telephone facilities will serve the development.



IV. RELATIONSHIP TO GOVERNMENTAL PLANS, POLICIES, AND CONTROLS

A. STATE LAND USE LAW

Chapter 205, Hawaii Revised Statutes, relating to the Land Use Commission, establishes four major land use districts into which all lands in the State are placed. These districts are designated Urban, Rural, Agricultural, and Conservation. The subject property is within the Agricultural District. The applicant is proposing a district boundary amendment from Agricultural to Urban, in order to allow for the creation of the proposed lots, and to bring consistency between the State Land Use Classification and the County's zoning.

Pursuant to § 15-15-18, Land Use Commission Rules, Subchapter 2, Standards for Determining "U" Urban District Boundaries, the proposed request is consistent with the following standards:

- 1) It shall include lands characterized by "city-like" concentrations of people, structures, streets, urban level of services, and other related land uses.

Analysis: The subject property is located on the leeward facing shore of Maui, in the resort area of Makena, approximately 2 miles south of Wailea. A patchwork of undeveloped urban-zoned land, intermixed with high-end visitor oriented development that includes condominiums, hotels, golf courses, and residential beach estates characterizes the Makena area (See Figure Nos. 8 and 9). Zoning throughout Makena, and in the immediate vicinity of the subject property, is predominantly urban with a significant amount of land community planned for apartment, hotel, commercial, residential, and recreational uses (See Figure Nos. 3, 4, and 9). Beyond the urban-zoned areas are arid agricultural lands being used for low intensity cattle grazing. Makena is still largely undeveloped and therefore a significant amount of urban-zoned land remains in open space.



The subject property is adjacent to the Maui Prince Hotel which is in the Urban District and a range of other land uses including single-family residential, rural residential, and park uses. To the north is a sewer pump station, public parking lot, and public restroom serving Maluaka Beach, as well as, undeveloped land zoned for residential and resort-commercial development. To the west, across Makena-Keoneoio Road, are the historic Church, single-family residences, and Maluaka Beach. To the south is undeveloped land proposed for residential development and the Maui Prince Hotel. To the east is undeveloped land zoned for resort-commercial use.

In consideration of the above, the proposed project is located in an area characterized by "city-like" concentrations of people, structures, streets, urban level of services, and other related land uses

2) It shall take into considerations the following specific factors:

- A. Proximity to centers of trading and employment except where the development would generate new centers of trading and employment;
- B. Substantiation of economic feasibility by the petitioner;
- C. Availability of basic services such as schools, parks, wastewater systems, solid waste disposal, drainage, water, transportation systems, public utilities, and police and fire protection; and
- D. Sufficient reserve areas for foreseeable urban growth.

Analysis: The proposed development will not generate new centers of trading and employment. The property is in close proximity to Makena Resort which is a center of employment in the Makena area. Further, basic infrastructure and services capable of servicing the development are available at the site.

3) It shall include lands with satisfactory topography, drainage, and reasonably free from the danger of any flood, tsunami, unstable soil condition, and other adverse environmental effects.

Analysis: As discussed in Section III.A of the Report, the property has satisfactory topography, drainage, and is reasonably free from the danger of floods, tsunami, unstable soil conditions, and other adverse environmental effects.

4) Land contiguous with existing urban areas shall be given more consideration than non-contiguous land, and particularly when indicated for future urban use on state or county general plans.



Analysis: The proposed development is contiguous to urban designated lands to the east, southeast, and north and is designated Hotel on the Kihei-Makena Community Plan. To the west of the project, across Makena-Keoneoio Road, are Rural lands which are developed for residential use. To the north is a public parking lot and restroom serving Maluaka Beach, as well as, undeveloped land zoned for residential and resort-commercial development.

- 5) It shall include lands in appropriate locations for new urban concentrations and shall give consideration to areas of urban growth as shown on the State and County general plans.

Analysis: The property is designated for Hotel use by the Kihei-Makena Community Plan. Within the vicinity of the project site lands are either developed with existing urban uses or are designated for urban uses in the Kihei-Makena Community Plan.

- 6) It may include lands which do not conform to the standards in paragraphs (1) to (5):
 - A. When surrounded by or adjacent to existing urban development; and
 - B. Only when those lands represent a minor portion of this district;

Analysis: Not Applicable

- 7) It shall not include lands, the urbanization of which will contribute toward scattered spot urban development, necessitating unreasonable investment in public infrastructure or support services; and

Analysis: The subject property is situated within close proximity to existing urban development and basic services are currently available to the site. As such, urbanization of the property will not contribute toward scattered spot urban development, necessitating unreasonable investment in public infrastructure or support services.

- 8) It may include lands with a general slope of twenty percent or more if the commission finds that those lands are desirable and suitable for urban purposes and that the design and construction controls, as adopted by any federal, State, or county agency, are adequate to protect the public health, welfare and safety, and the public's interests in the aesthetic quality of the landscape.



Analysis: Not Applicable

B. GENERAL PLAN OF THE COUNTY

The General Plan of the County of Maui (1990 update) provides long-term goals, objectives, and policies directed toward improving living conditions in the County. The following General Plan Themes, Objectives and Policies are applicable to the proposed project:

I.B. Land Use

Objective No. 1: To preserve for present and future generations existing geographic, cultural and traditional community lifestyles by limiting and managing growth through environmentally sensitive and effective use of land in accordance with the individual character of the various communities and regions of the County.

Policies:

(b). Provide and maintain a range of land use districts sufficient to meet the social, physical, environmental and economic needs of the community.

III. Housing and Urban Design

A. HOUSING

Objective No. 1: To provide a choice of attractive, sanitary and affordable homes for all our residents.

Policies:

(b). Encourage the construction of housing in a variety of price ranges and geographic locations.

B. URBAN DESIGN



Objective No. 1: To see that all developments are well designed and are in harmony with their surroundings.

Policies:

- (a) *Require that all appropriate principles of urban design be observed in the planning of all new developments.*

Objective No. 2: To encourage developments which reflect the character and the culture of Maui County's people.

Policies:

- (a) *Establish urban design guidelines and standards which will reflect the unique traditional architectural values of each community plan area.*
- (b) *Encourage community design which establishes a cohesive identity.*

C. KIHEI-MAKENA COMMUNITY PLAN

Nine community plan regions have been established in Maui County. Each region's growth and development is guided by a community plan, which contains objectives and policies in accordance with the Maui County General Plan. The purpose of the community plan is to outline a relatively detailed agenda for carrying out these objectives.

The subject property is located within the Kihei-Makena Community Plan region. The Community Plan was recently adopted by ordinance No. 2641 on March 6, 1998.

The Kihei-Makena Community Plan designation for the subject property is Hotel. The applicant is requesting a Community Plan Amendment from Hotel to Single-Family in order to allow for the property to be subdivided into ten (10) single-family residential lots.

The following Kihei-Makena Community Plan goals, objectives, and policies are applicable to the proposed action:

Goal: Land Use. A well-planned community with land use and development patterns designed to achieve the efficient and timely provision of



infrastructure and community needs while preserving and enhancing the unique character of Ma`alaea, Kihei, Wailea and Makena as well as the region's natural environment, marine resources and traditional shoreline uses.

Objectives and Policies:

- c. Upon adoption of this plan, allow no further development unless infrastructure, public facilities, and services needed to service new development are available prior to or concurrent with the impacts of new development.*
- d. Limit hotel uses to those areas presently planned for hotel use, and limit hotel development until adequate public facilities and services are established to meet existing needs.*
- p. Prevent urbanization of important agricultural lands*
- q. Allow ohana units only where sufficient infrastructure is available.*

Analysis. Section III of this report addresses the impact that the proposed project will have upon existing public infrastructure, facilities, and service systems. Based upon the analysis, public infrastructure and services currently have, or will have in the foreseeable future, adequate capacity to serve the development and will therefore not be significantly impacted by the project. As discussed, the developer will contribute the pro rata share required by the State and County for water and park facilities and services in order to minimize the incremental impact of the subject development upon public finances. Thus, the necessary infrastructure, public facilities, and services will be available prior to and/or concurrent with development of the site.

In addition, the proposed residential development requires less public infrastructure, facilities and services that the potential future development of a hotel on the property. The property is designated for future urban development and does not involve important agricultural lands. Further, no ohana units are proposed for the property.

Goal: Environment. Preservation, protection, and enhancement of Kihei-Makena's unique and fragile environmental resources.

Analysis: As described in Section III of this report, Kihei-Makena's unique and fragile environmental resources, including its shoreline, near and off-shore water quality, drinking water, visual resources, archeological resources, and endangered species of flora and fauna, will not be impacted by this project.



Goal: Cultural Resources. Identification, preservation, enhancement, and appropriate use of cultural resources, cultural practice, and historic sites that:

- a) Provides a sense of history and defines a sense of place for the Kihei-Makena region.

Objectives and Policies:

- a) *Identify, preserve, protect and restore significant historical and cultural sites.*

Implementing Actions:

- b) *Require development projects to identify all cultural resources located within or adjacent to the project area, prior to application, as part of the County development review process.*
- e) *Formulate and adopt rural and historic district roadway standards for the old Makena Road to promote the maintenance of historic landscapes and streetscapes in character with the region, so long as these standards are for public roadway purposes, and do not obstruct or interfere with the rights of the public for the use and enjoyment of the area. Makena Road shall be kept open for public use.*

Analysis: Haun & Associates, of Keaau, Hawaii, conducted an archaeological inventory survey of the subject property in October 2000. The objective of the survey was to satisfy historic preservation regulatory review inventory requirements of the Department of Land and Natural Resources-Historic Preservation Division (DLNR-HPD), as contained within the Hawaii Administrative Rules, Title 13, DLNR, Subtitle 13, State Historic Preservation Rules. (See: Appendix B and C, "Archeological Inventory Survey" and "Revised Addendum Archeological Inventory Survey"). Also see discussions in Sections III.A.7 and III.B3 of this report.

The inventory survey recorded seven (7) sites with 35 component features. The sites consist of five single feature sites and two complexes of features. The mapping, written descriptions, photography, and test excavations at the sites adequately documents them and no further work or preservation is recommended with one exception. Site 5079 will require additional testing in the form of data recovery prior to development of the area. Kalani heiau is committed to preservation. A 50-foot buffer has been identified around



the site in which no structures or utility lines will be located. In addition, a 20-foot side yard setback has been incorporated along the property line makai of the heiau in order to maintain a line of site to the ocean.

The specific plans for preservation of the site have been detailed in a Preservation Plan prepared for DLNR-SHPD review and approval. The additional side yard setbacks and buffer areas will be incorporated into the deeds of the affected properties to ensure that the measures remain in place in perpetuity.

Further, in recognition of the rural character of the area, the applicant proposes a non-urban standard for internal roadway improvements consisting of a 20-foot wide pavement width, grassed walkway area, and landscaping. Further, the applicant proposes to use native plants in landscaping for the project and has incorporated a dry stream bed into the landscape plans which reflect the topography of the area.

Goal: **Physical and Social Infrastructure.** Provision of facility systems, public services and capital improvement projects in an efficient, reliable, cost effective, and environmentally sensitive manner which accommodates the needs of the Kihei-Makena community, and fully support present and planned land uses, especially in the case of project district implementation.

Allow no development for which infrastructure may not be available concurrent with the development's impacts.

Objectives and Policies:

- (e) *Formulate and adopt rural and historic district roadway standards for the Old Makena Road to promote the maintenance of historic landscapes and streetscapes in character with the region, so long as these standards are for public roadway purposes, and do not obstruct or interfere with the rights of the public for the use and enjoyment of the area. Makena Road shall be kept open for public use.*

Analysis: Section III of this report addresses the impact that the proposed project will have upon existing public infrastructure, facilities, and service systems. Based upon the analysis, public infrastructure and services currently have, or will have in the foreseeable future, adequate capacity to serve the development and will therefore not be significantly impacted by the project. As discussed, the developer will contribute the pro rata share required by the State and County for sewer, water, and park facilities and

services in order to minimize the incremental impact of the subject development upon public finances. Thus, the necessary infrastructure, public facilities, and services will be available prior to and/or concurrent with development of the site.

Further, the applicant proposed non-urban standards for roadway improvements consisting of a curb with grassed walkway area and landscaping.

Goal: Water Distribution

Objectives and Policies

- (d) *Encourage the use of non-potable water for irrigation purposes and water features. Prohibit the use of potable water in large water features or require substantial mitigation fees.*
- (e) *Encourage the use of plants which have a relatively low need for water.*

Analysis: The Applicant proposes to connect to the County Water System for domestic, fire flow, and irrigation purposes. To reduce the demand for water, xeriscaping and drought tolerant plants will be incorporated into the landscape concept plans.

Goal: Drainage

Objectives and Policies

- (a) Design drainage systems that protect coastal water quality by incorporating best management practices to remove pollutants from runoff. Construct and maintain, as needed, sediment retention basins and other best management practices to remove sediments and other pollutants from runoff.

Analysis. As discussed in the Preliminary Engineering and Drainage Report (See Appendix F), the increase in impervious surfaces created by the project will result in increased runoff estimated at 7.1 cfs. If not contained and filtered this increase in runoff could impact nearshore water quality. Thus, the onsite runoff will be intercepted by catch basins and diverted to an onsite underground subsurface drainage system or retention basin, which will be designed to accommodate the increase in runoff from a 50-year storm. No additional runoff generated from the project site will sheet flow onto Makena-Keoneoio Road. This is in accordance with Chapter 4, Rules for the Design of



Storm Drainage Facilities in the County of Maui (See: Appendix F, "Preliminary Engineering and Drainage Report").

In addition, the following measures will be taken to control erosion during the site development period (estimated 12 months).

- 1) Minimize time of construction.
- 2) Retain existing ground cover until latest date to complete construction.
- 3) Early construction of drainage control features.
- 4) Use temporary area sprinklers in non-active construction areas when ground cover is removed.
- 5) Use temporary berms and cut-off ditches, where needed, for control of erosion.
- 6) Graded areas shall be thoroughly watered after construction activity has ceased for the day and on weekends.
- 7) All cut and fill slopes shall be sodded or planted immediately after grading work has been completed.

In consideration of the above-referenced mitigation measures, the proposed project is consistent with the community's goal to insure that new development will not adversely affect the marine environment and/or nearshore and offshore water quality.

D. MAUI COUNTY ZONING

Although the subject property is shown as B-R, Resort Commercial, on the County's Land Zoning Map No. 5, it has been determined that the property must comply with the standards in the Interim District since the B-R zoning designation was improperly applied when the property was within the State Agricultural District. The Interim District allows for single-family residential dwelling units, which may be built on lots with a minimum lot size of 6,000 square feet. However, pursuant to § 18.32.010.E, MCC, Interim zoned lands cannot be subdivided.

The applicant is requesting a Change in Zoning from County Interim to R-3 Residential, in order to allow for the subject property to be subdivided and developed with eleven single-family residences. A request for a "Change in Zoning" must meet the following criteria as found in MCC § 19.510.040.4:

1. The proposed request meets the intent of the general plan and the objectives and policies of the community plans of the county;



Analysis. As described in Section IV.B and C, the proposed action meets the intent of the general plan and the objectives and policies of the Makawao-Pukalani-Kula Community Plan.

2. The proposed request is consistent with the applicable community plan land use map of the county;

Analysis. The Kihei-Makena Community Plan, adopted on March 6, 1998, through ordinance No. 2641, identifies the subject parcel as Hotel. Single-family uses are allowed in the Hotel District. The proposed use is consistent with the Community Plan Land Use Map. In order to establish conformity between the zoning and the Community Plan, the applicant is requesting a change in the Community Plan from Hotel to Single-Family.

3. The proposed request meets the intent and purpose of the district being requested;

Analysis. Pursuant to MCC Section 19.08.010, the Residential District was "established to provide for harmonious residential neighborhood without the detraction of commercial and industrial activities."

The proposed Change in Zoning accomplishes these objectives and will allow for a land use that is in harmony with the rural and residential character of the area.

4. The application, if granted, would not adversely affect or interfere with public or private schools, parks, playgrounds, water systems, sewage and solid waste disposal, drainage, roadway and transportation systems, or other public requirements, conveniences and improvements;

Analysis. As described in Section III.C and D, the proposed Change in Zoning will not significantly impact schools, parks, playground, water, sewage, solid waste, drainage, traffic, or other public infrastructure and services.

5. The application, if granted would not adversely impact the social, cultural, economic, environmental, and ecological character and quality of the surrounding area; and

Analysis. As discussed in Section III, the proposed action will not adversely impact the social, cultural, economic, environmental, and ecological character and quality of the surrounding area.



6. If the application change in zoning involves the establishment of an agricultural district with a minimum lot size of two acres, an agricultural feasibility study shall be required and reviewed by the Department of Agriculture and the U.S. Soil Conservation Service.

Analysis. Not Applicable

E. SPECIAL MANAGEMENT AREA OBJECTIVES AND POLICIES

The subject project is located within the Special Management Area (SMA). As such, the proposed improvements will require an SMA Use Permit. Pursuant to Chapter 205A, Hawaii Revised Statutes, and the Rules and Regulations of the Planning Commission of the County of Maui, projects located within the SMA are evaluated with respect to SMA objectives, policies, and guidelines. This section addresses the project's relationship to applicable coastal zone management considerations, as set forth in Chapter 205A and the Rules and Regulations of the Planning Commission.

1. Recreational Resources

Objective: Provide coastal recreational resources accessible to the public.

Policies:

- (A) Improve coordination and funding of coastal recreation 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 placement 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 require 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 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;
- (viii) Encourage 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.

Analysis. Makena-Keoneio Road, as well as, existing single-family residences and church fronting the coastline, separate the subject property from the ocean. Therefore, the proposed project will have no direct impact on the public's use or access to the shoreline area. In order to protect the recreational value of nearshore resources, Best Management Practices, will be employed during construction activities to minimize the potential of erosion and silt movement. Moreover, due to the presence of the proposed on-site drainage system, which will keep the post development peak flow volumes at predevelopment levels and will prevent sediments or pollutants from migrating into the coastal waters, there will be minimal impact to nearshore water quality due to runoff or other potential sources of non-point sources of pollution.

2. Historical/Cultural 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 structures.



Analysis. As discussed in Section III of this report, Haun & Associates, of Keaau, Hawaii, conducted an archaeological inventory survey of the subject property in October 2000. The objective of the survey was to satisfy historic preservation regulatory review inventory requirements of the Department of Land and Natural Resources-Historic Preservation Division (DLNR-HPD), as contained within the Hawaii Administrative Rules, Title 13, DLNR, Subtitle 13, State Historic Preservation Rules. (See: Appendix B and C, "Archeological Inventory Survey" and "Revised Addendum Archaeological Inventory Survey").

The inventory survey recorded seven (7) sites with 35 component features. The sites consist of five single feature sites and two complexes of features. The mapping, written descriptions, photography, and test excavations at the sites adequately documents them and no further work or preservation is recommended with one exception. Site 5079 will require additional testing in the form of data recovery prior to development of the area. Kalani heiau is committed to preservation. A 30-foot buffer has been identified around the site in which no structures or utility lines will be located. In addition, a 20-foot side yard setback has been incorporated along the property line makai of the heiau in order to maintain a line of site to the ocean.

The specific plans for preservation of the site would be detailed in a Preservation Plan prepared for DLNR-SHPD review and approval. The additional side yard setbacks and buffer areas will be incorporated into the deeds of the affected properties to ensure that the measures remain in place in perpetuity.

In consideration of the above, the proposed development supports the community's objective of insuring that new development does not disturb historic and prehistoric resources in the coastal zone management area that are deemed to be significant in Hawaiian and American history and culture.

3. Scenic and Open Space Resources

Objective: 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
- (c) Encourage those developments that are not coastal dependent to locate in inland areas.

Analysis. As discussed in Section III of this report, numerous scenic resources have been identified in Makena, which are identified and discussed in the Maui Coastal Scenic Resources Study, August 1990 (See: Appendix E, "Maui Scenic Coastal Resources Study, Kihei Map"). The resource/inventory map, which is located in Appendix D in this report, does not identify any significant view occurring across the subject property that will be affected by the development. Mauka views from Makena-Keoneoio Road are currently obstructed due to the presence of existing ground cover.

As discussed, no unique scenic resources will be impacted by the development. However, from an urban design perspective, the proposed development will serve to create a more unified and cohesive rural-residential development pattern in the area.

As such, the proposed project is not anticipated to significantly impact public view corridors, or the visual character of the site and its immediate environs.

4. 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.

Analysis. As described in Section III of this report, the project will not have a significant direct impact on the region's coastal ecosystem, and with the incorporation of



appropriate measures during construction, there should be no significant adverse impacts to nearshore waters from point and non-point sources of pollution.

5. 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;
- (c) Direct the location and expansion of coastal dependent developments to areas presently designated and used for such development 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 impacts are minimized; and
 - (iii) The development is important to the State's economy.

Analysis. The project will support short-term construction and construction-related jobs and provide for resort residential housing units in the Makena area. The project does not affect coastal development necessary to the State's economy.

6. 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 non-point source pollution hazards;
- (b) Control development in areas subject to storm wave, tsunami, flood, erosion, subsidence, and point and non-point 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.



Analysis. As discussed in Section III of this report, the project site is situated in Flood Zone C. Flood Zone C represents areas of minimal flooding. As such, the proposed project should not be affected by or have adverse impacts upon its neighbors or downstream properties with regards to flood hazard potential.

7. Managing Development

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

Policies:

- (a) Use, implement, and enforce existing laws 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 process and review process.

Analysis. Through the proposed land use amendments and SMA permit process agency review and public participation will occur. The applications are being reviewed concurrently and will require approval of the County Council (land use amendments) and the Maui Planning Commission (SMA permit).

8. 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 advise 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 medications to respond to coastal issues and conflicts.



Analysis. Through the SMA permit process public participation in the form of testimony will be solicited. Further, informal meetings have been conducted by the applicant with the Makena community and neighboring property owners.

9. 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.

Analysis. Makena-Keoneoio Road, along with single-family residences and a church located along the shoreline, separates the subject property from the beach. Accordingly, the project will not involve construction of any structures within the shoreline area and the subject property will not have a direct physical impact upon any public beaches, due to its separation from the coastline.

10. 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 interest of the state as a partner with federal agencies in the sound management of the ocean resources within the United States exclusive economic zone;



- (e) Promote research, study, and understanding of ocean processes, marine life, and other ocean development activities relate to and impact upon the ocean and coastal resources; and
- (f) Encourage research and development of new, innovative technologies for exploring, using, or protecting marine and coastal resources.

Analysis. The proposed project does not involve the direct use or development of marine resources. In addition, with the incorporation of erosion and drainage control measures during construction and after construction as identified in this report, there should not be significant adverse impacts to nearshore waters from point and non-point sources of pollution. Therefore, the subject project will not produce any significant impacts on any coastal or marine resources.

F. ENVIRONMENTAL ASSESSMENT SIGNIFICANCE CRITERIA

In accordance with Title 11, Department of Health, Chapter 200 and Subchapter 6, Section 11-200-12, Environmental Impact Statement Rules, and based on the detailed analysis contained within this document, the following conclusions are supported:

1. The proposed action will *not* result in an irrevocable commitment to loss or destruction of natural or cultural resources.

Analysis. As documented in this report, and with the incorporation of the proposed mitigation measures, the proposed project will not involve the loss or destruction of any natural or cultural resources (See Section III.A and B).

2. The proposed action will *not* curtail the range of beneficial uses of the environment.

Analysis. Although the subject property is currently situated within the State Agricultural District, the property maintains an overall productivity rating of "E" by the Land Study Bureau (LSB), indicating a low productive agricultural capacity and is identified as "Other Lands" by the Agricultural Lands of Importance to the State of Hawaii (ALISH) Map. The subject property was once used for low intensity cattle ranching but hasn't been used for that purpose for many years.

The County's current land use policies support urbanization of the parcel as is indicated by the Kihei-Makena Community Plan's identification of the parcel for resort

development. In consideration of the above, the proposed action will not curtail the range of beneficial uses of the environment.

3. The proposed action will *not* conflict with State or County long-term environmental policies and goals as expressed in Chapter 344, HRS, and those which are more specifically outlined in the Conservation District Rules.

Analysis. The project is being developed in compliance with the State's long-term environmental goals. As documented in this report, the proposed project will not cause negative impact to the environment, including near and off-shore coastal waters, potable water resources, flora and fauna, archeological and cultural resources, and scenic resources.

4. The proposed action will *not* substantially affect the economic or social welfare and activities of the community, county or state.

Analysis. Short-term economic impacts will result from the increase in activity associated with the construction of the project. A small number of jobs will be created during the construction phase of the development.

5. The proposed action will *not* substantially affect public health.

Analysis. There are no special or unique aspects of the project that will have a direct impact on public health. It is anticipated that occupants of the project will utilize existing medical facilities located in Kihei, Kahului, and Wailuku and that these facilities will not be significantly impacted by the project.

6. The proposed action will *not* result in substantial secondary impacts.

Analysis. There will be a slight affect on local population levels upon buildout of the project with the net addition of 8 single-family residences. Using national demographic multipliers for standard housing types (American Housing Survey, 1987), the proposed project may increase the population of the immediate North Kihei area by approximately 25 persons. Secondary impacts characteristic of population growth include an increase in demand for commercial land uses, recreational resources, public infrastructure and services, as well as, impacts to air and water quality. However, the projected increase in population is not significant in relation to existing population levels and projected population growth for Kihei-Makena and will therefore not result in substantial secondary impacts that are not already anticipated in relationship to the planned growth of the region.



7. The proposed action will *not* involve substantial degradation of environmental quality.

Analysis. Mitigation measures will be implemented during the construction phase in order to minimize negative impacts on the environment, especially with regards to construction runoff. Also, the design of the project has incorporated mitigation measures to minimize impacts to nearshore waters that could arise from an increase in runoff generated on the site as a result of the project (See Section III.D.3 for a discussion of drainage). Other environmental resources such as endangered species of flora and fauna, air and water quality, and archeological resources will not be significantly impacted by the subject project.

8. The proposed project will not produce cumulative impacts and does *not* have considerable effect upon the environment or involve a commitment for larger actions.

Analysis. The proposed project does not involve a commitment for larger action on behalf of the applicant or any public agency. The subject property is community planned for urban development, and as such, the proposed development is consistent with the planned future growth of the region. As described in this report, the project will not significantly impact public infrastructure and services including roadways, drainage facilities, water systems, sewers, educational facilities, and parks. In addition, the project is not anticipated to significantly induce population growth beyond what is generated by the project and will therefore not produce considerable effect on the environment nor require a commitment for larger actions by governmental agencies.

9. The proposed project will *not* affect a rare, threatened, or endangered species, or its habitat.

Analysis. As described in Section III.A.4 of this report, there are no rare, threatened, or endangered species of flora and fauna at the project site.

10. The proposed action will *not* substantially or adversely affect air and water quality or ambient noise levels.

Analysis. As described in Section III.A of this report, there is a potential for negative impacts to air or water quality and ambient noise levels related to short-term construction activities. Air, noise and dust impacts will be mitigated through implementation of standard mitigation measures as identified previously in this report.



It is not anticipated that there will be significant long-term impacts to air or water quality and ambient noise levels due to the operation phase of the development.

11. The proposed action will *not* substantially affect or be subject to damage by being located in an environmentally sensitive area, such as flood plain, shoreline, tsunami zone, erosion-prone areas, estuary, fresh waters, geologically hazardous land or coastal waters.

Analysis. As discussed in Section III.A.3 of this report, the project site is situated within Zone C. Zone C is designated as an area that is subject to minimal flooding.

12. The proposed action will *not* substantially affect scenic vistas or view planes identified in county or state plans or studies.

Analysis. As discussed in Section III.A.8 of this report, the proposed project is not anticipated to significantly impact public view corridors and will not produce significant adverse impact upon the visual character of the site and its immediate environs (See Section III.A.8).

13. The proposed action will not require substantial energy consumption

Analysis. Upon build-out of the project, energy consumption will be increased, however, given existing levels of usage in the area the increase is considered insignificant. In addition, it is not anticipated that the resultant increase in energy consumption by automobiles will be significant in the context of existing levels of vehicular energy usage within the region, and on Maui.

V. FINDINGS AND CONCLUSIONS

This Final Environmental Assessment examines the environmental and socio-economic impacts associated with the applicant's proposal to develop an 10 lot single-family residential project on an approximate 5.497-acre parcel located along Makena-Keoneoio Road, Makena, Maui, Hawaii.

With the incorporation of mitigation measures discussed in this report, the proposed development is not anticipated to result in significant environmental impacts to surrounding properties, nearshore waters, natural resources, and/or archaeological, cultural, and historic resources on the site or in the immediate area. Public infrastructure and services including



roadways, sewer and water systems, medical facilities, police and fire protection, parks, and schools, are, or will be, adequate to serve the project and are not anticipated to be significantly impacted by the project. The proposed project is not anticipated to impact public view corridors and is not anticipated to produce significant adverse impact upon the visual character of the site and its immediate environs.

The subject property is situated within the State's Agricultural District and is County zoned Interim and community planned for Hotel development. The Applicant's proposal to change the Land Use District Boundary from Agricultural to Urban, the Community Plan Designation from Hotel to Single-Family, and the County zoning from Interim to R3-Residential in order to develop a rural/residential subdivision supports the existing mixture of rural, residential, and resort land uses that characterizes the immediate area. As such, the proposed action is consistent with the objectives and policies contained within the Kihei-Makena Community Plan, as well as, Chapter 205A, HRS, and the Rules and Regulations of the Planning Commission of the County of Maui.

In light of the foregoing, it is determined that the proposed project will not result in significant impacts to the environment and a Finding of No Significant Impact (FONSI) is warranted.



VI. REFERENCES

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1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

FIGURES

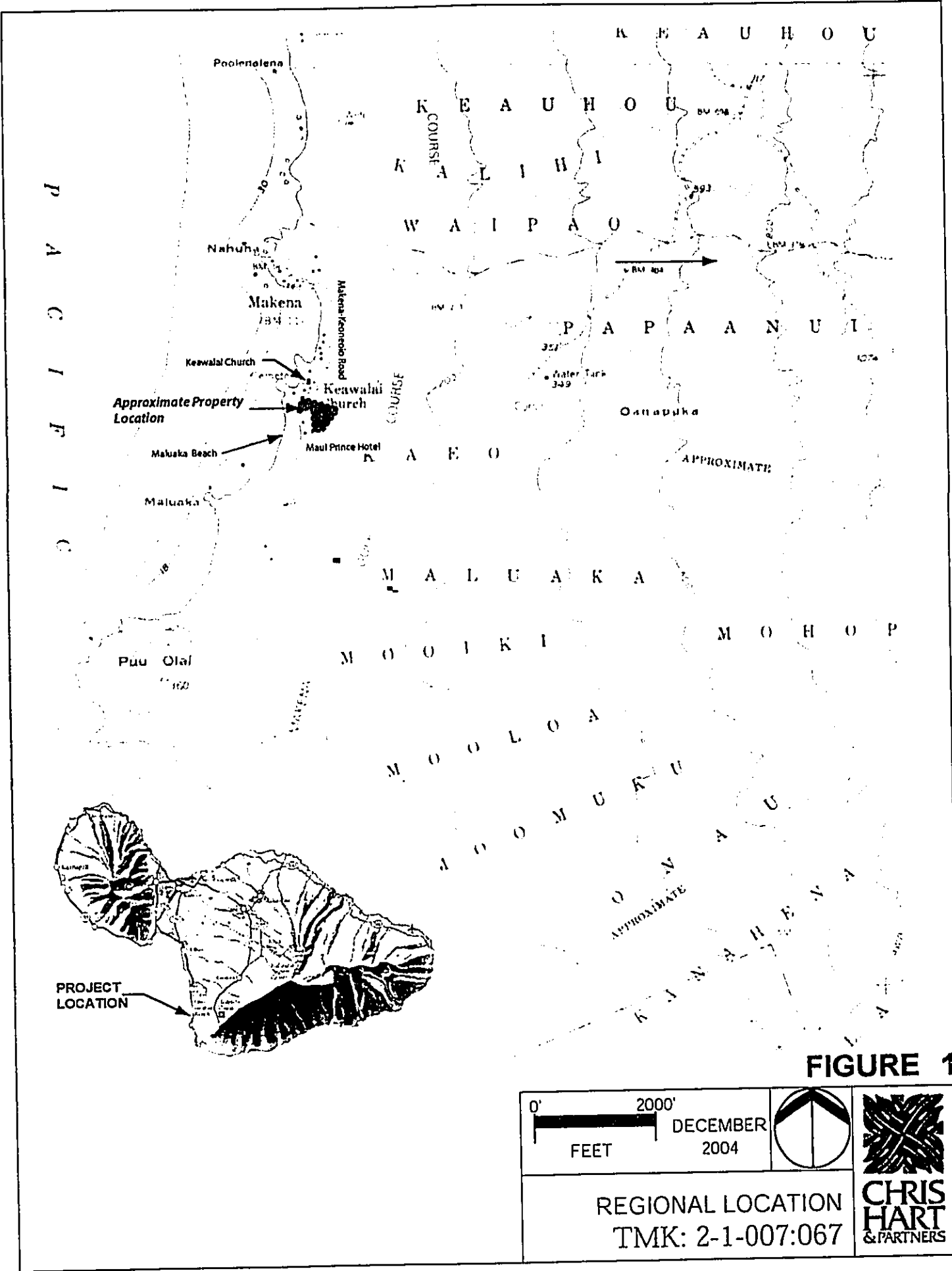
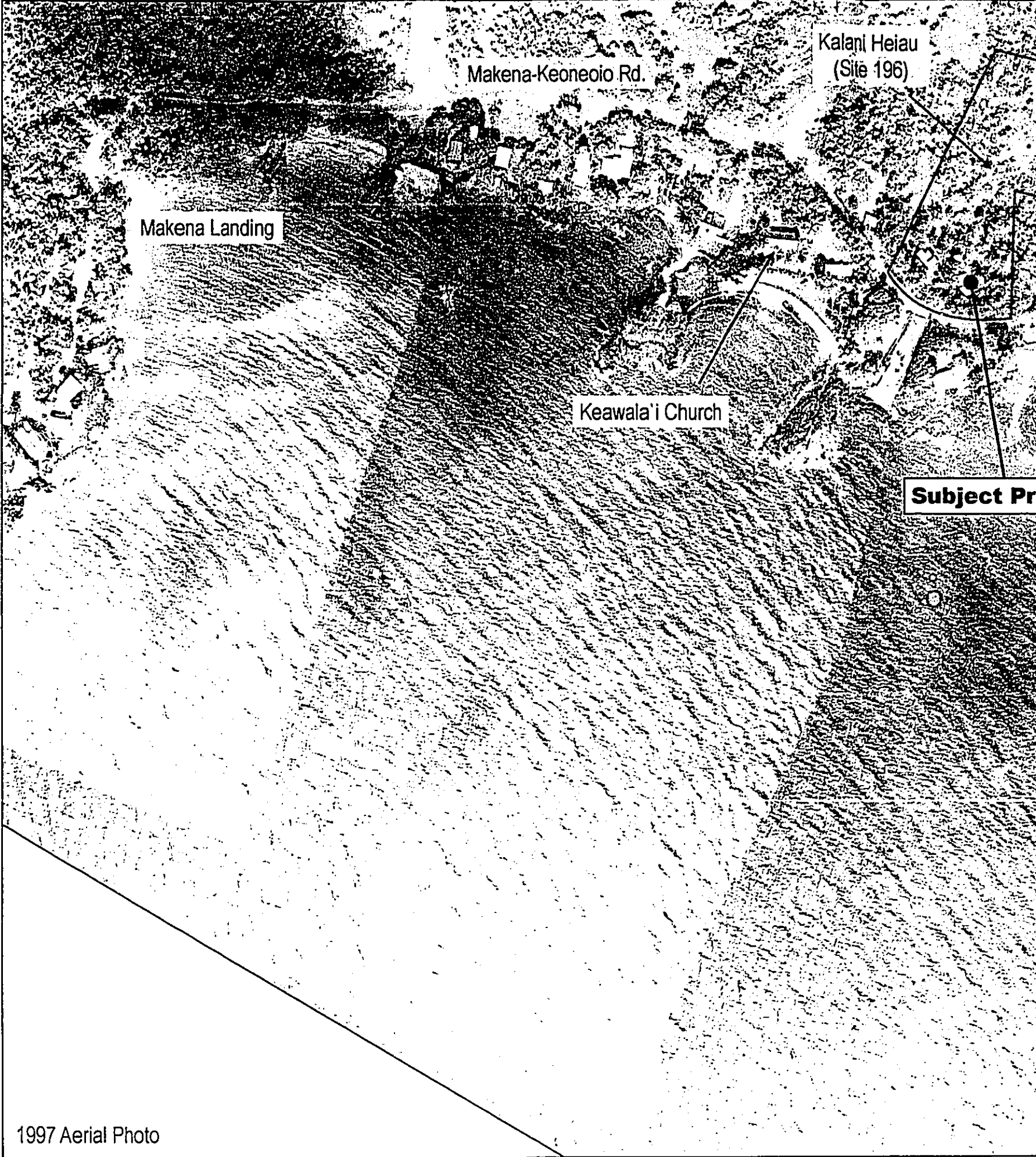
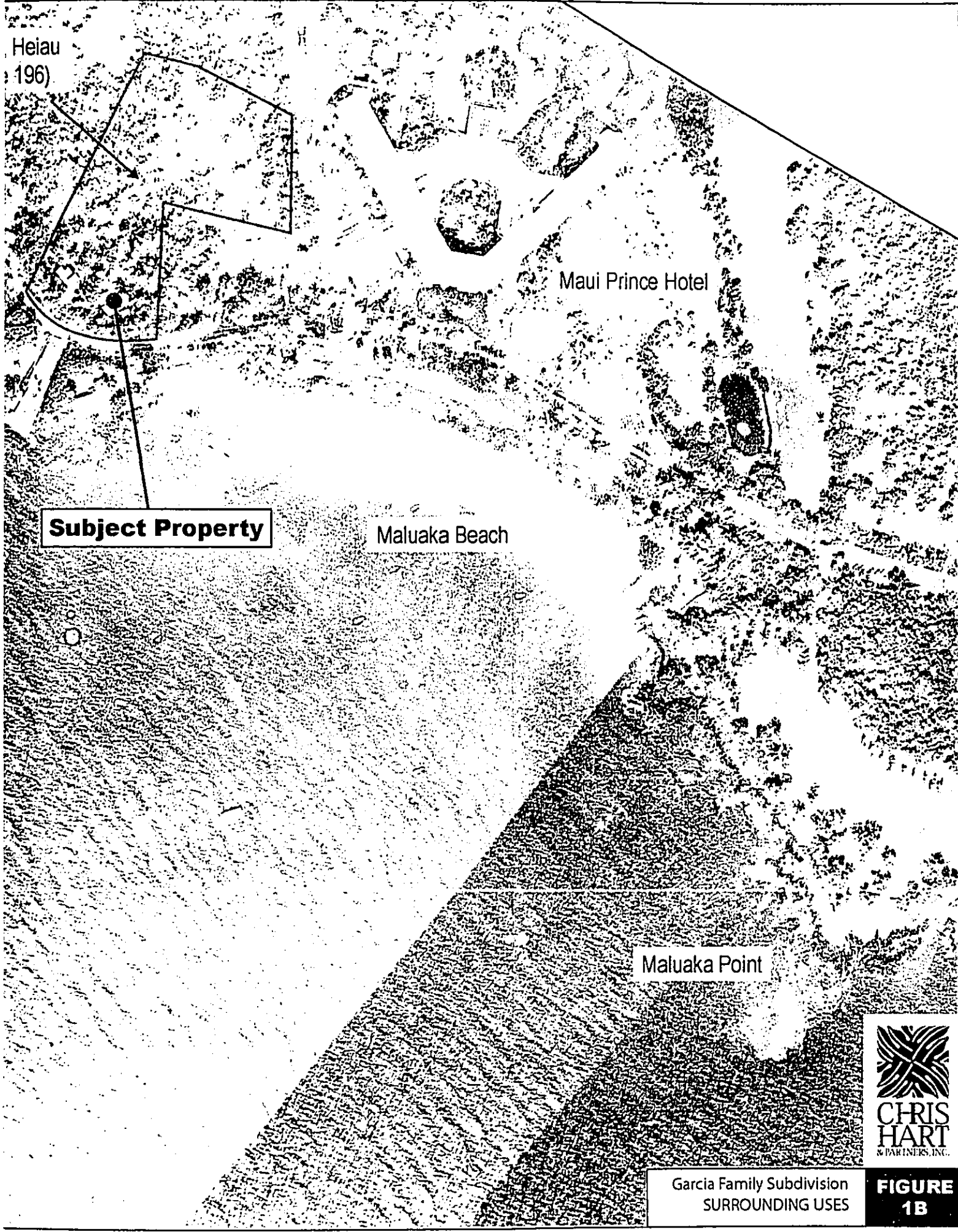


FIGURE 1



1997 Aerial Photo



Heiau
(196)

Maui Prince Hotel

Subject Property

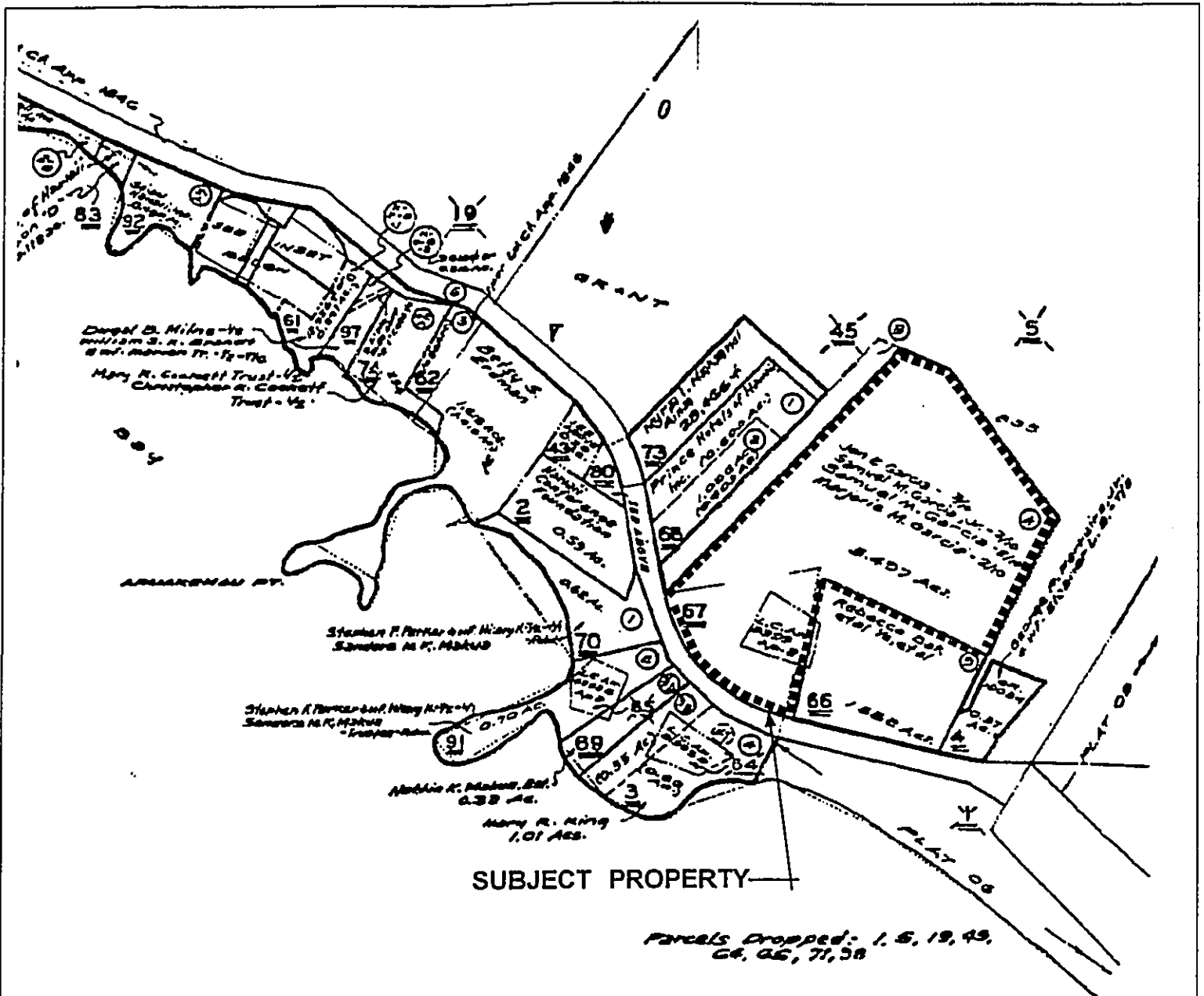
Maluaka Beach

Maluaka Point



Garcia Family Subdivision
SURROUNDING USES

**FIGURE
1B**



SUBJECT PROPERTY

Parcels Dropped: 1, 5, 19, 49, 64, 66, 71, 58

Parcels Dropped & Not Shown: 11, 13 thru 18, 20 thru 36, 37 thru 42, 44, 46 thru 55, 58, 59, 63, 78, 82, 57, 104

NOTE: boundaries of properties along seashore follow the high water mark.

FIGURE 2

DEPARTMENT OF TAXATION PROPERTY ASSESSMENT DIVISION TAX MAPS BRANCH STATE OF HAWAII		
TAX MAP		
SECOND TAXATION DIVISION		
ZONE	SEC.	PLAT
2	1	07

NOT TO SCALE FEET	AUGUST 2002	 N	
TAX MAP KEY TMK:2-1-007:067			CHRIS HART & PARTNERS

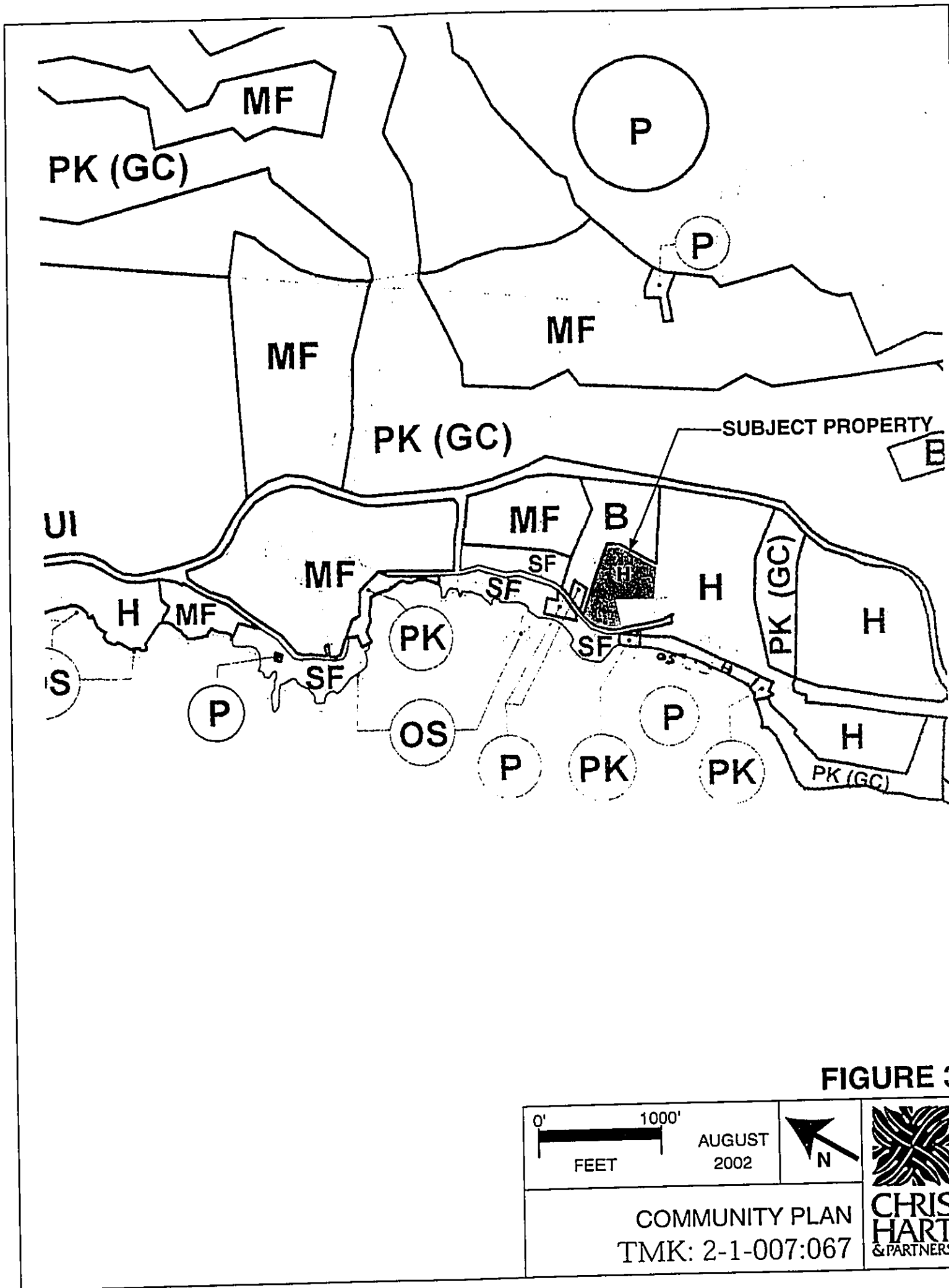


FIGURE 3

<p>0' 1000' FEET</p>	<p>AUGUST 2002</p>		
<p>COMMUNITY PLAN TMK: 2-1-007:067</p>			<p>CHRIS HART & PARTNERS</p>

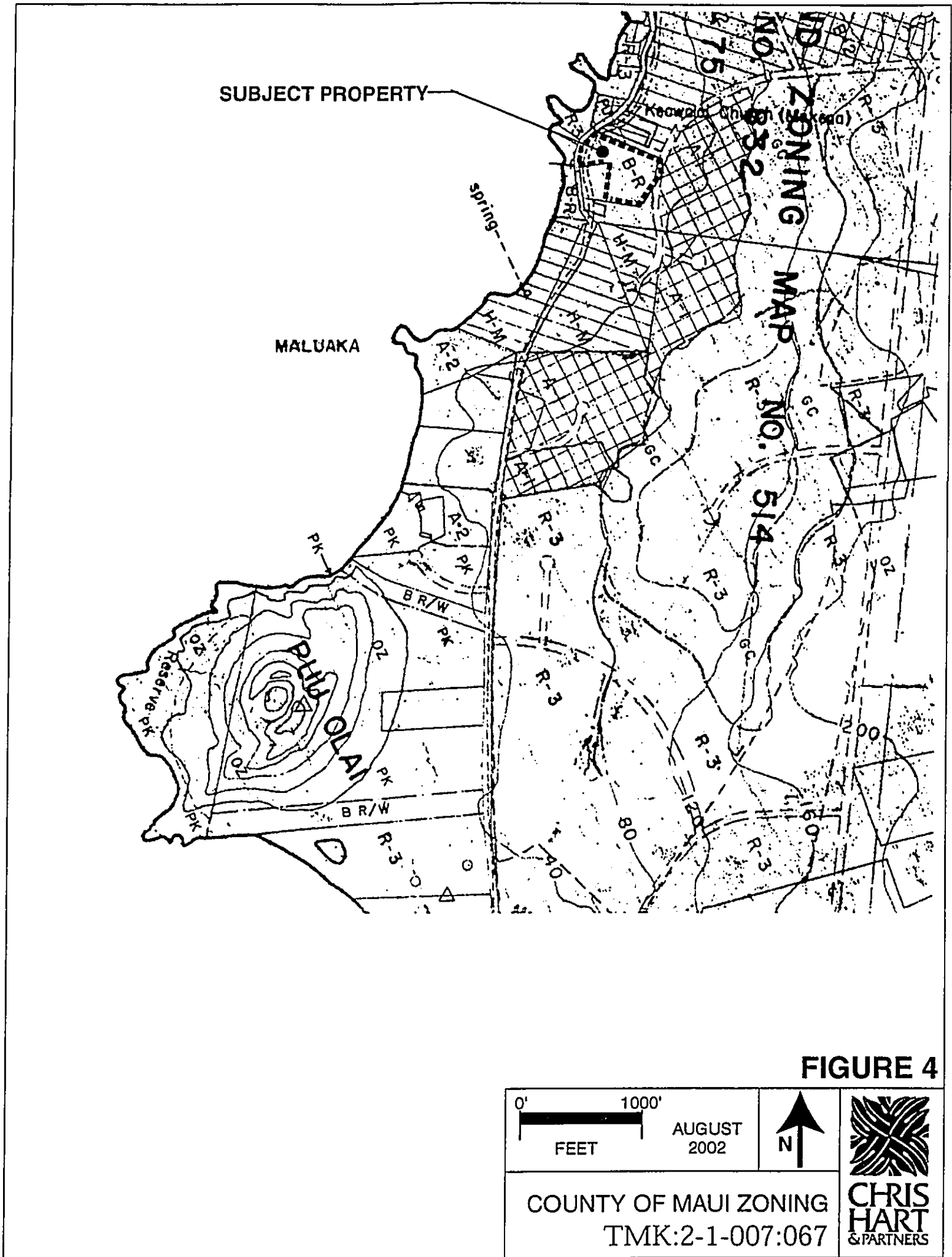

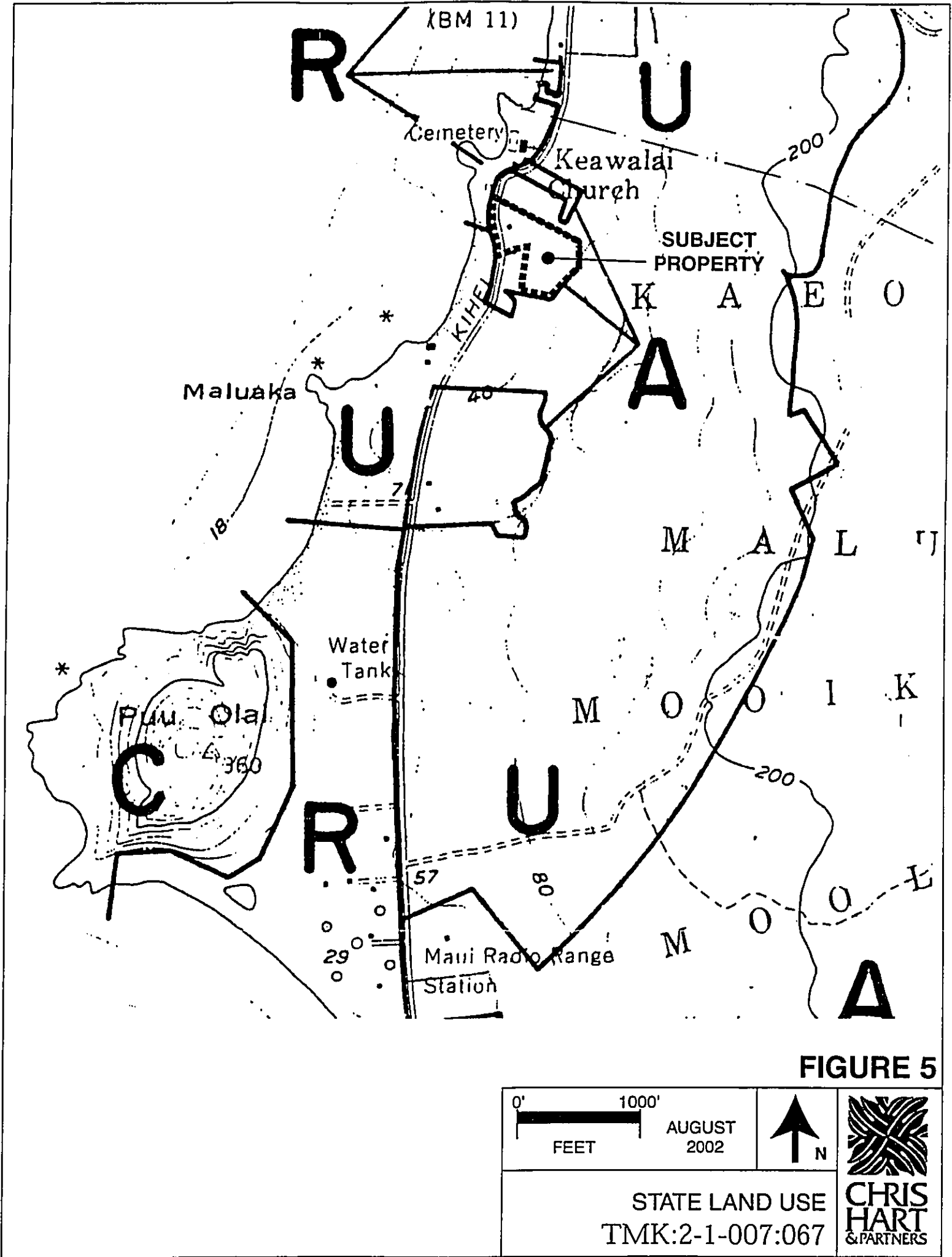


FIGURE 4

0' 1000' FEET	AUGUST 2002	N	
COUNTY OF MAUI ZONING TMK:2-1-007:067			CHRIS HART & PARTNERS

DOCUMENT CAPTURED AS RECEIVED



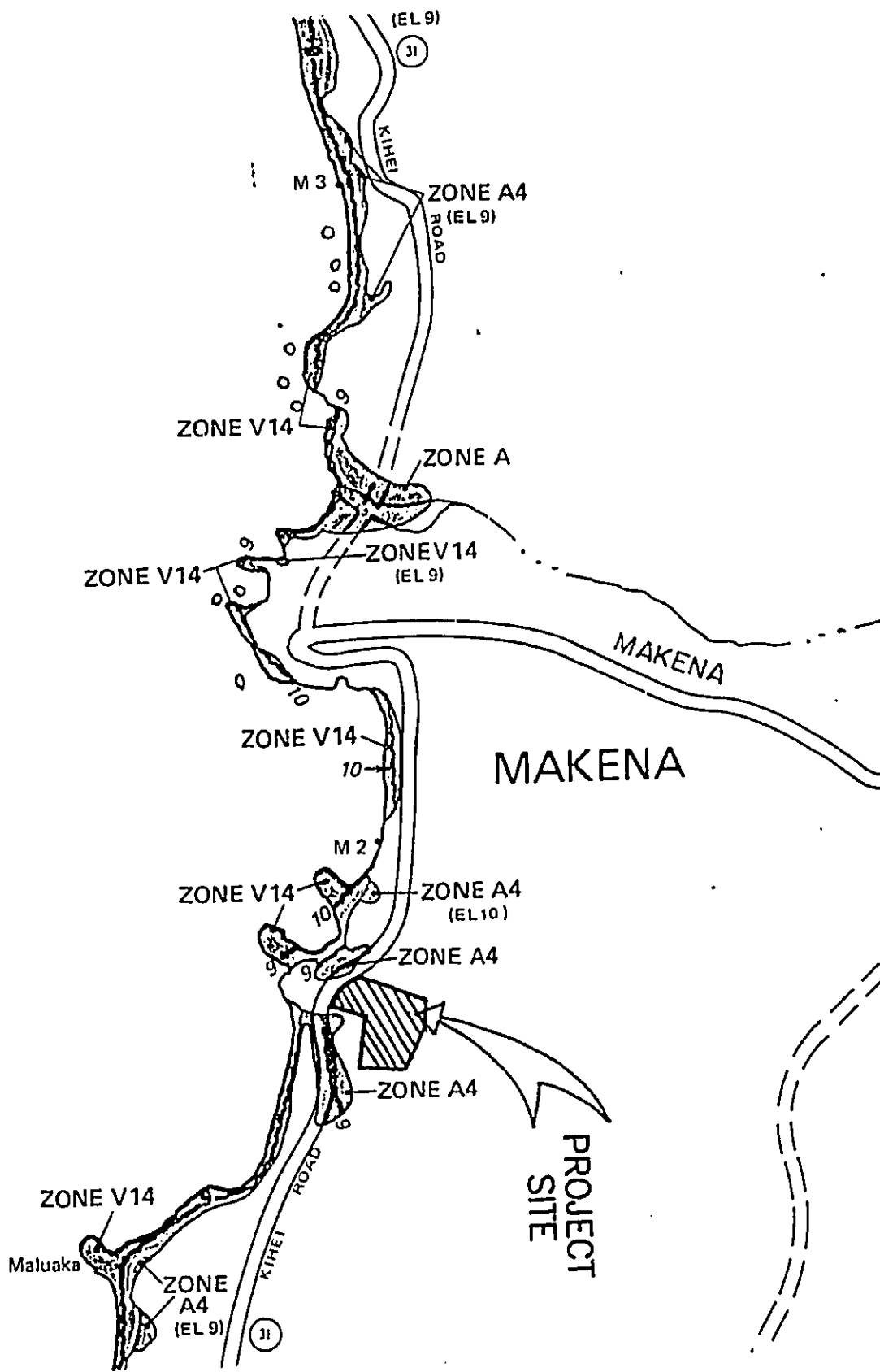


FIGURE 6

<p>0' 1000' FEET</p>	<p>AUGUST 2002</p>	<p>N</p>	
<p>FLOOD INSURANCE RATE MAP TMK: 2-1-007:067</p>			<p>CHRIS HART & PARTNERS</p>

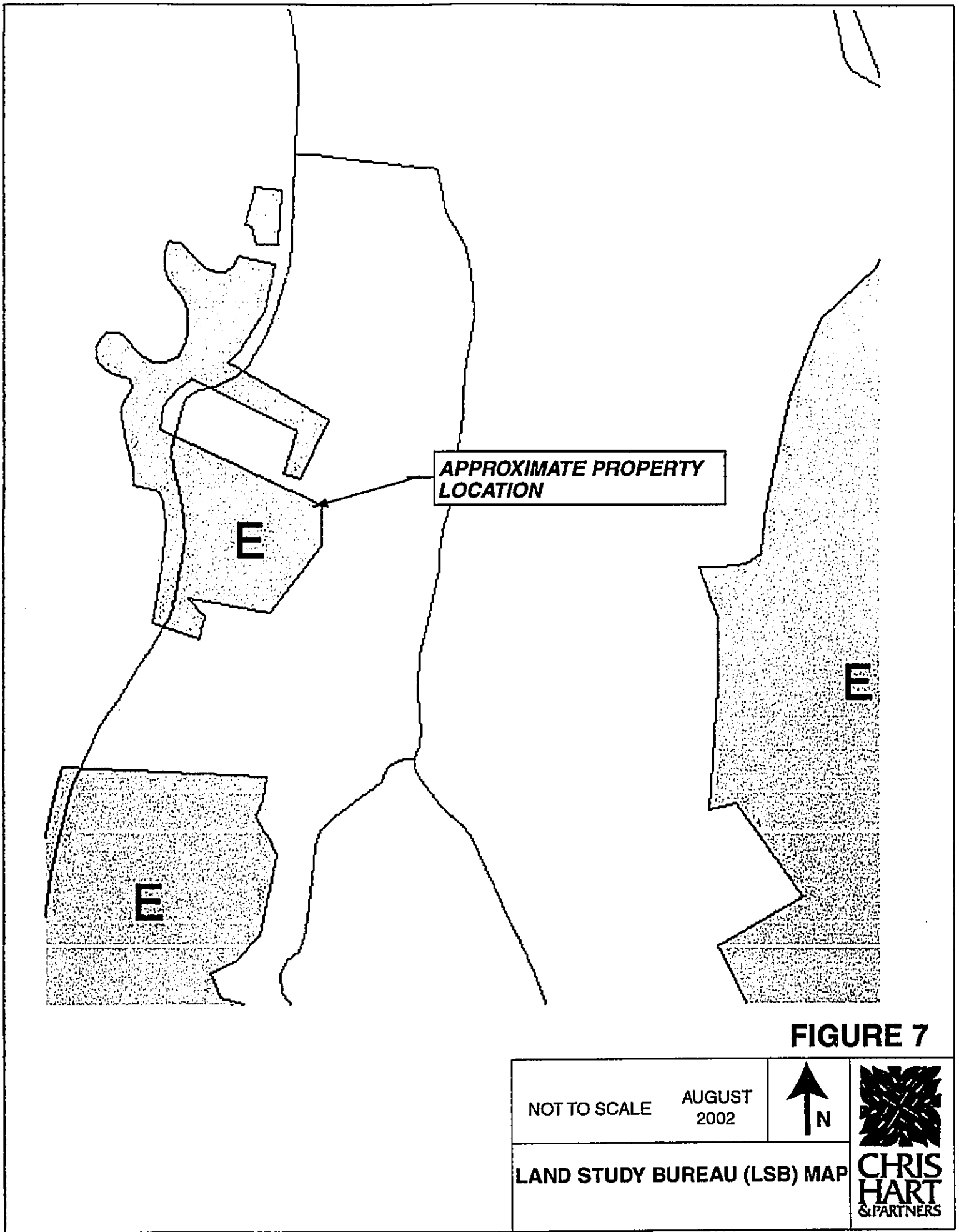


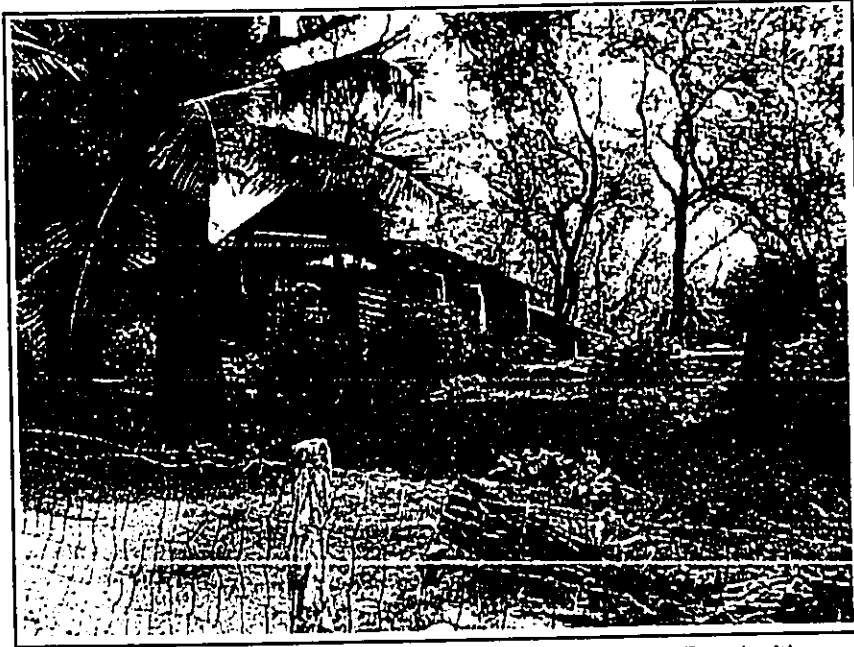
FIGURE 7



Looking in a northerly direction along Makena-Koeneoio Road from the project entrance.



Looking in a southerly direction toward the project entrance Makena-Koeneoio Road.



Looking at the subject property from Makena-Koeneoio Road with an existing residence in background.



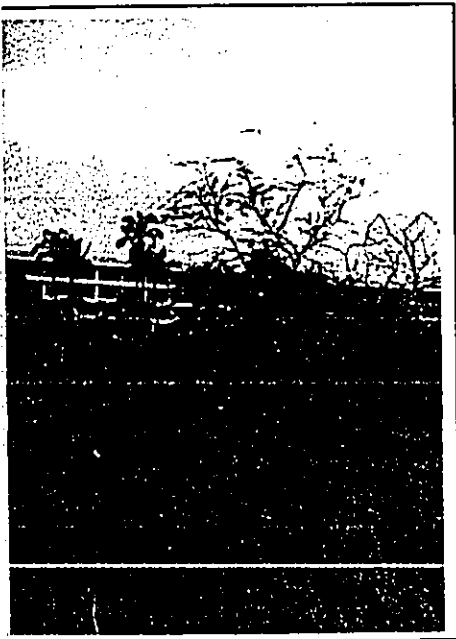
Looking across the southeastern portion of the subject property in the direction of the Maui Prince Hotel.



toward the project entrance from along



Looking at the project entrance from Makena-Koeneoio Road.



portion of the subject property in the






Looking in a Makai direction from the subject property across
TMK: 2-1-007:066.

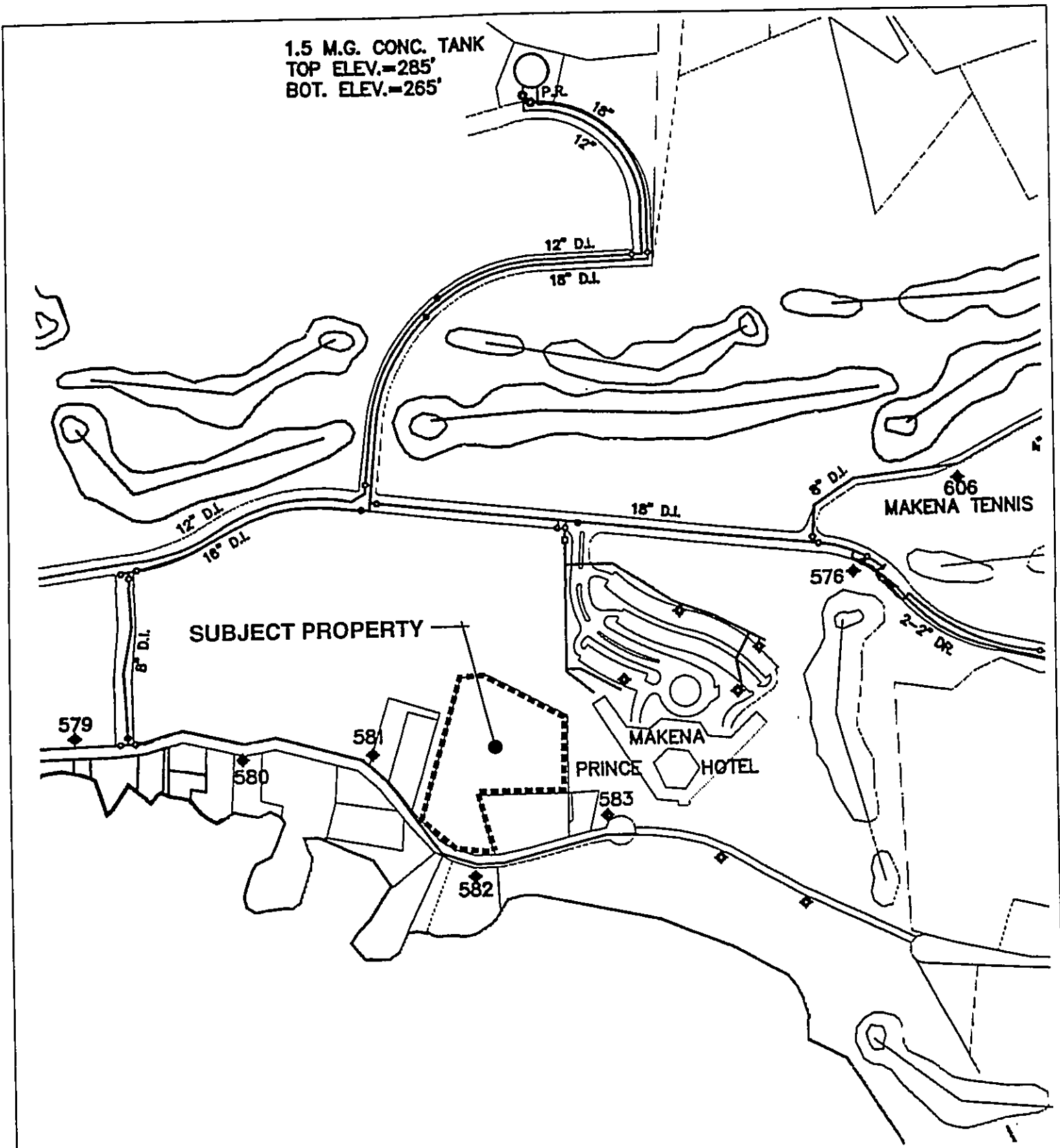
FIGURE 8
 SITE PHOTOGRAPHS
 GARCIA SUBDIVISION
 08/2002





FIGURE 9

<p>NOT TO SCALE</p>  <p>FEET</p>	<p>AUGUST 2002</p>	 <p>N</p>	
<p>COMMUNITY PLAN AERIAL MAP TMK: 2-1-007:067</p>			<p>CHRIS HART & PARTNERS</p>



1.5 M.G. CONC. TANK
 TOP ELEV.=285'
 BOT. ELEV.=265'

SUBJECT PROPERTY

MAKENA
 PRINCE HOTEL

606
 MAKENA TENNIS

FIGURE 10

<p>0' 500' FEET</p>	<p>AUGUST 2002</p>		
<p>WATER SERVICE MAP TMK:2-1-007:067</p>			<p>CHRIS HART & PARTNERS</p>



LOT 2-A
TAX: (2) 2-1-008: 122
GEORGE P. FERREIRA JR., ETAL
(OWNERS)

"MAKENA FARM LOTS SUBDIVISION"
(PENDING L.U.C.A. FILE NO. 2.1698)

TAX: (2) 2-1-007: 068
MAKENA FARM CORP.
(OWNER)

ACCESS AND UTILITY EASEMENT
(40-FT. WIDE)
(IN FAVOR OF LOT 2-A
OF THE MAKENA FARM LOTS SUBDIVISION)
(PENDING L.U.C.A. FILE NO. 2.1698)

LOT 2-D
CONC. SWALE
SIGN
NO PARKING



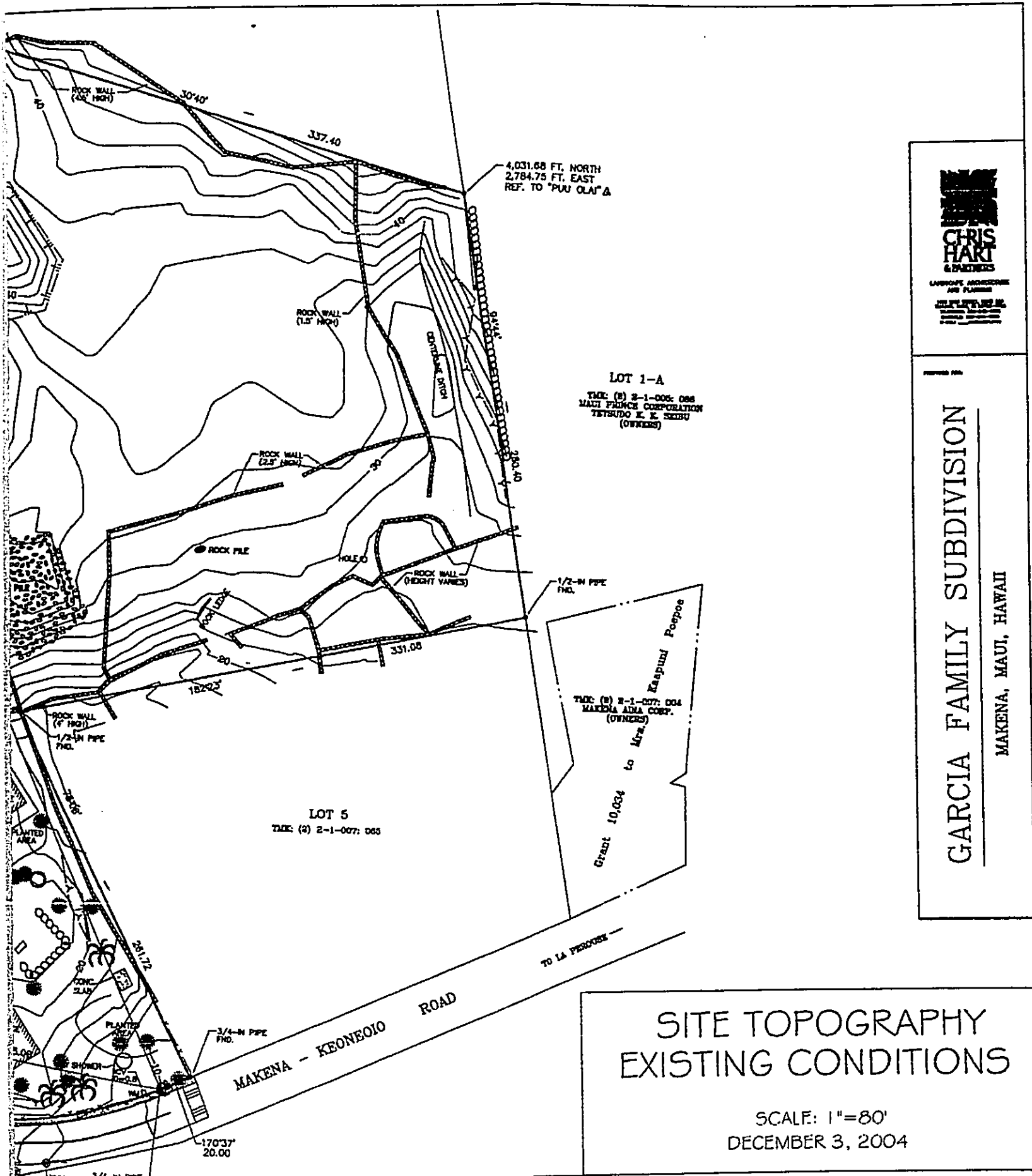
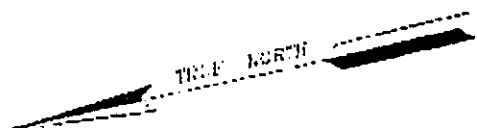


Figure No. 11

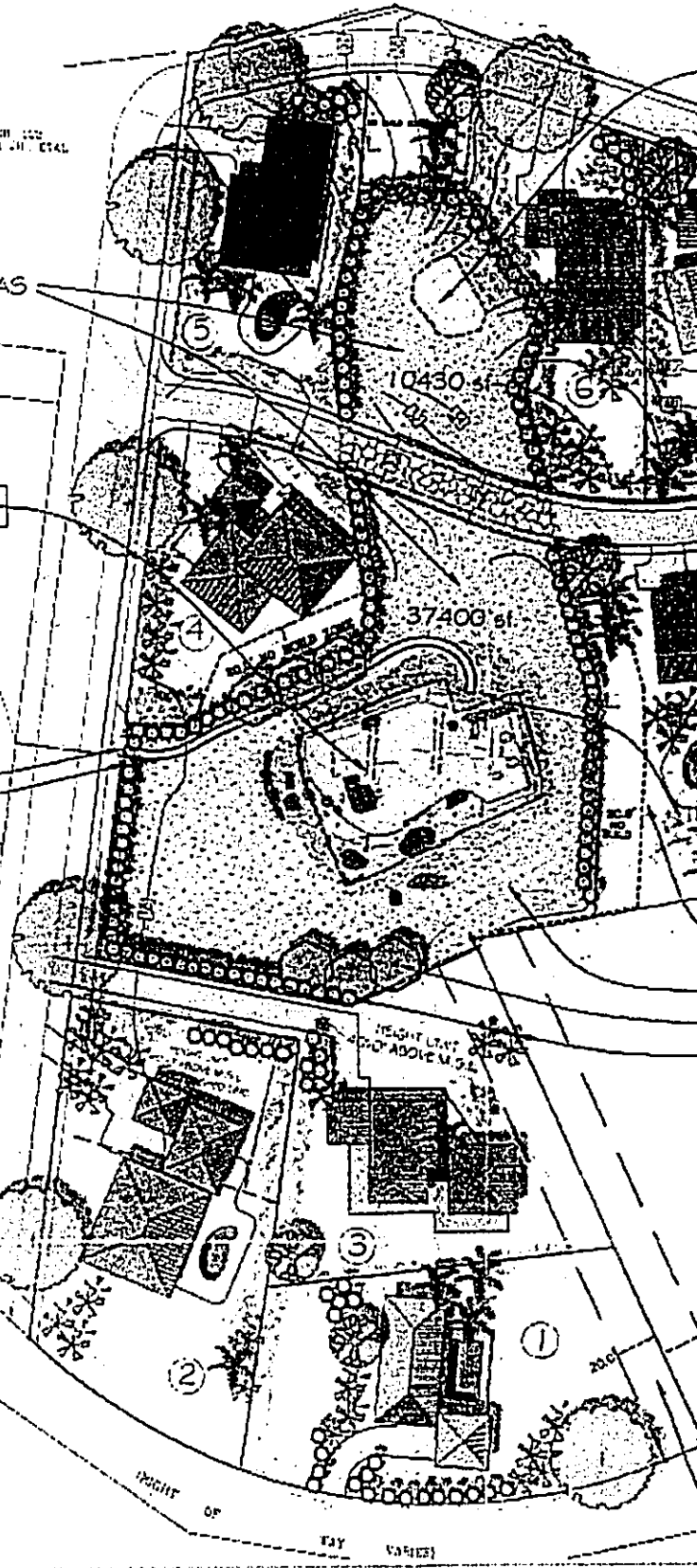


THE 10' 2-1/2" MIN. 100' CORNER IS TO BE MAINTAINED AT ALL TIMES.

PRESERVATION EASEMENT AREAS

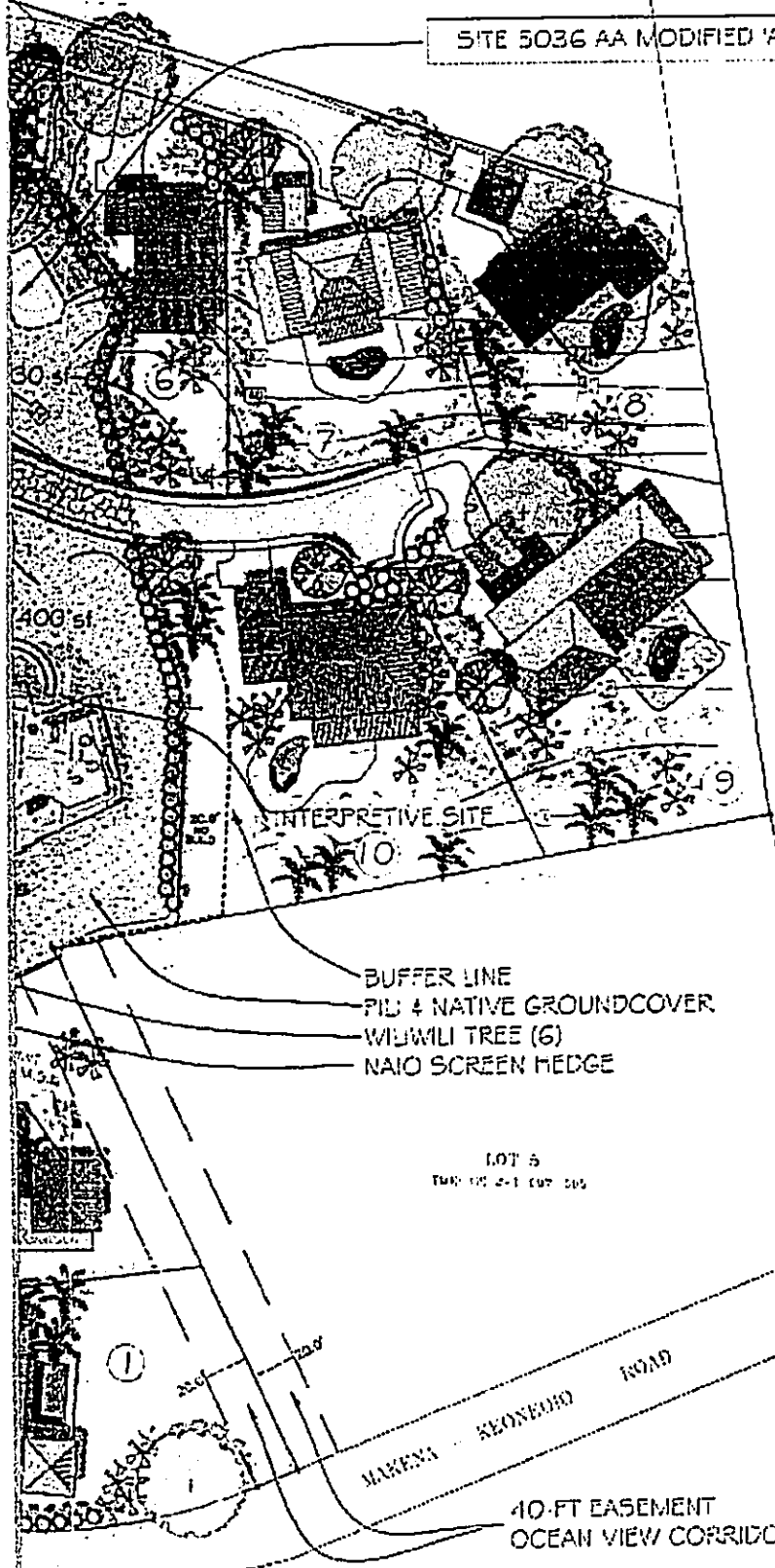
KALANI HEIAU SITE 196

ACCESS PATH FROM ROADWAY
INTERPRETIVE SIGNS



NOTE:
PROPOSED BUILDINGS ARE ILLUSTRATED FOR
ASSESSMENT PURPOSES. ACTUAL DWELLING
LOCATION, STYLE & SIZE MAY CHANGE.

SITE 5036 AA MODIFIED 'AHIJA

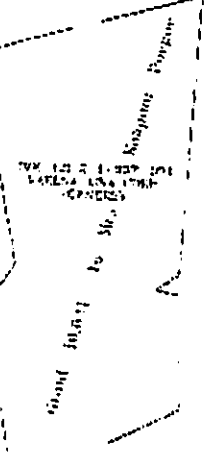


LOT #	LOT AREA (SQ.FT.)
1	20235
2	20130
3	19230
4	51430
5	11710
6	24510
7	14180
8	14686
9	22570
10	21385

LOT 1-4
 TWO 100' x 100' LOTS
 WITH PRIVATE RECREATION
 TRAIL TO 40' WIDE
 CORRIDOR



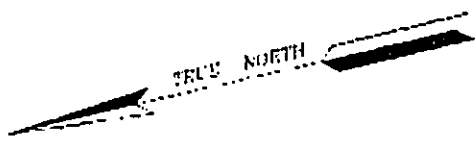
GARCIA FAMILY SUBDIVISION
 MAKENA, MAUI, HAWAII



SITE PLAN

SCALE: 1"=80'
 May 11, 2006

Figure No. 12



DATE: 12/1/00
BY: [illegible]
PROJECT: [illegible]

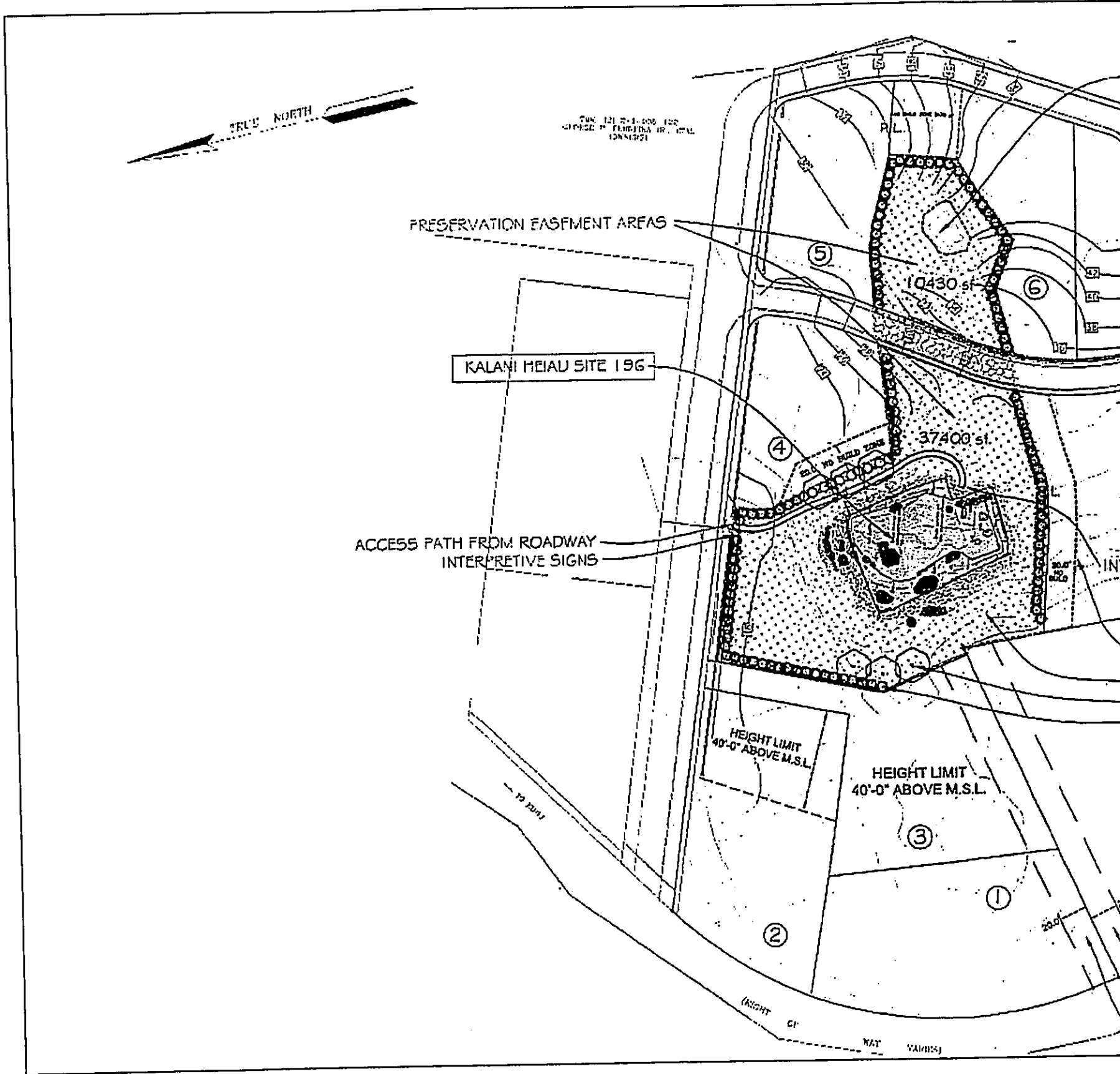
PRESERVATION EASEMENT AREAS

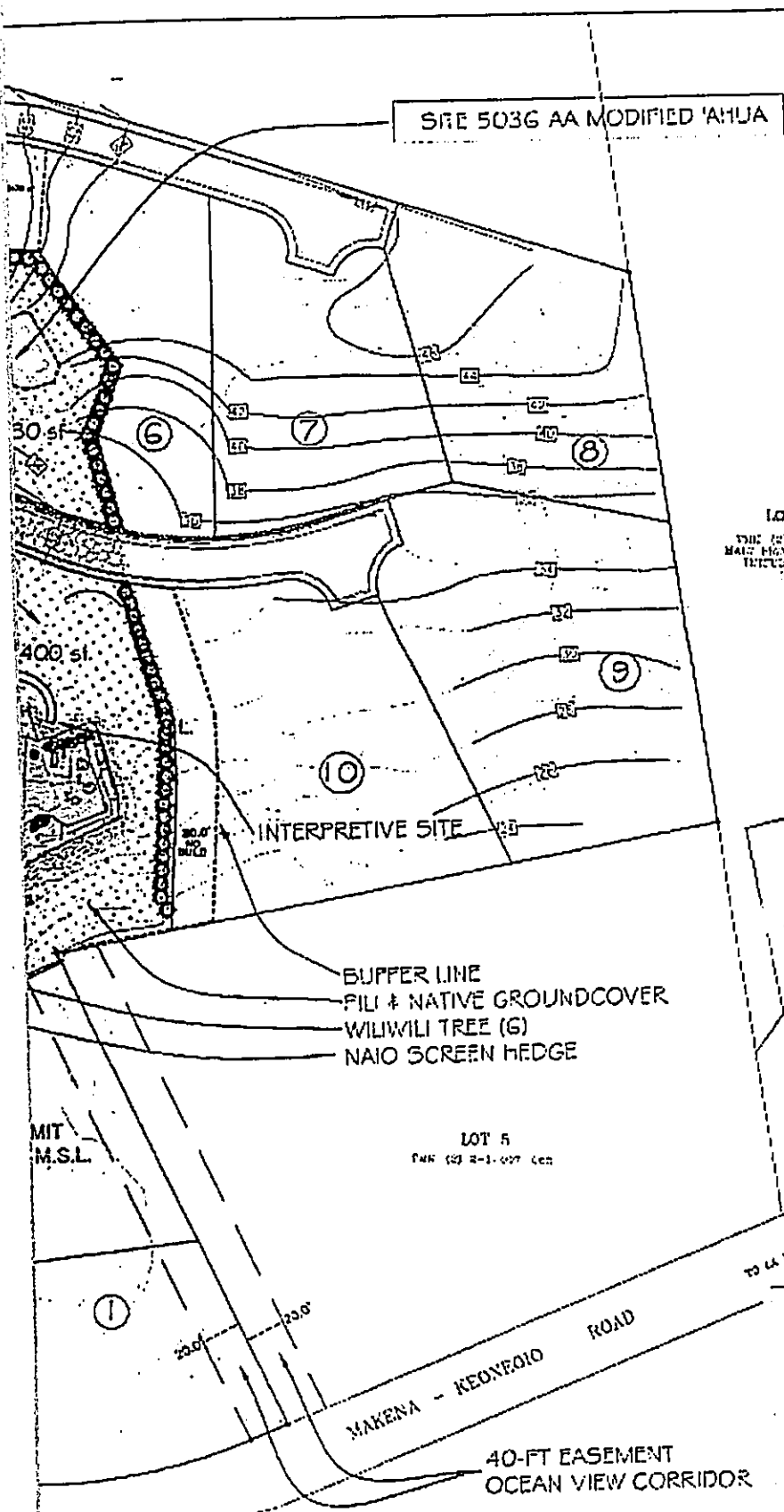
KALANI HEIAU SITE 196

ACCESS PATH FROM ROADWAY
INTERPRETIVE SIGNS

HEIGHT LIMIT
40'-0" ABOVE M.S.L.

HEIGHT LIMIT
40'-0" ABOVE M.S.L.





SITE 5036 AA MODIFIED 'AHUA

LOT #	LOT AREA (SQ.FT.)
1	20235
2	20130
3	19230
4	51430
5	11710
6	24510
7	14180
8	14686
9	22570
10	21385



LOT 1-A
THIS (S) 2-1-000-004
MALE HEIGHT COMPUTATION
INCLUDES A. & B. SIEB
(WATER)

FORM NO.

GARCIA FAMILY SUBDIVISION

MAKENA, MAUI, HAWAII

GRADING PLAN

SCALE: 1"=80'
MARCH 13, 2006

Figure No. 13

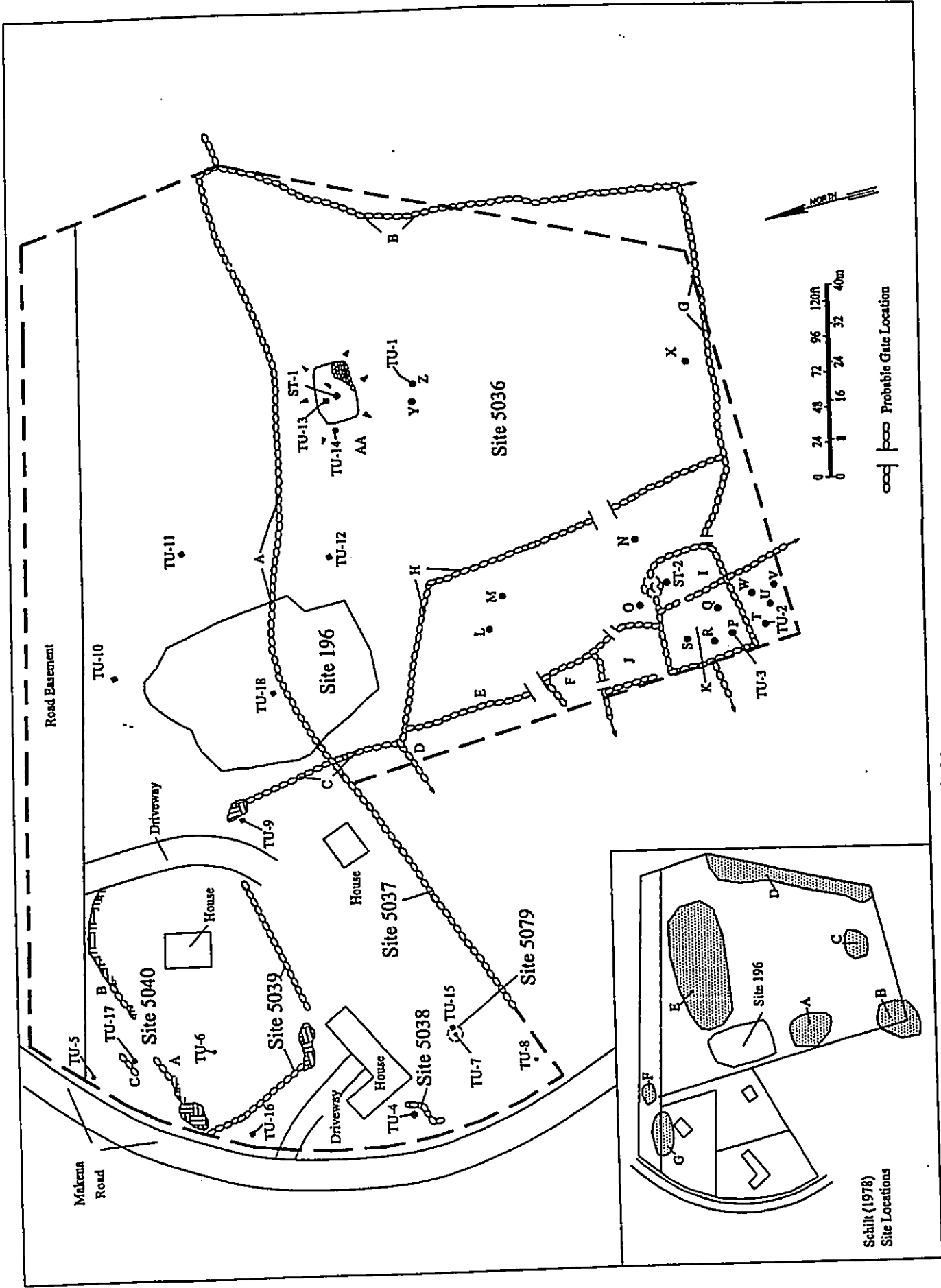


Figure 14 Site Location Map — Archaeological Sites
 Source: Haun and Associates

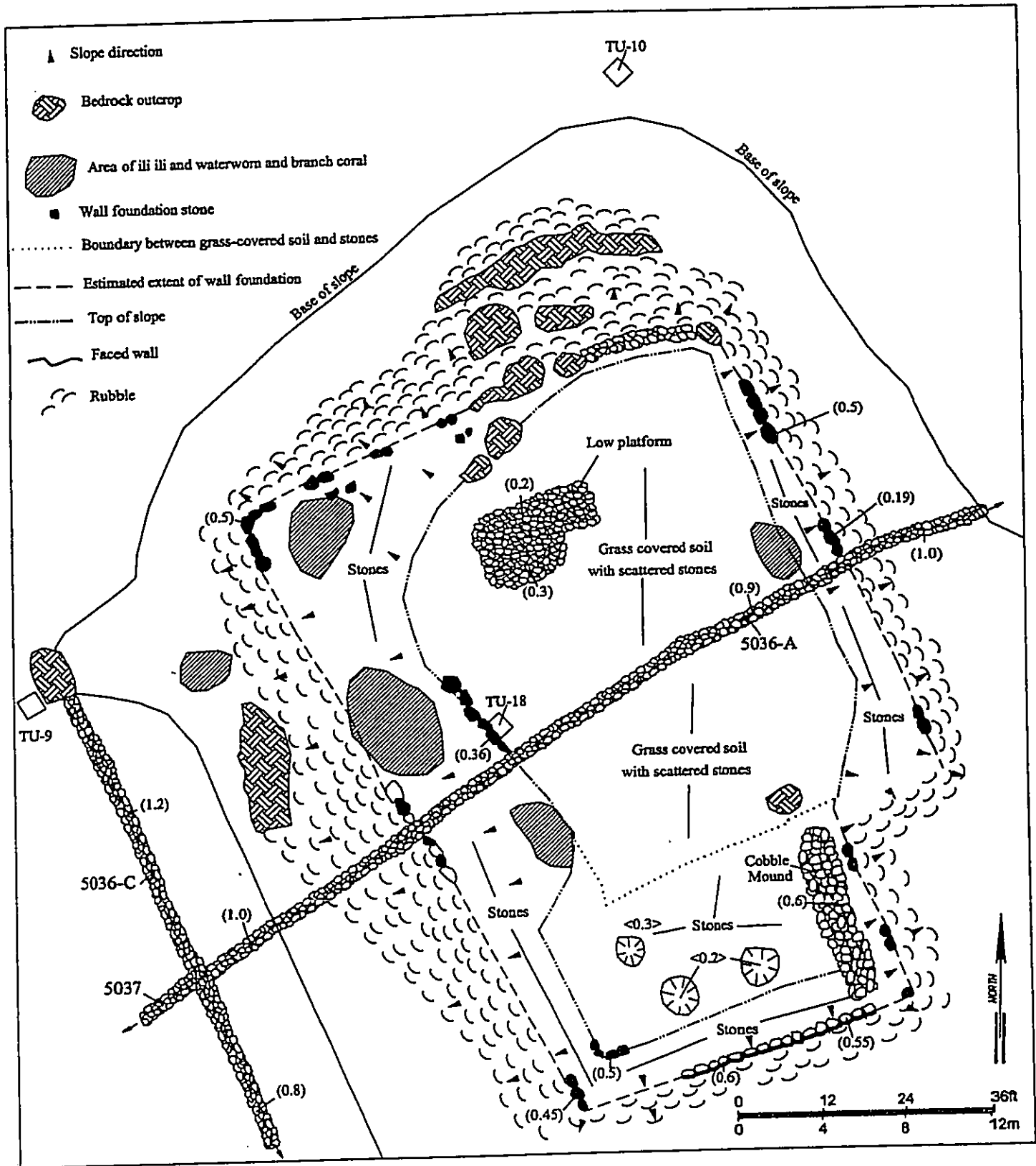
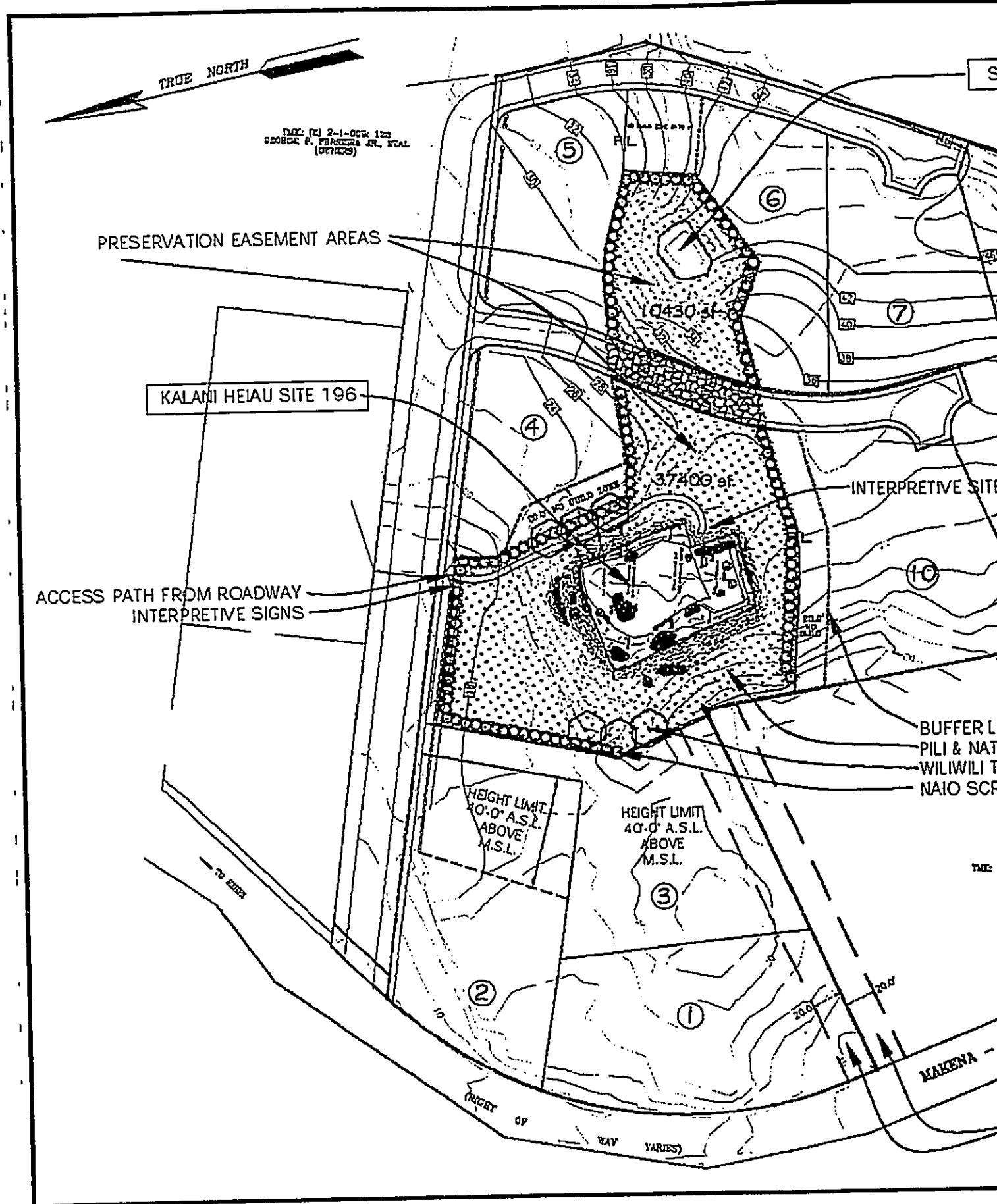


Figure 15 Site 196 Kalani Heiau Plan Map

Source: Haun and Associates



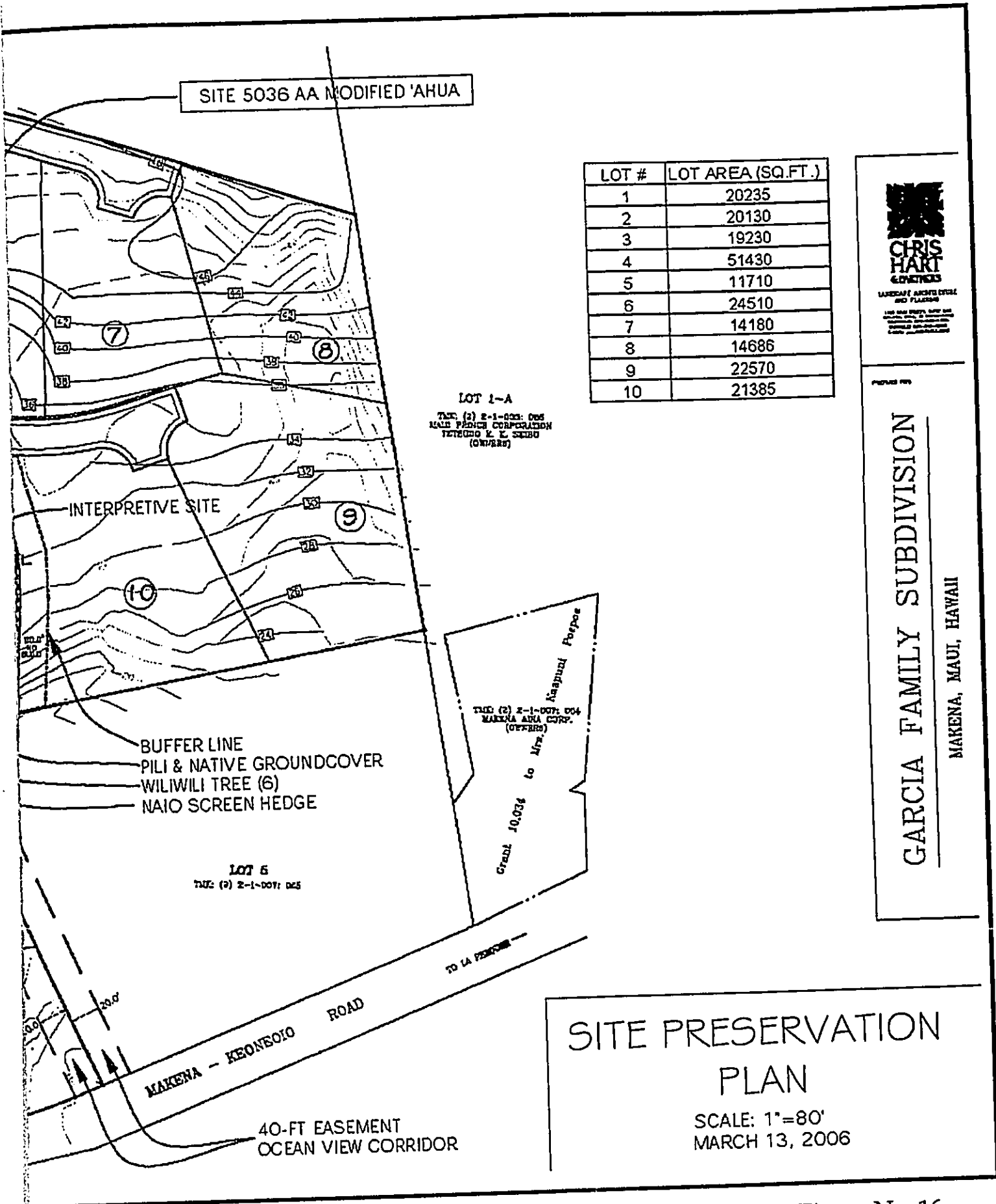


Figure No. 16

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

APPENDICES

- Appendix - A
• Cultural Impact Assessment
Report

Draft
Cultural Impact Assessment

TMK: 2-1-07: 67

Land of Ka'eo
Makawao District
Island of Maui

Prepared for:

Mr. Sam Garcia, Jr.
Mr. John Garcia
193 Makena Road
Makena, Hawaii

Prepared by:

Rory Frampton, Principal Planner
Chris Hart & Partners, Inc.
1955 Main Street
Wailuku, Hawaii

August 2002
Revised December 2004

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Figure No. 7	Archaeological Sites
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APPENDICES

Appendix A	Revised Addendum - Archaeological Inventory Survey, July 2004
Appendix B	Summary of Interviews with Marie Olsen and Charles Pili Keau
Appendix C	Correspondence with Keawala'i Church
Appendix D	Draft EA Comment Letter from Dana Hall

I. Introduction

A. Project Background

The Garcia family is proposing to subdivide a 5.497 acre parcel into eleven residential lots ranging in size from approximately 13,500 SF to 34,000 SF in order to allow for the construction of eleven single-family residential dwellings. The subject parcel (TMK 2-1-007: 67) is located on Makena-Keoneoio Road near Keawala'i Church. See Figures 1 and 2. The purpose of this report is to assess the potential impact of the proposed project on cultural resources and practices associated with the property.

B. Scope of Work

The following Scope of Work was established to satisfy the requirements related to assessment of effects on cultural resources and practices:

1. Review the archaeological report conducted for the property with the specific purpose of examining historical documents, Land Commission Awards, historic maps and archaeological features which would identify traditional Hawaiian activities that have occurred in the area.
2. Conduct discussions with persons knowledgeable about the historic and traditional practices in the project area.
3. Assess of the potential impacts on any cultural resources or practices identified in items 1 and 2, and identify proposed mitigation measures deemed necessary to mitigate potential impacts.

C. Project Area Description and Setting

The property is situated in Makena, formerly a small remote coastal village on the south coast of Maui. Makena currently contains a mixture of low density

residential development along the shoreline along with resort development associated with the Makena Prince Hotel.

The project site is situated on the mauka side of Makena-Keoneoio Road near the historic Keawala'i Church. There are single family residences along the coastline to the north and south of Keawala'i Church. Maluaka Beach is located across from the south western corner of the property. The Makena Prince Hotel is to the immediate south. Vacant land owned by Makena resort borders the property to the east and north. Also to the north is a beach access parking lot and restroom and sewer pump station. See Figure 3.

The project area consists of a 5.497 acre parcel, which ranges in elevation from approximately 10 feet above sea level (asl) to 49 feet asl with the terrain sloping westerly towards the ocean. See Figure 4.

The soil within the project area consists exclusively of Makena loam, stony complex (3 to 15% slopes). This soil series is located on the lower leeward slopes of Haleakala, situated between Kamaole and Makena (Foote et al. 1972:91). It is composed of Makena Loam and Stony Land, with the Stony Land comprising 30 to 60% of this series located on low ridges. The Makena loam is present on gentle slopes between ridges, and evidences slow to medium permeability, with a slight to moderate erosional hazard. Pahoehoe outcrops are also associated with this series. The project site typifies this description with a series of rocky outcrops running east to west, primarily on the northern half of the parcel, and flatter more gentle sloping terrain on the southeastern portion of the site. See Figure 4.

The region is typical of dry leeward facing shoreline areas with relatively low rainfall (20-30 inches per year). Vegetation is comprised predominately of cactus (panini), kiawe, and low grasses with scattered koa haole.

II. Archaeological and Historical Background

A thorough discussion of the archaeological and historical background of the project area is contained within the Archaeological Inventory Survey, prepared by Haun & Associates (October, 2000), which has been supplemented by the Revised Addendum Archaeological Inventory Survey (July, 2004). Haun's Revised Addendum Archaeological Inventory Survey is attached and incorporated into this report as Appendix A. The following two sections are comprised of summary descriptions and excerpts from the Haun reports.

A. Historical Setting

The project area is situated in the ahupua'a of Ka'eo in Honuaula, a sub-district, or 'okana, of Makawao. Honuaula's offshore waters were an important fishery with numerous named fishing grounds. Early observations by La Perouse in 1786 and Vancouver in 1793 indicate a series of small villages along Honuaula's arid coast. The earliest census data for Honuaula comes from 1832 when a population of 3,340 was reported; however, by 1836 the number was reduced to 1,911, primarily as a result of introduced diseases.

During the 1820s and 1830s much of Maui came under the influence of the missionaries. A series of schools were established in Honuaula as well as Keawala'i Church across the street from the subject property. Potato cultivation on the slopes of Haleakala started initially in the 1830s to supply whaling ships and later to supply the California Gold Rush. Honuaula was the point of contact for the ships, with much of the commerce occurring at the government landing in Ka'eo.

During the mid- 1800s much of Honuaula became government land that was soon leased to foreigners for cattle grazing, and potato and sugar cultivation. A sugar mill was built in the 1840s in Ulupalakua. L. Torbert purchased the sugar mill and surrounding lands which eventually became known as Ulupalakua Ranch.

The Wihona 'Aina database lists 31 parcels claimed by 17 claimants within Ka'eo and Mohopilo in the mid-1800s. Fourteen parcels were awarded to ten claimants. See Figure 5. The awarded claims were for kuleana parcels ranging from .2 to 12.96 acres in area. House lot parcels range from .2 to .5 acres. Land uses described in the LCA claim testimony includes ten house lots, seven Irish potato plots, six sweet potato patches, a hala clump and the boundary to a sugar cane field. Sixteen claimed parcels are described as pasture. Most of the house lots were next to the shore and the government trail.

Most of the subject property is contained within what was formerly a large 514 acre grant that was awarded to Mahoe in the 1850's, which included all of the coastal lands in Ka'eo, except for the kuleana claims. The grant included a fishpond at Apukehau Point. A map of the area dating to the mid- 1800s depicts a church and the government (Aupuni) landing and storehouse next to the fishpond. Figure 6. A new landing and road constructed by Torbert are shown to the north. A series of walls and houses are shown in the vicinity of the project area.

During the later part of the 1800s up until the mid 1900s, the area's land use was dominated by cattle ranching. Most of the residents of Honuaula, except for a

few fishermen, worked for the Ranch. The ranch lands in Makena were sold to Seibu Hawaii, Inc. in 1976 for tourist development.

Today there are three houses with landscaped yards in the western portion of the project site. The houses belong to the Garcia family. Sam Garcia, Jr., recalls that his mother inherited a claim to an upland parcel of approximately 15 acres that was situated on Ulupalakua Ranch land. The location of the parcel was uncertain and the ranch offered the project area in exchange. The ranch conveyed the project area to the Garcia family in the 1960s. Before the first house was constructed in the 1970s, Sam Jr. recalls the family visiting and camping on the land, which was open range used by the ranch. The enclosures and walls on the property were preexisting structures and were not used at the time of the family visits.

B. Previous Archaeological Research

Haun's review of SHPD's database and other sources identified 22 survey and excavation projects for Honuauia. These surveys covered over 2,600 acres identifying 636 sites with 1,423 features. To aid in reconstructing settlement patterns, Haun categorized and quantified the features by probable age and function. Overall the studies have identified 77 permanent habitation features (enclosures, platforms, terraces), 190 temporary habitations (overhangs and small walled shelters), 282 agricultural features (mounds, modified outcrops, depressions, and terraces), 8 burials, 23 ritual features, and 11 trail segments. Historic features were not segregated by function. The majority of the historic features are ranch walls.

Haun's examination of radiocarbon age determinations suggested initial use of the area in the AD 1100s-1200s followed by a gradual increase during the 15th and 16th centuries. The most intensive use dates to the 1600s with gradual decline in the 1700s and 1800s. Donham (1998) has argued that initial occupation occurred as early as AD 900.

Haun reports on three surveys conducted adjacent and across the street to the project site. Jones et al. (1994) conducted a survey and test excavations in a small .5 acre parcel (TMK: 2-1-07: 04) adjacent to the southwest corner of the project site. See Figure 2 for Parcel 4's location. The survey identified six features including historic trash deposits, a pigpen, well and walls. Shovel tests and excavations also recovered artifacts and food remains. The site was interpreted as being multi-component with the prehistoric component radiocarbon dated to between AD 1410 and 1660 overlain by a historic deposit dated to the 1870s to mid 1900s based on artifact assemblage.

Yeomans and McGerty (2000) conducted an inventory survey of a parcel of land (TMK: 2-1-07: 66) which is bordered on its east and north boundaries by the project site, and located immediately north of the property surveyed by Jones et al. The survey identified thirteen features interpreted as historic ranching features. Excavation produced historic artifacts dating to the 1900s. No traditional Hawaiian sites were identified.

Donham (1998) conducted a survey and excavations in Keawala'i Church yard (TMK 2-1-7: 2). A deposit of early historic material associated with the early nineteenth century church overlay an intact prehistoric habitation deposit over one meter in depth dated to as early as AD 900-1100. The upper portion of the deposit was dated to AD 1445-1645.

Haun's review of archaeological and historic documents suggests that prehistoric use of the project area would be potentially evidenced by agricultural features, burials, ritual sites, and permanent and temporary habitation sites dating to as early as the 1100s. More recent evidence of historic use is likely to overlay older sub-surface habitation deposits. Haun's review also led to the expectation of the presence of historic sites dating from the mid- 1800s to 1900s consisting of ranching related features such as walls, roads and corrals.

III. Assessment of Cultural Resources within or nearby the Subject Property

A. Archaeological Sites

Haun recorded seven sites with 35 features on the property. The sites consist of four single feature sites and two complexes of features. Formal feature types consist of mound (10), wall (9), modified outcrop (6), enclosure (4), terrace (2), lava blister (1), modified knoll (1), cultural deposit (1) and heiau (1). Functionally, the features include agriculture (18), ranching (13), temporary habitation (1), habitation (1), trash dump (1) and ritual (1). See Figure 7.

The survey results generally conform to the expectations derived from historical and archaeological background research. Traditional Hawaiian remains include Kalani Heiau, Site 196, and the modified knoll, Feature AA of Site 5036.

The seaward portion of the project area, where the three houses and landscaped yards are present, is an a'a lava ridge that extends from Site 196 to Makena-Keoneoio Road. The upper surfaces of the ridge have been leveled and modified for the construction of houses, driveways, and landscaping. The ridge is a likely locale for prehistoric habitation because it is adjacent to the coast, and it overlooks a broad beach to the southwest and the former fishpond and Makena

Bay to the northwest. One excavation on the ridge, TU-7, encountered a thin, truncated habitation deposit that is probably intact. This area has been assigned site number 5079. As part of the Addendum study, additional excavations were undertaken in the west portion of the project site (TU-15, -16 and -17). The findings were identical to the results of the testing during the inventory survey and confirmed the original conclusions.

The Kalani Heiau, Site 196, was described by Walker in 1931 as follows (as reported by Haun):

A large heiau said to be of sacrificial class but now reduced largely to a shapeless pile of rocks. It measures 126 feet across the front and has a width of 98 feet. No walls are in evidence, it being apparently an open platform 8 feet above the surrounding country build of rough Aa blocks with some coral and pebbles on top. Interior structure has been demolished by cattle. (1931:267)

The site was later examined by Bruce in 1973 who found it in the same shapeless condition as Walker. Bruce noted the presence of ranch walls along the west face and along the back of the heiau that were not noted by Walker and surmised that these walls had been built in modern times using rock from the heiau.

Haun provides a detailed description of the site along with sketches and photos. (See Figure No. 8 and Appendix A.) The site consists of the remains of a large notched platform located on a knoll, with an upper elevation of 38-40 ft. above sea level. The site's location on a prominent knoll, which would have commanded a view of the coastal waters of Makena Bay and Haleakala, and stepped construction are attributes typically characteristic of heiau.

The sides of the structure are collapsed. Most of the rubble surrounding the structure consists of small cobble to pebble-size stones that probably represent fill that was previously retained by walls faced with large cobble to small boulder-size stones. The surface scatters of *'ili`ili* and coral on the slopes of the knoll probably represent portions of paving that were scattered after the structure's retaining walls were removed. All that remains of the walls, except a portion of the southern side, are alignments of small boulders imbedded in the ground. A ranch wall extends across the top of the site and a second wall is located at the base of the knoll to the west.

Haun notes that the poor condition of the structure is undoubtedly largely due to removal of stones to construct the wall on the site and walls to the south and west of the site. Given the large size of the structure he notes that it was probably a source of building material for other walls or buildings in the area. Haun has noted that it is possible that stone from the heiau could have been used in the

original construction of Keawala'i Church, which was built in 1832, after the abolition of traditional Hawaiian religion. Similar to Bruce's conclusion, Haun notes that the wall that bisects the site was not mentioned by Walker, indicating that it may have been constructed after Walker's visit.

Current views of the ocean are blocked by vegetation and structures on the project site and neighboring properties. See Figures 9a-9d. However, in the absence of existing vegetation and neighboring structures, the knoll would have had views of Makena Bay and beyond to Molokini and Kahooloawe. The site would have overlooked portions of the coastal areas from just north of Keawala'i Church to the southern end of Maluaka Beach.

Feature AA of Site 5036, the modified knoll, consists of a leveled knoll with a sparse scatter of waterworn pebbles (*ili ili*) indicating the former presence of a pavement or prepared floor, and a sparse scatter of marine shell. The upper elevation of this knoll is approximately 46 ft. above sea level. During the original inventory survey, a shovel test on the upper surface of the knoll encountered a 25 cm thick deposit containing sparse *'ili 'ili* and marine shell, but no charcoal or other artifacts. Haun's conclusion is that the remains suggest the knoll was used for a limited period of time for temporary habitation.

Comment letters from the State Historic Preservation Division, Ms. Dana Hall, and Ms. Theresa Donham, have suggested that Feature AA, could have had a "ritual or ceremonial function, due to its setting, the spatial association of the site with Kalani Heiau and its location on a promontory overlooking the heiau."¹ (Figure 10 illustrates the topographic relationship between Site 196 and Feature AA.) Haun maintains that a habitation function for the knoll is supported by the additional archaeological data collected during the Addendum study, however, he does note that consulted individuals suggested that the function of the knoll may have changed over time and that its prominent nature may have had ritual significance, and that a potential ritual function cannot be ruled out.

Haun's significance assessment, accepted by SHPD via letter dated May 10, 2001, concluded that six sites (all but Site 196) are significant under SHPD's criteria "d". Five of these sites have yielded information important for understanding late prehistoric to historic land use in the project area, and no further work is required. Site 5079, a partially intact subsurface cultural deposit situated in the yards of, and potentially beneath, the residences in the northwest corner of the project area, may contain additional intact deposits and datable material. Work conducted as part of the Revised Addendum Inventory Survey Study is intended to address the requirement for additional data recovery.

¹ Letter from Theresa K. Donham to Dana Naone Hall dated July 14, 2003, transmitted to State Historic Preservation Division by Dana Naone Hall via letter dated July 22, 2003.

B. Cultural Informants

Interviews were conducted with two Native Hawaiian individuals with knowledge of the property, Ms. Marie Olsen and Mr. Charles Pili Keau. Summaries of the interviews are included in Appendix B. In addition, a site visit was held with Ms. Dana Hall and Mr. Leslie Kuloloio of Hui Alanui O Makena. A letter was received from Ms. Hall, commenting on the Draft Environmental Assessment and objecting to the content of the original version of this Cultural Impact Assessment. (See Appendix D.)

Marie Olsen. Ms. Olsen moved to Makena in 1944, and lived in the "pill box" at Makena Landing. In the late 1960s, Marie and her husband Willie moved approximately 3 miles south, to the Carter Estate at Keoneoio, where they have been caretakers ever since. Although Willie has passed away, Marie still resides at Keoneoio. Prior to the Garcia's acquiring the property, she was aware that there were remains of a heiau on the property, however, she was not aware of anyone who would go down to visit or take care of the site. She also is not aware of anyone who would go to the site to make offerings or conduct rituals. She understood that there wasn't much left of the site (that it was "kind of bus' up.")

Although Ms. Olsen had visited with the Garcia's at their house many times, she had never actually seen the heiau remains up close. It was located behind the Garcia house, in the Kiawe trees. On November 14, 2003, she visited the heiau site with Sam Garcia, Jr. and Rory Frampton of Chris Hart and Partners.

While at the site she walked to base of the knoll which is located behind (mauka) the heiau remains Site 5036, Feature AA. She had neither heard of the knoll or was aware of its significance in connection to the heiau site.

She feels that it is important to preserve the site of the heiau since it was used by Hawaiians for religious and spiritual practices. She also feels it is important to have a visual connection from the site towards the ocean.

She reviewed the preservation plan figures, and was shown the location of the proposed home sites. She was comfortable with the preservation plan, noting that the main thing is to preserve the site and the hill that it sits on. She felt very positive about the potential for Keawala'i Church to take on a stewardship role in preserving the site. She indicated that the best use of the preservation area would be as an educational tool for children so they can learn about Hawaiian culture and beliefs. She felt it should be preserved for the benefit of the future generations.

Charles Pili Keau. Mr. Keau was born in 1927 in Wailuku, Maui. Mr. Keau has had extensive experience documenting and researching archaeological sites on Maui, especially in the Honua`ula area. In the 1970s Mr. Keau worked with Bishop Museum on a State sponsored survey of archaeological features on Maui, Kaho`olawe and Moloka`i. The project involved attempting to locate and document sites which had been previously identified by Winslow Walker in the early 1930s. The Kalani Heiau (Site 196) was one of the Walker sites that Mr. Keau worked on.

Mr. Keau is a close friend of Sam Garcia Sr. He used to visit with Mr. Garcia at the Garcia's property while working in the Makena area. They had spoken of the Garcia family's desire to develop the property. They had discussed the presence of the heiau remains and both were in agreement that the site should be preserved with the understanding that there was enough room on the property to accommodate additional development as well as to preserve the heiau site.

He noted that the heiau is considered a "good" heiau, that is, not the kind that would make you get hurt. It has good mana or energy. He also noted that the name given to the heiau, Kalani, is that of a family from the area (*David Lono's*). He notes that this makes it more difficult to determine what type of function it may have had. Some heiau have Hawaiian names that provide an understanding of the type, function or significance of the site.

Although he spent considerable time at the site in the 1970s, he was not aware of any significance attributed to the knoll located mauka of the heiau remains. Although he was aware of the complex of walls located behind David Lono's house (near the boundary of the Lono and Garcia properties), he does not recall the knoll or anyone attributing significance to the knoll, especially as it relates to the Heiau site.

After visiting the site and reviewing correspondence from SHPD, Ms. Dana Hall, Ms. Theresa Donham, and the addendum archaeological report, Mr. Keau noted that it will be extremely difficult, if not impossible, to determine what type of use or function the knoll (Feature AA) may have had or if it had any connection to the heiau. This is due to the lack of conclusive physical evidence. Attempting to assign a particular function or significance to the knoll will be subjective. He added that the knoll could have had different uses over time.

In terms of the preservation plan for the heiau site, he feels it is important to maintain a visual connection to the ocean. This allows for a spiritual connection or alanui (road or path) to the sea. The area encompassing the remains of the heiau, should be left as is, with no planting or landscaping. It would be good to keep the area clear of weeds. He noted that there is very little remaining of what would have been there in the past, and that the site itself has very little to preserve, however, he stated "what you see is what you get." He is comfortable

with the proposed preservation plan as shown on the amended site plan dated February 2004.

Mr. Keau noted that since there is very little archaeological material at the knoll (Feature AA), it is not the type of feature that would normally be preserved. It wouldn't be preserved because of the lack of archaeological remains and also because of the uncertainty involved in the identification of the type or function of the feature. In the past, at some point, the feature may have had some sort of connection to the heiau, however, many other features in the area, both natural and man-made, would have been related to the site as well. The entire regional setting would have been important. He noted that in looking at the property in today's setting, he does not feel that preservation of the knoll should be required. He was shown the revised site plan which would preserve the knoll as a landscape feature by shifting the house site on lot number 7 to the south east and thought that it was a good idea in terms of enhancing the site plan. He is not opposed to fill material being placed around the mauka slope of the knoll. The fill material would serve as yard area for the house on lot number 7.

Mr. Keau is supportive of the possibility that Keawala'i Church members may malama or take care of the heiau site. It would provide a good opportunity to teach the younger generation about Hawaiian culture and archaeology.

He also recommended that an archaeologist be present while performing ground disturbance work at the property.

Dana Naone Hall and Leslie Kuloloio. As noted above, a site visit was held with Dana Hall and Leslie Kuloloio in March, 2002. The following comments were provided in a letter dated November 7, 2002 (see Appendix D), which was in response to the original version of this report.

"During the site visit, we made it clear to Mr. Frampton that Site 196 is very significant. We remarked on the knoll's prominence as a physical feature, which undoubtedly played a central part in its selection as the site of an important heiau. The knoll affords panoramic views of the surrounding land and Haleakala as well as of the ocean. We spoke about the connection of the heiau to the significant sites identified a short distance away at Keawala'i Church. We expressed our concerns that the boundaries of Site 196 were not properly identified, including the possibility that the site may extend to the foot of the knoll. Most importantly, we informed Mr. Frampton that we would not be able to comment on a preservation buffer area for the heiau until the boundaries of this site were properly located."

...

“If we had been asked directly by Mr. Frampton, we would have stated that we feel there will be significant impacts on cultural resources which must be mitigated. The Cultural Report’s proposal of a buffer around Kalani Heiau and a side yard setback, as well as provisions for access for cultural and religious practices should be incorporated into a Preservation Plan. At a minimum, the Office of Hawaiian Affairs, the Maui County Cultural Resources Commission, Hui Alanui o Makena and other interested groups and individuals should be given the opportunity to comment on a draft Preservation Plan, including commenting on the appropriate size for buffer areas, as part of the State Historic Preservation Division’s review of this plan.”

This report has been modified by including a discussion on the physical setting of the heiau, surrounding topographical features and view corridors. The Haun addendum report provided a detailed description and mapping of the features of Site 196 as well as additional testing to determine the boundaries of the site. The revised addendum is included in this report as Appendix A. Lastly, a site preservation plan figure is included in this report as Figure No. 12 and a formal Preservation Plan document will be submitted to SHPD for review and approval.

C. Other Cultural Resources

On-site Resources. Aside from the previously discussed archaeological sites, there is a lack of cultural resources on the subject property. Vegetation is typical of lowland kiawe and cactus dominated pasture lands. No native plants were observed which would be used for cultural purposes.

Access to Off-Site Resources. Similarly, the property does not directly abut areas where cultural resources exist and thus would not block access to nearby cultural resources. To the west of the site is Makena-Keoneoio Road and a privately owned parcel, 1.5 acres in size, proposed for single family development (TMK 2-1-07: 66, referred to as Parcel 66.) To the South is the Makena Prince Hotel. To the east is vacant land owned by Makena Resort, accessed via Makena Road, with vegetation similar to that on the project site. To the north is 40 foot access easement, which is adjacent to a sewage pump station and public beach parking lot and restroom.

D. Traditional and Customary Practices

Based on discussions with members of the Garcia family, Marie Olsen as well as Ms. Dana Hall and Mr. Leslie Kuloloio of Hui Alanui O Makena, the property

has not been used in recent times for traditional and customary native Hawaiian practices. Ms. Hall noted that this is likely due to the presence of the existing single family dwellings on the property which are in close proximity to the heiau. Mr. Sam Garcia Jr. noted that prior to their family's acquisition of the property in the 1960s, the site was used primarily for ranching activities and, as such, it appears as though there has been a lack of cultural or spiritual practices on the property for some time. As noted above, the Walker survey in 1931, described the property as "a shapeless pile of rocks." Haun has suggested that it was possible that materials from the walls of the heiau were utilized in the original construction of Keawala'i Church in 1832. Thus, it is possible that most of the architecture of the original site could have been dismantled over 170 years ago.

E. Summary of Cultural Resources and Traditional and Customary Practices

The subject property is the site of archaeological sites which provide information important for research on prehistoric as well as early historic periods in Makena. In addition, the Kalani Heiau represents a site which has traditional cultural value to the native Hawaiian people due to associations with traditional cultural practices once carried out at the property and due to associations with traditional beliefs. Aside from the presence of archaeological sites that have had ritual or spiritual functions, the property does not contain other cultural resources, nor is it in a location where traditional and customary Hawaiian practices for subsistence, cultural, medicinal, or religious purposes currently take place.

IV. Effects of the Project on Cultural Resources and Traditional and Customary Practices

The proposed subdivision will eventually result in the construction of eleven dwelling sites on the property. See Figure 11. Future dwellings will be located at least 30 feet away from Site 196, and the knoll as well as the remaining site features will be preserved in place. Similarly, Site AA the modified knoll also would be preserved via a no-build easement. (See discussion of the Preservation Plan below.) As such there will be no direct impact to the sites themselves, thus, potential effects of the project are related to changes in the surrounding setting, views to and from the site and access.

Views. Due to existing vegetation and structures located on the Garcia's Property, as well as, on neighboring properties to the west, there are no existing view corridors to the ocean from Site 196. See Photo Nos. 1, 2, 6, 7, 8 and 9. Clearing of vegetation and erection of new structures on lots 1 through 4 would have minimal to no impact on ocean views since structures and vegetation on properties makai of Makena- Keoneoio Road already block ocean views from Site 196. While

Photo 7 illustrates a partial view to the ocean, it is taken from an elevation of approximately 14 ft. above sea level, which is lower than the 30 to 60 ft. canopy of vegetation on the makai parcel, which would block views from the top of Site 196.

There is a potential view corridor to the ocean from Site 196 along the southern boundary of the Garcia property. See Photo 10. This view is not currently available due to vegetation on Parcel 66 and the Garcia Property. However, a view corridor would be established by removal of vegetation on the Garcia property and on Parcel 66, since there are no obstructions to ocean views on the makai side of Makena-Keoneoio Road. See Photos 11 and 12.

Proposed structures on lots 9 through 11, could potentially impact views of the Makena Prince Hotel, however, these views are not considered culturally significant. See Photo 3.

There are partial views of the upper slopes of Haleakala from Site 196 through and over the existing Kiawe trees. See Photo 5. These views would be maintained or improved upon with the clearing of vegetation and erection of single family homes on lots 5 and 6, since the proposed structures would be lower than the existing trees which are estimated to be well over 30 ft. in height.

In summary, upon completion of the proposed subdivision improvements and build out of the residential dwellings, a view corridor from Site 196 to the ocean will be established. Also, views to the upper slopes of Haleakala will be maintained and expanded.

Setting. There are currently three single family homes on the Garcia property, to the west of site 196, however the remaining portion of the property to the north, east and south of Site 196 and Feature AA are currently vacant and overgrown with kiawe, cactus and various weeds and shrubs. The proposed project would add 8 dwelling sites in these currently vacant areas. Proposed development of the neighboring Parcel 66, would also add up to four single family homes to the west of this site. The addition of up to twelve single family dwellings in the vicinity of the site would change the setting from a vacant area dominated by kiawe vegetation, to an urban setting with residential dwellings and landscaped yards. The new structures would be in view of Site 196 and likewise the structures would have views of the Site. Thus, the setting as it exists today, with undeveloped land on three sides will be altered.

Although there are no traditional and customary Hawaiian practices occurring on the property today, there is a potential that in the future the Kalani Heiau could be used as a site for educational, cultural, religious or spiritual activities. The change in setting should have minimal to no impact on the opportunity to conduct educational, interpretative, or research activities. However, the potential future use of the site for spiritual or religious purposes could be impacted by the presence of the residential

dwelling. Although it is difficult to quantify or even qualify, some practitioners may feel intimidated by the presence of the residential homes, and similarly, the transformation of the site's setting may affect the overall feeling of the practitioner. Spiritual practitioners may have a different experience in the middle of a residential setting versus a rural setting insulated by dense vegetation.

Access. Currently, there is no legal access provided to the Kalani Heiau. In addition, physical access to the site is limited due to the overgrown nature of the surrounding vegetation. The proposed development of the site would include the establishment of pedestrian access to the site via a preservation easement. Thus, establishment of physical and legal access to Site 196 is another effect of the project.

V. Proposed Mitigation Measures to Minimize Effects on Cultural Resources and Activities

An Archaeological Inventory Survey Report and Revised Addendum Report have been prepared to address the impacts to archaeological sites. Documentation and data collection have been conducted for all the sites and no further work is recommended, except for monitoring during construction. SHPD is currently reviewing the Revised Addendum Report.

As previously noted, the Kalani Heiau will be preserved in place. A buffer has been identified around the site in which no structures or utility lines will be located, the width of the buffer varies with the minimum distance from the edge of the archaeological site being 30 ft.. In addition, a 20 ft. side yard setback has been incorporated along the property line makai of the heiau in order to establish a line of site to the ocean. The abutting property owner has also incorporated a 20 ft. setback. In both of the side yard setbacks, landscape materials will be maintained in order to establish and preserve views to the ocean from the heiau. Given the presence of vegetation and structures which exist on properties along the makai side of Makena-Keoneoio Road, this is the only potential view corridor available from the top of heiau to the ocean.

In addition, a pedestrian access easement will be created in order to allow for access to the Kalani Heiau for native Hawaiian educational, cultural, religious or spiritual activities. Access will be limited to these purposes and will require written requests to and approval from the future landowner or homeowner's association. These measures will be incorporated into a preservation plan which will be submitted to the DLNR-SHPD for review and approval. The additional side yard setbacks and buffer areas will be incorporated into the deeds of the affected properties to ensure that the measures remain in place in perpetuity.

Discussions have been held with Kahu Alike and the Board of Directors at Keawala'i Church regarding the potential for the Church or individual members of the Church to serve as stewards of the site. The Board of Directors has expressed positive interest in this option. The specific function of the Church has yet to be determined, however, possible activities would include education and interpretative lessons at the site as part of the Church's cultural awareness and Hawaiian history programs.

VI. Conclusion

There are no known cultural activities which occur on the subject property. Cultural resources on the subject property are related to archaeological sites. The sites have yielded information important to research regarding the prehistoric and historic eras in Makena. The Kalani Heiau represents a site which has traditional cultural value to native Hawaiian people due to associations with traditional cultural practices once carried out at the property and due to associations with traditional beliefs. As such, the Kalani Heiau will be preserved and view planes to the ocean, buffer zones and access for appropriate cultural activities will be established. With the incorporation of the mitigation measures identified in this report, the proposed action will not have a significant effect on cultural resources or activities.



FIGURES

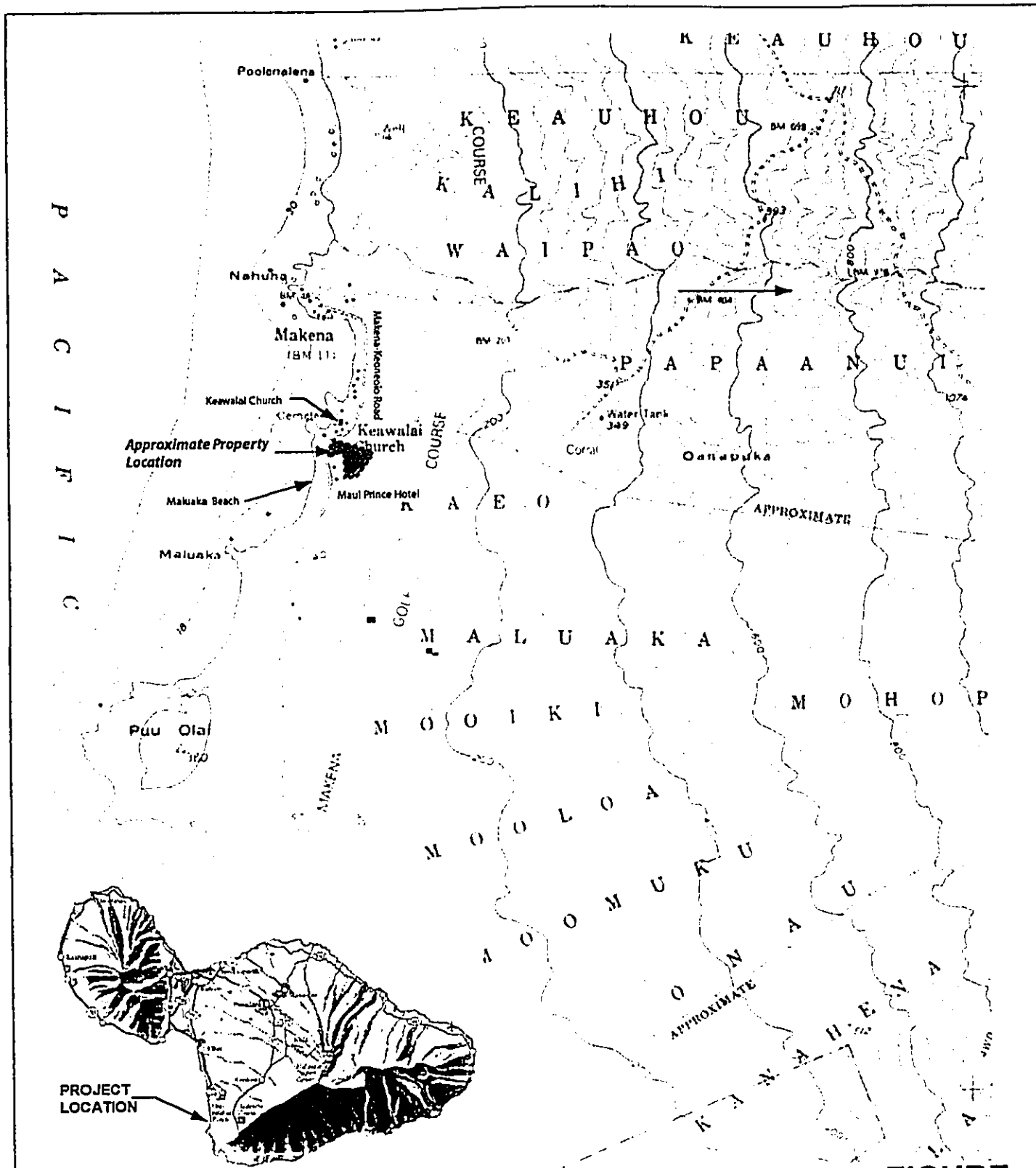


FIGURE 1

	DECEMBER 2004		
REGIONAL LOCATION TMK: 2-1-007:067			CHRIS HART & PARTNERS

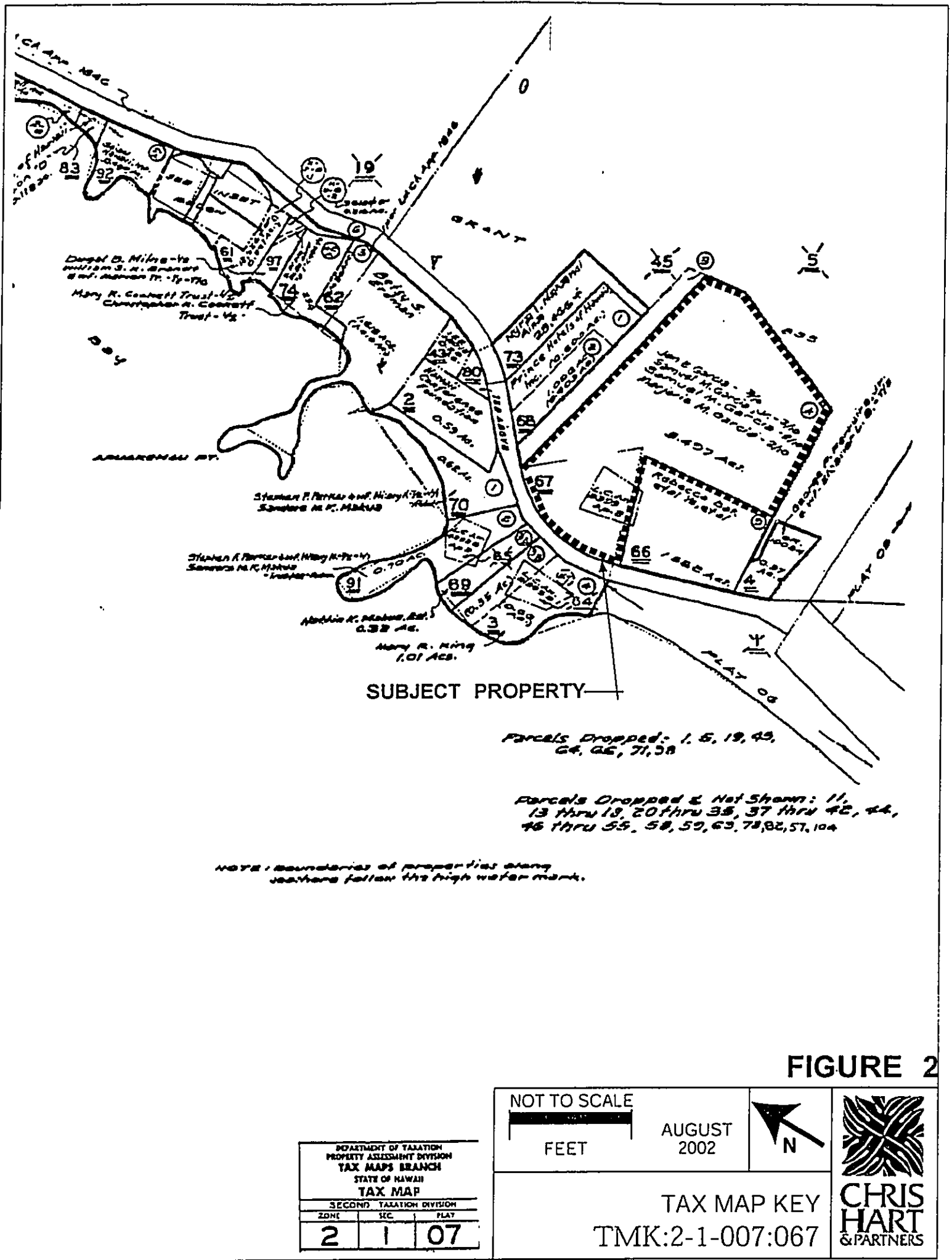
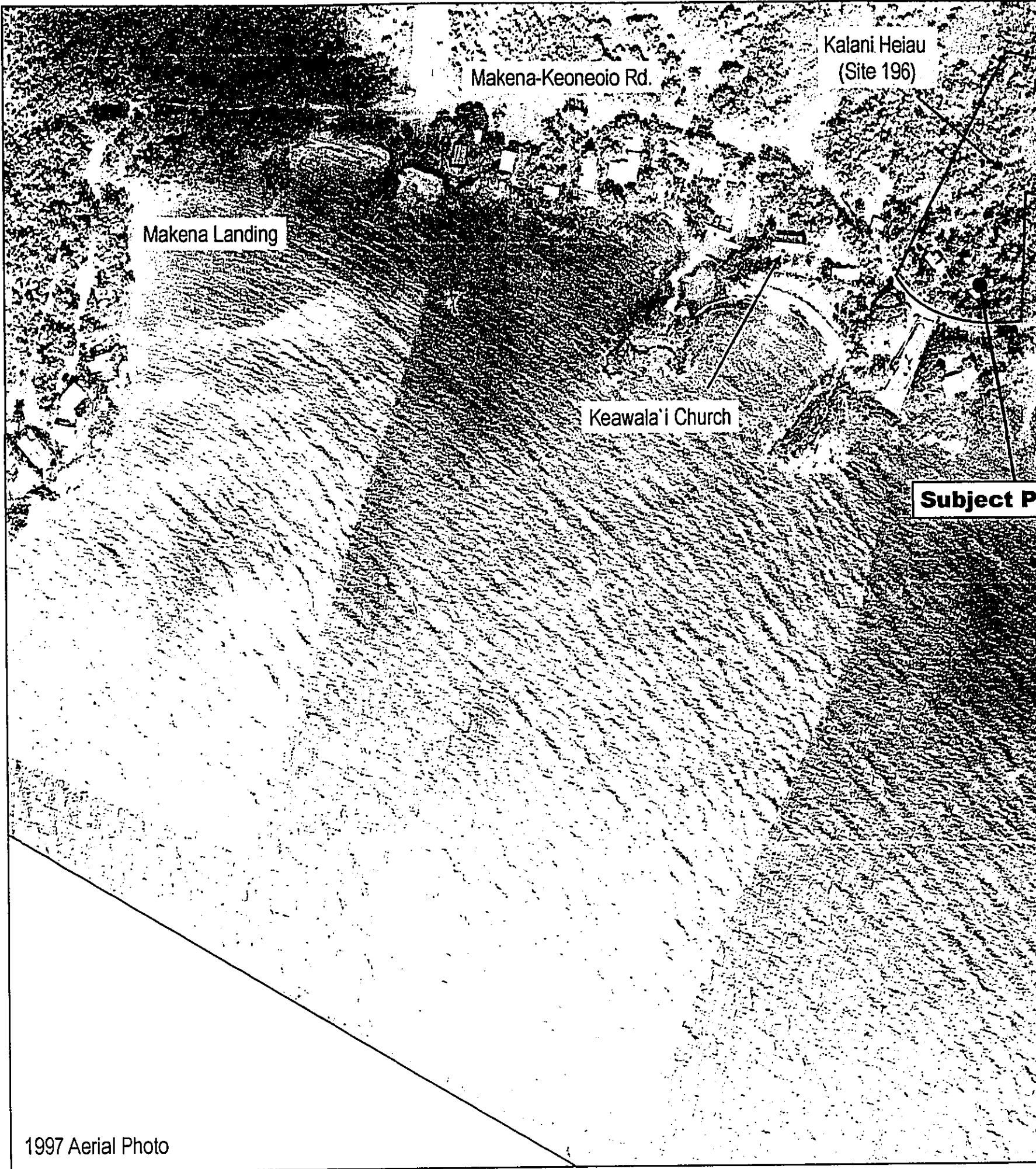
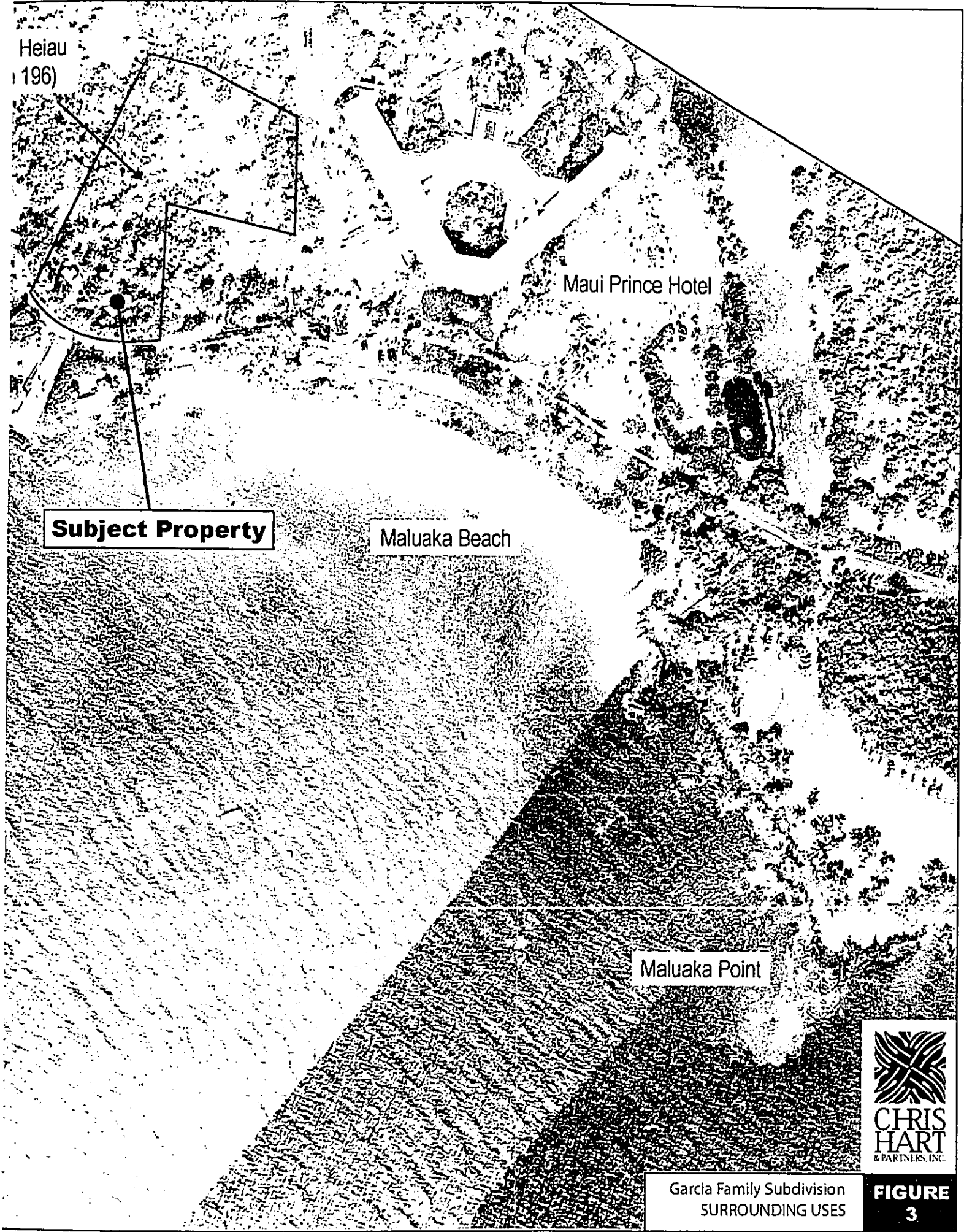


FIGURE 2

DEPARTMENT OF TAXATION PROPERTY ASSESSMENT DIVISION TAX MAPS BRANCH STATE OF HAWAII TAX MAP SECOND TAXATION DIVISION			NOT TO SCALE FEET	AUGUST 2002	N	
TAX MAP KEY TMK:2-1-007:067			CHRIS HART & PARTNERS			
ZONE 2	SEC. 1	PLAT 07				

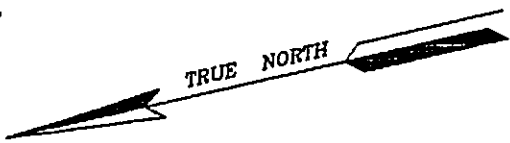


1997 Aerial Photo



Garcia Family Subdivision
SURROUNDING USES

FIGURE
3

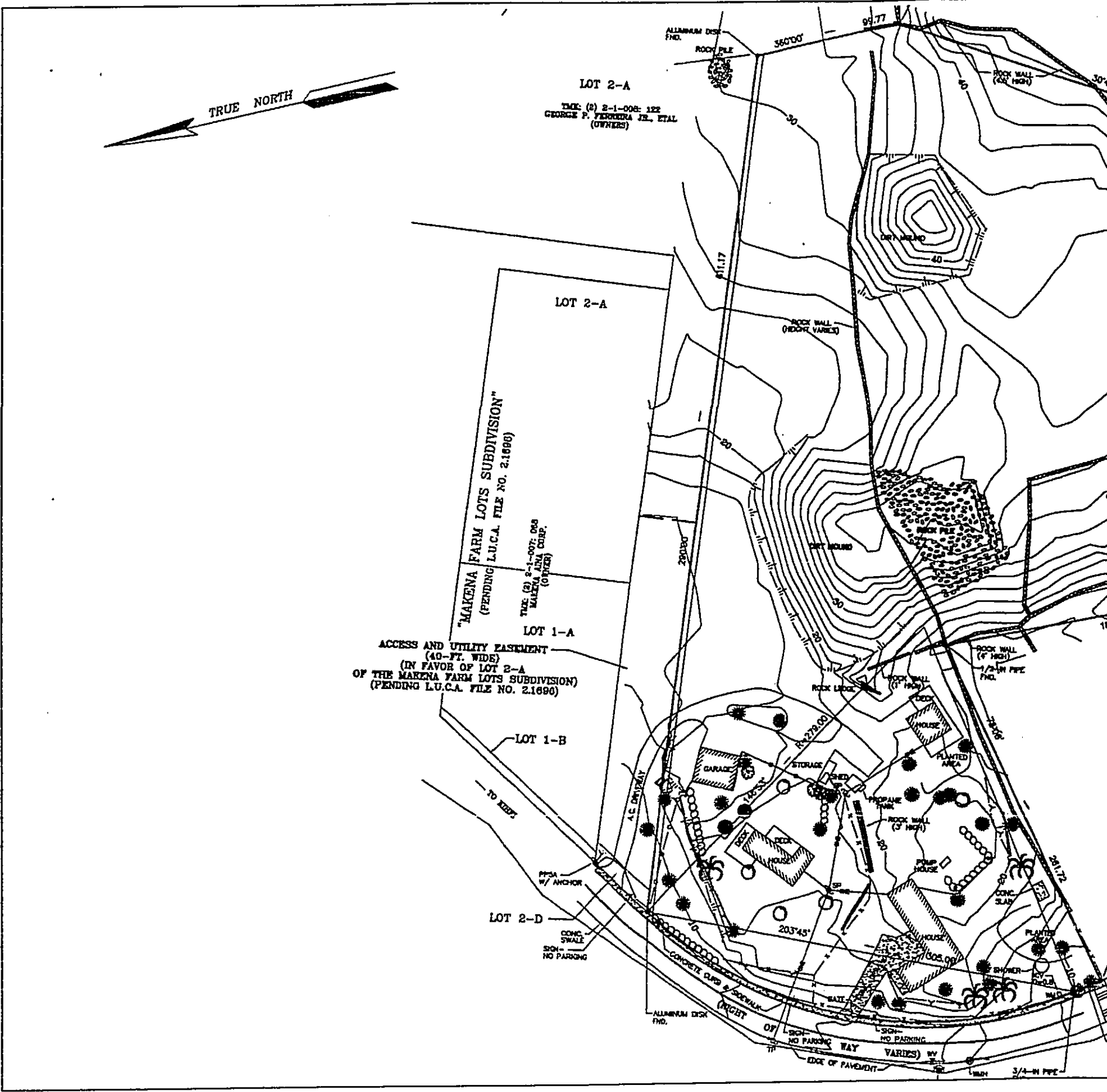


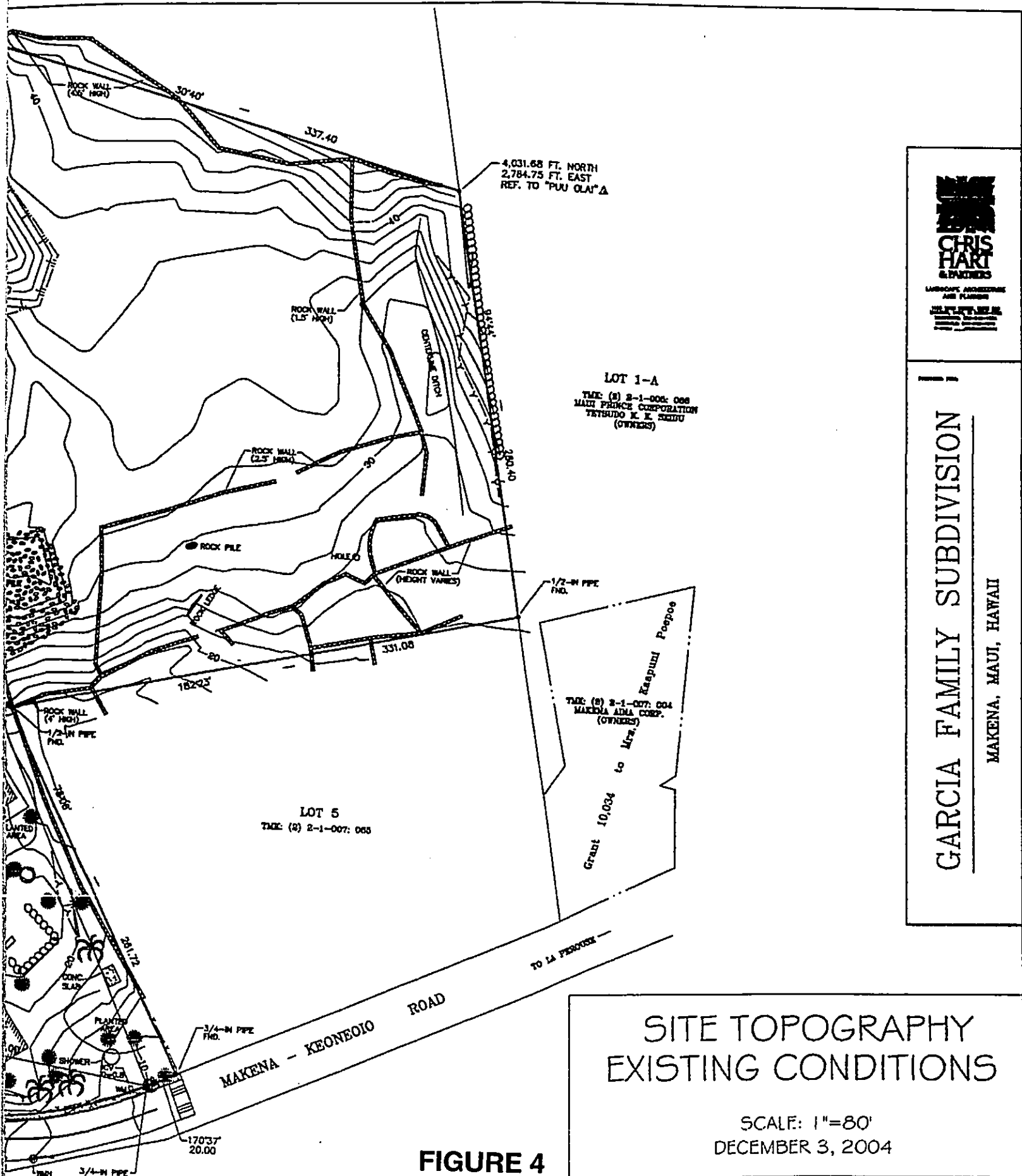
LOT 2-A
T.M.C. (S) 2-1-008: 122
GEORGE P. FERREIRA JR., ETAL
(OWNERS)

"MAKENA FARM LOTS SUBDIVISION"
(PENDING L.U.C.A. FILE NO. 2.1690)
T.M.C. (S) 2-1-007: 060
MAKENA FARM CORP.
(OWNER)

ACCESS AND UTILITY EASEMENT
(40-FT. WIDE)
(IN FAVOR OF LOT 2-A
OF THE MAKENA FARM LOTS SUBDIVISION)
(PENDING L.U.C.A. FILE NO. 2.1690)

LOT 2-D
CONC. SWALE
SIGN - NO PARKING





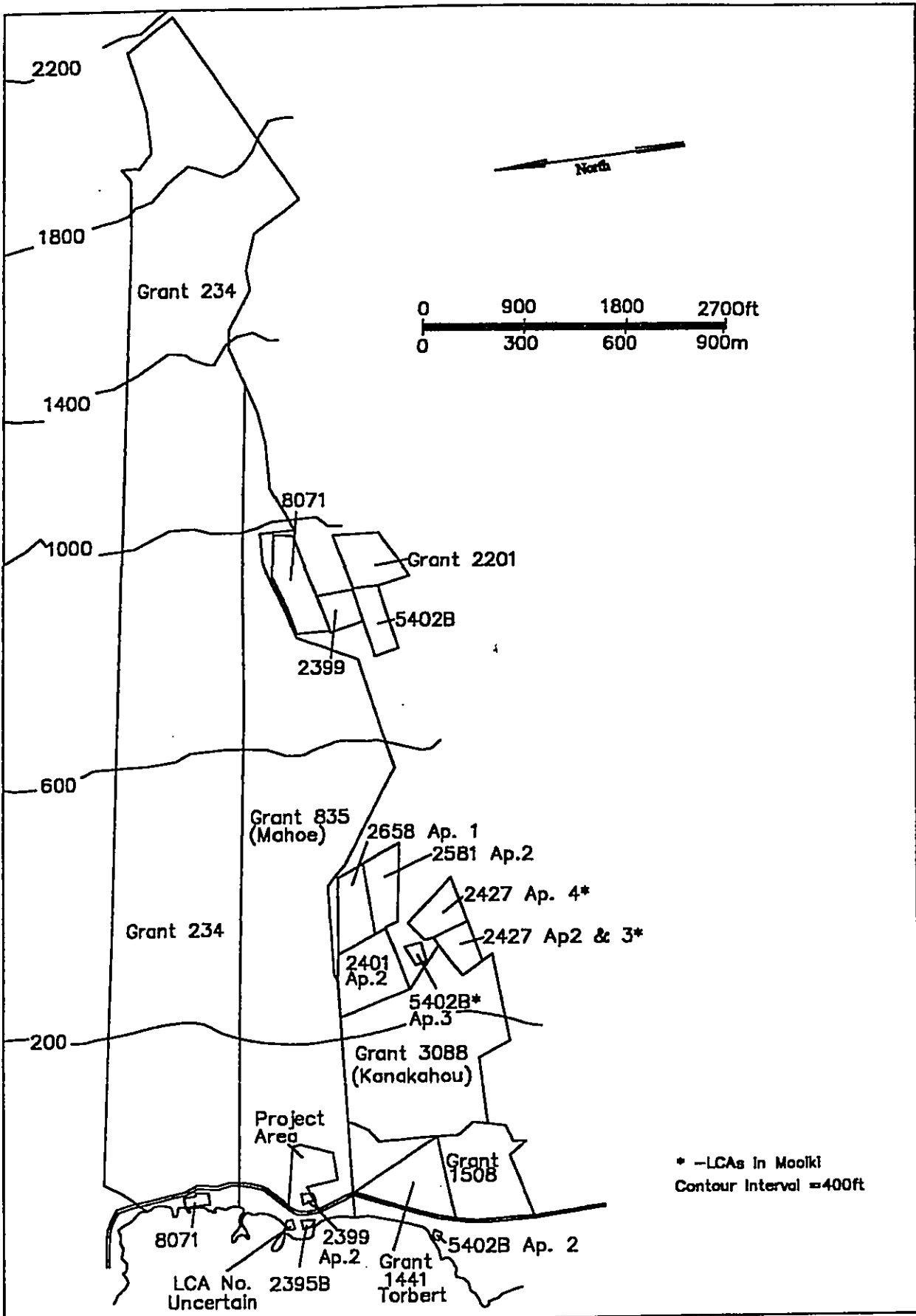


Figure 5 Land Commission Awards and Grants
 Source: Haun and Associates

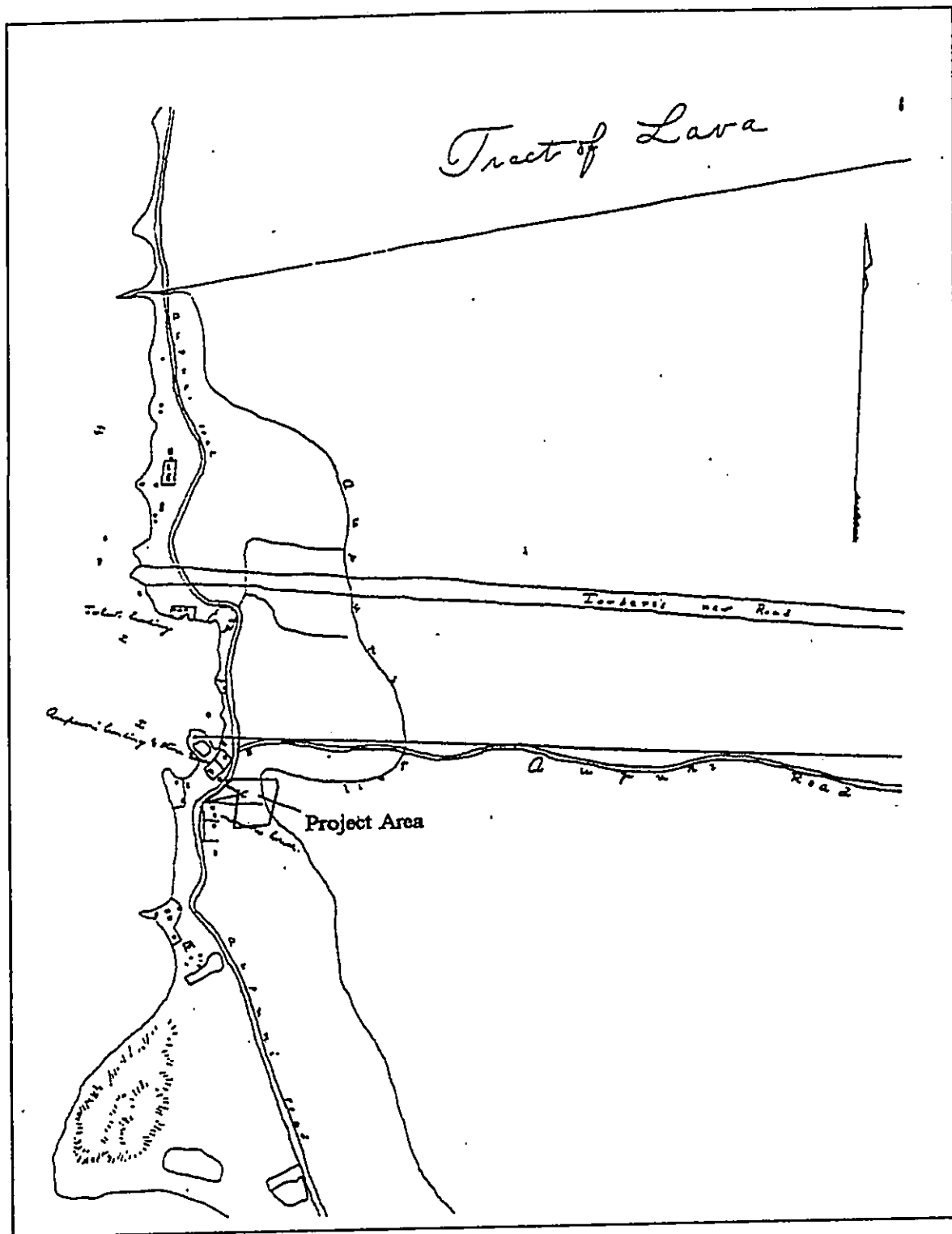


Figure 6 A Portion of Torbert's Plantation Map, c. 1848-1856
Source: Haun and Associates

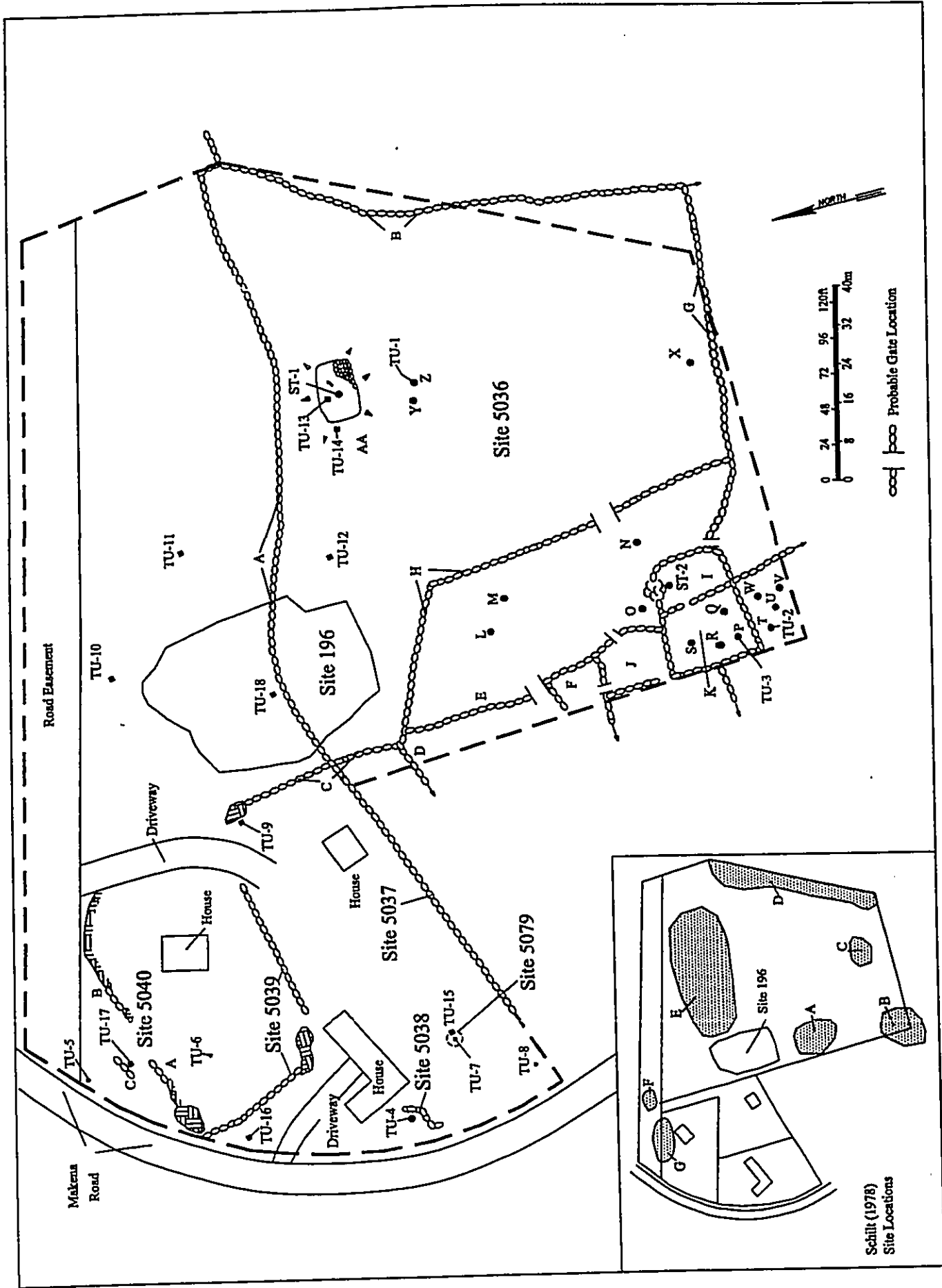


Figure 7 Site Location Map -- Archaeological Sites
 Source: Haun and Associates

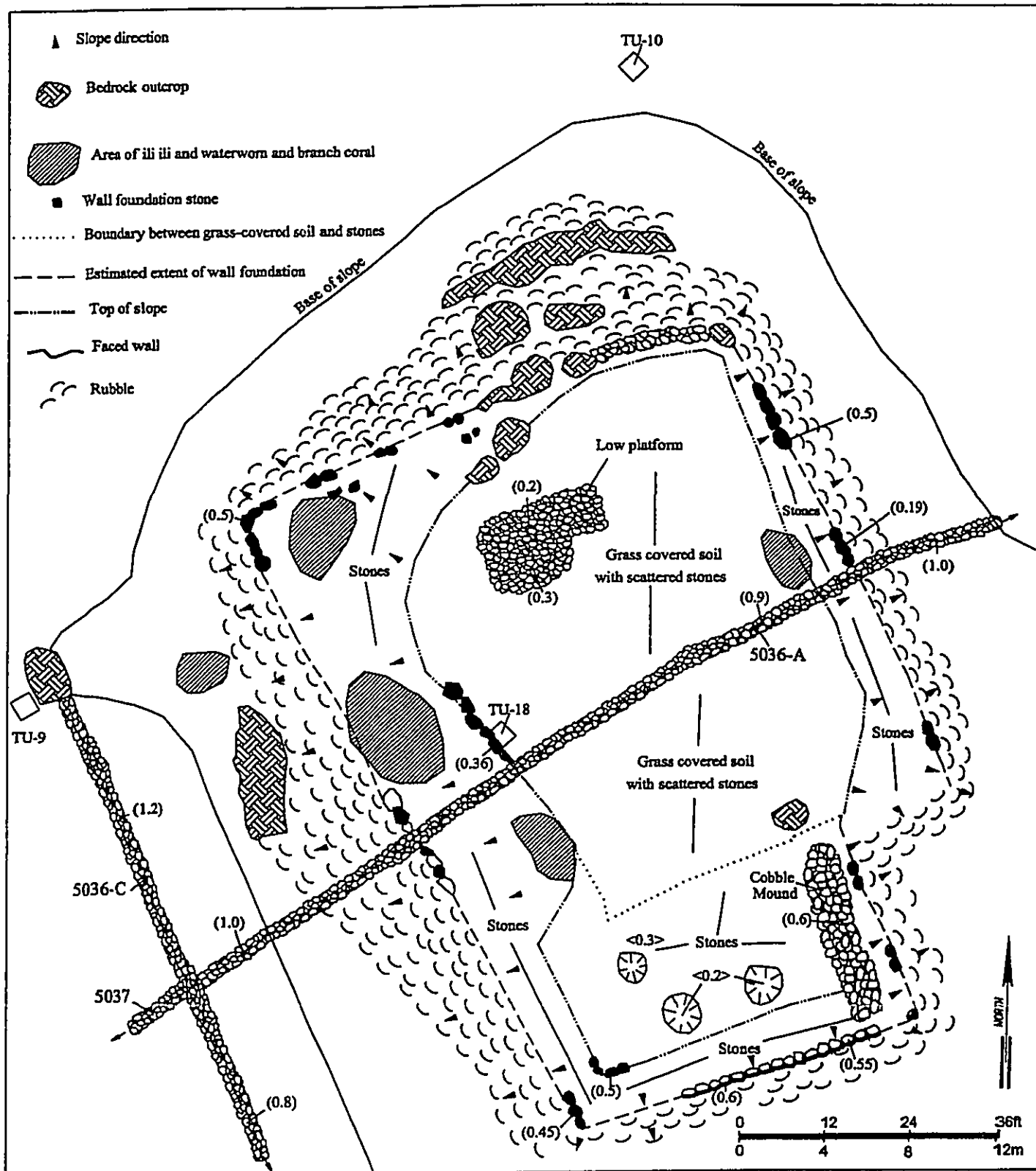


Figure 8 Site 196 Kalani Heiau Plan Map
 Source: Haun and Associates

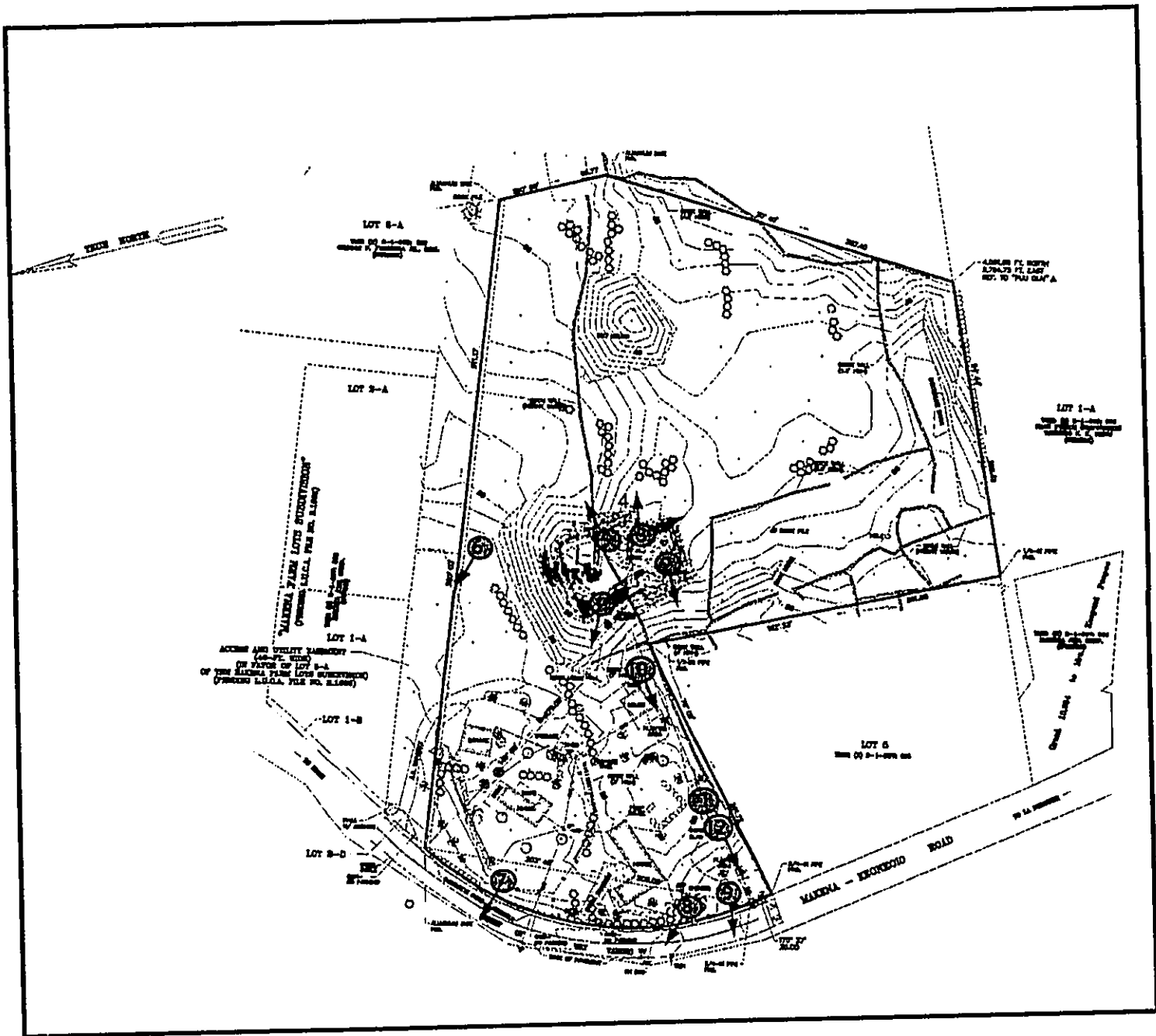


Figure 9a

PHOTO KEY

Garcia Subdivision

12/2004

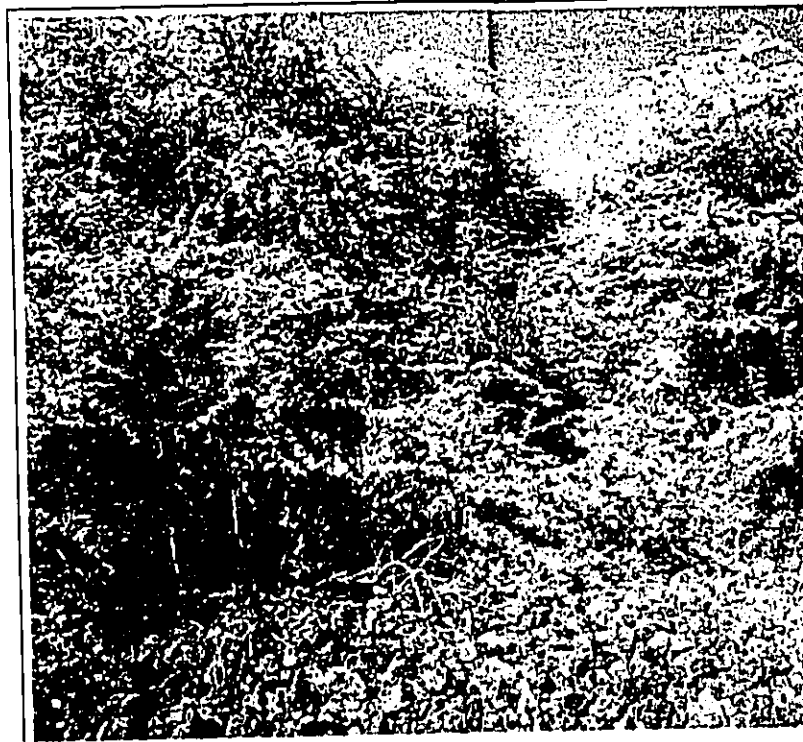
NOT TO SCALE



**CHRIS
HART
& PARTNERS**



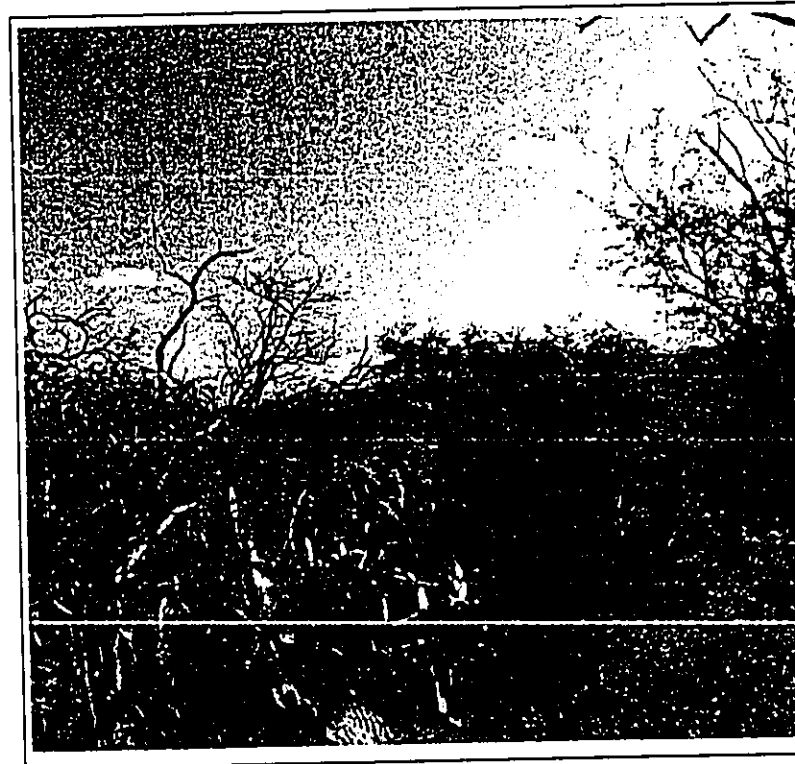
1. View from Site 196, Kalani Heiau, looking makai (west).



2. View from Site 196, Kalani Heiau, looking makai (west).



4. View from Site 196, Kalani Heiau, looking east towards Feature AA.



5. View from Kalani Heiau looking east, towards Haleakala



looking makai (west).



3. View from Site 196, Kalani Heiau, looking south towards the Maui Prince Hotel.



east, towards Haleakala.



6. View towards Keawala`i Church, across public parking lot.

Figure 9b

PHOTOGRAPHS

Garcia Subdivision

12/2004



**CHRIS
HART
& PARTNERS**



7. View towards the ocean accross parcel no. 2-1-7:070.



8. Vegetation and structures on makai side of Makena-Keo



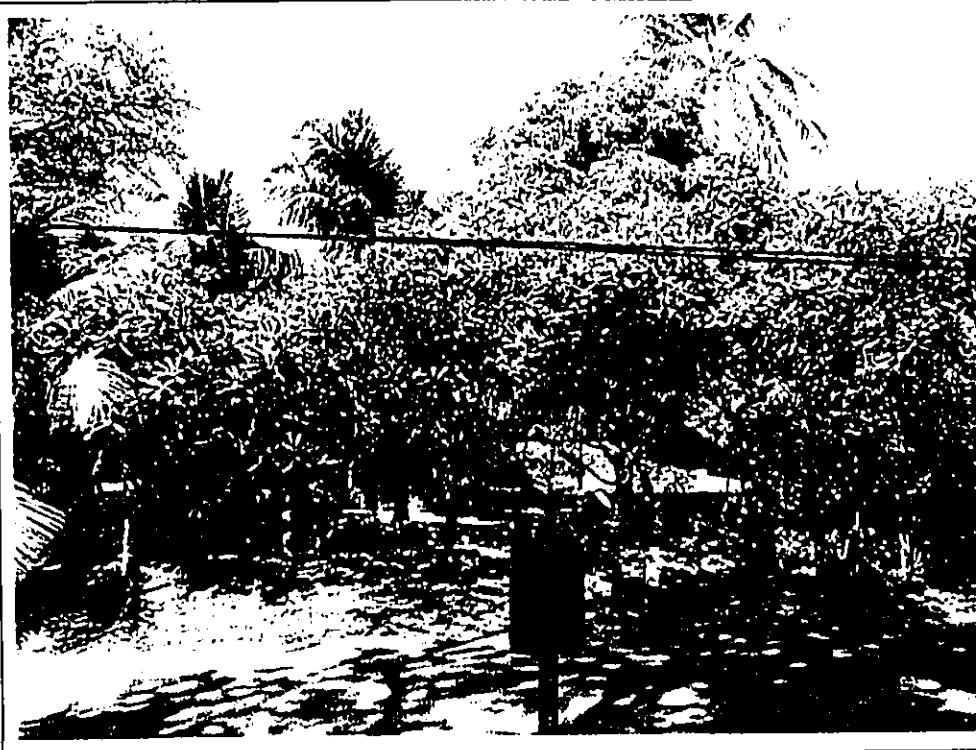
10. View towards the ocean along future visual corridor.



11. View towards the ocean along future visual corridor.



Left side of Makena-Keoneoio Road.



9. View towards the ocean across parcel no. 2-1-7:003.



Future visual corridor.



12. View (zoom version) towards the ocean along future view corridor.

Figure 9c

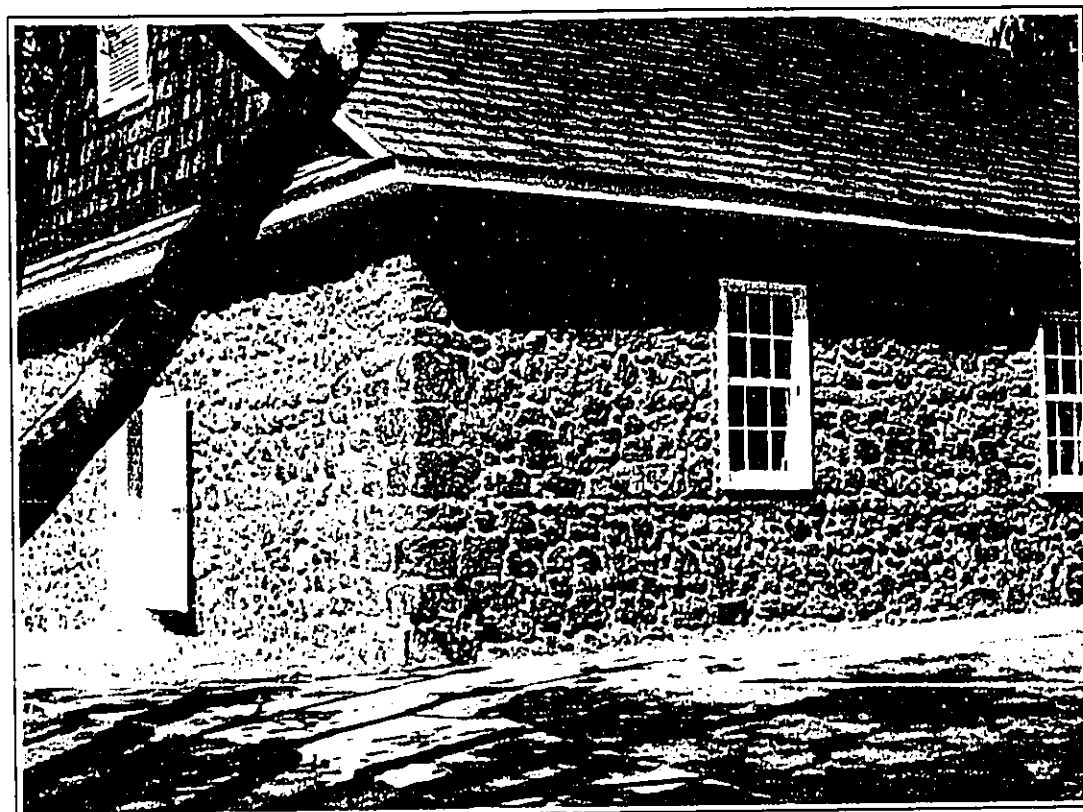
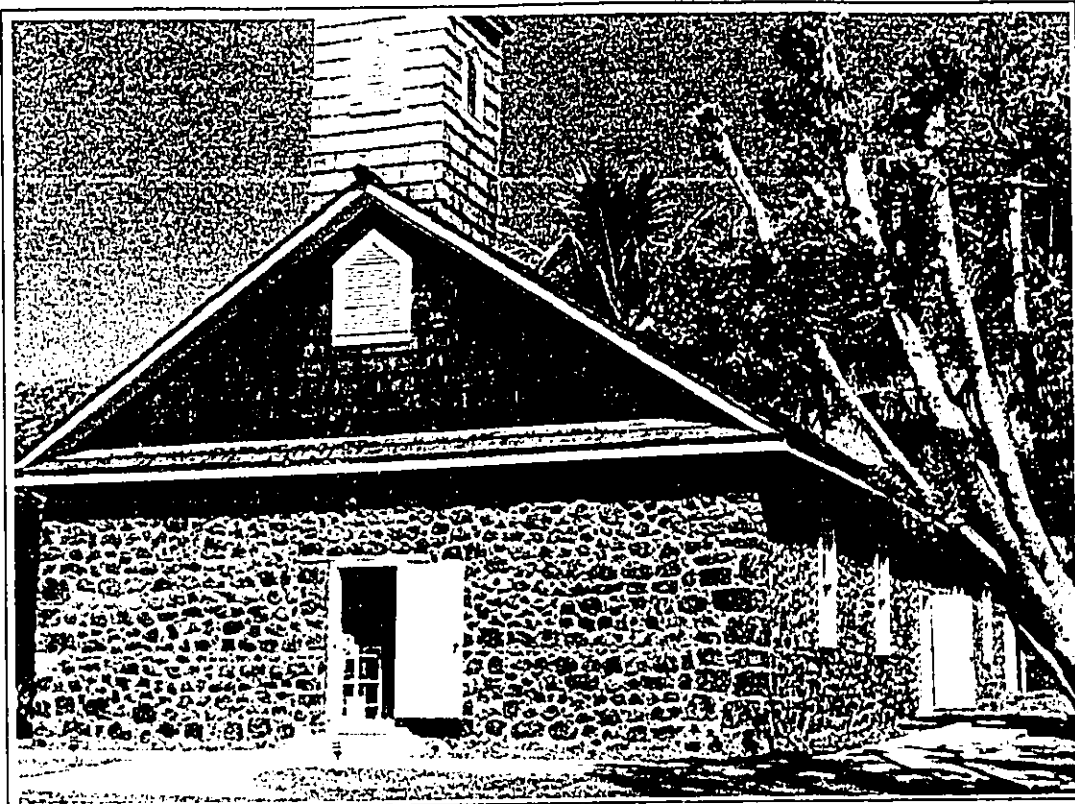
PHOTOGRAPHS

Garcia Subdivision

12/2004



**CHRIS
HART
& PARTNERS**



Kewala'i Church (established 1832) - Recent renovations have exposed original rock wall construction.

Figure 9d

PHOTOGRAPHS

Garcia Subdivision

12/2004

NOT TO SCALE



**CHRIS
HART
& PARTNERS**

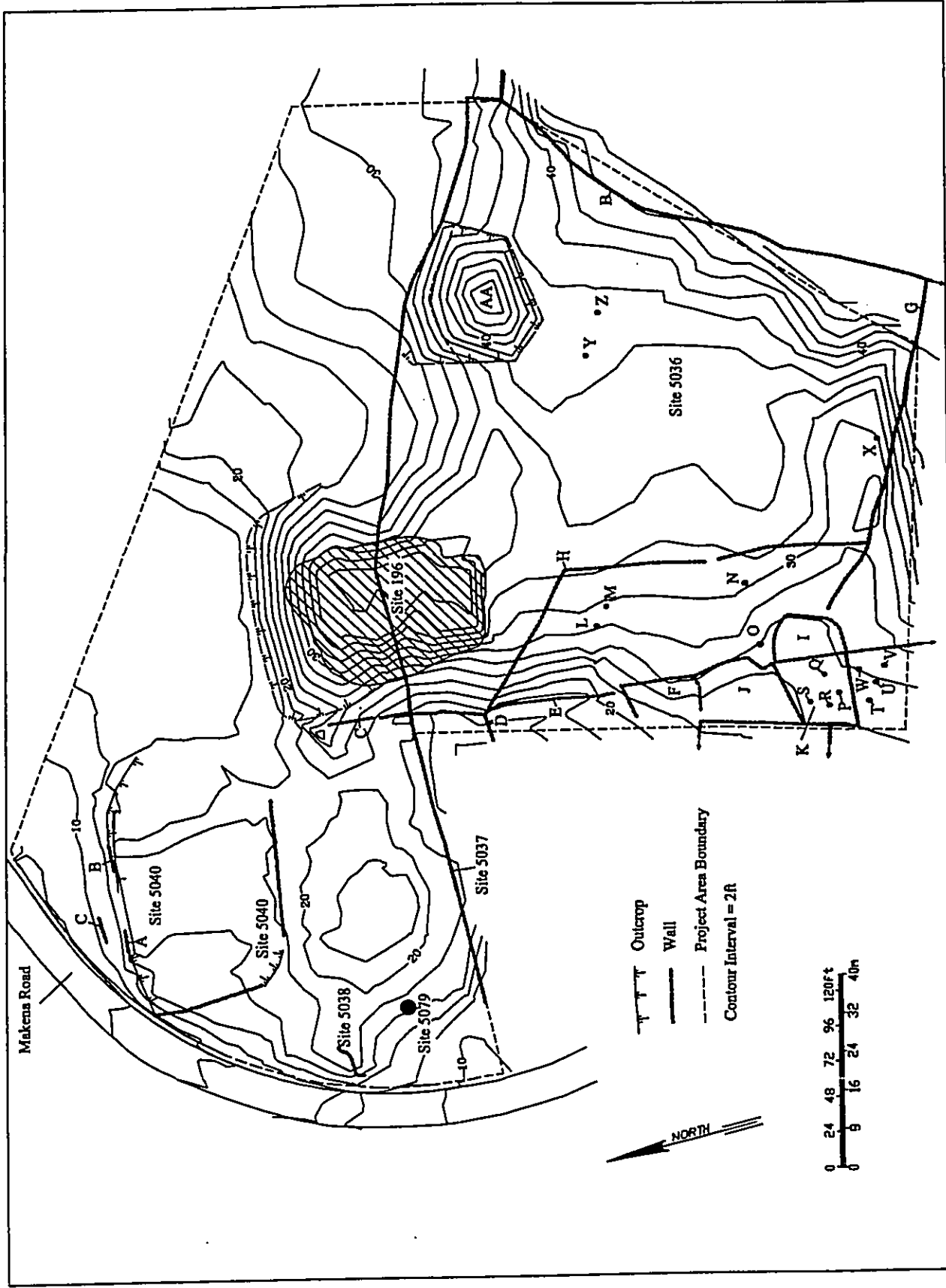


Figure 10 Topographic Map of Project Area
 Source: Haun and Associates



LOT 2-A
TAX: (3) 2-1-000: 122
GEORGE P. FERREIRA JR., ETAL
(OWNERS)

LANDSCAPE EASEMENT AREA

LOT 2-A

"MAKENA FARM LOTS SUBDIVISION"
(PENDING L.U.C.A. FILE NO. 2.1896)

TAX: (2) 2-1-000-000
MAKENA FARM CORP.
(OWNER)

LOT 1-A

ACCESS AND UTILITY EASEMENT
(40-FT. WIDE)
(IN FAVOR OF LOT 2-A
OF THE MAKENA FARM LOTS SUBDIVISION)
(PENDING L.U.C.A. FILE NO. 2.1896)

LOT 1-B

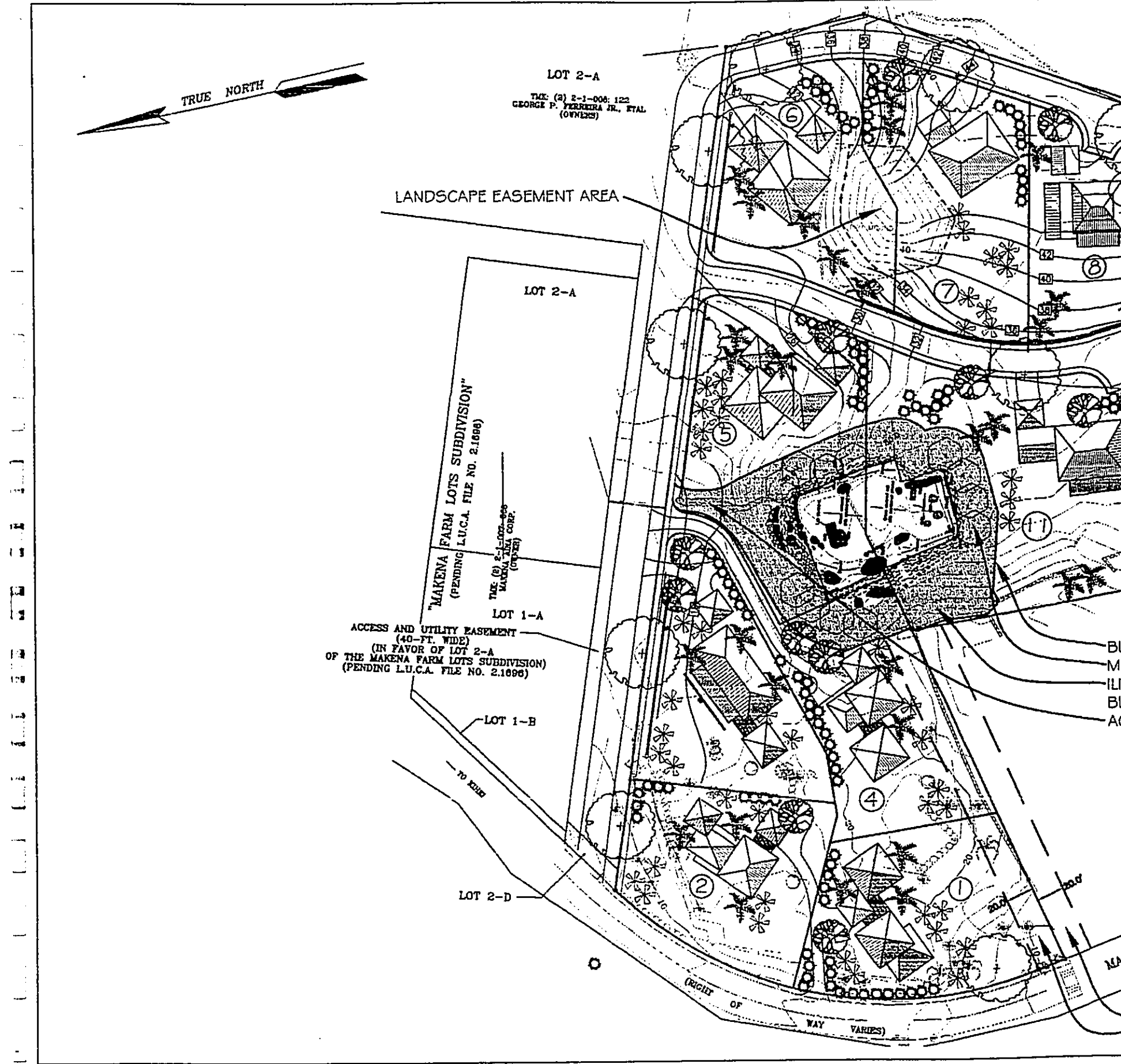
TO ROAD

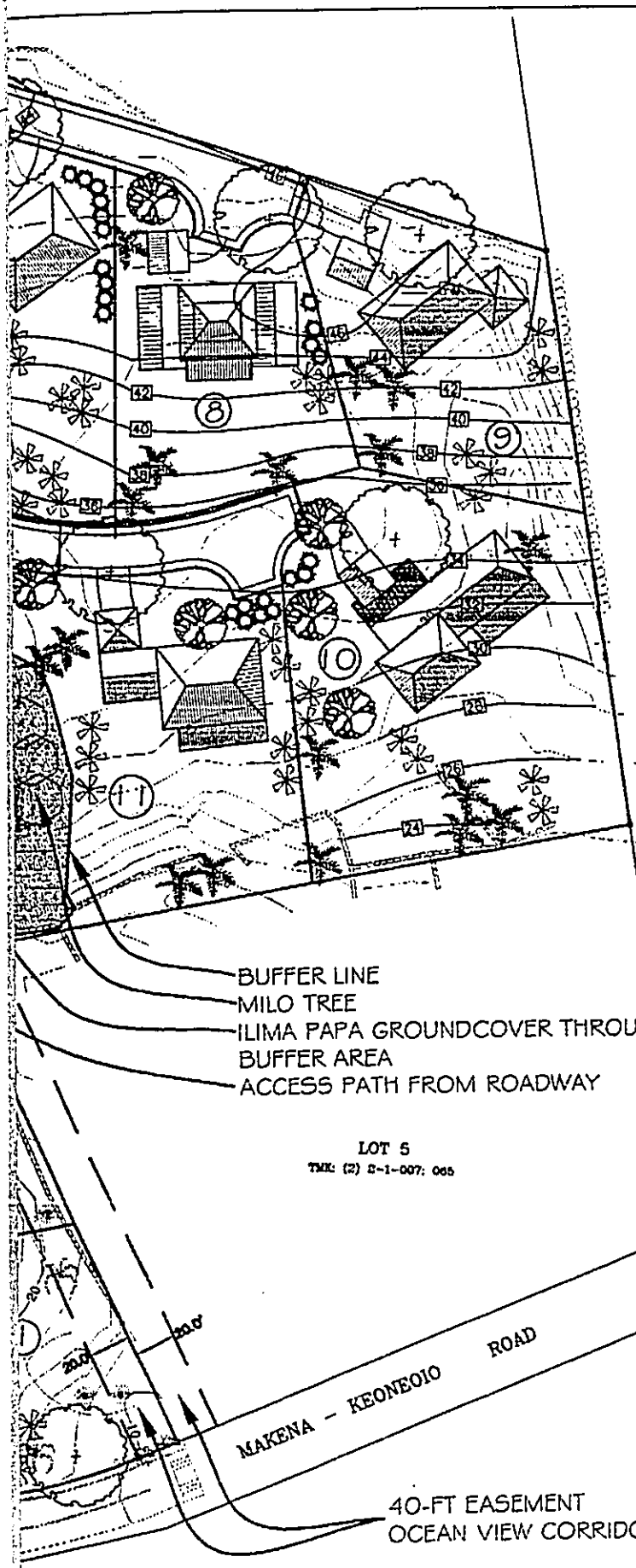
LOT 2-D

(RIGHT OF WAY VARIES)

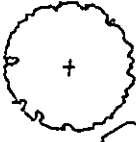





BL
M
IL
B
A

MA





Plant Legend

-  Monkey Pod
-  Milo Tree
-  Plumena Tree
-  Coconut Palm
-  Manila Palm
-  Areca Palm / MacArthur Palm

LOT 1-A
 T.M.C. (2) 2-1-006: 006
 MAUI PRINCE CORPORATION
 TETSUDO K. K. SUGIBU
 (OWNERS)

BUILDING FLOOR AREAS

LOT# & APPROX. FLOOR AREA

1	- 4550 sq.ft.
2	- 4555 sq.ft.
3	- 4900 sq.ft.
4	- 4470 sq.ft.
5	- 5000 sq.ft.
6	- 4900 sq.ft.
7	- 4880 sq.ft.
8	- 4610 sq.ft.
9	- 4610 sq.ft.
10	- 3400 sq.ft.
11	- 3025 sq.ft.

Grant 10,004 to Mrs. Keopuul Poepoe
 T.M.C. (2) 2-1-007: 004
 MAKENA AINA CORP.
 (OWNERS)

LOT 5
 T.M.C. (2) 2-1-007: 005



GARCIA FAMILY SUBDIVISION

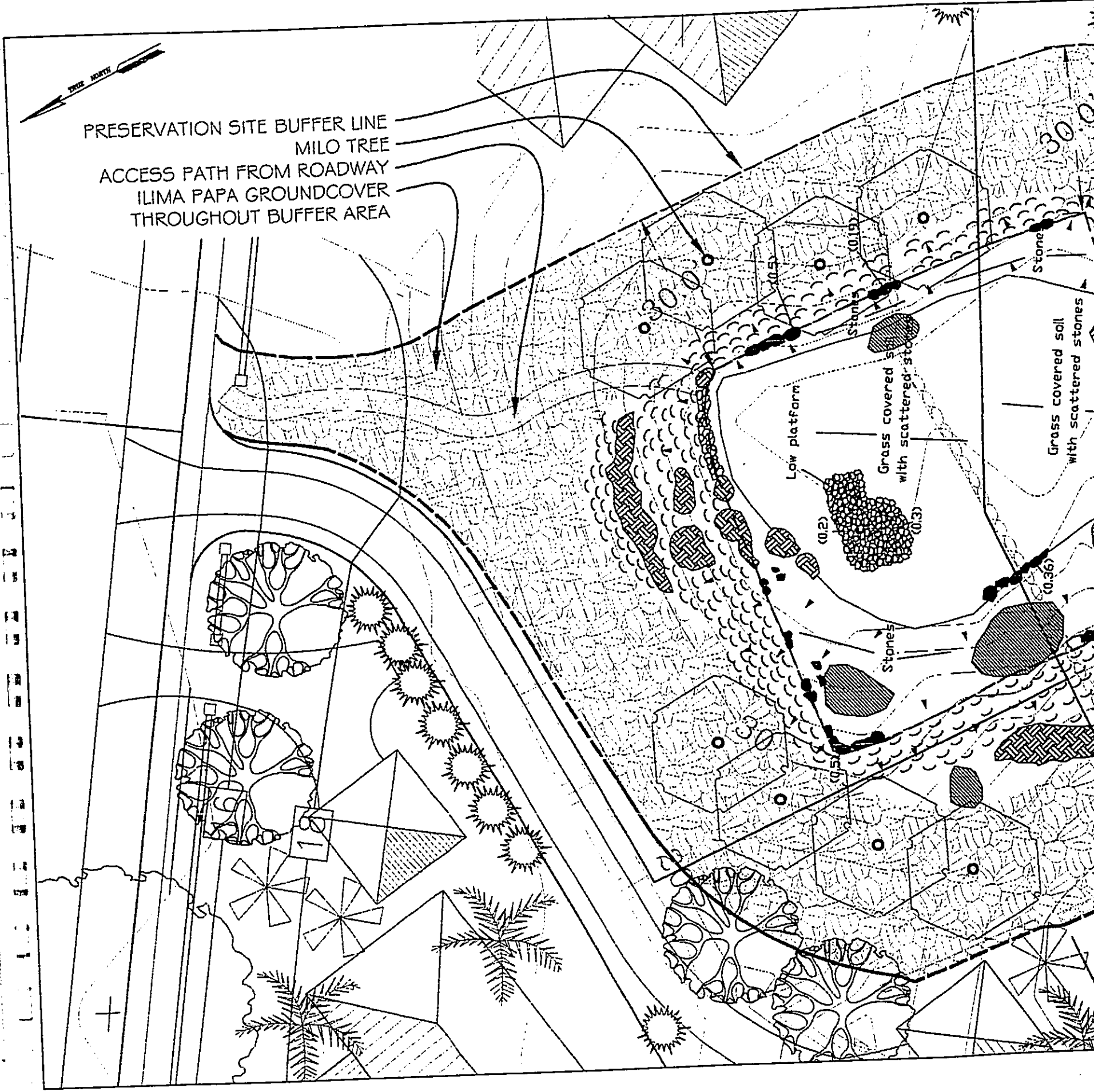
MAKENA, MAUI, HAWAII

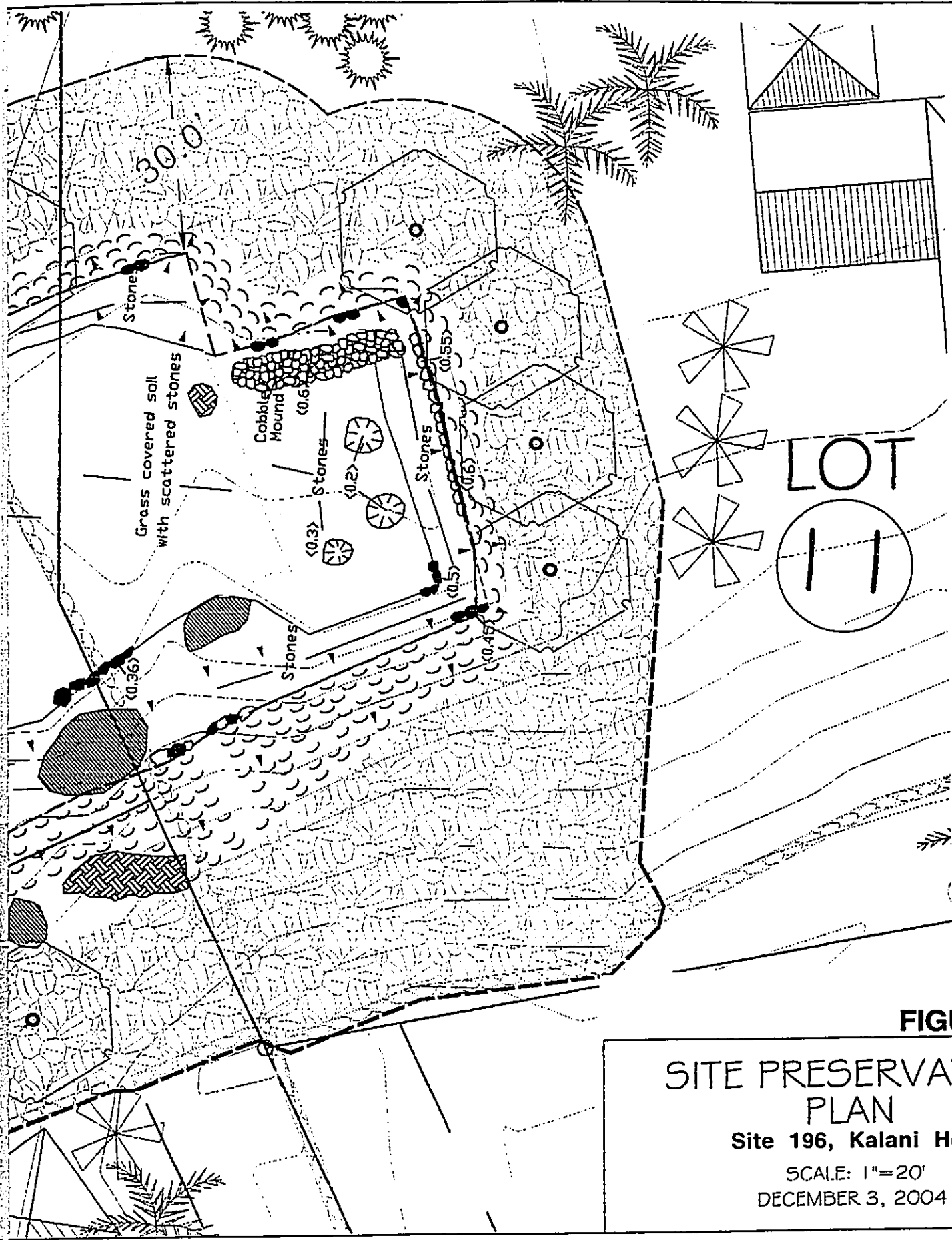
FIGURE 11

SITE PLAN

SCALE: 1"=20'
 DECEMBER 3, 2004

PRESERVATION SITE BUFFER LINE
MILO TREE
ACCESS PATH FROM ROADWAY
ILIMA PAPA GROUNDCOVER
THROUGHOUT BUFFER AREA





GARCIA FAMILY SUBDIVISION

MAKENA, MAUI, HAWAII

FIGURE 12

SITE PRESERVATION PLAN

Site 196, Kalani Heiau

SCALE: 1"=20'
DECEMBER 3, 2004

Appendix A
Revised Addendum
Archaeological Inventory
Survey, July 2004

See Appendix B in Draft EA for:

Revised Addendum Archaeological Inventory
Survey, July 2004

Appendix B
Summary of Interviews with Marie Olsen and
Charles Pili Keau

Summary of Interview with Ms. Marie Olsen
Prepared by Rory Frampton, Chris Hart & Partners, Inc.
March 1, 2003 (revised April 15, 2004)

Interview dates: 10/3/03 and 11/14/03
Site Visit: 11/14/03

Born in Kalihi, Oahu in 1921 (Marie Gomez)
Parents: Louis and Mary Kaleiotioniihau Nuuhiwa (born on Niihau, pure Hawaiian)
Grandfather Kiaina Nuuhiwa (from Niihau)
Married to Williama (Willie) Burns Olsen
Moved to Makena in 1944, lived in the "pill box" at Makena Landing.
In the late 1960s, Marie and Willie moved to the Carter Estate at Keoneoio, where they have been caretakers ever since. Although Willie has passed away, Marie still resides at Keoneoio.

Mr. Olsen was familiar with many archaeological sites in the Keoneoio and Makena areas.

Ms. Olsen has known the Garcia Family since the 1950s. She was a close friend of the family, especially Ms. Marjorie (Moikea) Garcia. She can remember when Ms. Garcia obtained the Makena property from Ulupalakua Ranch as part of a land exchange for mauka land that Ms. Garcia had inherited from her family. This occurred around the late 1950s.

Ms. Olsen has some recollection of uses at the site prior to the Garcia's acquiring ownership of the property. She recalls that the property was a place where people use to go to get mail. She remembers hearing that there used to be a post office or mail collection and drop off site on the property prior to her arriving in Makena. She recalls seeing an old photo that her husband had of a lady standing near the mail box shack.

When the property was owned by Ulupalakua Ranch it also was used for cattle operations. She remembers that David Lono lived right near the property and the Peters family also had a house there. A number of stone walls and pens had been built on the site and in the surrounding area for cattle ranching.

Prior to the Garcia's acquiring the property, she was aware that there were remains of a heiau on the property, however, she was not aware of anyone who would go down to visit or take care of the site. She is also not aware of anyone who would go to the site to make offerings. She understood that there wasn't much left of the site (that it was "kind of bus' up.")

The Garcia's built their first house on the property in the early 1970s. It was about this time that the Bishop Museum archaeologists were doing archaeological research throughout the Makena area. She was familiar with the archaeologists since they did a lot

of work in the Keoneoio area. Some of the student archaeologists stayed at the Carter estate while working in the area.

Although Ms. Olsen had visited with the Garcia's at their house many times, she had never actually seen the heiau remains up close. It was located behind the Garcia house, in the Kiawe trees. On November 14, 2003, she visited the heiau site with Sam Garcia, Jr. and Rory Frampton of Chris Hart and Partners.

She feels that it is important to preserve the site since it was used by Hawaiians for religious or spiritual practices. She feels it is important to have a visual connection from the site towards the ocean.

She reviewed the preservation plan figures, and was shown the location of the proposed home sites. She was comfortable with the preservation plan, noting that the main thing is to preserve the site and the hill that it sits on. She felt very positive about the potential for the Church to take on a stewardship role in preserving the site. She indicated that the best use of the preservation area would be as an educational tool for children so they can learn about Hawaiian culture and beliefs. It should be preserved for the benefit of the next generation.

While at the site she walked to base of the knoll which is located behind (mauka) the heiau remains. She was not aware of any significance of the knoll. She had never heard of it or whether it had any connection to the heiau site.

Acceptance and Approval of Interview Summary

I have read this summary of my discussions with Mr. Frampton regarding the Garcia property. The summary is an accurate account of the information I discussed at our meetings. I understand that the summary will be included in the Revised Cultural Impact Assessment for the Garcia Family Subdivision, and that it may be used in other matters related to the processing of said subdivision.

Signed,

Marie Olsen 5/8/04
Marie Olsen date

Summary of Interview with Mr. Charles Pili Keau
Prepared by Mr. Rory Frampton, Chris Hart & Partners, Inc.
March 1, 2003 (revised April 15, 2004)

Interview dates: 2/6/04 and 2/27/04
Site Visit: 2/27/04

Mr. Keau was born in 1927 in Wailuku, Maui. His parents were Annie Faustin & Charles Pili Sr., after his father died, his mother re-married to David Keau who became his stepfather. He was raised in Pi`ihana.

Mr. Keau has had extensive experience documenting and researching archaeological sites on Maui, especially in the Honua`ula area. In the 1970s Mr. Keau worked with Bishop Museum on a State sponsored survey of archaeological features on Maui, Kaho`olawe and Moloka`i. The project involved attempting to locate and document sites which had been previously identified by Winslow Walker in the early 1930s. The Kalani Heiau (Site 196) was one of the Walker sites that Mr. Keau worked on. After the completion of the Bishop Museum project, Mr. Keau worked for various private archaeological consulting firms. Projects in which Mr. Keau was involved included surveys for the Wailea and Makena Golf Courses.

Mr. Keau has also worked on oral history projects for the Maui Historical Society. In this capacity he interviewed and collected information from many Kupuna from all over the Island of Maui.

Mr. Keau is a close friend of Sam Garcia Sr. He used to visit with Mr. Garcia at the Garcia's property while working in the Makena area. They had spoken of the Garcia family's desire to develop the property. They had discussed the presence of the heiau remains and both were in agreement that the site should be preserved with the understanding that there was enough room on the property to accommodate additional development as well as preservation of the heiau site.

He noted that the heiau is considered a "good" heiau, that is, not the kind that would make you get hurt. It has good mana or energy. He also noted that the name given to the heiau, Kalani, is that of a family from the area (David Lono's). He notes that this makes it more difficult to determine what type of function it may have had. Some heiau have Hawaiian names that will provide an understanding of the type, function or significance of the site.

Although he spent considerable time at the site in the 1970s, he was not aware of any significance attributed to the knoll which is located mauka of the heiau remains. Although he was aware of the complex of walls located behind David Lono's house (near the boundary of the Lono and Garcia properties), he does not recall the knoll or anyone attributing significance to the knoll, especially as it relates to the Heiau site.

Mr. Keau has reviewed the Archaeological Report, Addendum Report and Draft Preservation plan prepared by Haun and Associates. He has also reviewed letters written by SHPD (dated 10/23/03), Ms. Dana Hall (dated 7/22/03) and Ms. Theresa Dunham (dated 7/14/03). Mr. Keau visited the site on February 27, 2004 with Mr. Sam Garcia, Jr. and Mr. Rory Frampton of Chris Hart & Partners. Mr. Keau examined the remains of the Heiau site as well as the knoll. He also reviewed the project site plan, the proposed preservation plan, and the physical location of the proposed homes and access road.

After reviewing the data within the addendum report as well as visiting the site, Mr. Keau noted that it will be extremely difficult, if not impossible, to determine what type of use or function the knoll (Feature AA) may have had or if it had any connection to the heiau. This is due to the lack of conclusive physical evidence. Attempting to assign a particular function or significance to the knoll will be subjective. He added that the knoll could have had different uses over time.

In terms of the preservation plan for the heiau site, he feels it is important to maintain a visual connection to the ocean. This allows for a spiritual connection or alanui (road or path) to the sea. The area encompassing the remains of the heiau, should be left as is, with no planting or landscaping. It would be good to keep the area clear of weeds. He noted that there is very little remaining of what would have been there in the past, and the site itself has very little to preserve, however, "what you see is what you get." He is comfortable with the proposed preservation plan as shown on the amended site plan dated February 2004.

Mr. Keau noted that there is very little archaeological material at the knoll (Feature AA) and that it is not the type of feature that would normally be preserved. The feature may have been in some way connected to the heiau site, however, many other things in the area, both natural and man-made, would have been as well. The entire regional setting would have been important. He noted that in looking at the property in today's setting, he does not feel that preservation of the knoll should be required. He was shown the revised site plan which would preserve the knoll as a landscape feature and thought that it was a good idea in terms of enhancing the site plan. He is not opposed to fill being placed around the mauka slope of the knoll.

Mr. Keau is supportive of the possibility that Keawala'i Church members may malama or take care of the heiau site. It would provide a good opportunity to teach the younger generation about Hawaiian culture and archaeology.

He also recommended that an archaeologist be present while performing ground disturbance work at the property.

Acceptance and Approval of Interview Summary

I have read this summary of my discussions with Mr. Frampton regarding the Garcia property. The above summary is an accurate account of the information I discussed at

Interview Summary: Mr. Charles Pili Keau
Dated: March 1, 2003 (Revised April 15, 2004)
Page 3

our meetings. I understand that this summary will be included in the Revised Cultural Impact Assessment for the Garcia Family Subdivision, and that it may be used in other matters related to the processing of said subdivision.

Signed,

 7/22/04
Charles Pili Keau date

Appendix C
Correspondence with
Keawala`i Church

July 1, 2004

Board of Trustees
C/o The Rev. Kealahou C. Alike
Keawala'i Congregational Church
5300 Makena Road
Makena, HI 96753

Dear Kahu Alike and Members of the Board of Trustees:

Re: Kalani Heiau Preservation Plan and the proposed Garcia Family Subdivision

We would like to thank you for the opportunity to meet with the Board of Trustees on Sunday February 29, 2004, to discuss the Kalani Heiau Preservation Plan and the Garcia Family Subdivision. We also thank you for Kahu Alike's letter dated April 27, 2004, which noted that the Board of Trustees is interested in establishing a partnership regarding the care of the Kalani Heiau. This letter will provide a brief background on our subdivision plans and information we have obtained regarding the heiau. It will also outline some of the options which we discussed regarding participation by the Church (or some of its members) in the Preservation Plan.

Proposed Subdivision. At the February meeting, we presented a brief description of our proposed subdivision. (See enclosed figure.) Our property is 5.5 acres, our plans would establish eleven residential lots averaging about a ½ acre per lot. Future lot purchasers would be allowed to build one single family home per lot.

We acknowledge the Church's request to provide notice to future buyers that they will be living next to an active Church. We have agreed to provide such notification to future buyers and will keep the Church apprised of the mechanism we use.

The remains of the Kalani Heiau is situated on top of a small hill near the center of the property's northern boundary. As part of the subdivision, an archaeological preservation area will be created which will encompass the remains of the heiau as well as a landscaped buffer area.

Kalani Heiau. The Kalani Heiau was identified in one of the earliest comprehensive archaeological investigations on Maui, conducted by Winslow Walker in the early 1930s. Other investigations occurred in 1970s. Recent studies by Haun & Associates, an archaeological firm which we have hired, include an Inventory Survey and Addendum report.

Board of Trustees
Keawala'i Congregational Church
Re: Garcia Subdivision and Kalani Heiau
July 1, 2004
Page 2

The heiau site has been extensively disturbed over time. The site consists of the remains of a notched stone cobble platform. A ranch wall extends through and across the top of the site. The sides of the structure are collapsed, although the original structure appears to have measured approximately 116 ft long by 81 feet wide. In 1931 Walker described the site as "[a] large heiau said to be of sacrificial class but now reduced largely to a shapeless pile of rocks. ... No walls are in evidence" (1931:267) (We have attached pages 4,5 and 10 of the Addendum Archaeological Survey by Haun & Associates for a more complete description and illustration of the site as it exists today.)

Although Walker described the heiau as being of the sacrificial class, this is not certain. The site has not been used for ritual purposes for a number of generations. The name Walker used to identify the heiau, Kalani, is that of a family from the area (David Lono's). This does not help ascertain what type of function it may have had. Some heiau have Hawaiian names that will provide an understanding of the type, function or significance of the site. Unfortunately, this is not the case here.

We also noted the possibility that the stones from this heiau could have been used as part of the original construction of the Church. The project archaeologist has noted the absence of stones at the heiau site that would have been used to construct the vertical walls. These are the very size and shape of the stones which were recently exposed as part of the renovation of the Church's exterior walls. At this point, we have no direct evidence that this indeed took place, however, it provides for a probable explanation of the source of stones used for the church construction as well as an explanation of what happened to the stones which once comprised the walls of the heiau. It would be interesting to research the Church's records to see if there were any mention of the heiau at the time of the Church's inception.

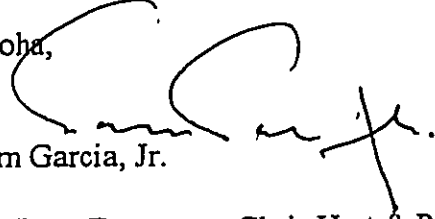
Preservation Plan. As shown on the enclosed site plan, the preservation area would have a pedestrian access to the roadway which will run along the property's northern boundary. The care and maintenance of the landscape plantings which comprise the buffer area will be the responsibility of the future subdivision's homeowners association.

With regards to the stewardship role of the Church, this could take place in a number of different ways. The Church's role could be more of a passive caretaker or, alternatively, maybe some type of restoration project could take place. (As we mentioned, any type of restoration would require involvement by qualified archaeologists and would likely require approval by the State of Hawaii Historic Preservation Division.) We are aware that the Church is considering including a cultural center as part of the future plans for the Ferreira property. The heiau site could be a component of the cultural center by providing for interpretative learning experiences. The type of role the Church would play is really up to the Church and its members.

Board of Trustees
Keawala'i Congregational Church
Re: Garcia Subdivision and Kalani Heiau
July 1, 2004
Page 3

We were excited to hear about the Board's decision to pursue discussions on this matter. Perhaps we could continue these discussions at the next available Board meeting. On behalf of my brother John and myself, we would like to thank you again for your interest in this matter and we look forward to working with the Board in the near future.

Aloha,


Sam Garcia, Jr.

cc: Rory Frampton, Chris Hart & Partners
Allan Haun, Haun & Associates

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

Appendix D
Draft EA Comment Letter from Dana Hall
11/7/02

DANA NAONE HALL

2087 WELLS STREET
WAILUKU, MAUI, HAWAII 96793
(808) 244-8017
FAX (808) 244-6775

NOV 7 12:55

November 7, 2002

Via Hand Delivery

John E. Min, Planning Director
County of Maui
Planning Department
250 South High Street
Wailuku, Maui, HI 96793

Re: Comments on Draft Environmental Assessment for the Garcia
Family Subdivision Proposed by Samuel Garcia, Jr. & Jon Garcia;
TMK No. (II) 2-1-007:067, Makena, Maui, Hawaii

Dear John E. Min:

These comments are submitted on behalf of Hui Alanui o Makena, Dana Naone Hall and Leslie Kuloloio on the Draft Environmental Assessment ("DEA") for the Garcia Family Subdivision, designated as TMK No. (II) 2-1-007:067 ("Parcel 67"). Hui Alanui o Makena is a Native Hawaiian organization dedicated to protecting and preserving Native Hawaiian rights and interests, including archaeological, cultural and historic resources. Leslie Kuloloio and Dana Naone Hall individually and as members of Hui Alanui o Makena are vitally concerned about the identification and proper treatment of Native Hawaiian archaeological, cultural and historic sites and resources.

Hui Alanui o Makena ("Hui"), Hall and Kuloloio's comments are directed to the person and entity identified as the approving agency/ accepting authority for this project in "The Environmental Notice" dated October 8, 2002, with copies to the applicant, in accordance with Hawaii's "Environmental Impact Statement Rules," HAR §11-200-22(b). This submittal is without prejudice to our view that the approving agency/ accepting authority has not been properly identified and should be the Maui Planning Commission.

The Hui, Hall and Kuloloio's comments address the following specific sections of the DEA.

II. DESCRIPTION OF THE PROPERTY AND PROPOSED ACTION

D. Description of Proposed Action

... Lots 10 and 11 will be limited to one story in order to preserve views for lots 7, 8 and 9. (See page 4.)

A similar provision limiting residences on Lots 1 through 4 to one story in height should be incorporated into the proposed project in order to preserve views from Kalani Heiau and to maintain the knoll on which the heiau is located as a prominent feature of the physical and cultural landscape. For those who visit the heiau for traditional and customary or other purposes, the views from the heiau are an integral part of the experience of this important site.

III. DESCRIPTION OF THE EXISTING ENVIRONMENT, POTENTIAL IMPACTS AND MITIGATION MEASURES

A. Physical Environment

7. Archaeological/Historical Resources

The DEA relies on an archaeological inventory survey of the subject property conducted by Haun & Associates, and a May 10, 2001 letter from the State Historic Preservation Division, which accepts the archaeological inventory survey report and requires the submittal of a data recovery plan and a preservation plan for Kalani Heiau (see Appendices A and B). As will be discussed in detail later, the Haun archaeological inventory survey does not identify all of the archaeological and cultural sites and features present on the property. Furthermore, the boundaries for Kalani Heiau (Site 196) have not been adequately determined nor have an appropriate buffer and other necessary mitigation measures been approved for the site.

8. Visual Resources

Existing Conditions. The subject property is located within the destination resort area of Makena, which is renowned for its significant views of the Pacific Ocean and Haleakala. The Pacific Ocean and the islands of Molokini and Kaho'olawe are visible from the property. (See page 12.)

The knoll on which Kalani Heiau is situated and an adjacent knoll located to the east (mauka) offer panoramic views of Haleakala, the surrounding land, the ocean and the islands of Molokini and Kaho'olawe. For ceremonial and religious sites, among others, these visual conditions are an integral aspect of the sites' significance. The proposed project as shown in Figure 11 of the DEA will significantly disrupt the current open view planes from both knolls.

Kalani Heiau's knoll appears to be at approximately the 38-40 foot elevation (see Figure 11 Subdivision Site Plan and Figure 12 Grading Plan). Construction of two-story houses on Lots 1-9 will result in roof lines that are at the level of or higher than the knoll where Kalani Heiau is located.

Residences constructed on Lots 10 and 11 will also result in significant visual obstructions. For example, houses built at the 30-32 foot elevation on Lots 10 and 11 will result in roof lines at approximately the 45-47 foot elevation (30-32 feet, plus 15 feet for a single family residence). In addition, the mauka knoll will be severely compromised by construction of a single-family residence on the knoll itself.

B. Socio-Economic Environment

3. Cultural Resources

The DEA notes on page 15 that the Cultural Impact Assessment Report ("Cultural Report") was prepared by Rory Frampton of Chris Hart & Partners, Inc. This purported Cultural Report (Appendix A) does not comport with the Guidelines for Assessing Cultural Impacts issued by the Environmental Council. The Cultural Report is primarily a regurgitated summary of the Haun Archaeological Inventory Survey Report. In this respect, the Cultural Report is inadequate since the initial archaeological inventory survey failed to identify all of the cultural and historic properties present within the subject parcel.

As an example, Land Commission Award 2399, Apana 2 to Kalili is referred to in the text and shown on Figure 2 in the archaeological report, however, a review of the report's Figure 7 Site Location Map shows that no subsurface testing was conducted in the area of the kuleana. No attempt was made during the inventory survey to determine whether or not any of the walls and/or enclosures located on the property were associated with the kuleana rather than cattle ranching. In fact, no radiocarbon dates were obtained for any of the sites on Parcel 67.

The Environmental Council's Guidelines encourage "field visits by preparers accompanied by informants" and also recommends that individuals interviewed "should be afforded an opportunity to review the record of the interview, and [their] consent to publish the record should be obtained whenever possible." We (Leslie Kuloloio and Dana Naone Hall) accompanied Rory Frampton on a site visit to Kalani Heiau in March 2002. Mr. Frampton stated that the purpose of the site visit was to solicit our comments on a proposed preservation buffer for Kalani Heiau. During the site visit, we made it clear to Mr. Frampton that Site 196 is very significant. We remarked on the knoll's prominence as a physical feature, which undoubtedly played a central part in its selection as the site of an important heiau. The knoll affords panoramic views of the surrounding land and Haleakala as well as of the ocean. We spoke about the connection of the heiau to the significant sites identified a short distance away at Keawala'i Church. We expressed our concerns that the boundaries of Site 196 were not properly identified, including

the possibility that the site may extend to the foot of the knoll. Most importantly, we informed Mr. Frampton that we would not be able to comment on a preservation buffer area for the heiau until the boundaries of this site were properly located.

Mr. Frampton never informed us that he would be including his discussion with us in a Cultural Report. Therefore, we were surprised to see that we, along with Hui Alanui o Makena, were used in the Cultural Report solely for the purpose of supporting the Report's position that "the property has not been used in recent times for traditional and customary native Hawaiian practices." (See page 10.) We object to the improper characterization of the limited site visit we attended. If we had been asked directly by Mr. Frampton, we would have stated that we feel there will be significant impacts on cultural resources which must be mitigated. The Cultural Report's proposal of a buffer around Kalani Heiau and a side yard setback, as well as provisions for access for cultural and religious practices should be incorporated into a Preservation Plan. At a minimum, the Office of Hawaiian Affairs, the Maui County Cultural Resources Commission, Hui Alanui o Makena and other interested groups and individuals should be given the opportunity to comment on a draft Preservation Plan, including commenting on the appropriate size for buffer areas, as part of the State Historic Preservation Division's review of this plan.

C. Public Services

1. Recreational Facilities

On page 16 "Maipoina Oe Lau Beach Park" should be "Maipoina Oe Iau Beach Park."*

IV. Relationship to Governmental Plans, Policies and Controls

A. State Land Use Law

A district boundary amendment from Agricultural to Urban will be sought by the Applicant. The DEA on page 24 recites the following standard for determining Urban District boundaries as contained in Subchapter 2 of the Land Use Commission Rules, §15-15-18.

- 1) It shall include lands characterized by "city-like" concentrations of people, structures, streets, urban level of services, and other related land uses.

Contrary to the above characterization, the DEA states on the same page that "Makena is still largely undeveloped and therefore a significant amount of urban-zoned land remains in open space." The DEA also notes that the Garcia property "is adjacent to the Maui Prince Hotel which is in

*Mai Poina 'Oe I'au

the Urban District" when in fact this property is separated from the hotel by undeveloped land. (See Figure 8 Site Photographs.)

The DEA finds that "the proposed project is located in an area characterized by 'city-like' concentrations of people, structures, streets, urban level of services, and other related land uses." (See page 25.) However, the Figure 8 Site Photographs depict a distinctly rural landscape. This particular parcel may be more appropriately reclassified to the Rural District, especially since the Applicant proposes to develop roadways to "non-urban standards." (See page 31.) Furthermore, the DEA states that "[t]o the west of the project, across Makena-Keoneoio Road, are Rural lands which are developed for residential use." (See page 25.) A Rural District classification would be consistent with the relatively low-key residences makai of the Garcia parcel.

C. Kihei-Makena Community Plan

On page 30, the DEA discusses the Cultural Resources section of the Kihei-Makena Community Plan and the following item under Objectives and Policies:

- a. Identify, preserve, protect and restore significant historical and cultural sites.

The DEA also includes the following Implementing Action:

- b. Require development projects to identify all cultural resources located within or adjacent to the project area, prior to application, as part of the County development review process. Further require that all proposed activity include recommendations to mitigate potential adverse impacts on cultural resources, including site avoidance, adequate buffer areas and interpretation. Particular attention should be directed toward the southern areas of the planning region.

These provisions of the Kihei-Makena Community Plan have not been met. Please refer to earlier comments on the inadequacies of the Haun Archaeological Inventory Survey and the Cultural Report.

D. Maui County Zoning

In describing the proposed action, the DEA claims that a "primary design objective of the project is to maintain the rural residential feel of Makena-Keoneoio Road." (See page 4.) The document further states that "the project incorporates relatively large lot sizes as well as rural design standards for the proposed road improvements." *Ibid.* In keeping with this characterization of the project, it may be more appropriate that a Change in Zoning to Rural be sought rather than R-3 Residential. At the same time, a request for a

Community Plan amendment from Hotel to Rural should be submitted, in order to achieve conformity between zoning and the Community Plan designation for Parcel 67.

Also note that the Makawao-Pukalani-Kula Community Plan is referred to in the Analysis section on page 33 of the DEA. This is an error. The relevant community plan is the Kihei-Makena Community Plan.

E. Special Management Area Objectives and Policies

The DEA lists an SMA objective and several policies related to historical/cultural resources on page 36. Neither the objective nor the policies listed can be met for reasons stated earlier in this letter.

The DEA concludes that the proposed project will not result in significant impacts to the environment and that a Finding of No Significant Impact ("FONSI") is warranted. (See page 46.) A FONSI cannot be supported as a matter of fact or law. The action, as currently proposed, will result in the loss or destruction of cultural resources. It will curtail the range of beneficial uses of the environment to the extent that it will curtail access to the Kalani Heiau and other sites. The proposed action will conflict with state and county environmental policies and goals because it does not protect and preserve significant cultural and historic sites. The proposed action will involve substantial degradation of environmental quality because of its failure to protect significant historic and cultural resources. Finally, the proposed action will substantially affect scenic vistas and view planes protected through county and state plans because views from the Kalani Heiau will be significantly obstructed.

The archaeological inventory survey prepared for the property by Haun and Associates is inadequate in many respects. Among other things, it fails to adequately inventory the historic properties on Parcel 67. Further archaeological research and testing must be undertaken before the significance of the sites can be assessed and site treatment, including mitigation measures, can be determined. Until this further work is completed, the DEA is incomplete. At a minimum, the comment period for the DEA must be extended until the further archaeological work is completed and a report on this work is circulated for public review and comment.

In addition, the Cultural Report attached to the DEA is severely deficient. Consultation with Native Hawaiian organizations and individuals should take place in the manner recommended in the Guidelines for Assessing Cultural Impacts and a new Cultural Impact Assessment prepared. Thereafter, the comment period should be extended for review and comment by interested individuals and parties before any determination is made on whether an Environmental Impact Statement should be prepared.

It will be insufficient to simply respond to the comments received on the DEA. The inadequacies of the DEA are so serious that the document must be withdrawn, rewritten, republished as a DEA, and public review recommenced.

We trust that you will properly exercise your responsibility to enforce the environmental laws of our State, and refuse to accept or approve this document until it has been adequately prepared to serve its intended purpose.

Thank you for the opportunity to comment on this DEA.

Sincerely yours,

Dana Naone Hall

Dana Naone Hall

DNH/sn

Enclosures

cc: Samuel Garcia, Jr.
John Garcia
Chris Hart & Partners (via facsimile 242-1956)
Office of Environmental Quality Control

keau/garcialetmin

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Appendix - B

- Archaeological Inventory Survey

ARCHAEOLOGICAL INVENTORY SURVEY
TMK: 2-1-07: 67, LAND OF KA'EO
MAKAWAO DISTRICT, ISLAND OF MAUI

By:

Alan E. Haun, Ph.D.

and

Dave Henry, B.S.

Prepared for:

The Garcia Family

October 2000

Haun & Associates

Archaeological, Cultural, and Historical Resource Management Services
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SUMMARY

At the request of the Garcia Family, Haun & Associates conducted an archaeological inventory survey of TMK: 2-1-07:67, a c. 5.5-acre parcel located in the Land of Ka'eo, Makawao District, Island of Maui. The objective of the survey was to satisfy historic preservation regulatory review inventory requirements of the Department of Land and Natural Resources-Historic Preservation Division (DLNR-HPD), as contained within Hawaii Administrative Rules, Title 13, DLNR, Subtitle 13, State Historic Preservation Rules.

The inventory survey recorded seven sites with 35 component features. The sites consist of five single feature sites and two complexes of features. Formal feature types consist of mound, wall, modified outcrop, enclosure, terrace, lava blister, cultural deposit, modified knoll, and *heiau*. Late prehistoric to early historic remains include Kalani Heiau, a temporary habitation feature, a habitation deposit, and several agricultural mounds and modified outcrops. Mid-1800s to mid-1900s sites and features consist of ranch walls and enclosures, a garden enclosure, a probable pigpen, and agricultural clearing mounds.

Six sites are assessed as significant solely under Criterion "d". Five of these sites have yielded information important for understanding late prehistoric to historic land use in project area. The mapping, written descriptions, photography, and test excavations at the sites adequately documents them and no further work or preservation is recommended with one exception. Site 5079, a partially intact subsurface cultural deposit situated in the yards of, and potentially beneath, the residences in the northwest corner of the project area, may contain additional intact deposits and datable materials. It is recommended that if future development plans call for removal of the houses, then additional subsurface testing should be conducted to determine if data recovery or monitoring is appropriate.

Site 196, Kalani Heiau, is assessed as significant under Criteria "d" and "e". The site has yielded and retains the potential to yield important information for understanding prehistoric settlement and ritual architecture. The site is also assessed as having traditional cultural value to the native Hawaiian people. The specific plans for preservation of the site would be detailed in a Preservation Plan prepared for DLNR-HPD review and approval.

Post-it® Fax Note	7671	Date	6-22-02	# of pages	7
To	Rory Prampton	From	ALAN HAUN		
Co./Dept.		Co.			
Phone #		Phone #			
Fax #	242 1956	Fax #			

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INTRODUCTION

This report presents the results of an archaeological inventory survey conducted of TMK: 2-1-07: 67, located in the Land of Ka'eo, Makawao District, Island of Maui (*Figure 1*). The objective of the survey was to satisfy current historic preservation regulatory review inventory requirements of the Department of Land and Natural Resources-Historic Preservation Division (DLNR-HPD), as contained within Hawaii Administrative Rules, Title 13, DLNR, Subtitle 13, State Historic Preservation Rules (DLNR 1998).

The survey fieldwork was conducted on September 20 and October 4, 2000. Described in this final report are the project scope of work, field methods, and survey findings. Also included is background information relevant to the project area.

Scope Of Work

Based on DLNR-HPD rules for inventory surveys the following specific tasks were determined to constitute an appropriate scope of work for the project:

1. Conduct background review and research of existing archaeological and historical documentary literature relating to the project area and its immediate vicinity--including examination of Land Commission Awards, *ahupua'a* records, historic maps, archival materials, archaeological reports, and other historical sources;
2. Conduct a high intensity, 100% pedestrian survey coverage of the project area;
3. Conduct detailed recording of all potentially significant sites including scale plan drawings, written descriptions, and photographs, as appropriate;
4. Conduct limited subsurface testing (manual excavation) at selected sites (a) to determine the presence or absence of potentially significant buried cultural deposits or features, and (b) to obtain suitable samples for radiocarbon age determination analyses;
5. Analyze background research and field data; and
6. Prepare and submit Final Report.

Project Area Description

The project area consists of a 5.5-acre parcel bounded on the north by a road easement, on the west by Makena Road, on the east a stone wall and an undeveloped lot, and on the west by stone walls. The project area ranges in elevation from c. 10 to 70 ft, with the terrain sloping westerly towards the ocean. Rainfall in the general vicinity of the project area averages 20 to 30 inches per year, and the mean annual temperature is 70 to 75 degrees F (Juvik and Juvik 1998).

The soil within the project area consists exclusively of Makena loam, stony complex (3 to 15% slopes). This soil series is located on the lower, leeward slopes of Haleakala, situated between Kamaole and Makena (Foote et al. 1972:91). It is composed of Makena Loam and Stony Land, with the Stony Land comprising 30 to 60 % of this series, located on low ridges. The Makena loam is present on gentle slopes between the ridges, and evidences slow to medium permeability, with a slight to moderate erosional hazard. Pahoehoe outcrops are also associated with this series. This was confirmed by the numerous outcrops observed within the project area during the current study. The vegetation in the area is comprised predominantly of *panini* (*Opuntia ficus-indica*), *kiawe* (*Prosopis pallisa*), and low grasses with scattered *koa haole* (*Leucaena leucocephala*).

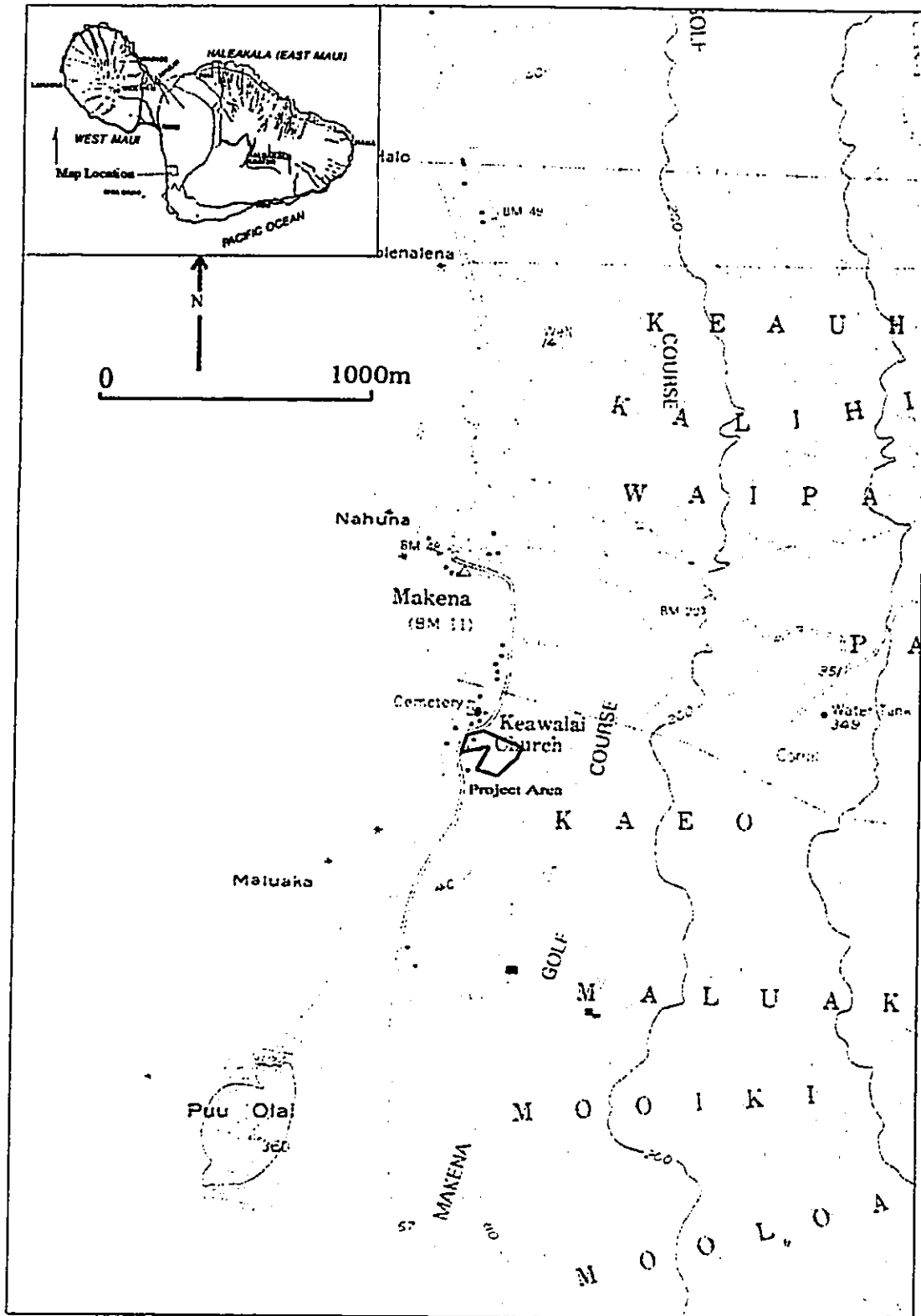


Figure 1. Portion of USGC Makena Quadrangle Showing Project Area

Field Methods

The project area was subjected to a 100% surface examination, with surveyors spaced at 10-meter intervals. Transects were oriented a roughly north-south direction. The identified features were flagged with pink and blue flagging tape and their locations plotted on a scaled project area map. The features were then recorded, which consisted of the completion of standardized site/feature forms, mapping and photographic documentation.

Subsurface testing was undertaken in ten locations during the study. The excavations included eight test pits (TUs 1-8) and two shovel tests (STs 1 and 2). Four of the test units and the shovel tests were placed on or around identified surface features (Site 5036, Feature Z, TU-1; Site 5036, Feature T, TU-2, Site 5036, Feature P, TU-3, Site 5036, Feature AA, ST-1, Site 5036, Feature I, ST-2, and Site 5038, TU-4). The four remaining test units were situated in level areas in the yards of houses in the northwestern portion of the project area (TUs 5-8).

The units were excavated in arbitrary levels within stratigraphic layers, and were terminated in a dense deposit of a'a cobbles, or in a deposit lacking cultural remains. The shovel tests were excavated within stratigraphic layers. Standardized excavation records were prepared after the completion of each stratigraphic layer. The soil removed during excavation was screened through ¼" mesh. Collected materials were placed in paper bags, labeled with the appropriate provenience information. Following the excavation, a section drawing depicting the stratigraphy was prepared, post-excavation photographs were taken and the units were backfilled. Recovered cultural materials were transported to Haun & Associates laboratory for analysis.

ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

Historical Documentary Research

The project area is situated in the *ahupua'a* of Ka'eo in Honuaua, a sub-district or *'okana*, of Makawao District. Cordy and Athens (1988) suggest that the adjacent lands of Maluaka, Mooiki, and Mohopilo were probably *ili* within Ka'eo based on archival research by Cordy. Donham's (1998) research indicates that Ka'eo formerly extended inland to at least Pu'u Ka'eo at 2,800 ft elevation and included Torbert's sugar mill and commercial center at today's Ulupalakua. By 1879, the inland boundary was placed at approximately 1,400 ft elevation below land grants to Torbert.

There is little mention of Honuaua in early historic accounts or Hawaiian legendary and traditional history. Donham (1998) provides the most detailed summary of the limited references. The Hawaii Island chief Kauholanuimahu resided at Honuaua where he exercised royal authority and built a fishpond at Keoneoio. In the late 1770s, the Hawaii Island chief Kalaniopu'u landed an invasion force at Honuaua from Keoneoio to Makana and plundered the district. Early observations by La Perouse in 1786 and Vancouver in 1793 indicate a series of small villages along the arid coast of Honuaua. A high chiefess, Kalola Pupukaohonokawailani resided at Honuaua. She was the daughter of Kekaulike, wife of Kalaniopu'u, and sister of the Maui ruler Kahekili. In 1790, Kalola declared a *kapu* lasting three days prohibiting trade with foreigners. The *kapu* was ordered in response to retaliatory cannon fire on coastal residents in Honuaua by the British ship *Eleanor* following the theft of a dingy. The Honuaua's offshore waters were an important fishery with numerous named fishing grounds.

The earliest census data for Honuaua comes from 1832 when a population of 3,340 was reported; however, by 1836 the number was reduced to 1,911, primarily as a result of introduced diseases (Donham 1998). Lahaina was a whaling port in the 1820s and 1830s. During this period, Lahaina and much of Maui came under the influence of the missionaries through the efforts of Keopuolani, the former wife of Kamehameha I; her husband Ulumaheihei Hoapili, the governor of Maui between 1823 and 1840; and Harriet Nahie'ena'ena, Kame-

hameha III's sister (Cordy and Athens 1988). Missionaries established a series of schools in Honuaua in the 1830s and Keawalai Church. Lahaina became the capital of Hawaii during Kamehameha III's residence there between 1836 and 1844 following his sister's death.

According to Kuykendall (1968), Irish potato cultivation began in the 1830s to provision whaling ships and became the dominant crop in the neighboring district of Kula during the late 1840s and to supply the California Gold Rush. Kula became known as the "potato district". The fields covered an area twelve miles in extent between 2,000 and 5,000 ft elevation. By 1847, annual production reached 20,000 barrels. Unlike other areas of commercial agricultural production in Hawaii, individual farmers were able to sell the potatoes directly to the ships without the intervention of chiefs or middlemen (Kolb, Conte, and Cordy 1997). Much of this commerce occurred in Honuaua at the government landing in Ka'eo.

Cordy and Athens (1988) summarize mid-1800s developments in the vicinity of Ka'eo. During the Great Mahele, much of Honuaua became government land that was soon leased to foreigners for cattle grazing, and potato and sugar cane cultivation. A sugar mill was built in the 1840s. L. Torbert purchased the lease for the mill and surrounding lands in 1845. In 1846, laws were passed requiring the containment of cattle because they were causing extensive damage to gardens and crops on Maui (Haun 1979:6). Torbert built a new road to the coast and landing to the north in Papa'anui around 1850. In 1851, J. Makee became the trustee of Torbert's plantation. He purchased the plantation, along with 800 cattle and 475 sheep, and renamed it the Rose Ranch in 1856.

The Waihona 'Aina database (2000), which is a compilation of data from the Indices of Awards (Indices 1929), Native Register (NR n.d.), Native Testimony (NT n.d.), and Foreign Testimony (FT n.d.); lists 31 parcels claimed by 17 claimants within Ka'eo and Mohopilo in the mid-1800s (Table 1). Fourteen parcels were awarded to ten claimants. Figure 2 shows the location of awarded parcels based on the current tax maps. Two awards (LCAs 2395 and 2397) and three *apana* of five *apana* for two claims (2401 and 2581) do not appear on the tax maps. Mohopilo is listed as both an *ahupua'a* and an *ili* in the claim testimony. The location of LCA 2399, described as being in Mohopilo *ahupua'a*, between two claims, which are described as being in Ka'eo suggests that Mohopilo is an *ili* of Ka'eo as suggested by Cordy and Athens (1988).

The awarded claims are for *kuleana* parcels ranging from 0.2 to 12.96 acres in area with an average of 4.71 acres. House lot parcels range from 0.2 to 0.5 acres in area. All, except two claims, consist of multiple parcels. Most multiple parcel claims included claims for parcels in nearby *ahupua'a* in addition to claims in Ka'eo ("Other Claims" in Table 1). The testimonies refer to six *ili* land divisions. The *ili* consist of Ulupalakua, Mohopilo, Keawakapu, Haleula, and Kuapu. Most of the claimed land parcels, which have testimony describing conveyance of the land to the claimant, were conveyed during the "time of Kamehameha I" by the claimants parents.

Land use described in the LCA claim testimony includes ten house lots, seven Irish potato plots, six sweet potato patches, a *hala* (*Pandanus*) clump, and the boundary to a sugar cane field. Sixteen claimed parcels are described as pasture. The inland parcels are clustered in two areas; one is situated approximately 900 m from the coast between 200 and 500 ft elevation and the other is approximately 1,800 m from the coast between 800 and 1,000 ft elevation. Most of the house lots were next to the shore and the government trail. Mohopilo Stream is described as boundary of one claimed parcel suggesting the possible former existence of an at least intermittent stream course.

Donham (1998) summarizes information regarding Mahoe, who was the *konohiki* of Ka'eo in the 1850s. Kamehameha III awarded him Grant 835 for a fee of one dollar (Donham 1998). The 514-acre grant included all of coastal Ka'eo, except the *kuleana* claims. The grant included a fishpond at Apuakehau Point. A map of the area dating to the mid-1800s (Figure 3) depicts a church and the government (*Aupuni*) landing and storehouse next to the fishpond. The new landing and road constructed by Torbert are shown to the north. Inland, roughly paralleling the coastal government road is a government wall, which probably served to keep cattle out of the coastal residences and gardens. A series of walls and houses are shown in the vicinity of the project area. In 1868, Mahoe conveyed a 0.59-acre parcel to the American Board of

Table 1. Land Commission Award Claims in Kaeo and Mohopilo

LCA	Claimant	Apana claimed	Apana awarded	Other Claims	Section No.	Ahupua'a	III	Land Use	Boundary Mauka	Boundary Makawao	Boundary Mahele	Boundary Kahikouli	Date Rec'd Kam I times	Given	Acreage	Royal Patent	Sources	Comment
2395	Kaihe	2	1	1				pasture & house lot					Kam I times	parents	0.2	none	NR 480v3, NT 137v7	Prob. house lot awarded, location uncertain
2395B	Kaili	1	1			Kaeo	N/D	house lot & 6 Irish potato patches, house lot, & sugar cane land fence	Gov't trail Gov't trail	Kalama	Pitanele sea	konohiki konohiki	1845	Kalama	0.5	4138.0	NR 480v3, NT 136v7	Awarded 3.6 ac in Mooloo; land use of Kaeo parcel unclear
2397	Kaialihii	1	0	1	2	Kaeo	N/D	pasture, Irish potatoes, house lot, & sugar cane land fence	Kahaleokai	Nakukalaina	konohiki	Kamalo	Kam I times	parents	0.0	none	NR 481v3, NT 185v7	Awarded 3.6 ac in Mooloo; land use of Kaeo parcel unclear
2399	Kailii	2	2	3									N/D	N/D		3653.0	NR 482v3, NT 114v7	
2400	Kalama	2	0	1	4 5	Kaeo Mohopilo	N/D N/D	house lot pasture	konohiki Mohopili pali	Manaweki Gov't trail	Gov't trail Kaihe, Ohule	Maheo, ascending			0.2 4.0			
2401	Kohilae	3	3	2		Kaeo		6 sweet potato patches & house lot	N/D	Apaakehu	Kukahipuhi	Mokuhia	N/D	N/D	0.0	none	NR 482v3	
2524	Moku	3	0	1									Kam I times	N/D	23.9	\$923.0	NR 482v3, NT 136v7/100v16	Awarded 1 apana of 12.96 ac and 2 apana of 10.91 ac in Ulupalakua III
2524B	Moku	1	0	3	3	Kaeo	Ulupalakua	pasture	Moku	Kalama	Mahuai	Kaihe						
2563	Wanaki	1	0	9	4	Mohopilo	Ulupalakua	pasture	Kiniakua	Kalama	konohiki	Kaohuka						
2568	Nuhua	3	0	0	5	Kaeo	Ulupalakua	house lot	land enclosure	Kailii	Gov't trail	Maluka	N/D	N/D	0.0	none	FT 141v7, NT 137v7/100v16	
2579	Hirpo	1	0	3	1	Kaeo	Ulupalakua	pasture	Kaeo pali	Gov't trail	Gov't trail	Mohopilo						
2581	Huelli	2	2	1	2	Mohopilo	N/D	pasture	Nawaki	Gov't trail	konohiki	Kohilae						
2585	Honukaha	3	0	2														
2658	Kiniakua	1	1	6	3	Mohopilo	N/D	pasture	konohiki	Hulipahu	konohiki	Kamalo						
3676	Manaweki	1	1	4	4	Kaeo	Kaeo/Hakae?	house lot	Gov't fence	Laukani	missionary land	Kailii	1837	Manaweki	0.3	7676.0	NT 113v7, NR 113v6	Coastal house lot awarded, location uncertain

N/D=No Data

Table 1. Land Commission Award Claims in Kaeo and Mohopilo (cont.)

LCA	Claimant	Apana claimed	Apana awarded	Other Claims	Section No.	Ahupua'a	Ili	Land Use	Boundary Ngauka	Boundary Mikawao	Boundary Makai	Boundary Kahikinui	Date Rec'd	Giver	Acreage		Comment
4157	Kahaleokua	3	1	4		Kaeo	ND						ND	parents	6243.0	NR 154w6, NT 151v7	Coastal house lot awarded, location uncertain
					1			pasture	Kanakahou	Kanakahou	Pinao	Konohiki					
					2			pasture	Misawaiki	Kukue	Mahoe	Kaunalo					
5402B	Nawaiki	1	1	10	11	Kaeo		house lot	Konohiki	sea	sea	sea			0.5		
								house lot	Kanakahou	sea	sea	Konohiki	1819	parents	0.2	FT 97v16, NT 158v7	
6662	Mahoe	1	0	0		Kaeo		Irish potatoes	mountain	Gov't land	Kuaua	Maluaka Ahupuua	Mahoe	Kiing	0.0	NR 386v5, NT 128v7	Claimed seaward half of Kaeo
8071	Hiapo	1	1	5	6	Kaeo	Mohopilo	house lot, bala clumps	ND	ND	ND	ND	Kami time	N/D	9.8	NR 451w6, FT 116v7	2 apana awarded in Kaeo

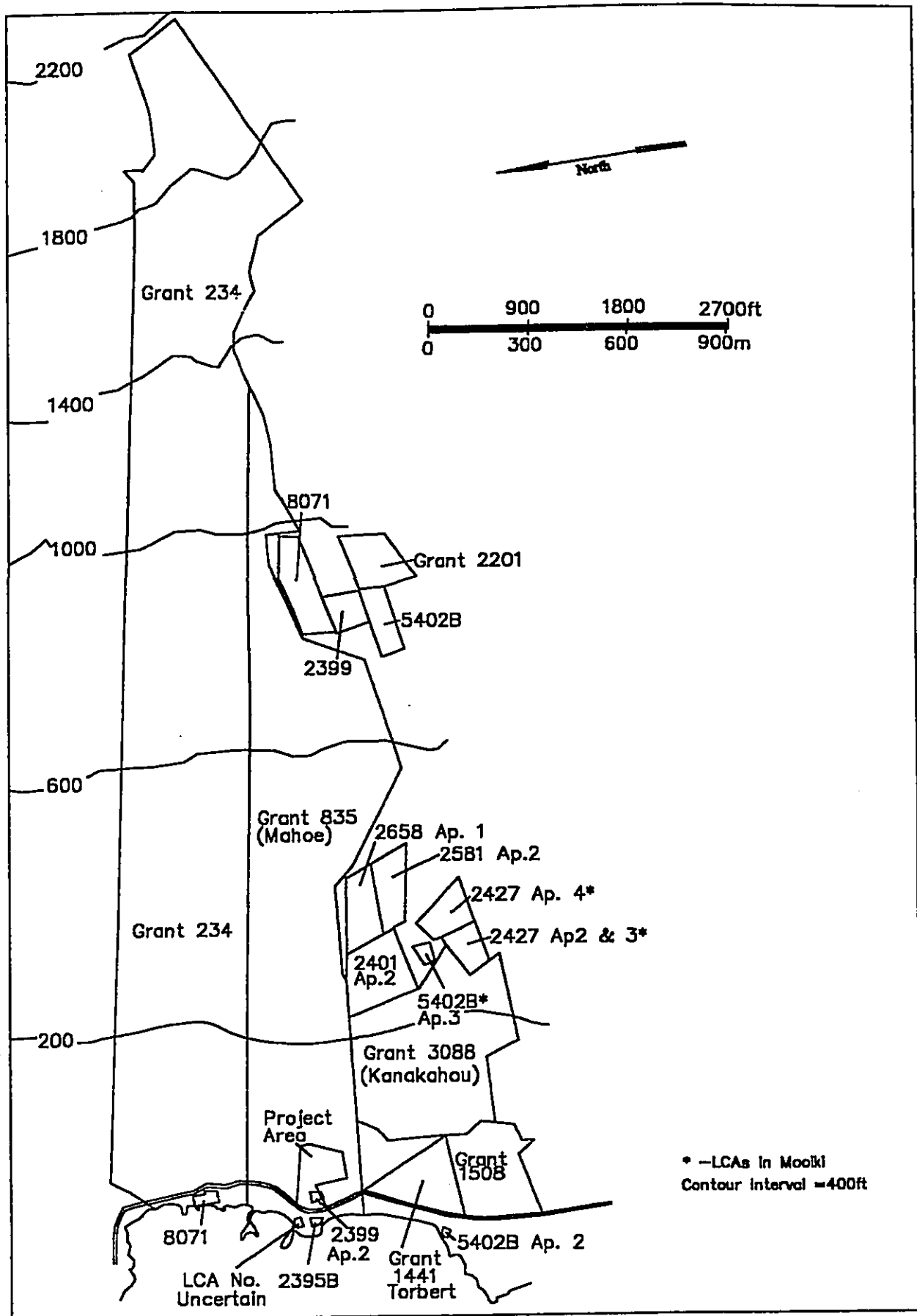


Figure 2. Land Commission Awards and Grants

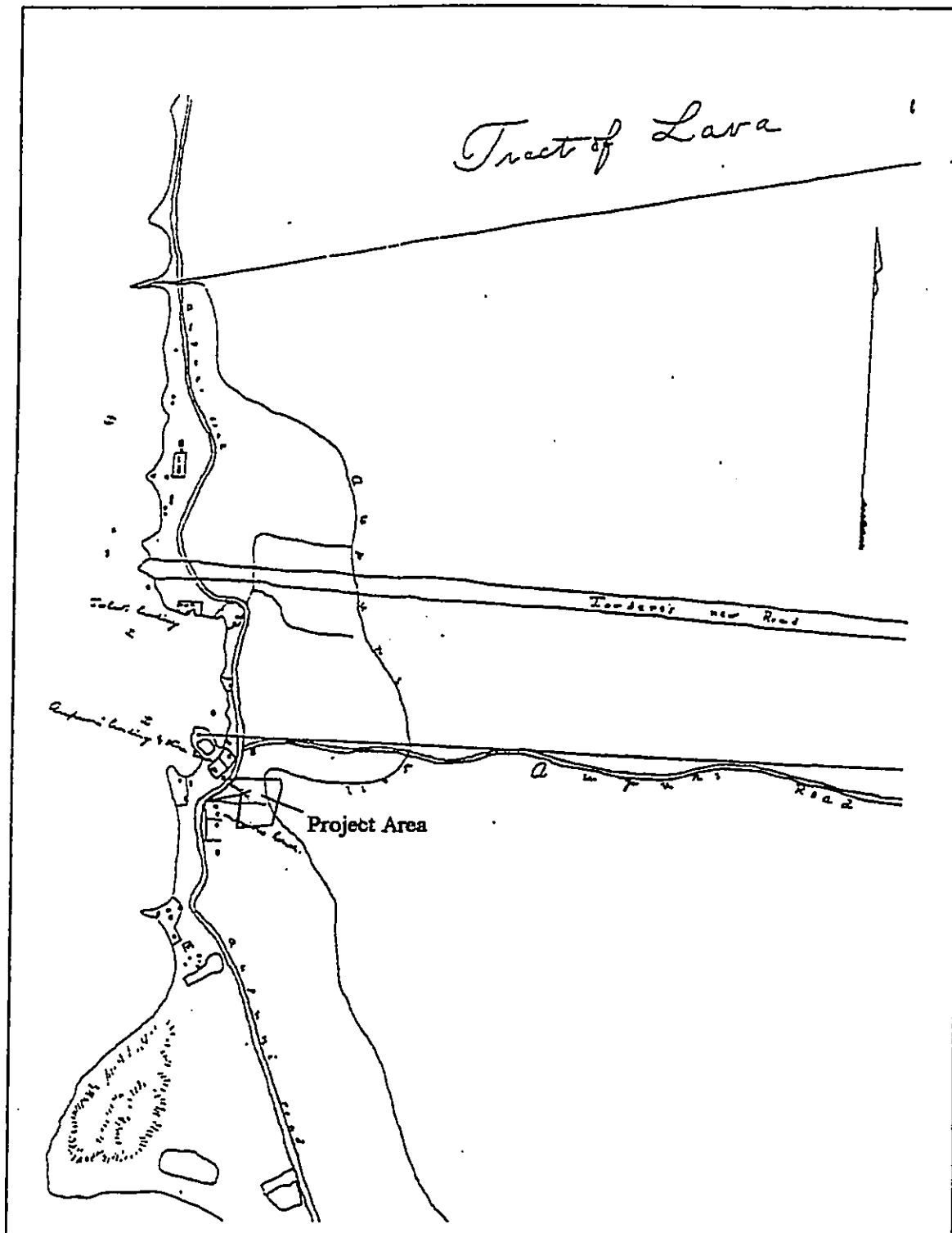


Figure 3. A Portion of Torbert's Plantation Map, c. 1848-1856

Commissioners for Foreign Missions for Keawakapu Church, which subsequently became today's Keawala'i Church.

Alexander's map of Makena dating to between 1866 and 1879 shows the fishpond at Apuakehau Point and Keawakapu Church enclosed by a wall (*Figure 4*). The old road to the government landing is not shown. No structures are depicted in the vicinity of the project area. Jackson's map and survey notes (*Figure 5*) also show the fishpond and church.

Sugar cane cultivation at the Rose Ranch expanded to over 1,000 acres during the American Civil War. Cultivation decreased during a drought in 1877-1878 and cattle gradually replaced sugar production over the last decades of the century (Jones et al. 1994). Most of the residents of Honuaula, except a few fisherman, worked for the plantation (Cordy and Athens 1988). In 1879, Makee died and the Rose Ranch lands were sold to James Dowsett (Clark et al. 1977). The ranch lands were inherited by Dowsett's daughter, Phoebe 1901. Phoebe was married to Dr. J.H. Raymond and the ranch became known as Dr. Raymond's Ranch (Clark and Kelly 1985). Donham (1998) cites a 1909 manuscript that refers to a post office, church, and landing at Makena. In 1910, the landing consisted of two stone jetties and a storhouse (Clark and Kelly 1985).

Ulupalakua Ranch Ltd. purchased the Raymond Ranch in 1923 (Clark et al. 1977). Clark and Kelly (1985) describe fishing at Makena and the exchange of fish and produce between people living at the coast and inland in the early 1900s based on oral historical research. During World War II, an informant described U.S. military construction of a road to Makena and pillboxes and gun emplacement along the shore. The ranch lands in Makena were sold to Seibu Hawaii, Inc. in 1976 for tourist development.

Today, there are three houses with landscaped yards in the northwest, seaward portion of the project area. Mr. Sam Garcia Sr. and his sons, Sam Jr. and John, reside in the houses. Sam Jr. recalls that his mother inherited a claim to an upland parcel of approximately 15 acres that was situated on Ulupalakua ranch land. The location of the parcel was uncertain and the ranch offered the project area in exchange. The ranch conveyed the project area to the Garcia family in the 1960s. Before the first house was constructed in the 1970s, Sam recalls the family visiting and camping on the land, which was open range used by the ranch. The enclosures and walls on the property were preexisting structures and were not used at the time of the family visits.

Previous Archaeological Research

A search of DLNR-HPD the archaeological report database and other sources identified 22 survey and excavation projects for Honuaula between Keauhou Ahupua'a and Onau Ahupua'a. *Figure 6* shows the locations of the projects and *Table 2* summarizes the projects. Not included in the figure or table are the studies by Walker (1931), which focused on major sites, primarily *heiau*, throughout Maui, and Clark's (1974) reconnaissance survey of Seibu Corporation lands, which was unavailable for review; however, most of the area he surveyed has been subsequently surveyed by others. Walker (1931) reported ten coastal *heiau*, a cluster of four *heiau* on a hill above Ulupalakua, a coastal village site, two fishponds, and several shrines (*ko'a*) in Honuaula. In Ka'eo he identified Kalani Heiau, which is situated in the project area.

The surveys in *Table 2* cover over 2,600 acres identifying 636 sites with 1,423 features. To aid in reconstructing settlement patterns, features were quantified by probable age and function, and the studies are ordered by elevation. Traditional Hawaiian features were categorized as habitation, agricultural, burial (including possible burials), ritual, and trail. Features not assignable to these categories were categorized as miscellaneous/indeterminate. Traditional sites in this category include a canoe shed and *ahu*. Habitation sites are further subdivided into temporary and permanent for studies making this distinction. Per acre density values are calculated for sites, features, habitations, and agricultural features. Overall, the studies have identified 77 permanent habitation features (enclosures, platforms, terraces), 190 temporary habitations (overhangs and small walled shelters), 282 agricultural features (mounds, modified outcrops, depressions, and terraces), 8 burials, 23 ritual features, and 11 trail segments. Historic features were not segregated by function. The majority of the historic features are ranch walls.

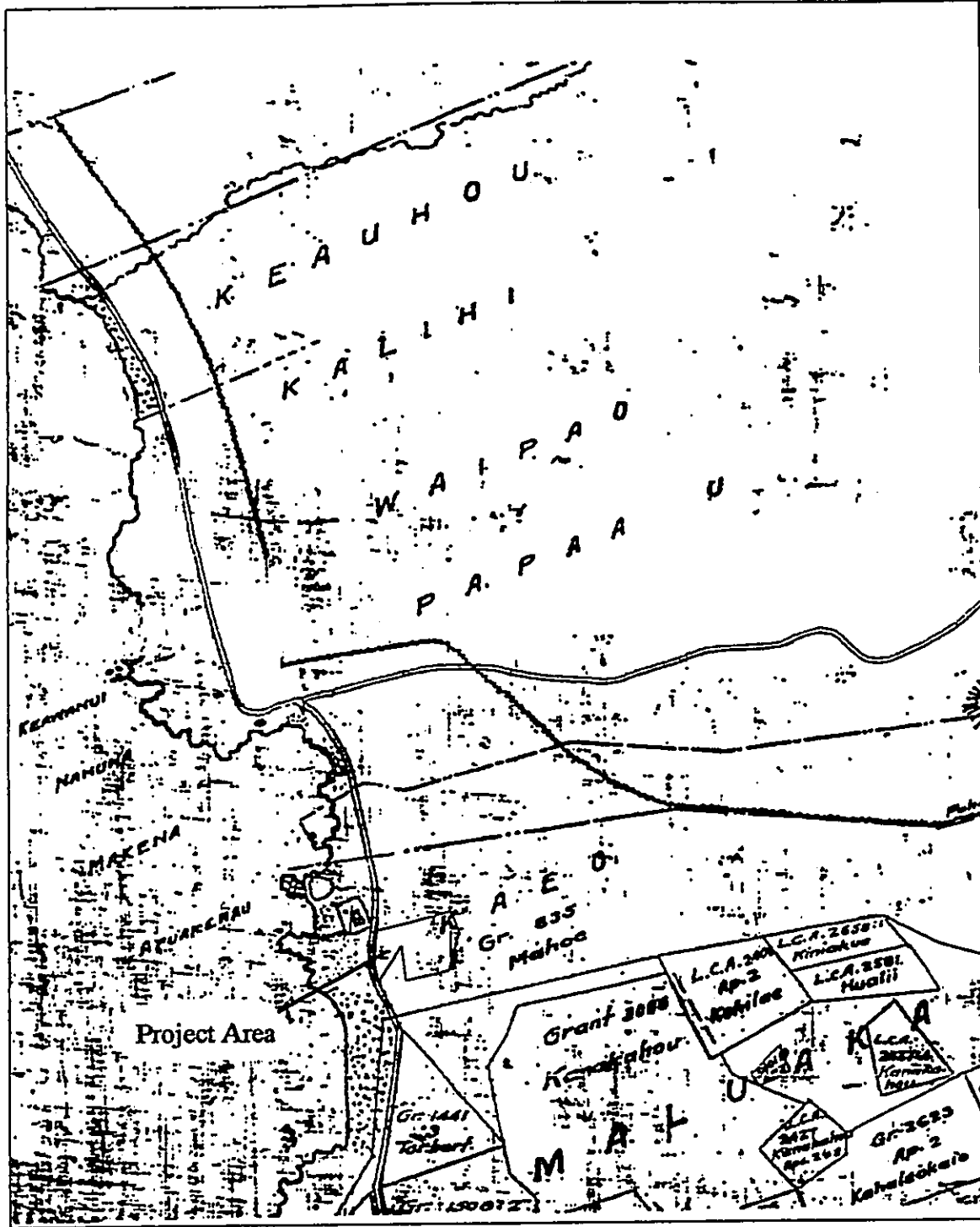


Figure 4. A Portion of Alexander's 1866/1879 Survey Map of Makena

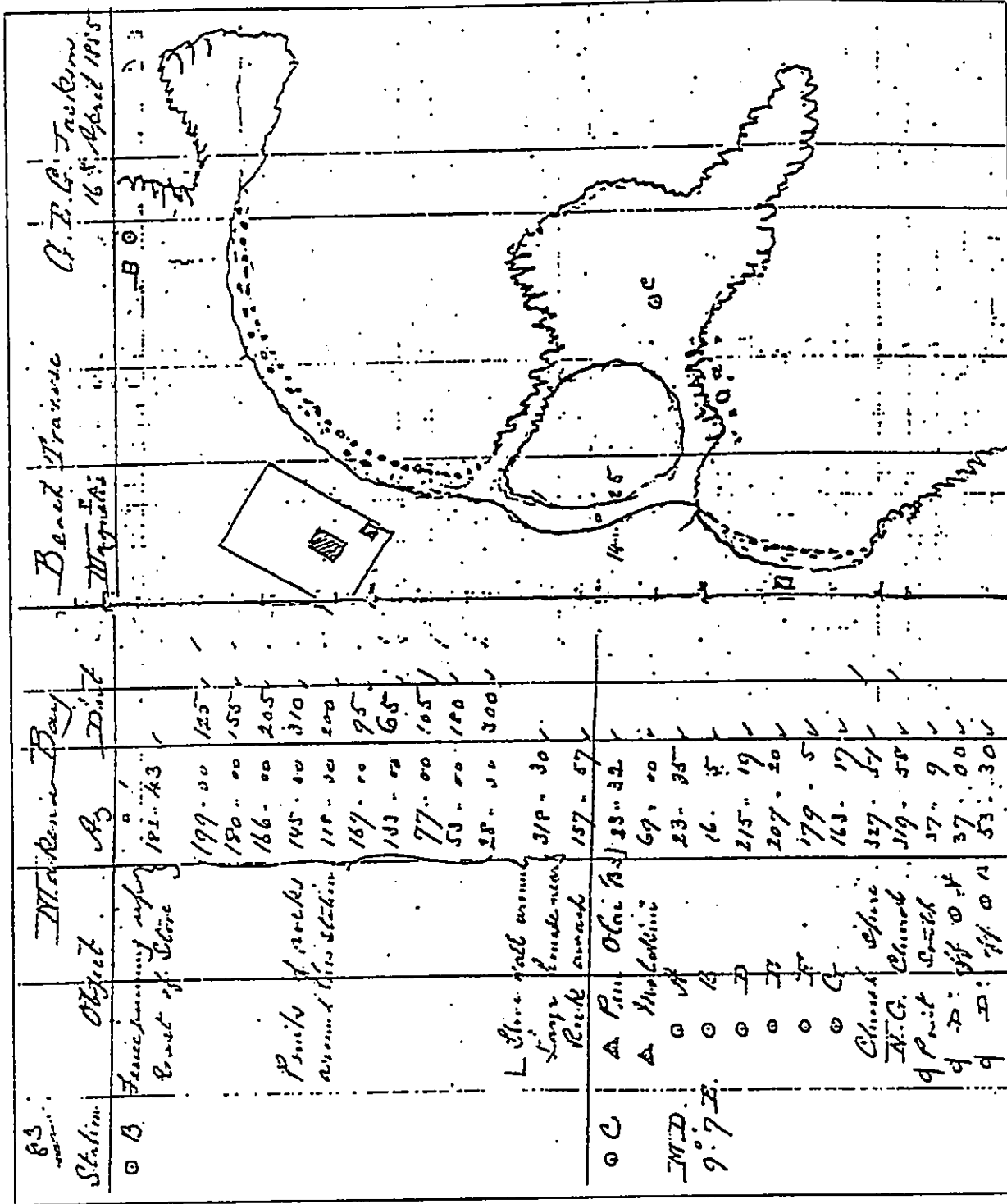


Figure 5. Jackson's 1885 Shoreline Survey Map of Makena

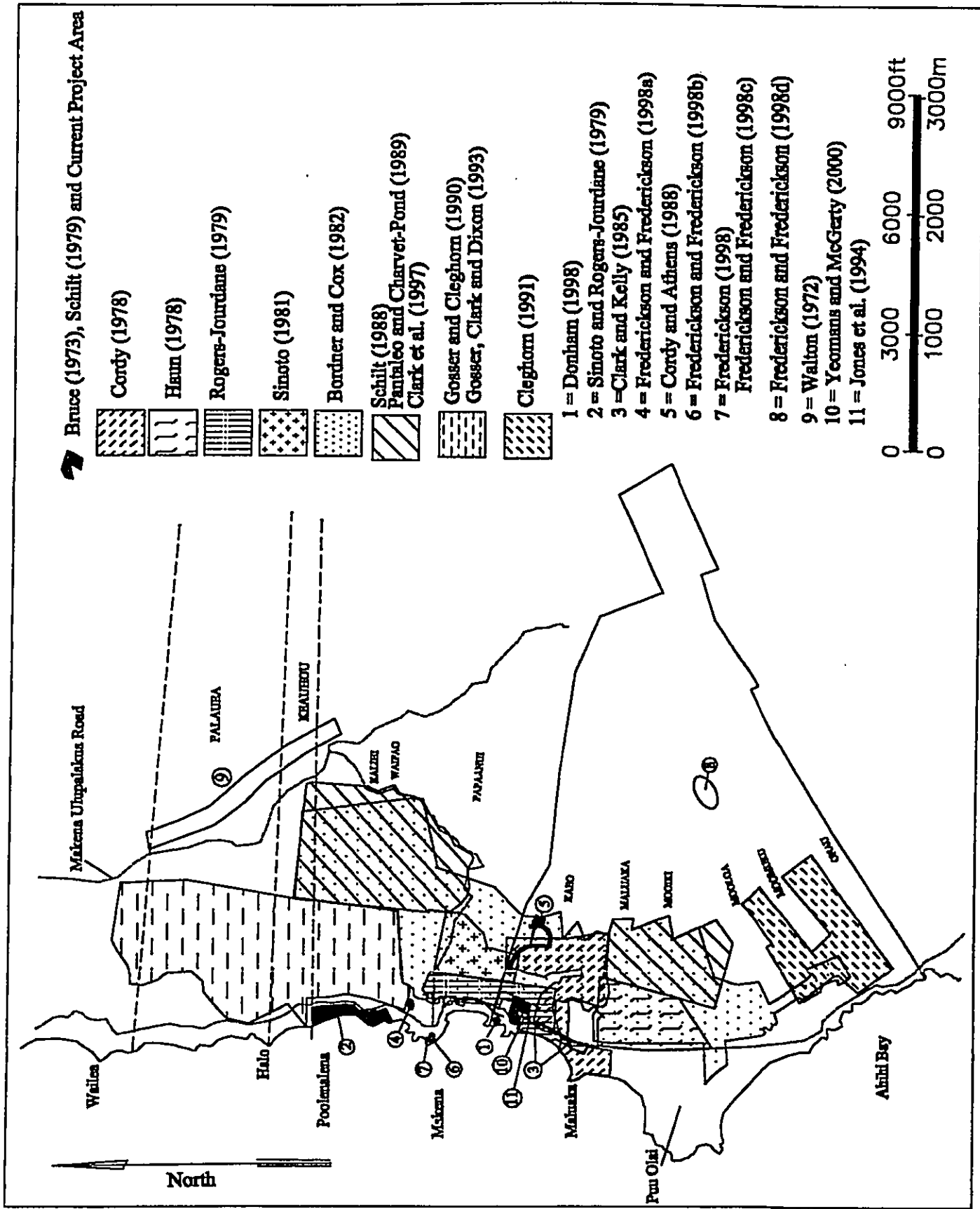


Figure 6. Previous Archaeological Work

Table 2. Summary of Previous Archaeological Work

Author	Date	Land	Study Type*	Elevation	Average	Historic Use	No of sites	No of Sites/ acre	No of Fees	Hab Fees/ acre	Hab Fees	Permit Fees/ acre	Temp Hab Fees	Ag Fees/ acre	Burial Fees	Ritual Fees	Trail	Historic Fees	Misc/ Indel	Comments	
Cody	1978	Kareo	RN	0-205	127.0	Sugar cane and Ranching	85	0.67	131	1.03	38	0.30	12	62	0.49			25	6		
Rogers-Jourdane	1978	Makana	RN	0-80	100.0	Ranching	21	0.21	28	0.28	4	0.04	2					7	17		
Fredericksen and Fredericksen	1988b	Papaanui	IN	0-10	1.0	?	4	4.00	4	4.00	2	2.00				1		1			
Fredericksen and Fredericksen	1988c	Papaanui	IN	0-5	0.5	Military	4	8.00	4	8.00	3	8.00	3					1			
Sinolo and Rogers-Jourdane	1979	Keaunohu, Kailih, Waipao, Papaanui	RN	0-15	17.0	?	19	1.12	31	1.82	7	0.41	6	1		5		12	7	one misc. fee. is a canoe house	
Clark and Kelly	1985	Kareo	RN	1-15	1.3	?	0														
Sinolo/Jones et al.	1983/1984	Kareo	IN	4-30	0.5	Ranching/ Residence	1	2.00	6	12.00	1	2.00						6			
Bedner and Cox	1982	Makana	RN	4-50	907.0	Ranching	79	0.09	181	0.20	69	0.08	1	29	0.03	3	7	24	49		
Donham	1988	Kareo	IN	5-10	0.6	Church	1	1.69	7	11.88								7			
Schill	1978	Kareo	RN	10-30	4.2	Ranching	6	1.90	22	5.24	2	0.48		6	1.43	2	1	5	7	Includes the project area	
Yonemans and McGee	2000	Kareo	IN	10-70	1.6	Ranching	1	0.64	13	8.38								1			
Fredericksen and Fredericksen	1988a	Waipao	IN	20-30	1.0	Sugar cane and Ranching	3	3.00	3	3.00	2	2.00	1					1			
Hau	1978	Mooki and Maluaka	RN	40-130	98.0	Ranching	88	0.90	185	1.93	49	0.51	20	48	0.48	1	11	30	48		
Gosser and Ciegghom	1990	Palaua, Palaua, Keaunohu, Kailih and Waipao	RN	40-330	346.1	Ranching	41	0.12	250	0.72	30	0.09	5	113	0.32	3	1	4	15	45	
Ciegghom	1991	Mooki and Mooki and Moomuku	IN	50-350	150.0	Sugar cane and Ranching	28	0.17	61	0.41	19	0.13	9	9	0.06	1		24	8		
Sinolo	1981	Papaanui and Kareo	RN	70-200	100.0	Sugar cane and Ranching	14	0.14	37	0.37	30	0.30	18	2	0.02	1			4		
Schill	1988	Kailih, Waipao, Papaanui, Mooki, and Mooki	RN	100-400	365.0	Ranching	221	0.81	415	1.14										report not available	
Pantaleo and Charvet-Pond	1989	Kailih, Waipao, Papaanui, Mooki, and Mooki	RINEX	100-400	365.0	Ranching														site description appendix not available	
Cody and Athana	1988	Makana	RN	200-280	5.5	Sugar cane and Ranching	3	0.55	18	3.27	2	0.36	2	13	2.36				3		
Fredericksen and Fredericksen	1988d	Mooki	IN	400-580	9.5	Ranching	10	1.05	18	1.89	4	0.42	1	2	0.21	1			11		
Gosser, Clark, Dixon and Pope	1972	Palaua and Keaunohu	RN	500-800	68.3	Ranching	10	0.15	15	0.22	6	0.09	2					3	6		
Gosser, Clark, Dixon and Pope	1993	Wailea	DR																	DR at Gosser and Ciegghom (1990) sites	
Clark, Gosser, Pantaleo, Dixon, Hazuka-Rothman, Hurl, Kleiger and Lebo	1997	Kailih, Waipao, Papaanui, Mooki, and Mooki	DR			Sugar cane and Ranching														DR at Clark (1974), Schill (1988), and Pantaleo and Charvet-Pond (1989) sites.	
Total/Average							637	1.42	1428	3.46	268	0.95	77	190	252	0.60	6	23	11	182	211

*IN=Inventory Survey, RS=Reconnaissance Survey, DR=Data Recovery, EX=Excavations

Density values for inventory surveys larger than 60 acres do not show any consistent trends by elevation. Overall feature density values range from 0.22 to 1.93 features per acre. Habitation feature density ranges from 0.09 to 0.51 features per acre with an average of 0.21. Agricultural feature density ranges from 0.02 to 0.49 features per acre with an average of 0.27. Permanent and temporary habitations are present at all elevations studied. Several researchers report complexes of residential features interpreted to be *kauhale* (e.g., Haun 1978, Cordy 1978, Gosser et al. 1993). These complexes are often associated with agricultural features and ritual sites (shrines and *heiau*). Agricultural features are most common between 40 ft and 350 ft. The majority of burial and ritual sites are present near the coast.

Ninety-two non-modern radiocarbon age determinations are reported in the studies by Donham (1998), Cordy and Athens (1988), Pantaleo and Charvet-Pond (1989), Gosser and Cleghorn (1990), Gosser et al. (1993), and Clark et al. (1997). Many of the age determination results produced multiple age ranges or long single age ranges between the 1600s and mid-1900s. When all potential age ranges are examined, one range spans the 1100s, five span the 1200s, 13-1300s, 29-1400s, 32-1500s, 74-1600s, 58-1700s, and 52 include the 1800s. The results suggest initial use of the area in the 1100s-1200s followed by a gradual increase during the 15th and 16th centuries. The most intensive use dates to the 1600s with gradual decline in the 1700s and 1800s. Donham (1998) argues that initial occupation occurred as early as AD 900.

Portions of the project area have been subjected to previous archaeological investigation. These investigations consist of work by Walker (1931), Bruce (1973), and Schilt (1979). Sinoto (1993) and Yeomans and McGerty (2000) surveyed adjacent parcels to the west. Donham (1998) conducted subsurface testing at Keawala'i Church on the west side of Makena Road across from the northwestern corner of the project area. Rodgers-Jourdane (1979) conducted a reconnaissance survey of the adjacent lands on the north, east, and south sides of the project area.

The two earliest studies focused on Site 196, Kalani Heiau, which is situated on a knoll in the northwest corner of the project area. Walker (1931) described the site as:

A large heiau said to be of sacrificial class but now reduced largely to a shapeless pile of rocks. It measures 126 feet across the front and has a width of 98 feet. No walls are in evidence, it being apparently an open platform 8 feet above the surrounding country built of rough Aa blocks with some coral and pebbles on top. Interior structure has been demolished by cattle (1931:267).

Bruce (1973) revisited the site and found it in the same shapeless condition reported by Walker. The site was designated B.P. Bishop Museum Site 50-Ma-B8-1. Bruce recovered a coral file from the site. The site was subsequently examined during the Hawai'i Statewide Site Inventory survey in 1973. A plan map of the *heiau* and a site form were prepared. The site was re-designated as State Inventory of Historic Places (SIHP) Site 50-14-196. The site form includes the following description:

...We observed a large flat area approximately 33 m X 11m, faced on two sides. The north face is a natural rock flow with scattered evidence of construction built on the flow. The west face is a multiple-stacked stone wall, which is presumably modern. Walker (1931) observed no walls in the immediate area of the *heiau*; hence, we suspect the walls present along the west face and in the back area of the *heiau* (past the flat area) to be modern and probably constructed with rocks from the *heiau*. The interior area is completely destroyed, presumably by cattle. Shells, coral and glass were found on the interior surface (1973:27-29).

Schilt (1979) returned to Site 196 during a reconnaissance survey that encompassed the current project area. Schilt indicates that the northern side of the structure was comprised of natural outcrops with no evidence of modification. Scattered *ili ili*, coral and shell were observed on the surface. Paved areas were present on the north and south sides of the cattle wall that bisects the structure. Schilt stated that the northwestern side of the site has been partially landscaped by the property owners.

In addition to the *heiau*, Schilt identified seven areas of archaeological remains (Areas A-G, see Figure 7 inset). The nature and extent of the areas and identified features was very difficult to determine because the area was densely vegetated and covered with "waist-high" grass as a result of recent heavy rains. Area A was situated south of the *heiau*. Schilt identified five features in the area consisting of a possible burial mound, two *ahu*, a pavement and a well. Area B was located in the southwestern corner of the project area. This area reportedly contained four *ahu* and the remnants of an enclosure. Cattle walls bounded the area to the north and east and marine shell midden was observed on the surface.

Areas C, D, and E were described as very densely vegetated and were not mapped except for two modified outcrops in Area C. Area C was situated in the south-central portion of the project area. Area D extended along the eastern boundary of the parcel and Area E occupied the north portion of the project area east of the *heiau*. Schilt describes these areas as terraced. The terraces consisted of stones piled on exposed outcrops.

Area F was located in a road easement on the north boundary of the project area. Area F consisted of a "lava-bubble shelter" with two modified entrances. Marine shell was observed on the interior floor. Area G was located in the northwestern corner of the project area. Schilt cites "local tradition" as the source for suggesting that Area G was the site of a nineteenth century post office. She identified fragments of glazed ceramics and mold-blown bottles dating to between 1850 and 1900 in the area.

Rodgers-Jourdane (1979) surveyed the land to the north, east, and south of the project area in 1979. The survey identified one site (98) on the north-central boundary of the current project area and another site (99) in the northeast corner of the current project area, outside Rodgers-Jourdane's project area. Site 98 was the lava-bubble habitation cave identified by Schilt (1979) in Area F and Site 99 was a 3.0 m diameter circular alignment/enclosure.

Yeomans and McGerty (2000) conducted an inventory survey of a parcel of land (TMK: 2-1-07:66) adjacent to the west side of project area. The survey identified thirteen features consisting of amorphous mounds and wall segments interpreted as historic ranching features. Shovel tests were conducted at ten features. The excavation produced historic artifacts dating to the 1900s. No traditional Hawaiian sites were identified.

Jones et al. (1994) conducted a survey and test excavations in a small 0.5-ac parcel (TMK: 2-1-07:04) situated adjacent to the southwest corner of the project area and immediately south of the parcel surveyed by Yeomans and McGerty (2000). The survey identified six features including historic trash deposits, a pigpen, well, and walls. Twenty-nine shovel tests and five test units were excavated. The identified features and recovered artifacts and food remains were interpreted as representing a multi-component site. A prehistoric component, radiocarbon dated to between AD 1410 and 1660, was represented by a deposit containing *ili ili*, marine shell, flaked stone, and a possible structural pavement. The prehistoric component was overlain by a historic deposit dated to the 1870s to mid-1900s based on the artifact assemblage.

Donham (1998) conducted a survey and excavations in Keawala'i Church yard. The survey identified two mounds, modified outcrops, and two walls. Six test excavation units produced 564 indigenous Hawaiian artifacts, 790 historic artifacts, and faunal material including vertebrate and marine invertebrate remains. A buried stone alignment and five pit features were also identified in the excavations. A deposit of early historic material associated with the early nineteenth century church on the site overlay an intact prehistoric habitation deposit over one meter in depth dated to as early as AD 900-1100. The upper portion of the deposit was dated to AD 1445-1645. Twentieth century artifacts were mixed with the early historic ones reflecting modern disturbance to the deposit.

PROJECT EXPECTATIONS

Prehistoric use of the project area is potentially evidenced by agricultural features, burials, ritual sites, and permanent and temporary habitation sites dating to as early as the 1100s. Agricultural features would consist of terraces, mounds, depressions, and enclosures. Ritual sites would be represented by *heiau* and shrines. Permanent habitation sites in the area typically consist of complexes of enclosures, platforms, and terraces. Small walled shelters and overhangs were used for temporary habitation. Subsurface habitation deposits covered by more recent historic deposits may also be present. The habitation sites may have been occupied into the 1900s. Other sites dating from the mid-1800s to 1900s would consist of ranching-related features such as walls, roads, and corrals

FINDINGS

Seven sites with 35 features were recorded during the survey. The sites consist of four single feature sites and two complexes of features. Formal feature types consist of mound (10), wall (9), modified outcrop (6), enclosure (4), terrace (2), lava blister (1), modified knoll (1), cultural deposit (1) and *heiau* (1). Functionally, the features include agriculture (18), ranching (13), temporary habitation (1), habitation (1), trash dump (1), and ritual (1). The identified sites and features are summarized in the following table and the locations are illustrated in Figure 7.

Ten subsurface excavations were undertaken during the study. The excavations included eight test pits (TUs 1-8) and two shovel tests (STs 1 and 2). Four of the test units and the shovel tests were placed on or around identified surface features. These consist of Site 5036, Feature Z (TU-1), Site 5036, Feature T (TU-2), Site 5036, Feature P (TU-3), Site 5036, Feature AA (ST-1), Site 5036, Feature I (ST-2), and Site 5038 (TU-4). The four remaining test units were situated in level areas in the landscaped yards of three houses in the northwestern portion of the project area.

It is difficult to correlate the sites and features identified during the current survey, except Kalani Heiau, with the earlier work by Schilt. Her work was hampered by dense vegetation that apparently caused problems with feature recognition and locational plotting. During the current study, the sparse vegetation that was present on the ground surface was dead and surface visibility was excellent. There is no evidence of any recent mechanical earthmoving activity except along the road easement to the north where Schilt's Area F and a portion of her Area G were located. The entire easement was been graded and the seaward portion is paved. This activity would have destroyed Area F and the northern portion of Area G.

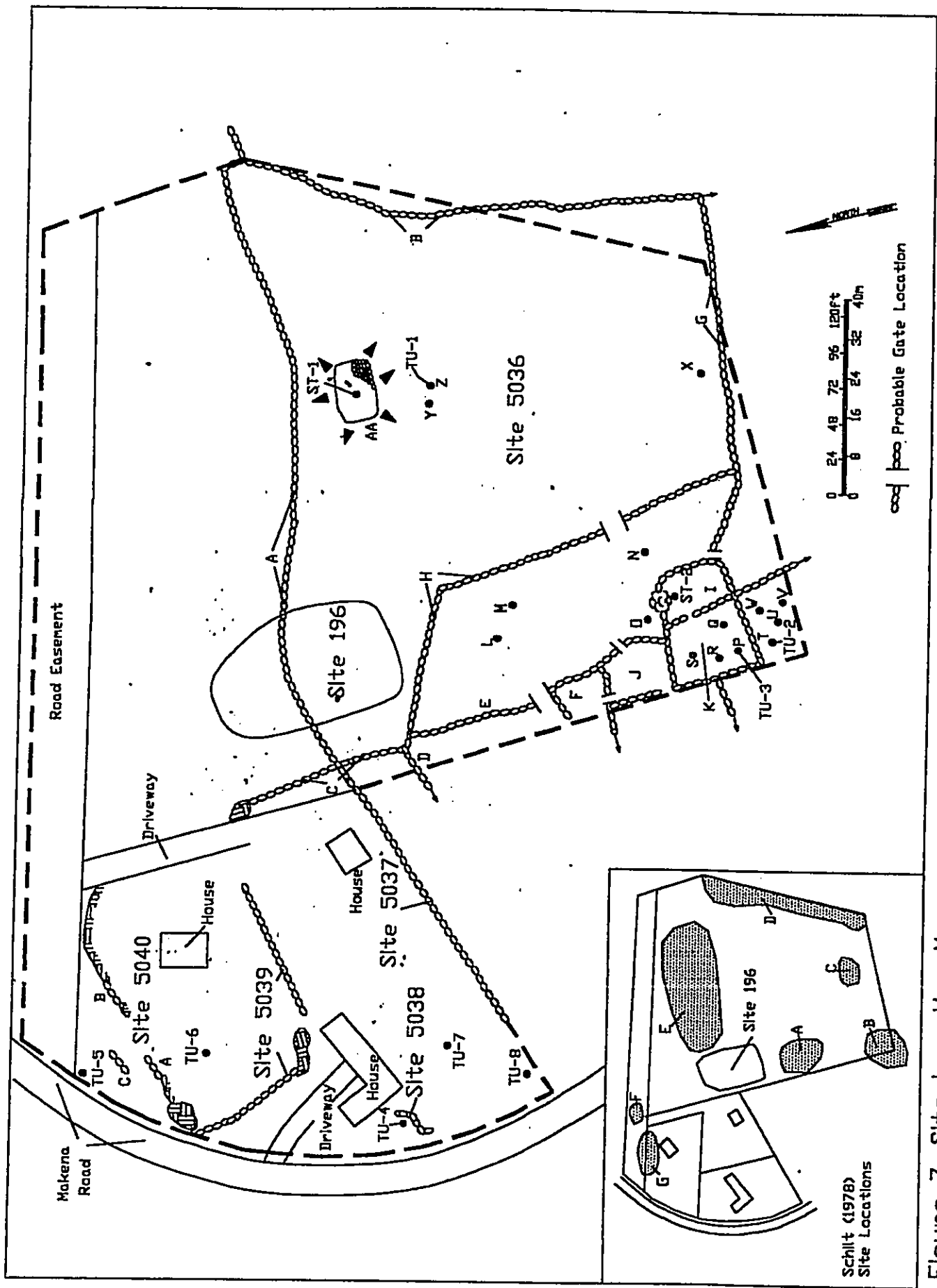
Schilt reported terracing in her Areas C, D, and E. These areas were thoroughly examined and no terracing was present except in the vicinity of Feature AA, a modified knoll, near Schilt's Area E. Schilt describes the terrace construction as "numerous cobbles of relatively uniform and medium size are placed upslope of a natural outcrop, which functions as a natural 'facing' to create the terraced formation" (1979:18). The ground surface in these areas is littered with surface stone and there are many small, low outcrops because the area is a weathered *aa* lava flow. On sloping terrain, the surface stones occasionally appear to be concentrated around outcrops, but this appears to be the result of cattle and downslope movement of surface stone. The concentrations result from surface stones accumulating on the upslope sides of outcrops. The stones are not piled or stacked, as is typically of features resulting from clearing stones from agricultural plots. The size sorting observed by Schilt is a natural phenomenon resulting during the downslope movement of surface stones. Feature X of Site 5036 probably represents one of the two modified outcrops Schilt reported in Area C. No evidence of the other modified outcrop was identified.

In Area A, Schilt identified a possible burial mound, two *ahu*, a pavement and a well. The well, which was filled recent trash, corresponds to Feature O of Site 5036. Her map (1979:15, Figure 11), which does not show the well, depicts two segments of "modern walls" separated by a gap. This gap appears to be the probable gate opening between Feature E and F of Site 5036. She locates the pavement, possible burial and two mounds to the east of the opening in the vicinity of Features L and M identified during the current study. No other features are present in the area.

Area B was located in the southwestern corner of the project area. This area reportedly contained four *ahu* and the remnants of an enclosure bounded to the north and east by cattle walls. Features T, U, V, and W of Site 5036 are present in this area, but there is not sufficient information in the report to accurately correlate the features with those identified by Schilt.

There is no evidence of the small circular enclosure reported by Rodgers-Jourdane (1979), who surveyed the land on the north, east, and south sides of the current project area. No such feature was identified during the current study suggesting the feature was probably located inaccurately.

The Ycomans and McGerty (2000) survey of the adjacent parcel, west of the southern portion of project area, identified and mapped Site 5037 and Features C, D, E, F, I, J, K of Site 5036, which were re-



Schlitt (1978)
Site Locations

Figure 7. Site Location Map

corded during the current survey. Yeomans and McGerty did not describe or assigned site numbers to these features probably because the features are situated east of their project area boundary.

Table 3. Summary of Identified Sites

SHP Site No.	# of Features	Site Type	Function	Formal Type							Function									
				Mound	Wall	Enclosure	Modified Outcrop	Terrace	Platform	Lava Blower	Cultural deposit	Modified Knoll	Agriculture	Livestock Control	Ritual	Habitation	Temp. Habitation	Trash Dump		
196	1	Kalani Heiau	Ritual						1											
5036	27	Complex	Agriculture/Temp. Habitation/Livestock Control/Trash Dump	10	7	4	4				1		1							
5037	1	Wall	Livestock Control		1															
5038	1	Terrace	Agriculture					1												
5039	1	Wall	Livestock Control		1															
5040	3	Complex	Agriculture				2	1												
5079	1	Cultural Deposit	Habitation										1							
Total	35			10	9	4	6	2	1	1	1	1	1	1	1	1	1	1	1	1

Site 196

Site 196 is Kalani Heiau, which is located on a low knoll in the west-central portion of the project area. The site is situated on a c. 4.0 m tall knoll in the approximate center of the project area. The knoll measures c. 51.0 m long (north-south) by 37 m wide. Feature A of Site 5036, discussed below, extends across the top surface of the *heiau*. Feature C is situated along the western side of the knoll, and Feature H is present along the southern side (Figure 8).

Originally, the southern and western sides of the knoll were probably stepped with a series of narrow terrace/retaining walls. An intact portion of wall face is visible on the southern slope of the structure. The southern wall ranges in height from 1.25 to 1.8 m (Figure 9). There is a pavement of *a'a* pebbles and small cobbles located at the southern end of the knoll, measuring 9.0 m (east-west) by 6.6 m (Figure 10). Rubble from an L-shaped wall constructed of piled *a'a* cobbles and small boulders borders the pavement on the east and south sides. The wall is 13.3 m (east-west) by 11.9 m (north-south). It ranges in width from 1.5 to 1.8 m, and in height from 0.25 to 0.35 m.

A second paved area is located on the eastern side of the knoll. This pavement is 5.75 m long (north-south) by 4.8 m wide. The remaining upper surface of the knoll is comprised of an area of soil with scattered *a'a* cobbles. Waterworn basalt pebbles (*ili ili*) and coral fragments are scattered over the surface of the site.

The condition of Site 196 is nearly the same as that reported by Schilt in 1979. Her map of the site (1979:8, Figure 3) depicts a wall face on the seaward slope of the structure that is no longer visible; otherwise the site is unchanged. The poor condition of the structure is undoubtedly largely due to removal of stones to construct the wall on the site and walls to the south and west of the site. Walker (1931) does not mention the wall that bisects the site perhaps indicating that it was constructed after his visit. The site's location on a prominent knoll, which would have commanded a broad view of the coast, and stepped construction are attributes typically characteristic of *heiau*.

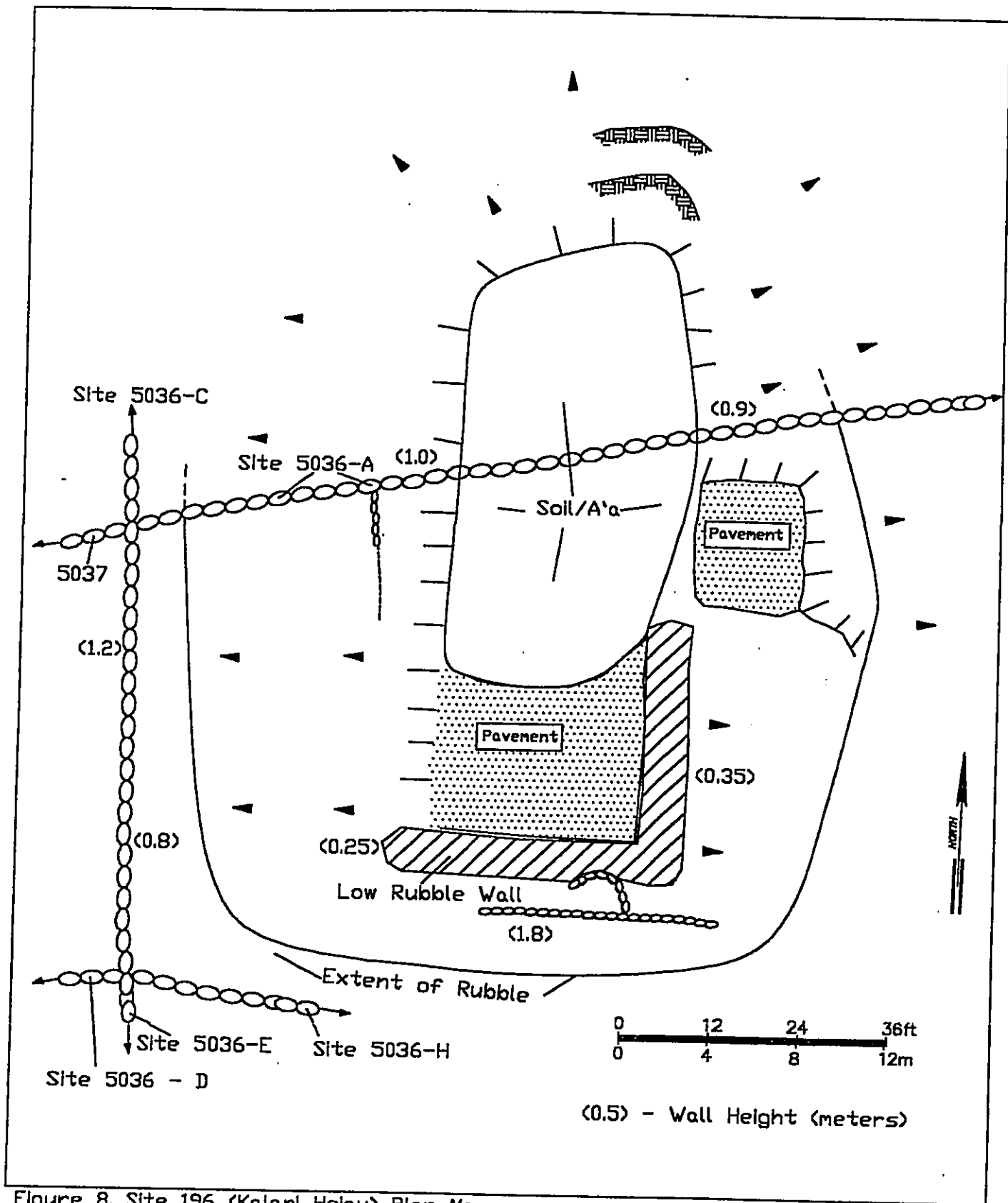


Figure 8. Site 196 (Kalani Heiau) Plan Map

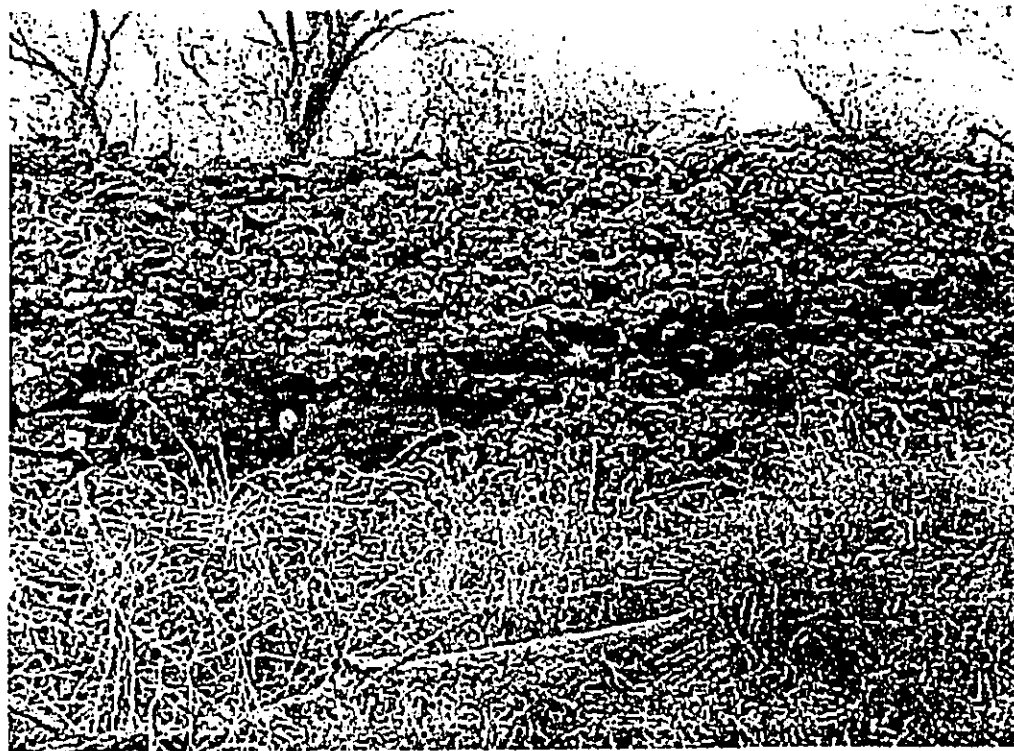


Figure 9. Site 196 - South Wall Face, View to North



Figure 10. Site 196 - Eastern Paved Surface, View to North

Site 5036

Site 5036 is a complex of 27 features located in the eastern portion of the project area. The location of the features are illustrated in *Figure 7*. The features consist of ten mounds (Features P-W, Y and Z), seven walls (Features A-E, G and H), four enclosures (Features F, and I-K), four modified outcrops, (Features L-N and X), one lava blister (Feature O) and one modified knoll (Feature AA). Of the 27 identified features, only the Feature AA modified knoll appears to have been prehistorically utilized. The remaining 26 features are historic and/or modern in origin. The site is in poor to good condition and is altered. The Site 5036 features are described below.

Feature A

Feature A is a stone wall that extends across the surface of Kalani Heiau (*Figure 11*). The wall originates on the eastern side of the Feature C stone wall (discussed below) that is located along the western side of the *heiau*. It extends to the east-northeast for 40.5 m, angles slightly to the east-southeast for 63.0 m, and continues to the east-northeast for an additional 43.0 m. The eastern end of the wall terminates at the northern end of the Feature B wall, described below.

Feature A is constructed of stacked large to small angular to subangular basalt cobbles. It ranges in width from 0.6 to 0.65 m at the base and 0.5 to 0.6 m at top. The wall is from 0.9 to 1.0 m in height with faced sides. Portions of the wall evidence a narrow, core-filled interior. The length, method of construction, and height of the wall indicates that it functioned as a livestock control feature, likely constructed historically to restrict the movement of cattle. Walker's description of the Site 139 *heiau*, presented above, makes no mention of this wall, which may indicate that it was constructed after his 1931 survey.

Feature B

Feature B is a stone wall that roughly follows the eastern project area boundary. The wall originates at the eastern end of the Feature A wall. It extends to the south-southeast for 5.0 m, angles to the southwest for 31.5 m, and turns to the south-southwest for 61.9 m. The southern end of this wall terminates at the eastern end of the Feature G wall. The base of the wall is constructed of angular to subangular basalt boulders and large cobbles (*Figure 12*). The upper portions of the wall consist of stacked cobbles. The sides of the feature are faced and the interior is core-filled. Feature B ranges in width at the base from 0.7 to 0.82 m, and at the top from 0.55 to 0.7 m. The wall varies in height from 0.8 to 1.1 m. A 6.3 m long section of wall extends to the east from Feature B, near its northern end. This wall is located outside the project area boundary. The Feature B wall is interpreted as an historic cattle wall based on its height, length, and method of construction.

Feature C

Feature C is a stone wall that extends along the western side of Kalani Heiau. The northern end of the wall originates against a basalt outcrop. It extends to the south, past the Feature A wall intersection, ending at the intersections of wall Features D and H, described below. Feature C measures 33.5 m in length. It ranges in width at the base from 0.7 to 0.85 m and at the top from 0.55 to 0.72 m. It is 0.9 to 1.05 m high on the western side and 0.3 to 0.8 m in height on the eastern side. The wall is constructed of stacked *a'a* cobbles and small boulders, with faced sides and a core-filled interior (*Figure 13*). The method of construction of this wall and its height suggest it functioned as a livestock control feature.

Feature D

Feature D (*Figure 14*) is a stone wall that extends to the west-southwest from the southern end of the Feature C wall. The portion of the wall within the project area is 3.9 m in length, extending to the west-southwest outside the project area. Yeomans and McGerty (2000) identified and mapped this wall though it was not assigned a site designation. According to their map, the Feature D wall extends 25.9 m into the adjacent parcel, oriented in a northeast by southwesterly direction. The wall is built of stacked *a'a* cobbles and small boulders, with faced sides, and a narrow core-filled interior. It is 0.52 to 0.7 m wide at the base



Figure 11. Site 5036, Feature A Wall with Site 196 in Foreground, View to North



Figure 12. Site 5036, Feature B Wall, View to Southeast



Figure 13. Site 5036, Feature C Wall, View to West

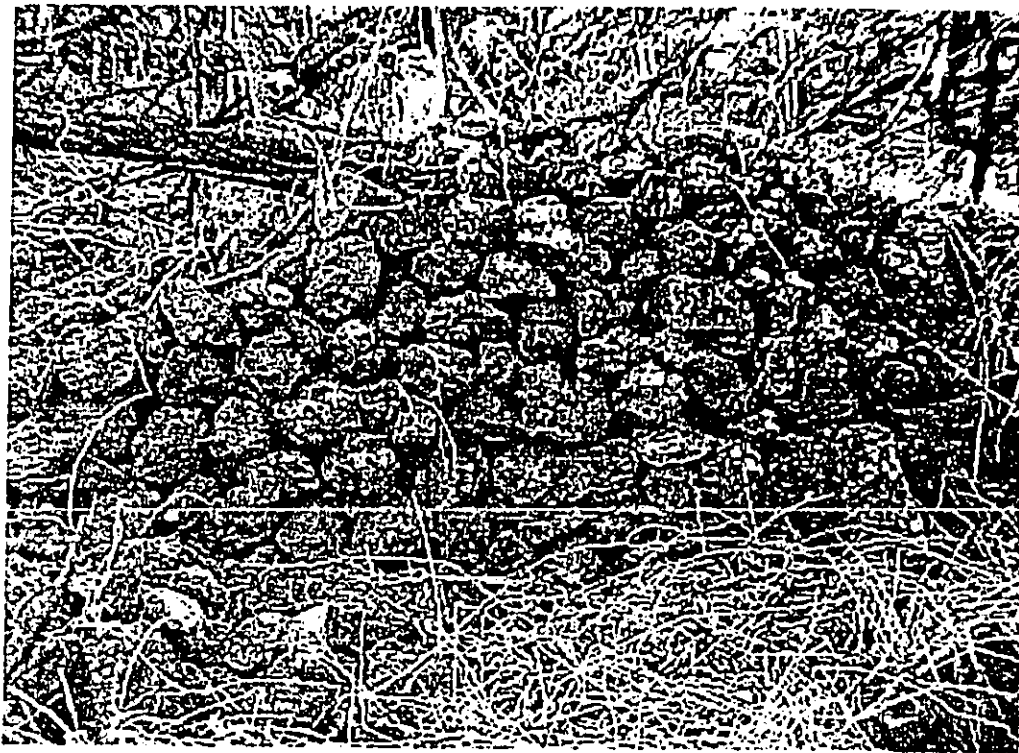


Figure 14. Site 5036, Feature D Wall, View to South

and 0.4 to 0.5 m wide at the top. The wall varies in height from 0.9 to 1.1 m. Feature D is interpreted as an historic cattle wall based on its method of construction.

Feature E

Feature E (*Figure 15*) is a stone wall that extends to the south from the Feature H wall, and which ends at a gate, north of the Feature F enclosure. The wall is 26.3 m long (north-south) and is built of stacked *a'a* cobbles and small boulders. The wall has faced sides and a narrow core-filled interior. The wall is 0.6 to 0.7 m wide at the base and 0.4 to 0.5 m wide at the top. The wall is constructed over several basalt outcrops, incorporating them into its construction. Feature E ranges in height from 1.2 to 1.3 m on the western side (downslope) and 0.7 to 0.8 m in height on the eastern side. The southern end of the wall is vertically faced. The 4.0 m gap between the end of the wall and Feature F probably was a gate. This wall is interpreted as an historic cattle wall based on its method of construction.

Feature F

Feature F is a roughly U-shaped enclosure that is open on the western side. The feature is located south of the southern end of the Feature E wall, on the opposite side the gate mentioned above. The enclosure measures 7.3 m along the northern wall, 13.6 m along the southern wall and 11.0 m along the eastern wall. There is a gate in the southern wall that opens into the Feature J enclosure. The walls of the feature are constructed of stacked *a'a* cobbles and small boulders, with faced sides, and a core-filled interior of pebbles and small cobbles. The walls vary in width from 0.86 to 1.1 m at the base and 0.65 to 0.9 m at the top (*Figure 16*). The walls range in height from 1.05 to 1.4 m. No cultural remains were present within the enclosure. The height and method of construction of this enclosure suggest it was used to control cattle.

Feature G

Feature G is a stone wall that is located north of the southern project area boundary, along the northern side of shallow drainage. The wall originates at the south end of the Feature B wall, c. 7.4 m east of the eastern project area boundary. It extends to the west-northwest for 49.4 m, to where it intersects the southern end of the Feature H wall. It continues to the northwest from this point a distance of 16.9 m to where it terminates on the eastern side of the Feature I enclosure. The end of the wall next to Feature I is vertically faced and the gap between the end of the wall and Feature I was probably a gate.

The wall is constructed of stacked small *a'a* boulders and large cobbles. It varies in width from 0.45 to 0.7 m at the base and 0.32 to 0.4 m at the top. The wall ranges in height from 0.7 to 0.9 m (*Figure 17*). The sides of the wall are faced, and the interior has a narrow core-fill. Modern beer cans are scattered throughout the area. Feature G is interpreted as an historic cattle wall based on its method of construction and gate.

Feature H

Feature H is a stone wall that is located south of Kalani Heiau. The wall originates at the Feature C/D intersection and extends to the southeast for 33.7 m. It then angles to the south for 64.2 m, terminating on the northern side of the Feature G wall. There is a c. 4.0 m wide gap in the north-south section of the wall, 24.2 m north of Feature G. The ends of the wall on either side of the gap are faced and the gap probably was gate. The wall is constructed of stacked *a'a* cobbles and small boulders, ranging in width at the base from 0.65 to .75 m, and at the top from 0.58 to 0.64 m. The wall varies in height from 0.6 to 0.82 m (*Figure 18*). The walls evidence faced sides and a narrow core-filled interior.

The Feature H wall forms the north and eastern sides of a large enclosure, with Features E, F, G, I and J forming the southern and western sides. The enclosure is roughly trapezoidal in shape and is 64 to 70 m long (north-south) and from 15.8 to 27.9 m wide. There are three modified outcrops (Features L, M and N) and a lava blister (Feature O) located within this enclosure. The configuration and method of construction of this wall indicates it was used as a livestock control feature.

Feature I

Feature I is a D-shaped enclosure located in the southwestern corner of the large enclosure discussed above. The enclosure is 15.8 m long (north-south) by 7.9 to 8.5 m wide. The western wall of this enclosure forms the eastern wall of the Feature K enclosure discussed below. There is a 1.45 m wide open-



Figure 15. Site 5036, Feature E Wall, View to East

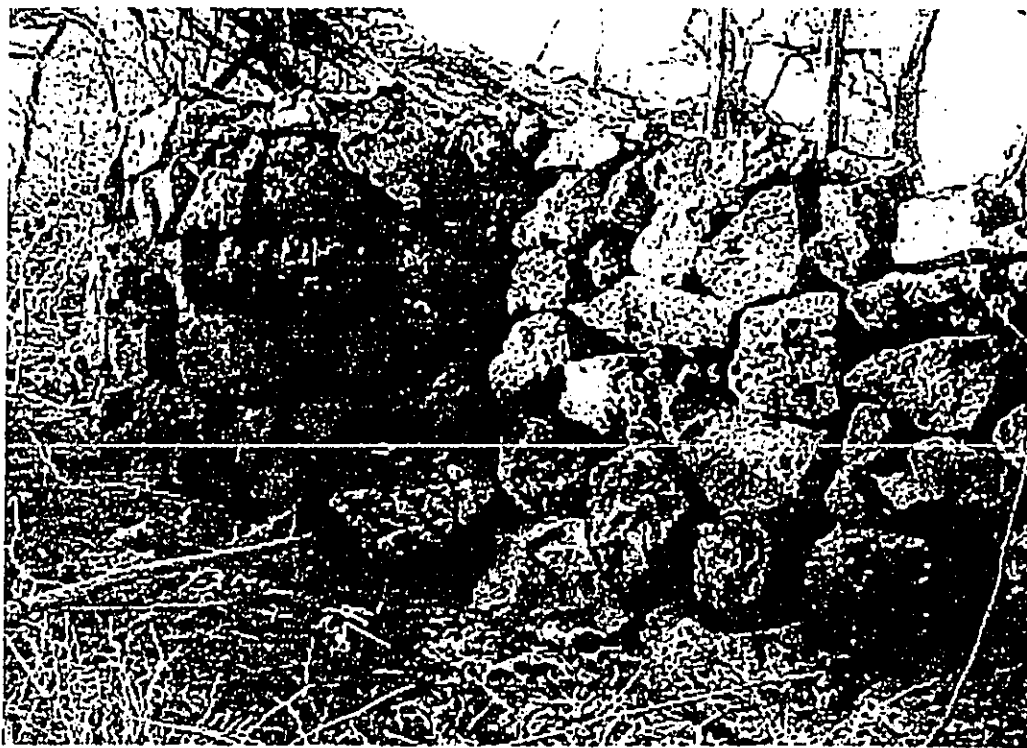


Figure 16. Site 5036, Feature F Enclosure, View to South



Figure 17. Site 5036, Feature G Wall, View to South

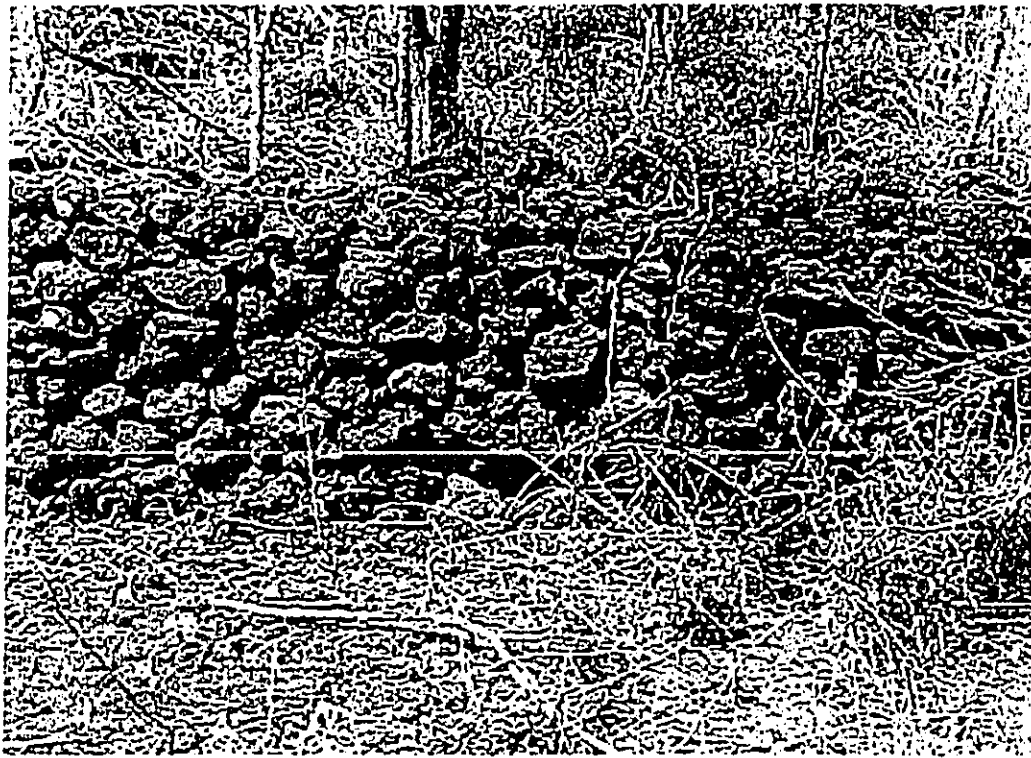


Figure 18. Site 5036, Feature H Wall, View to North

ing between these two enclosures in the western wall. A portion of the northern wall has collapsed. The enclosure walls are constructed of stacked *a'a* cobbles and small boulders that range in width from 1.1 to 1.25 m at the base and 0.8 to 1.1 m at the top (*Figure 19*). The walls vary in height from 0.7 to 0.83 m. Modern bottles and 1/4" screen material was present within the enclosure.

A 0.3 m diameter shovel test (ST-2) was excavated within the enclosure at the northern end. The excavation of this shovel test revealed 0.21 m of a dark yellowish brown (10YR 4/6) silt intermixed with *a'a* pebbles and cobbles. No cultural remains were present. The excavation of ST-2 was terminated in a dense deposit of *a'a* cobbles. Feature I is interpreted as an historic livestock enclosure based on its method of construction and lack of habitation debris. The narrow opening to the enclosure suggests it may have been used for pigs instead of cattle. This is also suggested by the walls, which are lower and thicker than the nearby cattle walls.

Feature J

Feature J is a roughly rectangular-shaped enclosure (*Figure 20*) bordered by the Feature F enclosure on the north, by the Feature K enclosure on the south, and by the large enclosure formed by Feature H on the east. The enclosure is 11.6 m long (north-south) and from 7.4 to 11.5 m wide. There are two gates into the enclosure, one at the northwestern corner leading to Feature F, and one in the eastern wall that leads to Feature H. There is a 2.1 m gap at the southern end of the western wall.

A wall is located at the northwestern corner of the Feature J enclosure, extending outside the project area to the west. This wall, and the western wall of the Feature J enclosure form a large enclosure designated as Feature I of Site 4986 by Yeomans and McGerty (2000:14).

The walls of Feature J are constructed of stacked *a'a* cobbles and small boulders, with faced sides, and a core-filled interior. The walls range in width from 0.85 to 1.2 m at the base and 0.65 to 0.8 m at the top. The walls vary in height from 0.81 to 1.22 m. A section of metal rebar is present on top of the western wall and several pieces of 1/2" galvanized pipe are located inside the enclosure. Feature J is interpreted as a cattle enclosure based on its method of construction and association with other livestock features in the area. The building materials appear to be subsequently placed at the site, probably by the former occupants of the lot to the west.

Feature K

Feature K is a rectangular shaped enclosure situated in the southwestern portion of the project area (*Figure 21*). The enclosure shares a common wall with the Feature I enclosure to the east and the Feature J enclosure to the north. Feature K is 15.3 to 17.9 m long (north-south) by 12.6 to 14.7 m wide. There is a 1.45 m wide opening in the eastern wall of Feature K that leads to Feature I. The walls of the enclosure range in width from 0.7 to 0.8 m wide at the base and 0.44 to 0.75 m wide at the top. The walls are built of stacked *a'a* cobbles and boulders with faced sides and a core-filled interior. They vary in height from 0.58 to 0.8 m. Four stone mounds (Features P-S) are situated within the Feature K enclosure. A stone wall is located on the western side of the enclosure, outside the project area. This wall forms the northern wall of a multiple enclosure recorded by Yeomans and McGerty as Feature 2 of Site 4986 (2000:16). The presence of four mounds of stone within the enclosure (Features Q, P, R, and S), which are probable stone clearing features, indicates that the enclosure was probably a garden.

Feature L

Feature L is a modified outcrop situated within the large enclosure formed by Feature H. It is located 15.2 m southwest of the northeastern corner of this enclosure. The feature consists of two exposed outcrops with *a'a* cobbles and small boulders piled between them. Feature L is roughly oval in shape and measures 1.4 m long (north-south) by 0.8 m wide. It varies in height from 0.25 to 0.35 m. No cultural remains were present. The informal method of construction and lack of portable remains suggests Feature L functioned as an agricultural feature created by clearing stones from the surrounding terrain.

Feature M

Feature M is a modified outcrop located 7.4 m southeast of Feature L (*Figure 22*). The feature is oval in shape and consists of a pile of *a'a* cobbles located between two low outcrops. It is 2.1 m in length



Figure 19. Site 5036, Feature I Enclosure, View to Southeast



Figure 20. Site 5036, Feature J Enclosure, View to Northeast



Figure 21. Site 5036, Feature K Enclosure, View to East

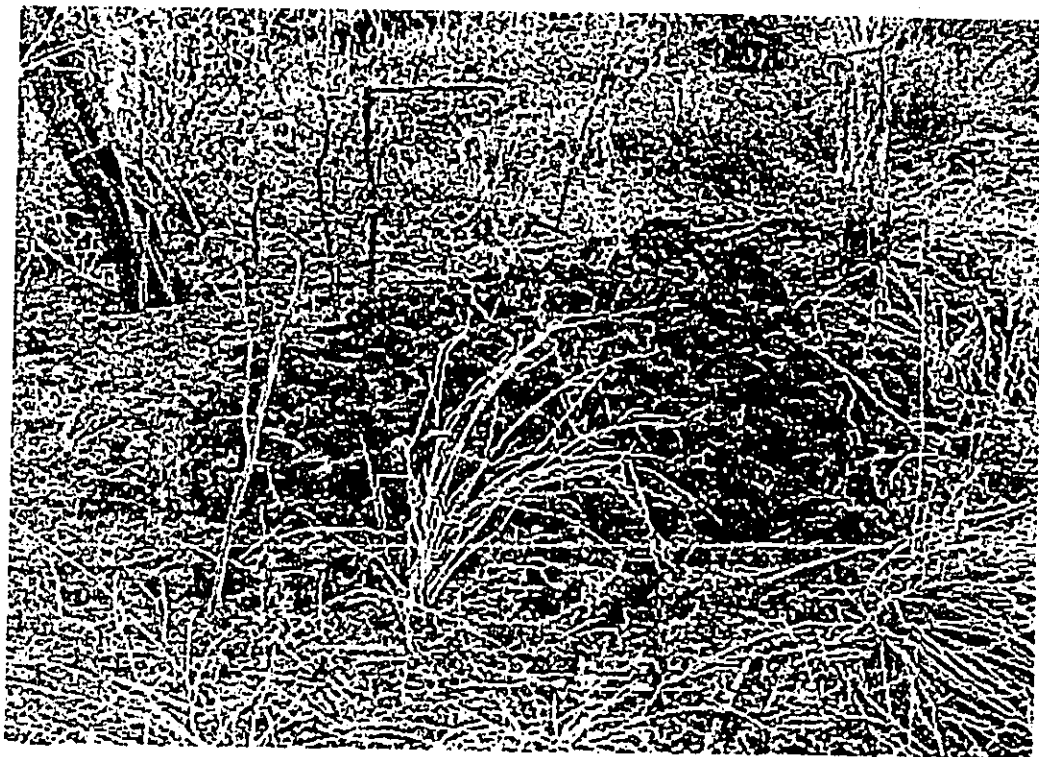


Figure 22. Site 5036, Feature M Modified Outcrop, View to East-Southeast

(north-south), 1.3 m wide and 0.4 to 0.52 m in height. No cultural remains were present. Feature M is interpreted as an agricultural feature based on its informal construction and lack of cultural remains.

Feature N

Feature N is a modified outcrop located within the large enclosure formed by Feature H, 34.9 m south of Feature M. The feature consists of a low outcrop that is 4.5 m long (east-west) by 3.5 m wide. Several irregularly-shaped piles of *a'a* cobbles and pebbles are situated on the surface of the outcrop. These piles range in size from 0.4 to 0.55 m in diameter to 0.15 to 0.28 m in height. No cultural remains were present. The informal method of construction and lack of portable remains suggests Feature N functioned as an agricultural feature.

Feature O

Feature O is a small lava blister situated within the large enclosure formed by Feature H, in the southwestern corner north of Feature I. The interior of the blister is 2.3 m long (east-west) and from 1.2 to 1.7 m wide. The blister is open on the southeastern side, with an interior ceiling height of 0.6 m. Large amounts of modern or historic debris have been deposited within and adjacent to the blister. This material consists of 40 to 50 brown glass beer bottles with "No Deposit-No Return" imprinted on the sides, approximately 20 green glass Coca-Cola bottles, several screw-top brown and clear glass bottles and jars, and rusted sardine tins, a paint thinner can and numerous metal food cans (*Figure 23*). The nature of this material suggests the Feature O lava blister functioned as an early to mid-1900s trash dump, probably created by the former occupants of the lot to the west.

Feature P

Feature P is a mound situated within the Feature K enclosure (*Figure 24*). The mound is circular in shape with a domed surface. It measures 2.1 m in diameter and 0.30 to 0.32 m in height. It is constructed of piled *a'a* pebbles and small cobbles. No cultural remains were present on the surface of the mound.

A 0.5 by 0.5 m test unit (TU-3) was excavated into the mound. The excavation of this unit revealed the stone layer associated with the mound (Layer I), and two soil layers over a dense deposit of *a'a* cobbles (Layers II and III). Layer I consisted of a layer of tightly packed *a'a* pebbles and small cobbles that ranged in thickness from 0.03 m at the edge of the mound to 0.32 m in the center. No cultural remains were present. The Layer I stones did not intrude into the Layer II soil below.

Layer II was comprised of a dark yellowish brown (10YR 4/4) silt. It extended from the ground surface to depths ranging from 0.25 to 0.3 m. A thin (0.03 m) lens of grayish brown (2.5Y 5/2) fine powdery ash was present in the Layer II soil, from 0.03 to 0.05 m below the stone layer. A piece of clear glass, two rusted metal fragments, and two fragments of unidentified marine shell were recovered from Layer II.

Layer III consisted of 0.05 to 0.07 m of a non-cultural layer of dark yellowish brown (10YR 3/6) silt. The excavation of TU-3 was terminated on dense deposit of *a'a* cobble. The informal method of construction of this mound and the absence of cultural remains suggests that Feature P functioned as an agricultural clearing feature. The thin ash lens noted in Layer II appears to predate the construction of the mound and the ash likely represents an episode of burning in the area. The stratigraphy of TU-3 is illustrated in *Figure 25*.

Feature Q

Feature Q is an oval-shaped mound situated within the Feature K enclosure, 5.8 m east-northeast of Feature P. The mound is 1.7 m in length (north-south), 1.3 m wide and 0.6 m in height. The surface of the mound is domed shaped and it is built of piled *a'a* pebbles and small cobbles. A metal ring (0.12 m in diameter) and the broken neck of a brown bottle were observed on the surface of the mound. Feature Q is interpreted as an agricultural feature based to its informal construction.

Feature R

Feature R is a mound located 4.2 m north of Feature P, within the Feature K enclosure. This mound is oval in shape with a domed surface. The feature is 1.55 m in length (north-south), 0.9 m in width and 0.45 m in height. It is built of piled *a'a* cobbles and small boulders. No cultural remains were present.

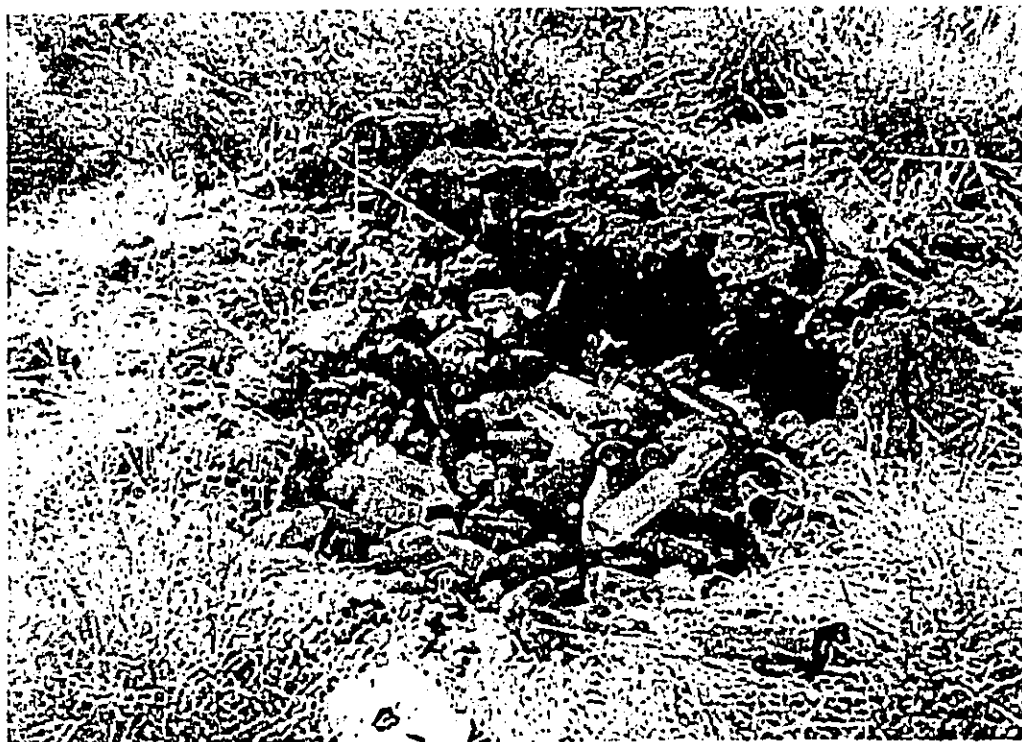


Figure 23. Site 5036, Feature O Lava Blister, View to Northwest

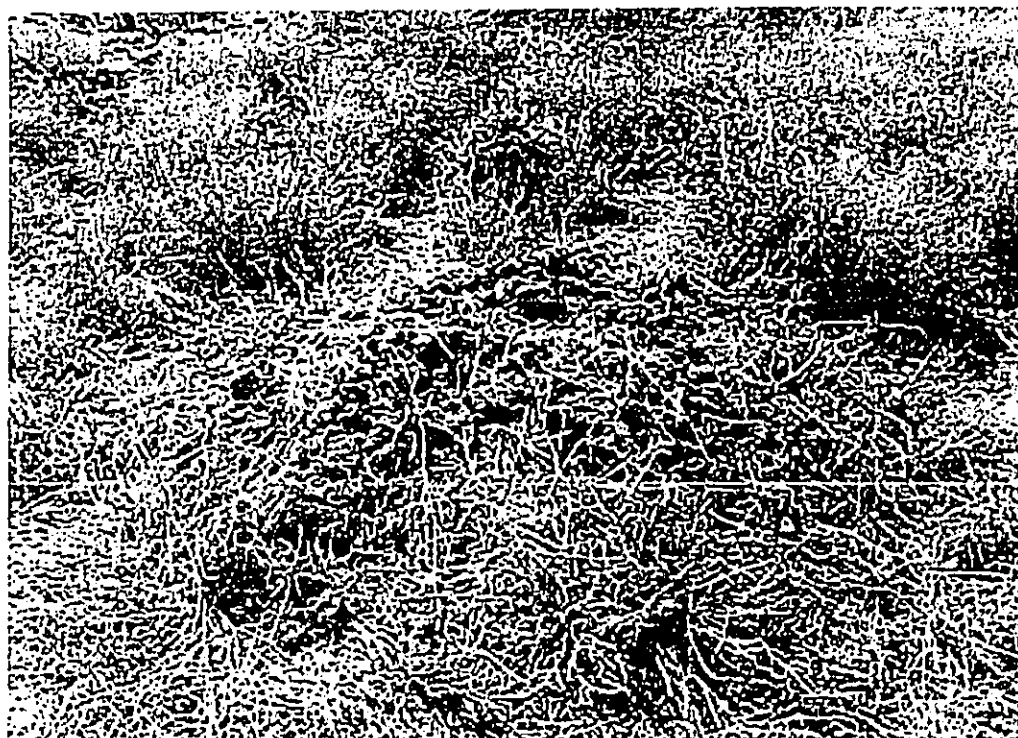


Figure 24. Site 5036, Feature P Mound, View to West

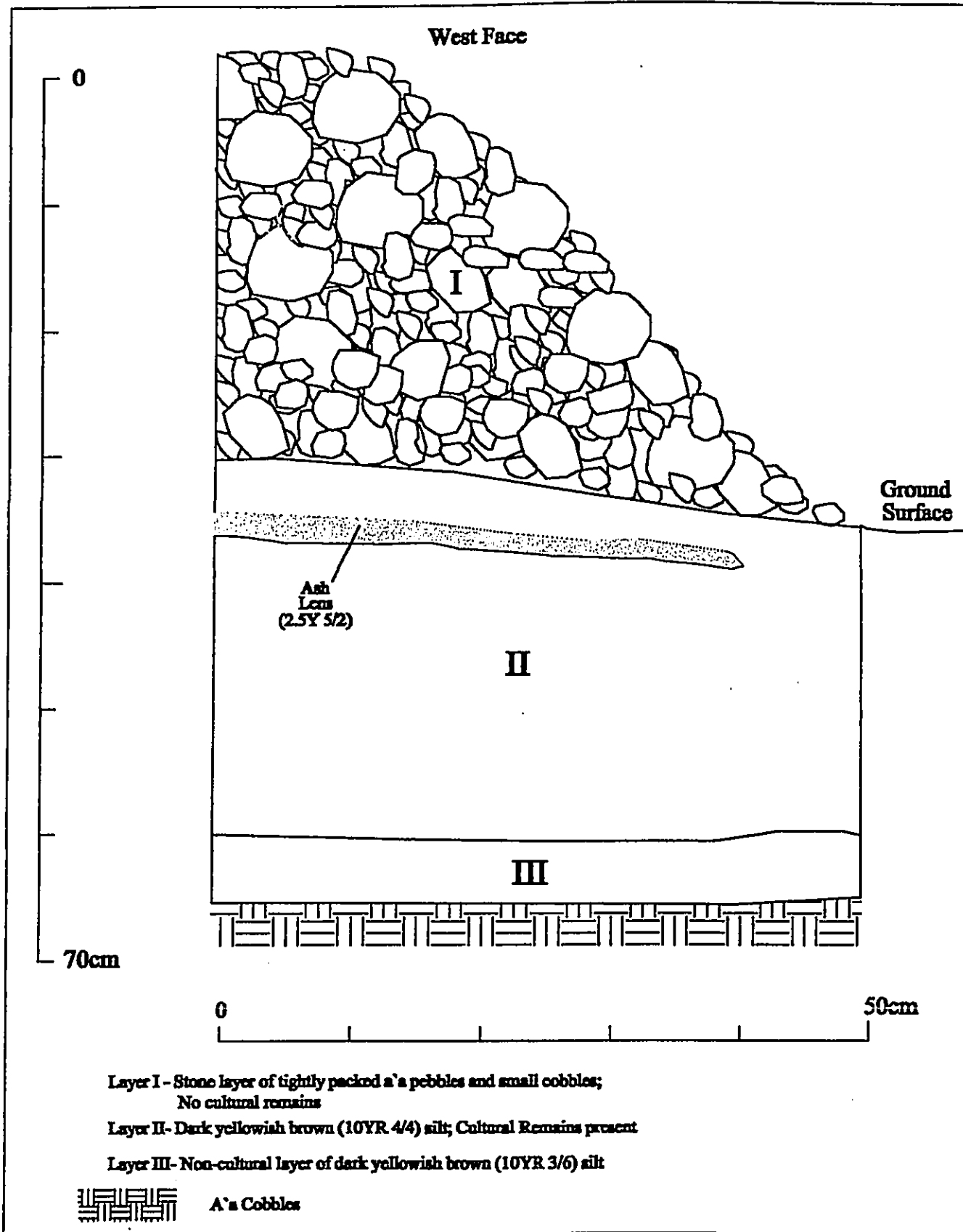


Figure 25. Site 5036, Feature P, TU-3

The informal method of construction and lack of portable remains suggests Feature R functioned as an agricultural feature.

Feature S

Feature S is a roughly circular-shaped mound situated within the Feature K enclosure, 2.8 m north-northeast of Feature S. The mound is 1.55 m in diameter and 0.2 m in height, with an irregular, uneven surface. It is constructed of piled *a'a* pebbles, cobbles and small boulders. A rusted tin can was present on the mound's surface. Feature S is interpreted as an agricultural feature based on its informal construction.

Feature T

Feature T is an oval shaped mound located in the southwestern corner of the project area, 4.7 m southeast of the southwestern corner of the Feature K enclosure. The mound measures 2.8 m in length (east-west), 1.8 m in width, and 0.59 m in height. The surface of the mound is domed-shaped. The feature is constructed of piled *a'a* pebbles, cobbles and small boulders. A waterworn basalt cobble, pieces of waterworn coral, a sun-bleached fragment of *cowrie* shell, several brown glass beer bottles and chicken wire were present on and around the mound.

A 0.8 by 0.8 m test unit (TU-2) was excavated into the northwestern portion of the mound. Layer I consisted of a layer of tightly packed *a'a* pebbles, cobbles, and small boulders that ranged in thickness from 0.10 m at the edge of the mound to 0.59 m in the center. No cultural remains were present. The Layer I stones did not intrude into the Layer II soil below.

Layer II was comprised of a brown (10YR 4/3) silt. It extended from the ground surface to depths ranging from 0.12 to 0.20 m. A (0.04 to 0.07 m) lens of grayish brown (2.5Y 5/2) fine powdery ash with large chunks of charcoal and fragments of burned wood was present in the Layer II deposit between 0.03 and 0.1 m below the stone layer. A variety of materials were recovered from Layer II. These materials included 22 rusted nails, two unidentifiable rusted metal fragments, two *cowrie* shell fragments (2.1 g), and three pieces of partially burned wood. The nails consist of 21 with round heads and one with a square head. The round headed nails ranged in length from 35 mm to 87 mm. The square nail was broken off at the end, measuring 25 mm long. The burned wood fragments ranged in length 23 to 67 mm.

Layer III consisted of 0.04 to 0.08 m of a dark yellowish brown (10YR 4/6) silt. This deposit contained nine pieces of marine shell and several small flecks of charcoal. The marine shell consisted of four *cowrie* shell fragments (9.2 g), three *conus* shell fragments (3.1 g), and two *drupa* shell fragments (1.4 g). The excavation of TU-2 was terminated in a dense deposit of *a'a* cobbles.

Feature T is interpreted as an agricultural feature due to its informal construction and absence of cultural remains within the stone layer. The presence of the metal debris, burned wood and ash lens in the underlying Layer II soil suggests this area was utilized historically before the construction of the surface feature. The food shell remains and charcoal recovered from the Layer III soil further suggests an earlier historic to prehistoric occupation of the area. The stratigraphy of the excavation is illustrated in *Figure 26*.

Feature U

Feature U is a roughly rectangular-shaped mound situated 4.5 m southeast of Feature T. The mound is 2.54 m long (east-west), 1.85 to 2.0 m wide and 0.4 to 0.55 m in height. The surface of the mound is uneven and irregular. It is built of piled *a'a* pebbles and cobbles. Several pieces of waterworn basalt and coral were noted on the surface of the mound. Feature U is interpreted as an agricultural feature based on its informal construction.

Feature V

Feature V is an irregularly-shaped mound located 3.9 m southeast of Feature U. The mound is 5.1 m long (east-west) and from 2.1 to 3.0 m in width. It ranges in height from 0.31 to 0.4 m and is constructed of *a'a* cobbles and pebbles. The surface of the mound is irregular and uneven. A clear glass jar and a small waterworn cobble were noted on the surface of the feature. The informal method of construction of this mound suggests that it functioned as an agricultural feature.

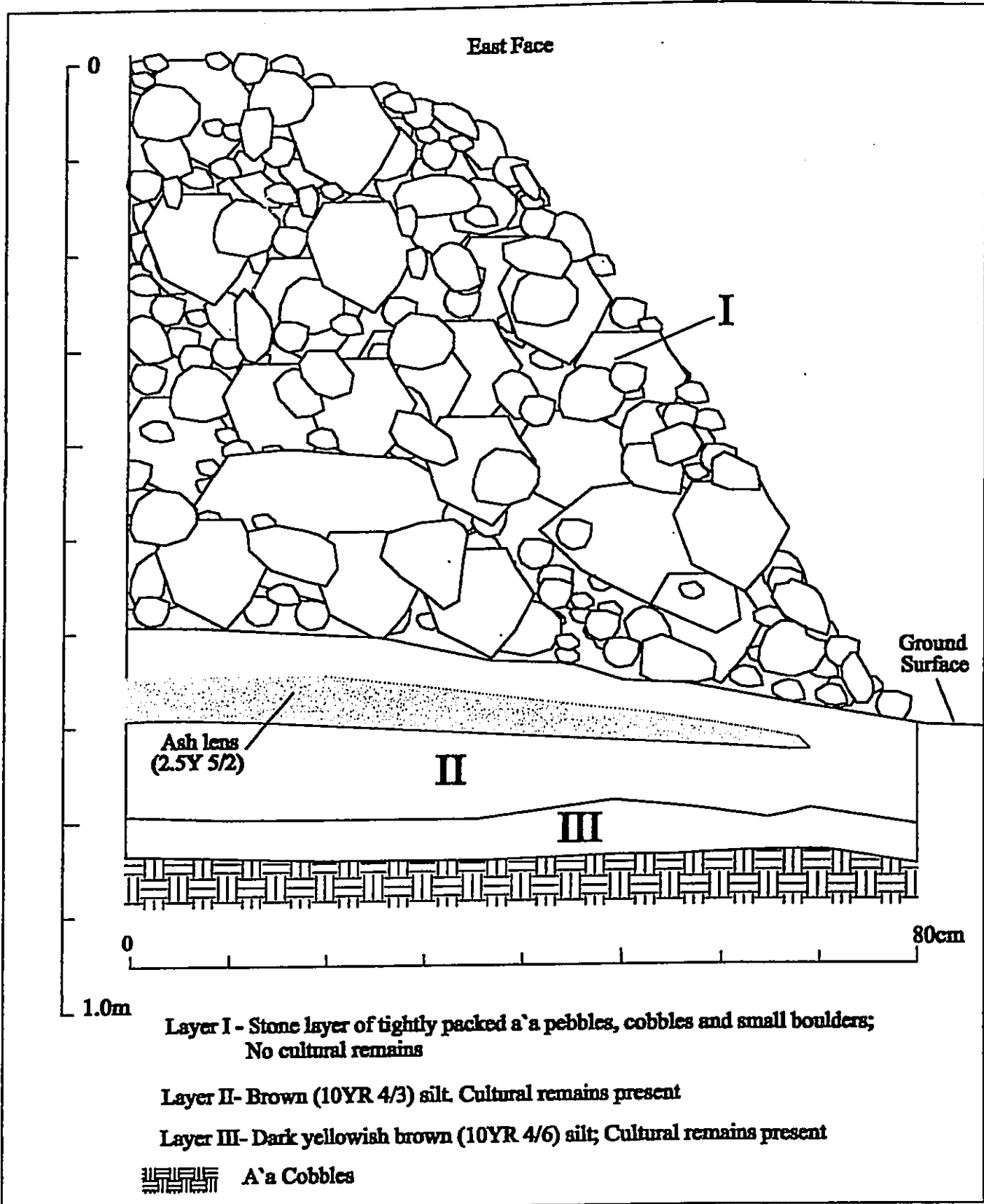


Figure 26. Site 5036, Feature T, TU-2

Feature W

Feature W is a roughly oval-shaped mound situated 4.6 m northeast of Feature U. It is 2.58 m long (northwest-southeast), 1.0 m wide and 0.2 to 0.3 m in height. The surface is slightly domed. It is constructed of *a'a* pebbles with a few cobbles present. No cultural remains were present. Feature W is interpreted as an agricultural feature based on its informal construction.

Feature X

Feature X is a modified outcrop situated on the northern side of the Feature G wall, near the southeastern corner of the project area. The feature is irregular in shape and measures 3.4 m long (east-west), 1.95 m wide and 0.2 to 0.35 m in height (*Figure 27*). It is constructed of piled *a'a* cobbles and pebbles. A modern tin can was observed on the surface of the feature. Feature X is interpreted as an agricultural feature based on its informal construction and lack of cultural remains.

Feature Y

Feature Y is a mound located 55.8 m north-northeast of Feature X and 65.0 m southeast of the Feature A/B intersection. The mound is rectangular in shape and is 1.6 m in length (east-west) by 0.9 m wide. The surface of the mound is slightly domed shape, measuring 0.65 to 0.7 m in height. The southern end of the feature is collapsed. The mound is constructed of stacked and piled *a'a* cobbles and small boulders. No cultural remains were present. Feature Y is interpreted as an agricultural feature based on its method of construction and lack of cultural remains.

Feature Z

Feature Z is an oval-shaped mound situated 3.7 m east-southeast of Feature Y. The feature is well-built with near-vertical faced sides. It is 1.25 m in length (east-west), 0.9 m in width and 0.67 m in height (*Figure 28*). The surface of the mound is uneven and irregular. Feature Z is constructed of stacked *a'a* cobbles and small boulders. No cultural remains were observed on the surface of the mound.

A 1.0 by 0.8 m test unit (TU-1) was excavated in the center of the mound. The excavation of this unit revealed the stone layer associated with the surface feature (Layer I) and a single soil deposit (Layer II). Layer I consisted of 0.6 to 0.67 m of tightly packed *a'a* cobbles and small boulders. The Layer I stones did not intrude into the Layer II soil below. No portable remains were present within Layer I.

Layer II was comprised of 0.25 m+ of a brown (10YR 4/3) silt with 70% cobble and pebble inclusions. The excavation of TU-1 was terminated 0.25 to 0.3 m in to this deposit. A small piece of waterworn coral and fragment of a small mammal bone (1.5 g) were recovered from the deposit.

Feature Z is interpreted as an agricultural feature based primarily to the absence of cultural remains within the stone layer. The presence of the coral and bone recovered from the underlying Layer II deposit suggests this area was utilized prior to the construction of the surface feature, or the materials were eroded from the nearby Feature AA knoll. The soil stratigraphy observed in the excavation of TU-1 is illustrated in *Figure 29*.

Feature AA

Feature AA is a modified knoll located in the east-central portion of the project area, c. 11.0 m north of Features Y and Z. The knoll is roughly oval in shape, measuring 12.5 m long (east-west) by 7.8 m wide (*Figure 30*). The knoll is approximately 4.0 m in height above the surrounding ground surface. The eastern portion of the knoll's surface is relatively level, with the western portion sloping gently to the west.

A rough pavement of *a'a* cobbles and small boulders is located in the southeastern corner of the knoll. This pavement is 6.5 m long (east-west) and from 0.6 to 3.3 m wide. The surface of the pavement is uneven and irregular, ranging in height from 0.10 to 0.23 m. The southern side of the pavement, at the edge of the knoll, has been built up to a height of 0.4 m and incorporated lava outcrops. Several pieces of *cowrie* shell were observed on the surface of the pavement.



Figure 27. Site 5036, Feature X Modified Outcrop, View to South



Figure 28. Site 5036, Feature Z Mound, View to South

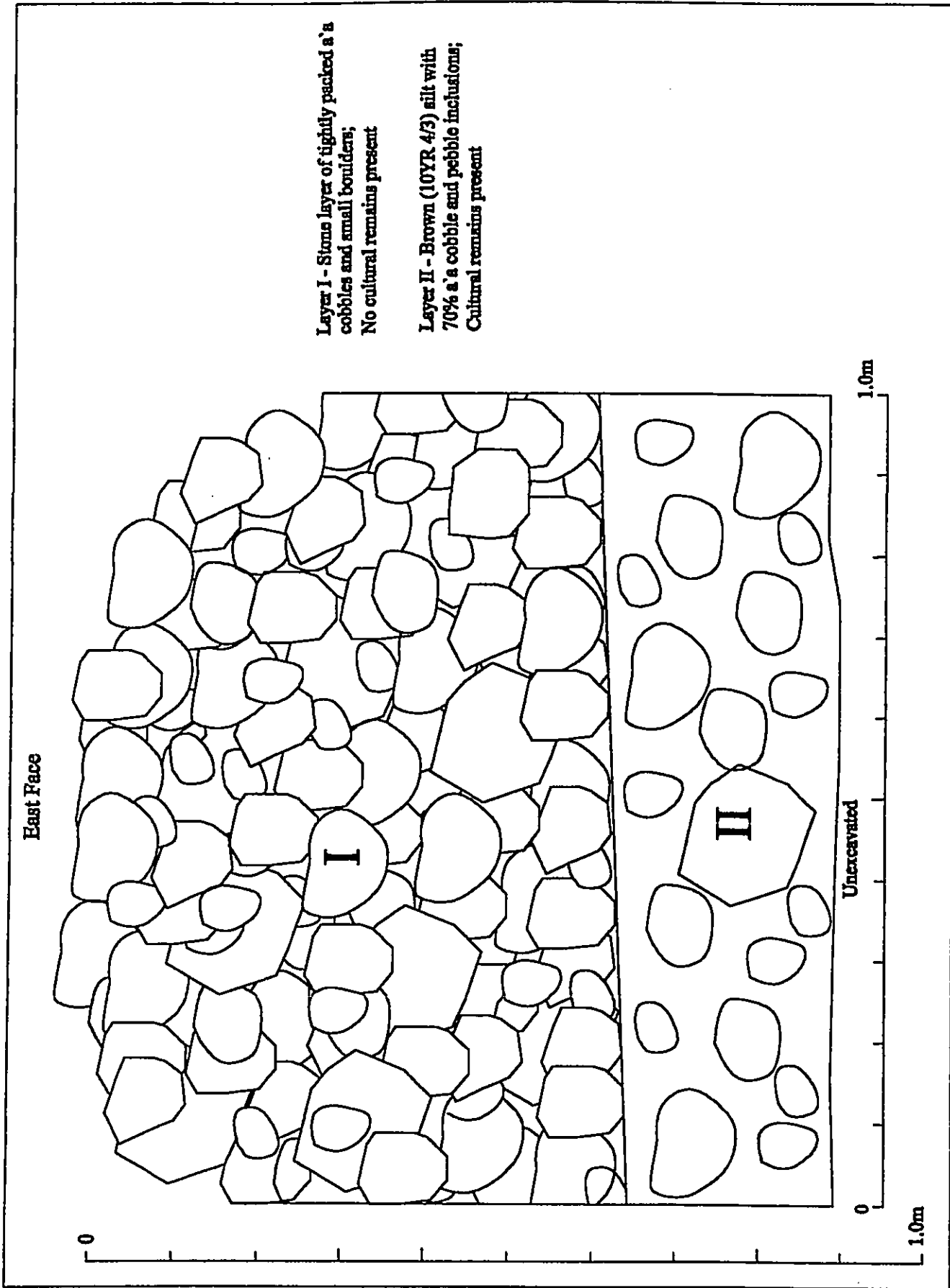


Figure 29. Site 5036, Feature Z, TU-1

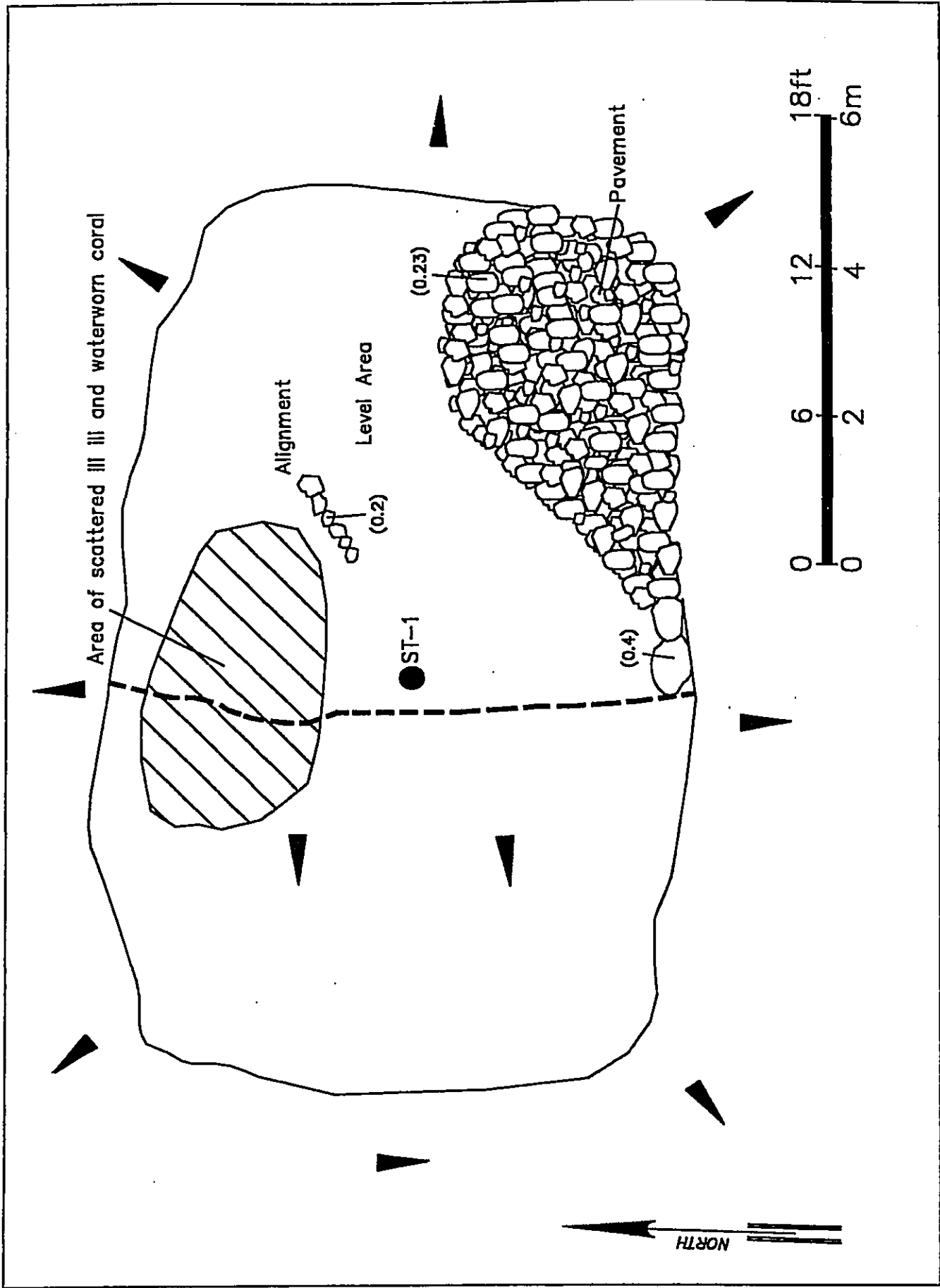


Figure 30. Site 5036, Feature AA Plan Map

An alignment of large cobbles is located on the top of the knoll, 2.0 m northwest of the pavement. The alignment is 1.4 m long (northeast-southwest) and comprised of cobbles ranging in size from 0.22 to 0.4 m in diameter. An area of sparsely scattered *ili ili* and waterworn coral is present at the northwestern portion of the level knoll. This area is 4.4 m long (east-west) by 2.4 m wide.

A 0.3 m diameter shovel test (ST-1) was excavated on the surface of the knoll near the western edge of the level area. The excavation of this shovel test revealed two soil deposits over bedrock. Layer I consisted of 0.25 m of a brown (10YR 4/3) loose silt with 20-30 % cobble and pebble inclusions. Several pieces of waterworn coral, *ili ili*, and five marine shell fragments were recovered from the deposit. The marine shell consisted of two *conus* shell fragments (1.8 g), two *cowrie* shell fragments (1.5 g), and one indeterminate shell fragment (.4 g). Layer II is a 0.05 m thick deposit of dark yellowish brown compact silt with a'a cobbles and no cultural remains. Feature AA is interpreted as a temporary habitation feature based on the feature's insubstantial construction and limited range and quantity of cultural remains.

Site 5037

Site 5037 is a stone wall that forms the southern project area boundary in the western leg of the project area. This wall was identified and mapped by Yeomans and McGerty (2000) but was not recorded or assigned a site designation. It originates on the south side of the Feature C wall at Site 5036 at the Feature A/C intersection. The wall extends to the southwest 62.0 m, terminating 16.0 m northeast of the southwest corner of the project area. This area appears to have been disturbed by bulldozer activity. The wall is constructed with small to medium boulders forming the basal course with stacked a'a cobbles in the upper portion (Figure 31). The sides of the wall are faced and the interior is core-filled. It varies in width at the base from 0.65 to 0.75 m and at the top from 0.4 to 0.55 m. The wall ranges in height from 0.8 to 0.9 m. No cultural remains were found in association with the wall. Site 5037 is altered and in fair condition.

Site 5037 is interpreted as an historic cattle wall based on its method of construction. It is possible that this wall once formed the southern boundary of a large enclosure, with Feature C of Site 5036 forming the eastern boundary and Site 5039 representing the northern boundary. The walls may have originally enclosed a *kuleana* house lot because the Site 5037 wall and the Feature C walls are in the approximate locations of the northern and southern boundaries of LCA 2399, Apana 2 awarded to Kalili (see Figure 2). The walls probably were subsequently lengthened to serve as ranch walls.

Site 5038

Site 5038 (Figure 33) is a terrace located adjacent to Makena Road to the east. The site is comprised of a roughly Z-shaped retaining wall. From the northern end of the terrace, the wall extends 3.36 m to the south southwest, then angles to the southwest for 3.6 m, then turns to the south for 1.95 m. The retaining wall is constructed of piled a'a cobbles and small boulders. In some places the wall consists of aligned small boulders. The level soil area is 3.15 to 5.3 m long (north northeast by south southwest) and from 1.45 to 2.95 m wide. No cultural remains were present on the surface of the terrace, which is covered with lawn.

A 0.5 by 0.5 m test unit (TU-4) was excavated into the terrace surface. The excavation revealed three deposits (Figure 32). Layer I consisted of 0.07 to 0.09 m of a dark yellowish brown (10YR 4/6) sandy loam. No cultural remains were present. Layer II was comprised of 0.09 to 0.11 m of a culturally sterile yellowish brown (10YR 5/8) silty sand. Layer II was underlain a layer of brownish yellow (10YR 6/8) fine sand (Layer III) and a'a cobbles. No cultural remains were recovered from Layer III.

Site 5038 is interpreted as an agricultural terrace. It is altered and in fair condition. This interpretation is based on the crude method of construction of the terrace and the lack of associated cultural remains.

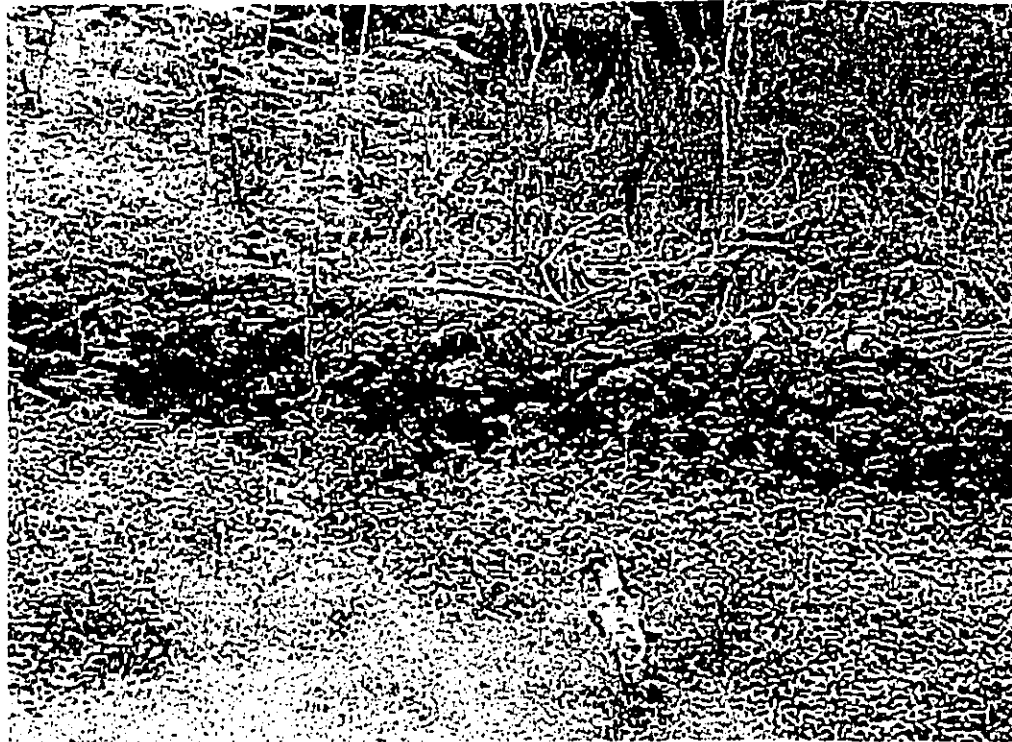


Figure 31. Site 5037 Wall, View to Southeast

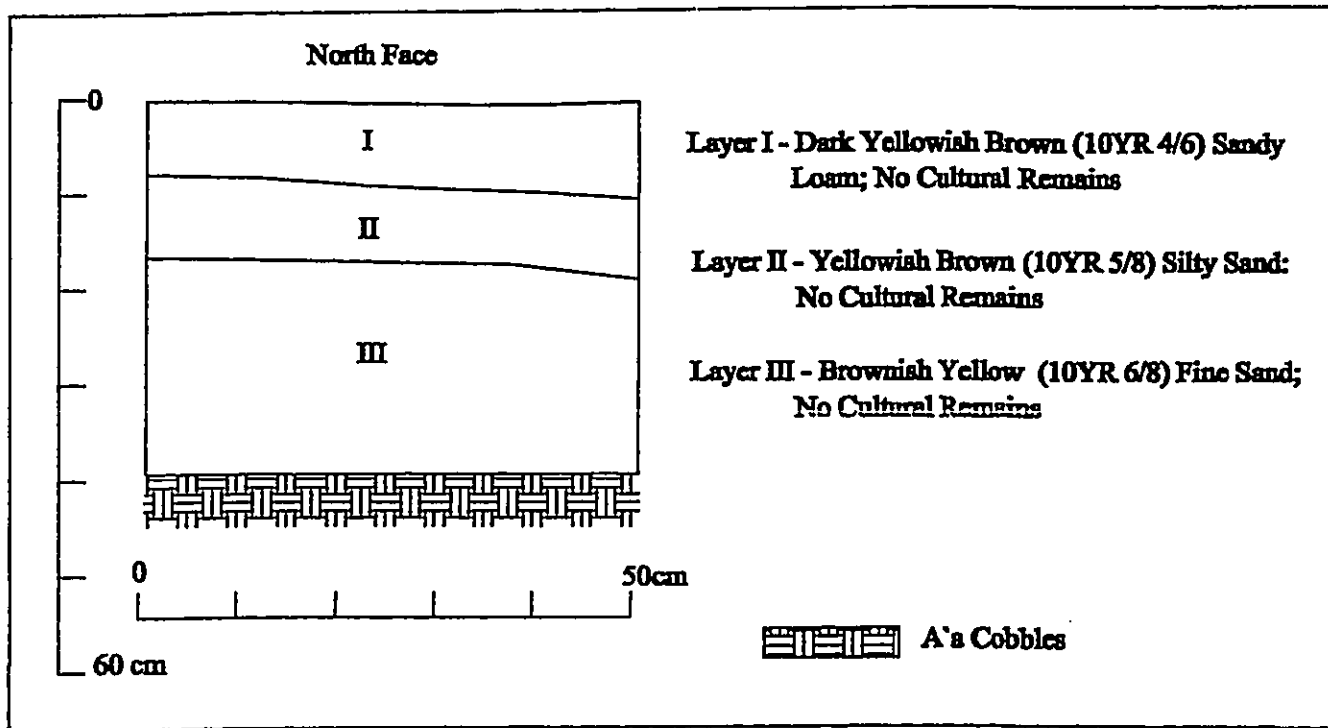


Figure 32. Site 5038, TU-4 Profile

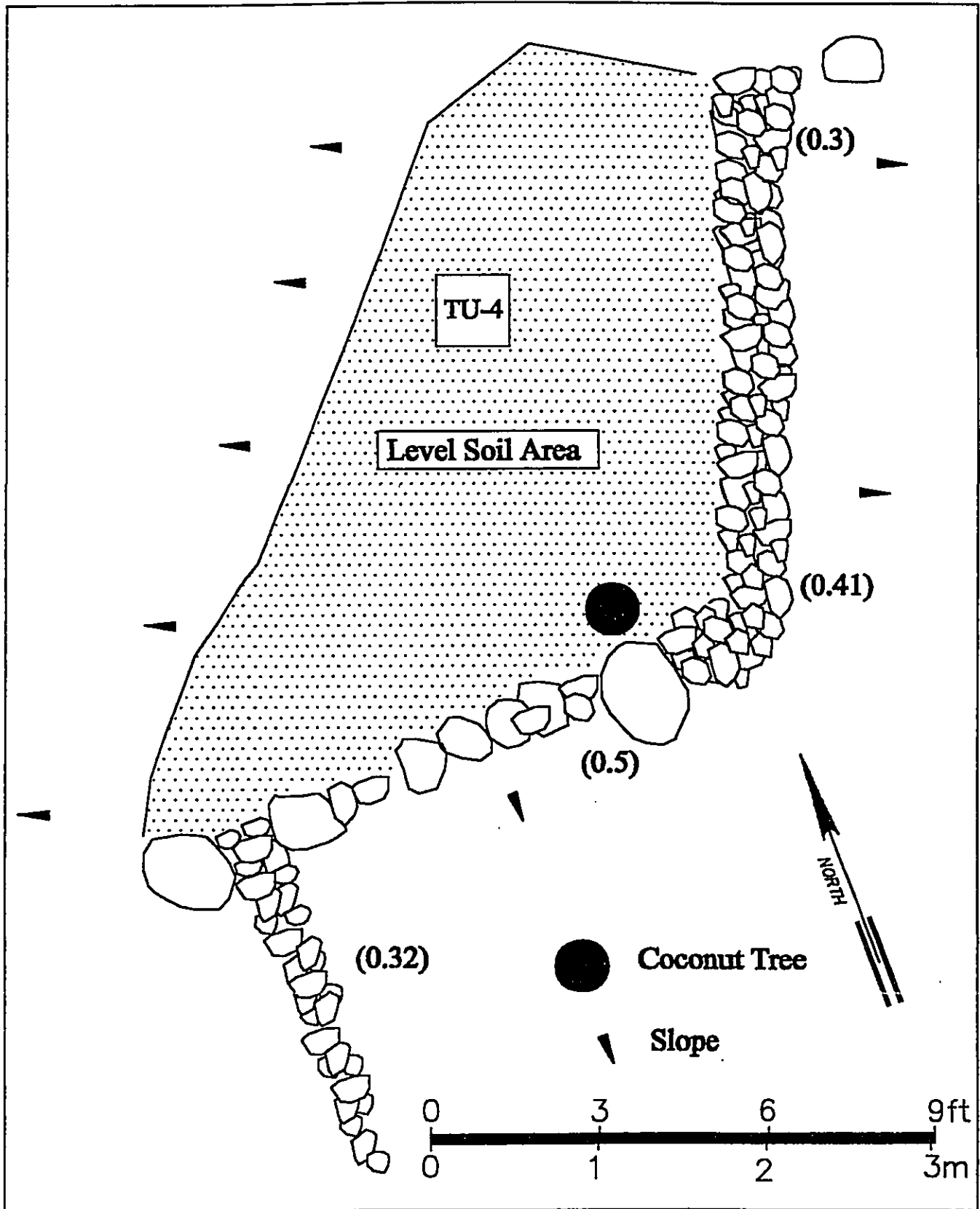


Figure 33. Site 5038 Plan Map

Site 5039

Site 5039 is a stone wall located in the northwestern portion of the project area. The wall is L-shaped, with an exposed bedrock outcrop located at the intersection. The southern portion of the site is 29.5 m in length (east northeast by west southwest). There is a 2.2 m wide gap between the western end of the wall and the outcrop, which is used for access between the houses on either side. The wall continues on the northern side of the outcrop, extending to the north northwest a distance of 23.5 m. The wall then turns to the east northeast for 1.5 m to where it terminates. Site 5039 is constructed of stacked *a'a* cobbles and small boulders. It ranges in width at the base from 0.8 to 0.9 m, and at the top from 0.7 to 0.8 m. The wall varies in height from 0.5 to 1.0 m. No cultural remains were observed. Site 5039 is altered and in fair condition. It is interpreted as an historic cattle wall based on its method of construction, length and height.

Site 5040

Site 5040 is a complex of three features located in the northwestern corner of the project area. The features consist of two modified outcrops (Features A and B) and a terrace (Feature C). Site 5040 is located within the backyard of a house in this area. It is altered but in fair condition.

Feature A

Feature A is a low, linear pile of *a'a* cobbles and small boulders built on a bedrock outcrop. It measures 5.0 m in length (northeast by southwest), 0.9 to 1.15 m in width and 0.6 to 0.65 m in height (*Figure 34*). No cultural remains were present. Feature A is interpreted as an agricultural feature due to its informal construction and lack of cultural remains.

Feature B

Feature B is a modified outcrop located 13.8 m east-northeast of Feature A. This feature is linear in shape and is constructed on an exposed bedrock outcrop. It is 4.8 m long (northeast by southwest) and 0.55 to 0.8 m in width. The feature is built on a slope that angles to the northwest. It is 1.05 m in height on the northern side, and 0.55 to 0.6 m on the southern side, and is constructed of piled and stacked *a'a* cobbles and small boulders (*Figure 35*). No cultural remains were observed. The informal method of construction of this feature and lack of cultural remains suggests an agricultural function.

Feature C

Feature C is a crude terrace located 5.0 m north of Feature A. It is 4.3 m in length (northeast by southwest) and 0.75 to 0.9 m in width. The northern side of the feature has been built up with a low retaining wall that ranges in height from 0.45 to 0.5 m in height. The southern side of the feature is level with the surrounding ground surface. No cultural remains were observed. Feature C is interpreted as an agricultural feature based on its informal method of construction and absence of cultural remains.

Additional Subsurface Testing

Additional subsurface excavations were undertaken in four locations during the study (see *Figure 7*). These units were located on level areas in the yards of the residences in the northwestern corner of the project area. The results of these excavations are discussed below.

TU-5

TU-5 is a 0.5 by 0.5 m test unit situated in the northwestern corner of the project area, north of Feature C at Site 5040. The excavation of this unit revealed four layers overlying *a'a* cobbles. Layer I consisted of 0.09 m of a dark brown (10YR 3/3) sandy clay loam. Cultural remains within this deposit consisted of a "Duracell" battery, a few waterworn pebbles (*ili ili*), and several broken pieces of modern clear



Figure 34. Site 5040, Feature A Modified Outcrop, View to Southeast



Figure 35. Site 5040, Feature B Modified Outcrop, View to Southwest

and brown bottle glass. Layer II was comprised of 0.21 to 0.25 m of a dark yellowish brown (10YR 4/4) sandy loam. This deposit yielded a fragment of white glazed ceramic fragment, a butchered cow bone, two *pipipi* shells (0.3 g), two *cowrie* shell fragments (0.49 g), and several *ili ili*.

Layer III consisted of 0.15 to 0.16 m of a yellowish brown (10YR 5/6) silty sand. This layer contained one glazed ceramic fragment, two *pipipi* shells (0.5 g), one *opihi* shell (0.4 g), two fragments of *cowrie* shell (0.6 g), a beer bottle fragment, and several *ili ili*. This deposit was underlain 0.05 m of a yellowish brown (10YR 5/6) silty sand and *a'a* pebbles. No cultural remains were present in Layer IV. The stratigraphy of TU-5 is presented in *Figure 36*.

Modern and probable mid-1800 to 1900s ceramic fragments and glass are scattered on the sloping terrain north of Features B and C of Site 5040 where TU-5 was excavated. This area includes a portion of Schilt's Area G (see *Figure 7*) where Schilt reported fragments of mold-blown bottle fragments with hand-finished, tooled lips and transfer-printed ceramics. The northern half of this area lies within the graded and paved road easement on the north side of the project area. The remaining portion of the area is situated on a sloping area of scattered outcrops, which has been landscaped to make a flower garden. The cultural remains from TU-5 consist of late 1800s to modern materials and a few fragments of marine shell that may be prehistoric to early historic habitation debris. The deposit has apparently been disturbed by recent activity and lacks stratigraphic integrity.

TU-6

TU-6 is a 0.5 by 0.5 m test unit situated in a level area c. 9.5 m south of Feature A at Site 5040. The excavation of this unit evidenced three soil deposits over a deposit of *aa* cobbles. Layer I consisted of 0.06 m of a very dark brown (10YR 2/2) sandy clay loam. This deposit yielded a single unidentifiable marine shell fragment (0.2 g). Layer II was comprised of 0.14 to 0.16 m of a dark yellowish brown (10YR 3/6) sandy clay loam. Cultural remains present in this deposit consisted of 24 *pipipi* shells (13.4 g), 11 fragments of *cowrie* shell (9.2 g), four basalt flakes (18.5 g), three pieces of volcanic glass (1.1 g), five unidentified fragments of marine shell (3.2 g), a square nail fragment, and a piece of brown glass, which is probably from a modern beer bottle.

Layer III consisted of 0.08 to 0.09 m of a dark yellowish brown (10YR 3/6) sandy silt and *a'a* cobbles and pebbles. This deposit contained seven *pipipi* shells (2.9 g), three *cowrie* shell fragments (0.5 g), two volcanic glass flakes (1.9 g), one basalt flake (2.8 g), five pieces of unidentified marine shell (1.9 g), and piece of plastic, probably from a garden hose. The excavation of TU-6 was terminated in a dense deposit of *a'a* cobbles. *Figure 37* depicts the stratigraphy of TU-6.

The materials recovered from the excavation consist of indigenous food remains and artifacts mixed with historic and recent materials. The remains indicate that the deposit results from habitation activity in the area. The nail may suggest the former presence of a wooden structure. The mixed nature of the materials indicates that the deposits lack stratigraphic integrity.

TU-7

TU-7 is a 0.5 by 0.5 m test unit located in a gently sloping area c.16.0 m southeast of Site 5038. The excavation of TU-7 revealed four soil layers. Layer I consisted of 0.1 to 0.12 m of a very dark brown (10YR 2/2) sandy silt loam. Cultural remains present in Layer I consisted of four *cowrie* shell fragments (5.6 g), two *pipipi* shells (0.6 g), one *opihi* shell (1.1 g), and a few small *ili ili*. Layer II was comprised of 0.1 to 0.13 m of a very dark grayish brown (10YR 3/2) sandy silt. This layer contained three *cowrie* shells (10.4 g), a few small *ili ili*, two *pipipi* shells (0.5 g), and a rusted metal rivet.

Layer III consisted of 0.06 to 0.08 m of a yellowish brown (10YR 5/6) silty clay, with ten *pipipi* shells (2.6 g), six fragments of *cowrie* shell (4.9 g), five small fish scales (<1 g), two pieces of sea urchin (0.4 g), unidentified fragments of marine shell (0.3 g), and 30-40 pebble-size *ili ili*. This was underlain by dense deposit of *a'a* cobbles with a matrix of dark yellowish brown (10YR 3/6) fine silt (Layer IV). No

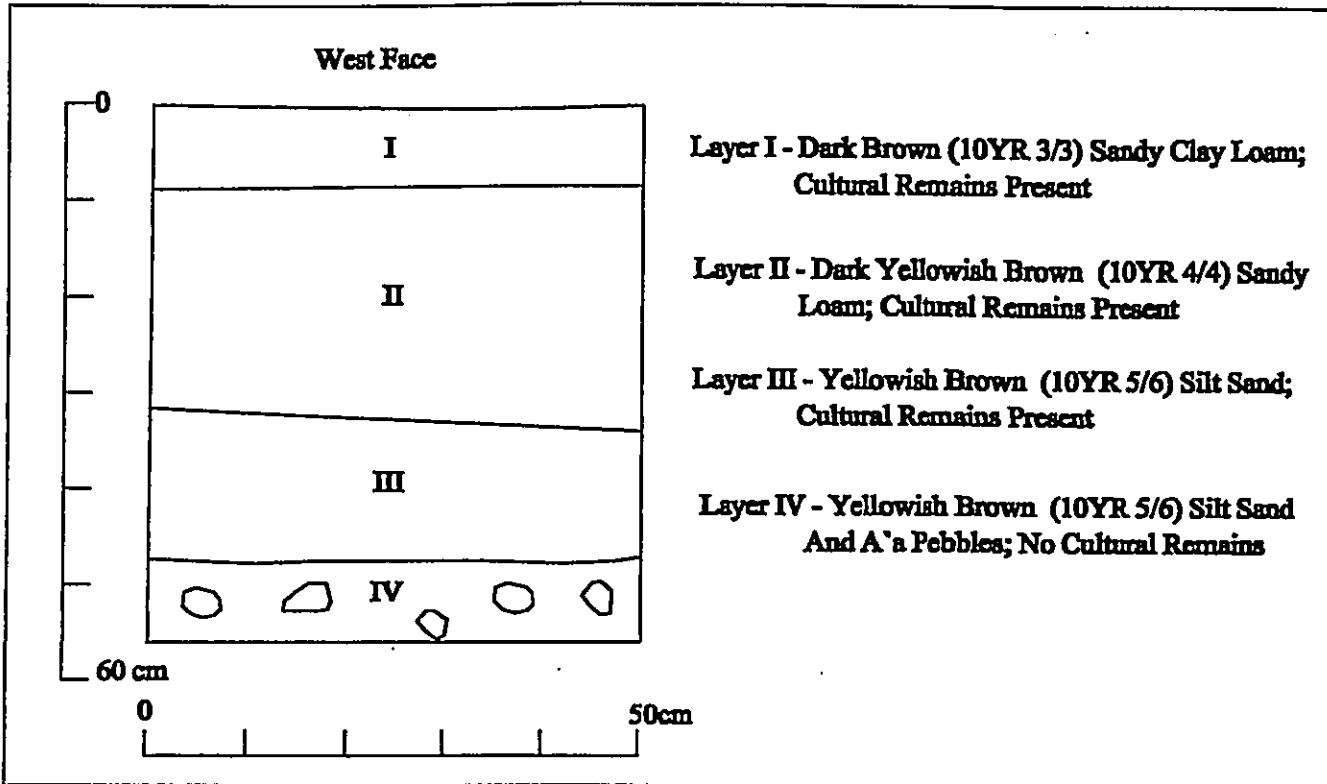


Figure 36. TU-5 Profile

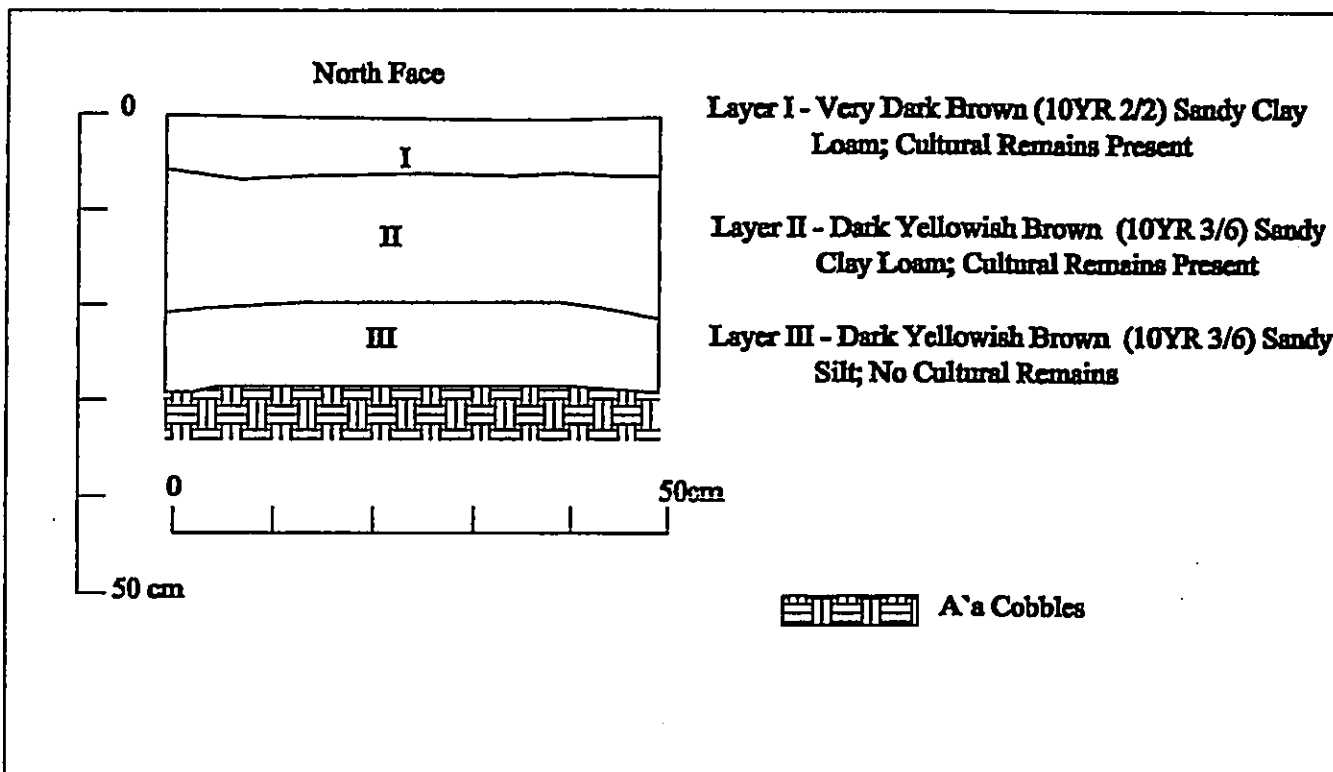


Figure 37. TU-6 Profile

cultural remains were present in Layer IV. The excavation of this test unit was terminated 0.2 m into this culturally sterile soil. The soil stratigraphy noted in TU-7 is presented in *Figure 38*.

The upper two layers contain materials indicative of an indigenous Hawaiian habitation deposit that has been mixed by historic and modern activity. The Layer III deposit is the truncated remnant of a habitation deposit and *ili ili* pavement.

TU-8

TU-8 is a 0.5 by 0.5 m test unit located adjacent to Makana Road in the southwestern portion of this area. The excavation of TU-8 revealed three soil layers. Layer I consisted of 0.1 to 0.12 m of a dark yellowish brown (10YR 3/6) sandy loam. Cultural remains recovered were comprised of a single fragment of clear bottle glass. Layer II consisted of 0.16 to 0.18 m of a yellowish brown (10YR 5/8) sandy silt with several fragments of clear and brown bottle glass, flecks of charcoal, one basalt flake (1.1 g), one *pipipi* shell (0.1 g) and two unidentified fragments of marine shell (0.5 g). Layer II was underlain by 0.2 to 0.24 m of a yellow (10YR 8/8) sand. No cultural remains were present in the sand deposit. The excavation of TU-8 was terminated within the sand deposit. *Figure 39* illustrates the stratigraphy of the unit.

Site 5079

TU-7 encountered a truncated remnant of a habitation deposit and *ili ili* pavement that is designated Site 5079. The extent of this remnant deposit is probably very localized because outcrops and landscaping features surround the area of the test unit. Additional remnant pockets of this deposit are potentially present elsewhere in the surrounding yard, in the yard surrounding TU-6 where mixed prehistoric and historic habitation materials were recovered, and potentially beneath the three residences in the area. Remains identified in TU-6 and TU-7 include volcanic glass and basalt flakes, fish scales, sea urchin parts, and marine shell that are indicative of prehistoric to early historic habitation in the area.

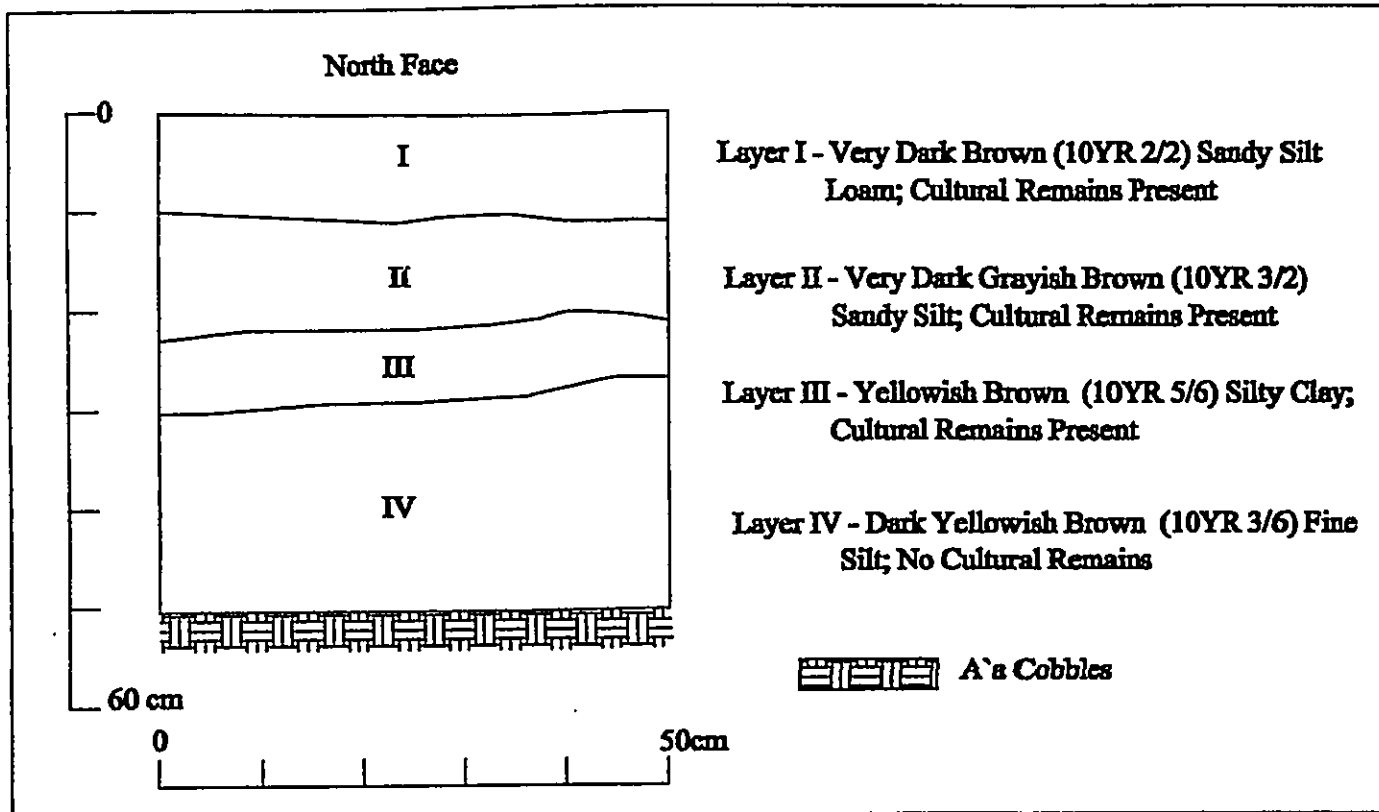


Figure 38. TU-7 Profile

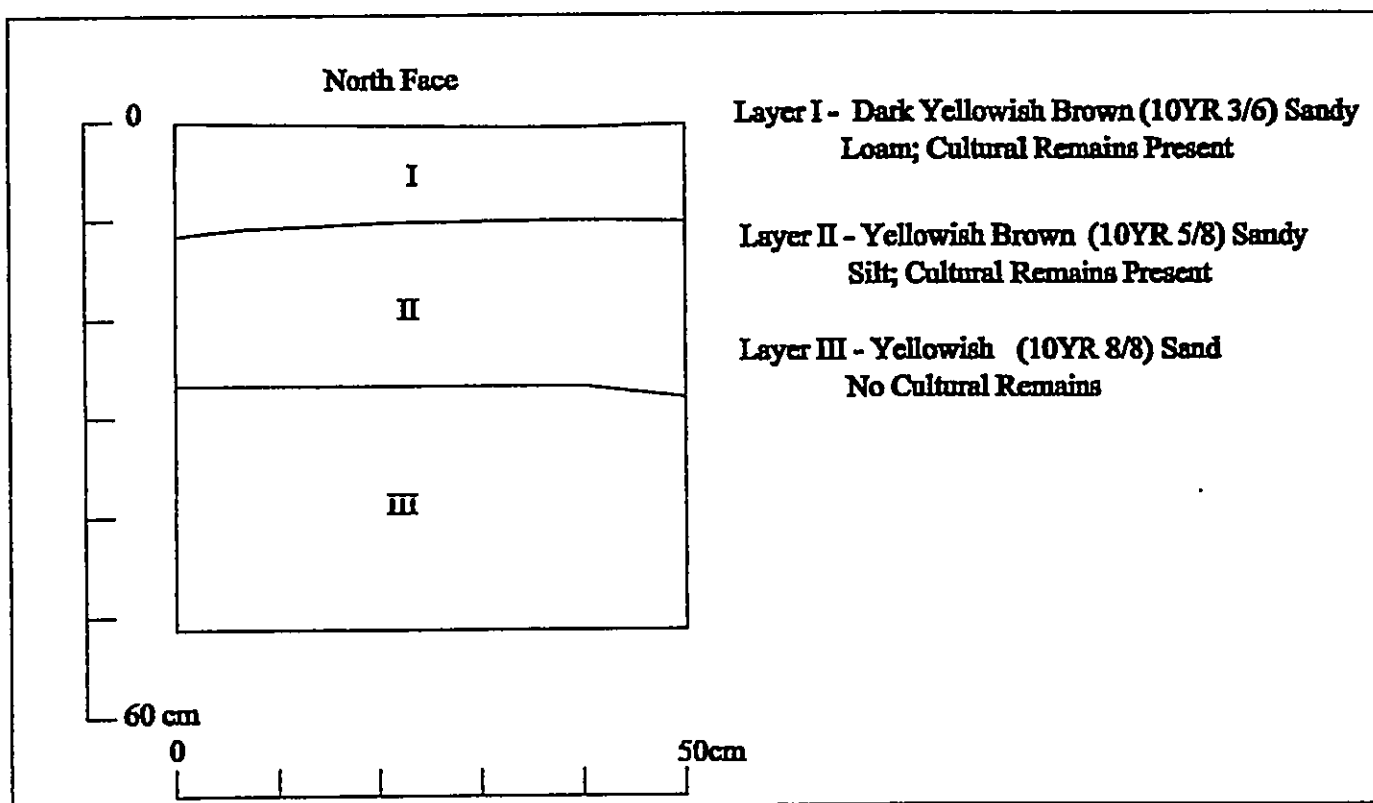


Figure 39. TU-8 Profile

CONCLUSION

Discussion

The survey results generally conform to the expectations derived from historical and archaeological background research. Traditional Hawaiian remains include Kalani Heiau, Site 196, and the modified knoll, Feature AA of Site 5036. The latter feature consists of a leveled knoll with a sparse scatter of waterworn pebbles (*ili ili*) indicating the former presence of a pavement or prepared floor, and a sparse scatter of marine shell. A shovel test on the upper surface of the knoll encountered a 25 cm thick deposit containing sparse *ili ili* and marine shell, but no charcoal or other artifacts. The remains suggest the knoll was used for a limited period of time.

The seaward portion of the project area, where three houses and landscaped yards are present, is an a'a lava ridge that extends from Site 196 to the Makena Road. The terrain surrounding this portion of the project area drops 2-3 m to the north, west, and south of the ridge. Numerous areas of exposed outcrop are present in the area. The upper surfaces of the ridge have been leveled and modified for the construction of houses, driveways, and landscaping. The ridge is a likely locale for prehistoric habitation because it is adjacent to the coast, and it overlooks a broad beach to the southwest and the former fishpond and Makena Bay to the northwest.

Excavations on the ridge (TU-s 4, 6, and 7) encountered shallow deposits, 30-50 cm in depth overlying decomposing a'a lava. The deposits contained *ili ili*, basalt and volcanic glass flakes, and marine shell mixed with historic artifacts dating to the 1800s (square nail and ceramics) and 1900s. Only one excavation, TU-7, encountered a thin, truncated habitation deposit that is probably intact. TU-5 and TU-8 were excavated in the corners of the property, which are off the ridge. These excavations encountered chronologically mixed cultural deposits overlying sand lacking cultural remains. No subsurface features, such as postholes or fire pits, were encountered in the excavations. The remains indicate the probable former presence of a prehistoric to early historic habitation site that has been disturbed by subsequent alteration of the shallow soils covering the ridge.

Excavations in adjacent, lower-lying coastal areas by Donham (1998), Yeomans and McGerty (2000), and Jones et al. (1994) encountered intact prehistoric deposits ranging depth from 0.5 to 1.5 m below the surface. Chronologically mixed deposits overlay the intact deposits. These excavations were conducted in areas where sediment deposition was rapid enough to bury the prehistoric deposit and at least partially protect the deposits from subsequent historic disturbance.

Potential traditional Hawaiian agricultural features consist of several mounds (Site 5036 Features Y, and Z) and modified outcrops (Site 5036 Features L, M, N, and X). Historic agricultural features are potentially represented by three mounds, (Features U, V, and W) situated adjacent to the Feature T mound, and four mounds (Features Q, P, S, and R) present inside the Feature K enclosure, all in the southwestern corner of the project area. These seven mounds may result from historic agricultural activity because historic artifacts were encountered in excavations underlying Features P and T, and historic walls enclose the mounds. The artifacts, except one square nail fragment, consist of recent, 1900s-era materials.

A portion of the Site 5037 wall and the southeastern wall segment of Site 5039 may formerly have been part of a wall enclosing a *kuleana* house lot, LCA 2399 (see Figure 2). Torbert's mid-1800s plantation map (see Figure 3) shows a series of houses seaward of the project area on the inland side of the coastal road. Two walls on the map extend into the project area in the vicinity of the Site 5037 wall. The possible *kuleana* walls were subsequently incorporated into a series of walls and large enclosures that are associated with ranching.

Features A, B, G, and H of Site 5036 form a large, c. 2.5-ac enclosure. A medium-size enclosure is formed by the wall segments of Site 5039, and the Feature A and B modified outcrops of Site 5040. A second medium-size enclosure is formed by Features E, F, G, H, I, and J of Site 5036. These enclosures are approximately 0.5-ac in area and the latter enclosure is connected to the large enclosure by a gate opening. Features P and J are smaller enclosures or pens connected to the larger inland enclosures. The enclosures and walls probably served to prevent livestock from entering the immediate shoreline where residences were present. The inland-seaward reduction in enclosure size suggests a system of larger inland paddocks connected to smaller corrals, which are connected to small holding pens and probably chutes to guide cattle for transport near the coast. Ele-

ments of the system were probably in use by the mid-1800s and continued until the 1970s when ranching in the area ceased.

The Feature K enclosure is interpreted as a probable garden enclosure because it contains four probable agricultural mounds. The Feature I enclosure is interpreted to be a probable pigpen because of its thick, low walls, narrow entrance, and lack of cultural remains. These features probably were used by residents on the adjacent seaward parcel up to the early to mid 1900s based on the associated artifacts and recollections of the Garcia Family.

Significance Assessments

Pursuant to DLNR (1998) Chapter 275-6 (d), the initial significance assessments provided herein are not final until concurrence from the DLNR has been obtained. Sites identified and relocated during the survey are assessed for significance based on the criteria outlined in the Rules Governing Procedures for Historic Preservation Review (DLNR 1998:Chap 275). According to these rules, a site must possess integrity of location, design, setting, materials, workmanship, feeling, and association and shall meet one or more of the following criteria:

1. Criterion "a". Be associated with events that have made an important contribution to the broad patterns of our history;
2. Criterion "b". Be associated with the lives of persons important in our past;
3. Criterion "c". Embody the distinctive characteristics of a type, period, or method of construction; represent the work of a master; or possess high artistic value;
4. Criterion "d". Have yielded, or is likely to yield, information important for research on prehistory or history; and
5. Criterion "e". Have an important traditional cultural value to the native Hawaiian people or to another ethnic group of the state due to associations with traditional cultural practices once carried out, or still carried out, at the property or due to associations with traditional beliefs, events or oral accounts—these associations being important to the group's history and cultural identity.

Based on the above criteria, six sites are assessed as significant solely under Criterion "d". Five of these sites have yielded information important for understanding late prehistoric to historic land use in project area. Site 5079, a partially intact subsurface cultural deposit situated in the yards of, and potentially beneath, the residences in the northwest corner of the project area, may contain additional intact deposits and datable materials.

Site 196, Kalani Heiau, is assessed as significant under Criteria "d" and "e". The site has yielded and retains the potential to yield important information for understanding prehistoric settlement and ritual architecture. The site is also assessed as having traditional cultural value to the native Hawaiian people.

Recommended Treatments

The mapping, written descriptions, photography, and test excavations at Sites 5036, 5037, 5038, 5039, and 5040 adequately documents them and no further work or preservation is recommended. For Site 5079, it is recommended that if future development plans call for removal of the houses, then additional subsurface testing should be conducted to determine if data recovery or monitoring is appropriate.

Kalani Heiau, is recommended for preservation. The specific plans for preservation of the site would be detailed in a Preservation Plan prepared for DLNR-HPD review and approval.

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Appendix - C
Revised Addendum Archaeological Inventory Survey

Report 240-070304

**REVISED* ADDENDUM
ARCHAEOLOGICAL INVENTORY SURVEY
TMK: 2-1-07: 67, LAND OF KA'EO
MAKAWAO DISTRICT, ISLAND OF MAUI**

*Replaces Addendum Dated March 2003

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ADDENDUM
ARCHAEOLOGICAL INVENTORY SURVEY
TMK: 2-1-07: 67, LAND OF KA'EO
MAKAWAO DISTRICT, ISLAND OF MAUI

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INTRODUCTION

This report presents the results of additional subsurface testing and site mapping undertaken within a c. 5.5-acre parcel (TMK: 2-1-07: 67), located in the Land of Ka'eo, Makawao District, Island of Maui (*Figure 1*). The parcel was previously subjected to an archaeological inventory survey by Haun and Henry (2000) which resulted in the identification of seven sites with 35 component features. Formal feature types consisted of mound, wall, modified outcrop, enclosure, terrace, lava blister, cultural deposit, modified knoll, and *heiau*. Probable prehistoric to early historic remains included Kalani Heiau, a temporary habitation feature, a habitation deposit, and several agricultural mounds and modified outcrops. Mid-1800s to mid-1900s sites and features consisted of ranch walls and enclosures, a garden enclosure, a possible pigpen, and agricultural clearing mounds.

In the inventory survey report (Haun and Henry 2000), six sites were assessed as significant solely for their information content. Five of these sites yielded information important for understanding late prehistoric to historic land use in project area. The mapping, written descriptions, photography, and test excavations at the sites adequately documented them and no further work or preservation was recommended with one exception. Site 5079, a partially intact subsurface cultural deposit situated in the yards of and potentially beneath, the residences in the northwest corner of the project area, potentially included additional intact deposits and datable materials. It was recommended that if future development plans call for removal of the houses, then additional subsurface testing should be conducted to determine if data recovery or monitoring is appropriate.

Site 196, Kalani Heiau, was assessed as significant under Criteria "d" and "e". The site has yielded and retains the potential to yield important information for understanding prehistoric settlement and ritual architecture. The site was also assessed as having traditional cultural value to the native Hawaiian people. The specific plans for preservation of the site will be detailed in a Preservation Plan prepared for DLNR-SHPD review and approval. DLNR-SHPD approved the survey report and concurred with the significance assessments and recommended site treatments (letter dated May 10, 2001 to Dr. Alan Haun from Don Hibbard (Log No: 27399, Doc No: 0104MK13).

In response to DLNR-SHPD letters dated November 6, 2002 to Mr. Rory Frampton of Chris Hart & Partners and to Mr. John Min of the Maui County Planning Department regarding a request for additional subsurface testing of the subject property, the landowner requested that the specific scope of testing be approved in writing by DLNR-SHPD prior to the fieldwork. The request proposed the excavation of nine 1 m² test excavation units in the general locations indicated on *Figure 2* (TU-9 thru -17). Test Units (TU) 9 thru 12 were proposed to define the limits of Kalani Heiau and test for possible buried cultural deposits. TU-15, -16, and -17 situated around the existing houses on the property were proposed to satisfy the previous requirement for additional testing recommended in the approved inventory survey report for the property. TU-13 and TU-14 were proposed for a small knoll in the eastern portion of the property to determine if the knoll has potential religious significance associated with the *heiau*. The request also proposed to refine the mapping of Kalani Heiau (Site 196). DLNR-SHPD approved the proposed additional work in a letter dated January 3, 2003 to Dr. Alan Haun from Dr. Holly McEldowney (Log No: 31331, Doc No: 0212MK08).

The fieldwork was conducted on January 30-31 and February 1-2, 2003 under the direction of Dr. Alan Haun. During the fieldwork it was decided that an additional test unit would be excavated in Site 196 to assist in defining the site boundaries and obtain charcoal for radiocarbon dating. Described in this report is a description of the project area, field methods employed during the current fieldwork, and the results of the subsurface testing.

Project Area Description

The project area consists of a 5.5-acre parcel bounded on the north by a road easement, on the west by Makena Road, on the east a stone wall and an undeveloped lot, and on the west by stone walls. Three

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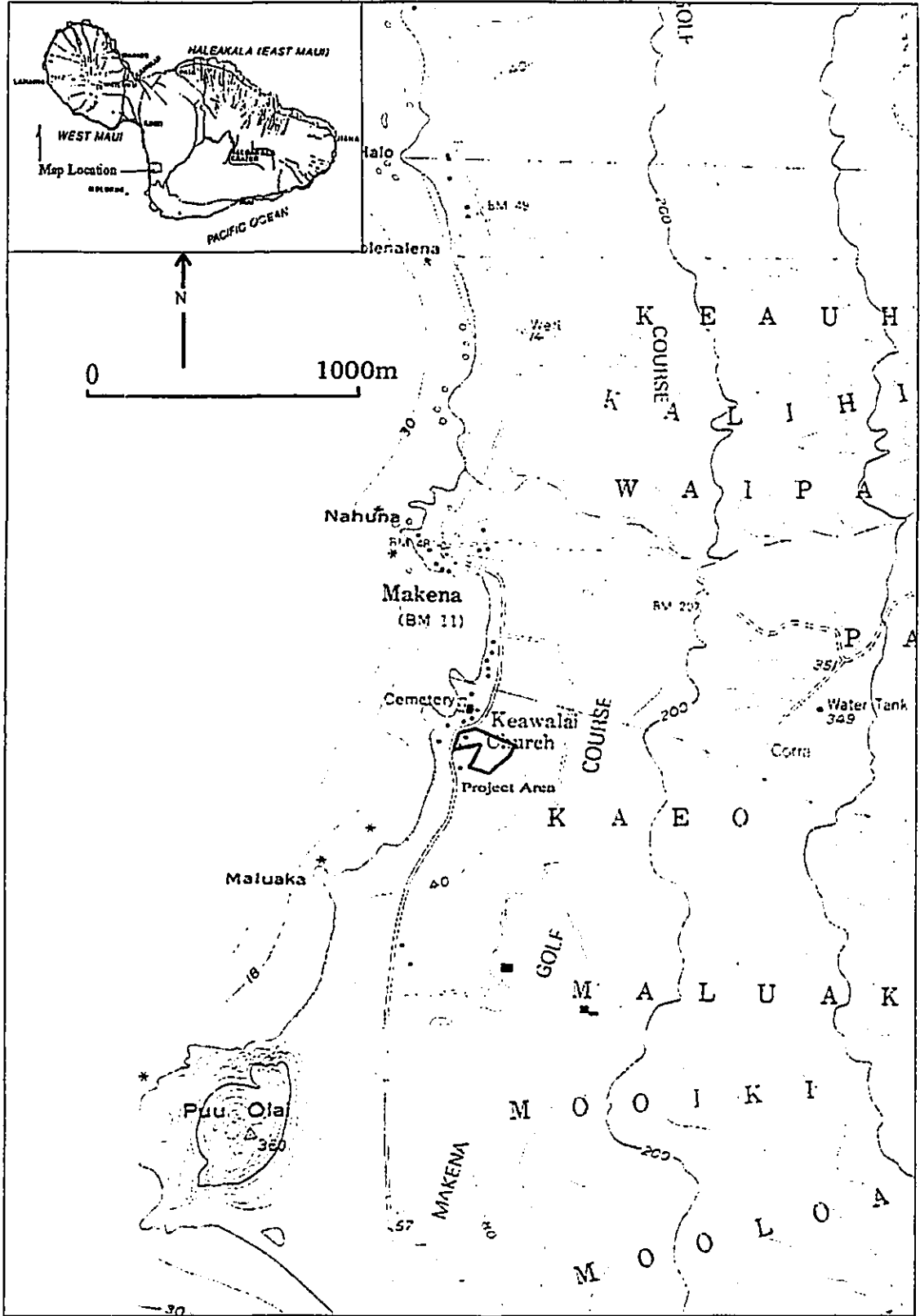


Figure 1. Portion of USGS Makena Quadrangle showing Project Area

existing houses and associated driveways are located within the parcel in the northwestern portion. The project area ranges in elevation from c. 10 to 70 ft, with the terrain sloping westerly towards the ocean. Rainfall in the general vicinity of the project area averages 20 to 30 inches per year, and the mean annual temperature is 70 to 75 degrees F (Juvik and Juvik 1998).

The soil within the project area consists exclusively of Makena loam, stony complex (3 to 15% slopes). This soil series is located on the lower, leeward slopes of Haleakala, situated between Kamaole and Makena (Foote et al. 1972:91). It is composed of Makena Loam and Stony Land, with the Stony Land comprising 30 to 60 % of this series, located on low ridges. The Makena loam is present on gentle slopes between the ridges, and evidences slow to medium permeability, with a slight to moderate erosional hazard. Pahoehoe outcrops are also associated with this series. This was confirmed by the numerous outcrops observed within the project area during the current study. The vegetation in the area is comprised predominately of *panini* (*Opuntia megacantha*), *kiawe* (*Prosopis pallisa*), and low grasses with scattered *koa haole* (*Leucaena leucocephala*).

Field Methods

The current project consisted of the detailed mapping of the Site 196, Kalani Heiau, and the excavation of ten 1.0 by 1.0 m test units. The *heiau* was carefully examined and distinguishable architectural features were cleared of vegetation prior to mapping. A scaled plan map of the site was prepared by establishing a base line oriented parallel to the long axis of the structure. All measurements were taken in reference to this baseline.

Subsurface testing was undertaken in ten locations during the additional fieldwork. Five test units (TUs 9-12 and 18) were located on and in the vicinity of the Site 196 *heiau* in order to define its boundaries and determine the presence or absence of buried cultural deposits. Two test units (TUs 13 and 14) were excavated on and adjacent to the Site 5036, Feature AA modified knoll in order to determine if the knoll evidenced a ceremonial function associated with the *Kalani Heiau*.

The three remaining test units (TUs 15-17) were situated in the northwestern portion of the parcel. These units were excavated in order to determine if additional cultural deposits associated with a habitation deposit (Site 5079) are present in this area.

The ten units were excavated in arbitrary levels within stratigraphic layers, and were terminated either on the bedrock substrate or in a decomposing bedrock deposit situated above bedrock. This decomposing bedrock layer was determined to be pre-cultural based on the results of previous excavations undertaken by Haun and Henry (2000) and during the present study. The soil removed during excavation was screened through 1/8" mesh. Collected materials were placed in paper bags, labeled with the appropriate provenience information. Charcoal samples were collected either from *in situ* locations or during the screening process. Following the excavation, a section drawing depicting the stratigraphy was prepared, post-excavation photographs were taken, and the units were backfilled. Recovered cultural materials were transported to Haun & Associates laboratory for analysis.

FINDINGS

The fieldwork included mapping of *Kalani Heiau* and the excavation of ten 1.0 by 1.0 m test units at three sites (Sites 196, 5036 and 5079). The distribution of the sites and the location of the ten test units are presented in *Figure 2*. The results of the re-examination of Site 196 and the subsurface testing are presented below. A variety of cultural remains were recovered during the project. *Table 1* presents a summary of the recovered midden and *Table 2* summarizes the recovered artifacts.

Site 196

Site 196, *Kalani Heiau*, consists of the remains of a large notched platform located on a knoll in the west-central portion of the project area. A ranch wall (Site 5036, Feature A) extends across the top of the *heiau* and second wall (Site 5036, Feature C) is located at the base of the knoll to the west (*Figure 3*). The sides of the structure are collapsed although the structure appears to have originally measured 35.55 m (116.6 ft) long (north-northwest by south-southeast) and 24.77 m (81.25 ft) wide. Walker (1931) described the site as "[a] large *heiau* said to be of sacrificial class but now reduced largely to a shapeless pile of rocks. It measures 126 feet across the front and has a width of 98 feet. No walls are in evidence" (1931:267). Walker's dimensions probably include the rubble covered slopes of the knoll, which measure 121 feet at the seaward, "front" side of the structure and 102.5 ft in width.

A portion of the southern side of the structure is a faced wall ranging in height from 0.55 to 0.6 m. The overall height of the southern end of the structure is approximately 1.8 m in above the ground surface. The remaining sides of the platform are bordered by discontinuous alignments of small boulders that range in height from 0.45 to 0.5 m and represent the foundation stones for the exterior walls of the structure. An alignment of stones at the southwestern corner of the upper platform surface, and an alignment of small boulders bordering the upper surface along the western side where TU-18 was excavated, are probably remnants of stepped terracing along the seaward face of the *heiau*.

The upper surface of the *heiau* is comprised of a level area of grass covered soil with scattered surface stones. This area is 24.5 m long (north-northwest by south-southeast) and 18.0 m wide. A low L-shaped platform is located at the northwestern end of this level area. The platform is 6.5 m long (east-northeast by west-southwest) and 2.3 to 4.0 m wide, with sides that range in height from 0.2 to 0.3 m. The surface of the platform consists of a level pavement of cobbles.

The sides of the *heiau* slope down in all directions from the upper edge of the level surface. These sloped surfaces are covered with stones. Three concentrations of 'ili'ili and waterworn and branch coral are located on the western sloping side of the structure, one is situated on the eastern side of the structure, and a fifth is located downslope to the west. The southern side of the *heiau* is comprised of a relatively level area paved with stone. A linear cobble mound, possibly the remnant of a wall, is located in this area, measuring 8.8 m long (north-northwest by south-southeast), 1.8 to 1.9 m wide, and 0.6 m in height. Three oval-shaped depressions are situated to the west of the mound, ranging in length from 1.5 to 1.8 m, in width from 1.4 to 1.75 m and in depth from 0.2 to 0.3 m.

The condition of Site 196 is nearly the same as that reported by Schilt in 1979. Her map of the site (1979:8, *Figure 3*) depicts a wall face on the seaward slope of the structure that is no longer visible; otherwise the site is unchanged. The poor condition of the structure is undoubtedly due to removal of stones to construct the wall on the site and walls to the south and west of the site. Most of the rubble surrounding the structure consists of small cobble to pebble-size stones that probably represent fill that was previously retained by walls faced with large cobble to small boulder-size stones. The surface scatters of 'ili'ili and coral on the slopes of the knoll probably represent portions of paving that were scattered after the structure's retaining walls were removed. All that remains of the walls, except a portion of the southern side, are alignments of small boulders imbedded in the ground. Walker (1931) does not mention the wall that bisects the site perhaps indicating that it was constructed after his visit.

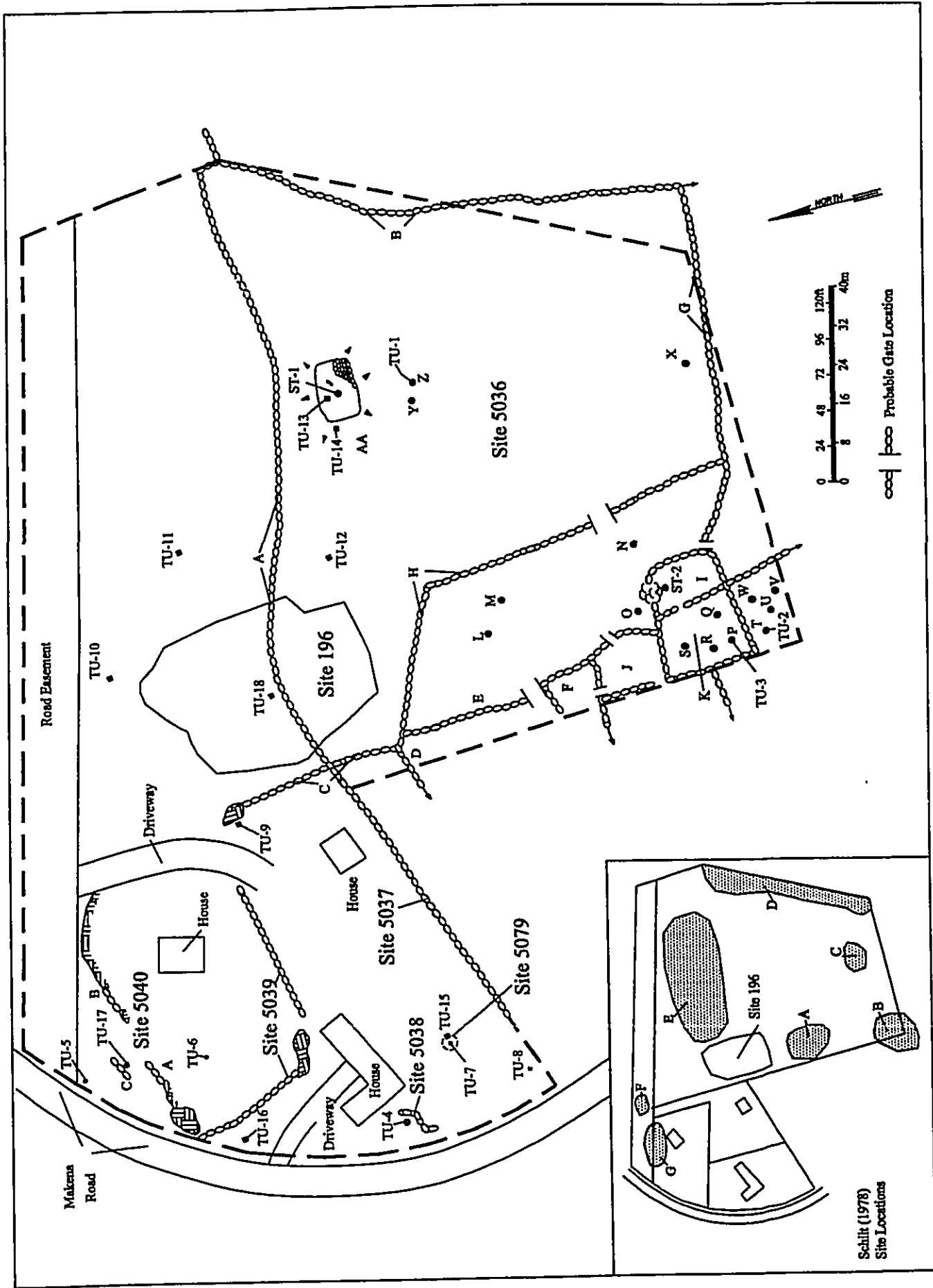


Figure 2. Site Location Map

Table 1. Summary of Midden

	EU-10								EU-12		Site 5036, Feature AA, EU-13				Site 5036, Feature AA	
	Layer I-1 0-10 bd		Layer I-2 10-20 bd		Layer II-3 20-30 bd		Layer II-4 30-40 bd		Layer I-1 3-10 bd		Layer I-1 0-10 bs		Layer I-2 10-20 bs		EU-14, Layer I-1 0-40 bs	
	NISP	WT	NISP	WT	NISP	WT	NISP	WT	NISP	WT	NISP	WT	NISP	WT	NISP	WT
SHELL																
<i>Gastropoda</i>																
<i>Cypraea sp.</i>			2	3.0			1	6.3			1	1.1			1	0.7
<i>Nerita picea</i>					1	1.7										
<i>Cellana talcosa</i>							1	0.2	1	0.2						
<i>Cellana sp.</i>																
<i>Echinodermata</i>																
Spine							5	0.5								
<i>Unid. Marine Shell</i>	2	0.3					2	0.3			1	1.1	0	0	1	0.7
Total Invertebrates	2	0.3	2	3.0	1	1.7	9	7.3	1	0.2	1	1.1	0	0	1	0.7
MISCELLANEOUS																
Coral			1	1.2	1	2.6	1	1.6	1	5.5	1	13.1	9	41.6	1	0.7
Total Misc.	0	0	1	1.2	1	2.6	1	1.6	1	5.5	1	13.1	9	41.6	1	0.7
Total	2	0.3	3	4.2	2	4.3	10	8.9	2	5.7	1	14.2	9	41.6	1	0.7

	Site 5079, EU-15								EU-16						Site 5040, EU-17	
	Layer I-1 0-10 bs		Layer II-2 10-20 bs		Layer II-3 20-30 bs		Layer I-2 10-20 bs		Layer II-3 20-30 bs		Layer II-5 40-50 bs		Layer II-6 50-60 bs		Layer I-1 0-10 bs	
	NISP	WT	NISP	WT	NISP	WT	NISP	WT	NISP	WT	NISP	WT	NISP	WT	NISP	WT
SHELL																
<i>Gastropoda</i>																
<i>Cypraea sp.</i>			2	4.0	7	11.9			5	6.1	2	1.8	13	10.8	2	2.9
<i>Conus sp.</i>					2	8.3										
<i>Brachidontes sp.</i>			3	0.3							2	2			1	0.2
<i>Nerita picea</i>					2	0.8										
<i>Nerita polita</i>																
<i>Cellana sandwichensis</i>	1	1.8			3	0.7	1	3.1					3	1.4		
<i>Cellana sp.</i>																
<i>Terebra sp.</i>			2	0.7			1	9.4								
<i>Drupa morum</i>																
<i>Pelecypoda</i>																
Isognomonidae													1	0.1		
<i>I. californicum</i>			1	0.2					1	0.1						
<i>I. pema</i>																
<i>Echinodermata</i>																
Shell					6	0.9					1	0.9				
Spine					3	5.7										
<i>Unid. Marine Shell</i>			2	1.7							1	0.4	3	1.1	1	2.5
Total Invertebrates	1	1.8	10	6.9	23	28.3	2	12.5	6	6.2	6	5.1	20	13.4	4	5.6
BONE																
Bird													1	0.3		
Fish					2	0.8							1	0.2		
Total Bone	0	0	0	0	2	0.8	0	0	0	0	0	0	2	0.5	0	0
MISCELLANEOUS																
Coral					3	13.4			3	10.7					1	29.4
Total Misc.					3	13.4			3	10.7					1	29.4
Total	1	1.8	10	6.9	28	42.5	2	12.5	9	16.9	6	5.1	22	13.9	5	35.0

NISP=Number of Identified Specimens
WT=Weight in grams

Table 1. Summary of Midden (cont.)

Site 196 EU-18	Layer I-1 0-5 bd		Layer II-1 5-10 bd		Layer II-2 10-20 bd		Layer II-3 20-30 bd		Layer II-4 30-36 bd		Layer III-4 36-40 bd		Layer III-4/5 32-44 bd		Layer III-5 40-50 bd	
	NISP	WT	NISP	WT	NISP	WT	NISP	WT	NISP	WT	NISP	WT	NISP	WT	NISP	WT
	SHELL															
<i>Gastropoda</i>																
<i>Cypraea sp.</i>	3	5.1	7	4.2	13	9.8	19	31.1	6	7	1	10.9			5	6.5
<i>Conus sp.</i>			3	4.3	4	1.8	2	1.8	1	1.4	1	0.3			2	0.9
<i>Brachidontes sp.</i>													2	0.1		
<i>Nerita picea</i>	5	1.7	6	2.6	21	6.9	53	22.3	10	3.3	4	0.5			11	3.4
<i>Anachis misor</i>													2	0.1		
<i>Cellana sandwichensis</i>							2	1.1	3	2.5					12	6.5
<i>Cellana talcosa</i>							10	4.1	1	0.2	5	1			5	1
<i>Cellana sp.</i>			1	0.2			11	0.8	1	0.15					1	0.1
<i>Planaxis labiosa</i>			1	0.1	1	0.2										
<i>Terebra sp.</i>					1	0.2										
<i>Drupa morum</i>					1	4.4										
<i>Drupa rubusidaeus</i>					2	0.4										
<i>Drupa sp.</i>			2	3.9					2	0.5	1	0.6			1	0.2
<i>Morula granulata</i>	1	0.7														
<i>Morula uva</i>							1	0.1							2	1.4
<i>Morula sp.</i>																
Pelecypoda																
Isognomonidae					2	0.2	8	0.9	2	0.1					5	0.6
<i>I. californicum</i>			1	0.1												
<i>I. pema</i>																
Echinodermata					1	0.1			4	0.2			20	0.8	6	0.7
Shell					10	9.1	16	11.4	1	0.2	2	0.7	4	0.4	6	1.7
Spine			1	0.3												
Unid. Marine Shell			5	2.1	11	2.4	25	8.3	4	0.6	2	0.5			6	0.7
Total Invertebrates	9	7.5	27	17.8	67	35.5	147	81.9	35	16.15	16	14.5	28	1.4	62	23.7
BONE																
Bird					1	0.4	7	1.6							15	4.9
Dog							1	1.0			2	1.4	4	0.1		
Fish									1	0.1						
Unid. Bone					1	0.4	8	2.6	1	0.1	2	1.4	4	0.1	15	4.9
Total Bone	0	0	0	0	1	0.4	8	2.6	1	0.1	2	1.4	4	0.1	15	4.9
MISCELLANEOUS																
Charcoal					6	0.3									6	2.2
Coral	14	35.4	13	14.2	28	67.5	29	100.7	1	0.5	9	12.2			3	7.8
Total Misc.	14	35.4	13	14.2	34	67.8	29	100.7	1	0.5	9	12.2	0	0	9	10
Total	23	42.9	40	32	102	104	184	185.2	37	16.75	27	28.1	32	1.5	84	39.1

Table 2. Summary of Recovered Artifacts

Site No.	Fea. No.	EU-	Layer	Level	Depth (*)	Material	Description	Weight	Length	Width	Thickness
-	-	12	I	1	3 - 10 bd	Shell	Adze Frag.	4.9	2.5	2.1	0.4
-	-	12	I	1	3 - 10 bd	Vol. Glass	Flake	0.3	1.1	0.8	0.2
5036	AA	13	i	1	0 - 10 bs	Basalt	Flake	5.9	2.8	1.8	1.0
5079	-	15	I	1	0 - 10 bs	Glass	Frag., green	3.0	-	-	0.8
"	-	15	I	1	0 - 10 bs	Metal	Pull top	0.9	-	-	0.2
"	-	15	I	1	0 - 10 bs	Copper	1980 Penny	-	-	-	-
"	-	15	II	2	10 - 20 bs	Vol. Glass	Flake	1.2	1.4	1.3	0.5
"	-	15	II	3	20 - 30 bs	Basalt	Adze Frag.	5.6	3.7	2.0	0.6
"	-	15	II	3	20 - 30 bs	Bone	Modified	0.9	3.0	1.9	0.3
"	-	15	II	3	20 - 30 bs	Shell	Modified	0.3	1.5	0.8	0.1
"	-	15	II	2	10 - 20 bs	Glass	Bottle body frag.- green	1.0	-	-	0.4
"	-	15	II	2	10 - 20 bs	Ceramic	blue & white rim frag.	1.1	-	-	0.3
-	-	16	I	1	0 - 10 bs	Glass	Bottle body frag.- clear	4.2	-	-	0.4
-	-	16	I	2	10 - 20 bs	Basalt	Flake	5.1	3.0	2.0	0.8
-	-	16	I	2	10 - 20 bs	Glass	clear frag.	1.2	-	-	0.5
-	-	16	I	2	10 - 20 bs	Glass	Bottle body frag.- brown	3	-	-	0.4
-	-	16	II	5	40 - 50 bs	Metal	Grommet	0.2	-	-	0.2
-	-	16	II	5	40 - 50 bs	Glass	Bottle body frags (4), aqua	16.6	-	-	0.5
-	-	16	II	5	40 - 50 bs	Bone	Modified	0.2	1.8	0.6	0.2
-	-	16	II	6	50 - 60 bs	Vol. Glass	Flake	1.7	2.1	1.0	0.8
5040	C	17	I	2	10 - 20 bs	Plastic	Fragment, tan	0.3	-	-	0.1
"	"	17	I	2	10 - 20 bs	Ceramic	Frgs. (2), white	1.9	-	-	0.3
"	"	17	I	2	10 - 20 bs	Ceramic	Crockery, brown	4.1	-	-	0.5
"	"	17	I	2	10 - 20 bs	Glass	Bottle body frags (2), olive	5.2	-	-	0.4
"	"	17	I	2	10 - 20 bs	Glass	Frgs. (2), clear	1.1	-	-	0.3
"	"	17	I	3	20 - 30 bs	Vol. Glass	Flake	0.3	1.0	0.6	0.4
"	"	17	I	3	20 - 30 bs	Metal	Sq. nail fragment	2.5	3.9	-	0.5
"	"	17	I	3	20 - 30 bs	Glass	Frgs. (2), clear	0.7	-	-	0.2
"	"	17	I	3	20 - 30 bs	Ceramic	Bowl base frag, white	6.2	-	-	0.4
"	"	17	I	3	20 - 30 bs	Glass	Bottle base frags (2), brown	4.5	-	-	0.4
"	"	17	I	3	20 - 30 bs	Ceramic	orange & white rim frag.	0.3	-	-	0.2
196	-	18	I	1	0 - 5 bd	Vol. Glass	Flake	0.5	1.2	1.0	0.4
"	-	18	I	1	0 - 5 bd	Vol. Glass	Flake	0.7	1.1	0.8	0.5
"	-	18	I	1	0 - 5 bd	Coral	File	3.1	3.6	1.2	0.7
"	-	18	II	1	5 - 10 bd	Vol. Glass	Flake	0.6	1.4	1.2	0.3
"	-	18	II	1	5 - 10 bd	Vol. Glass	Flake	0.5	1.8	1.1	0.3
"	-	18	II	1	5 - 10 bd	Vol. Glass	Flake	0.2	0.9	0.5	0.4
"	-	18	II	1	5 - 10 bd	Vol. Glass	Flake	0.2	1.0	1.7	0.2
"	-	18	II	1	5 - 10 bd	Vol. Glass	Flake	0.2	1.3	0.5	0.4
"	-	18	II	1	5 - 10 bd	Vol. Glass	Flake	0.15	0.8	0.8	0.2
"	-	18	II	1	5 - 10 bd	Vol. Glass	Flake	0.45	1.1	1.0	0.3
"	-	18	II	1	5 - 10 bd	Vol. Glass	Flake	2.0	1.4	1.7	0.7
"	-	18	II	1	5 - 10 bd	Basalt	Core	102.6	6.0	4.3	2.8
"	-	18	II	1	5 - 10 bd	Basalt	Flake	1.8	2.1	1.5	0.5
"	-	18	II	2	10 - 20 bd	Basalt	Flake	2.1	2.2	1.6	0.4
"	-	18	II	2	10 - 20 bd	Basalt	Flake	1.8	2.2	1.7	0.4
"	-	18	II	2	10 - 20 bd	Vol. Glass	Flake	2.1	1.5	1.1	0.8
"	-	18	II	2	10 - 20 bd	Vol. Glass	Flake	0.9	1.1	1.1	0.6
"	-	18	II	2	10 - 20 bd	Vol. Glass	Flake	0.5	1.0	0.8	0.6

* bd=below datum, bs=below surface

Table 2. Summary of Recovered Artifacts (cont.)

Site No.	Fea. No.	EU-	Layer	Level	Depth (*)	Material	Description	Weight	Length	Width	Thickness
196	-	18	II	2	10 - 20 bd	Vol. Glass	Flake	0.2	1.1	0.8	0.2
"	-	18	II	2	10 - 20 bd	Vol. Glass	Flake	0.2	1.0	0.8	0.3
"	-	18	II	2	10 - 20 bd	Vol. Glass	Flake	0.3	1.0	0.9	0.2
"	-	18	II	2	10 - 20 bd	Vol. Glass	Flake	0.2	1.0	0.9	0.2
"	-	18	II	2	10 - 20 bd	Vol. Glass	Flake	0.2	0.9	0.6	0.4
"	-	18	II	2	10 - 20 bd	Vol. Glass	Flake	0.2	0.9	0.6	0.1
"	-	18	II	3	20 -30 bd	Bone	Modified	1.1	2.7	0.8	0.6
"	-	18	II	3	20 -30 bd	Echinoid	File	3.1	6.4	0.8	0.7
"	-	18	II	3	20 -30 bd	Shell	Modified	0.9	2.4	0.7	0.3
"	-	18	II	3	20 -30 bd	Coral	Abrader	3.5	2.8	1.7	1.4
"	-	18	II	3	20 -30 bd	Basalt	Adze Flake	0.5	1.2	1.1	0.2
"	-	18	II	3	20 -30 bd	Basalt	Flake	0.8	2.1	1.1	0.3
"	-	18	II	3	20 -30 bd	Basalt	Flake	1.8	2.4	1.6	0.5
"	-	18	II	3	20 -30 bd	Basalt	Flake	2.5	2.0	2.0	0.4
"	-	18	II	3	20 -30 bd	Basalt	Flake	5.7	3.5	2.0	1.9
"	-	18	II	3	20 -30 bd	Basalt	Flake	5.4	2.9	2.0	1.9
"	-	18	II	3	20 -30 bd	Basalt	Flake	4.9	2.9	1.9	1.2
"	-	18	II	3	20 -30 bd	Basalt	Flake	0.3	1.6	0.6	0.2
"	-	18	II	3	20 -30 bd	Basalt	Flake	0.6	1.8	1.0	0.3
"	-	18	II	3	20 -30 bd	Vol. Glass	Flake	0.5	1.2	1.0	0.3
"	-	18	II	3	20 -30 bd	Vol. Glass	Flake	0.4	1.1	0.8	0.3
"	-	18	II	3	20 -30 bd	Vol. Glass	Flake	2.2	2.3	1.3	0.7
"	-	18	II	3	20 -30 bd	Vol. Glass	Flake	1.2	2.4	0.9	0.6
"	-	18	II	3	20 -30 bd	Vol. Glass	Flake	0.7	1.9	0.7	0.5
"	-	18	II	3	20 -30 bd	Vol. Glass	Flake	0.3	1.3	0.8	0.3
"	-	18	II	3	20 -30 bd	Vol. Glass	Flake	0.3	1.1	0.6	0.4
"	-	18	II	3	20 -30 bd	Vol. Glass	Flake	0.2	1.0	0.7	0.2
"	-	18	II	3	20 -30 bd	Vol. Glass	Flake	0.2	1.1	0.6	0.2
"	-	18	II	3	20 -30 bd	Vol. Glass	Flake	0.15	0.8	0.6	0.2
"	-	18	II	3	20 -30 bd	Vol. Glass	Flake	0.1	1.0	0.7	0.1
"	-	18	II	3	20 -30 bd	Vol. Glass	Flake	0.3	1.4	0.6	0.4
"	-	18	II	4	30 -36 bd	Bone	Modified	1.8	2.4	1.3	0.5
"	-	18	III	4	36 -40 bd	Basalt	Flake	3.3	2.4	2.2	0.7
"	-	18	III	4	36 -40 bd	Basalt	Flake	0.5	1.6	1.2	0.3
"	-	18	III	4	36 -40 bd	Vol. Glass	Flake	0.5	1.5	1.2	0.2
"	-	18	III	4	36 -40 bd	Vol. Glass	Flake	0.4	1.3	0.9	0.2
"	-	18	III	4	36 -40 bd	Vol. Glass	Flake	0.3	0.8	0.8	0.4
"	-	18	III	4	36 -40 bd	Vol. Glass	Flake	0.8	1.1	1.0	0.7
"	-	18	III	4	36 -40 bd	Vol. Glass	Flake	0.2	1.0	0.7	0.2
"	-	18	III	4	36 -40 bd	Vol. Glass	Flake	0.2	1.2	0.5	0.3
"	-	18	III	4	36 -40 bd	Vol. Glass	Flake	12.1	5.3	2.1	1.5
"	-	18	III	5	40 - 50 bd	Coral	Abrader	11.9	5.1	2.3	1.9
"	-	18	III	5	40 - 50 bd	Coral	Abrader	0.2	1.0	0.8	0.1
"	-	18	III	5	40 - 50 bd	Basalt	Flake	0.1	1.0	0.7	0.1
"	-	18	III	5	40 - 50 bd	Basalt	Flake	0.1	1.1	0.6	0.1
"	-	18	III	5	40 - 50 bd	Basalt	Flake	0.8	1.5	1.0	0.4
"	-	18	III	5	40 - 50 bd	Vol. Glass	Flake	0.3	1.3	0.8	0.2
"	-	18	III	5	40 - 50 bd	Vol. Glass	Flake	0.3	1.1	0.8	0.3
"	-	18	III	5	40 - 50 bd	Vol. Glass	Flake	0.6	1.2	1.0	0.4
"	-	18	III	5	40 - 50 bd	Vol. Glass	Flake	0.2	1.0	0.8	0.2
"	-	18	III	5	40 - 50 bd	Vol. Glass	Flake	0.4	1.7	0.7	0.3
"	-	18	III	5	40 - 50 bd	Vol. Glass	Flake	0.2	0.8	0.6	0.4
"	-	18	III	5	40 - 50 bd	Vol. Glass	Flake	0.2	0.9	0.7	0.3
"	-	18	III	5	40 - 50 bd	Vol. Glass	Flake	0.2	1.1	0.6	0.3
"	-	18	III	5	40 - 50 bd	Vol. Glass	Flake	0.1	0.8	0.5	0.3
"	-	18	III	5	40 - 50 bd	Vol. Glass	Flake	0.1	0.9	0.5	0.4
"	-	18	III	5	40 - 50 bd	Vol. Glass	Flake	0.1	0.9	0.8	0.2
"	-	18	III	5	40 - 50 bd	Vol. Glass	Flake	0.1	0.8	0.6	0.1

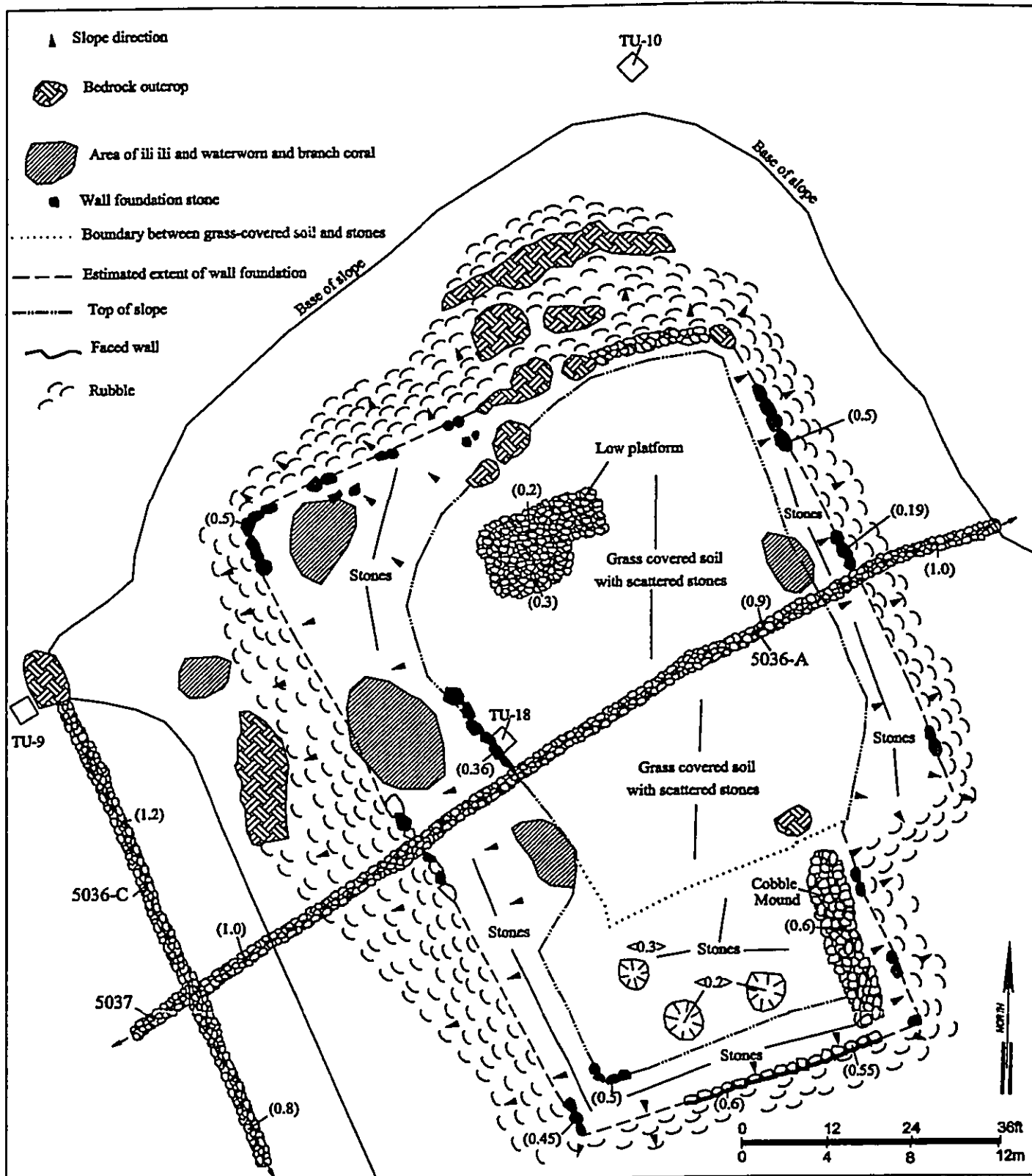


Figure 3. Site 196 Kalani Heiau Plan Map

Subsurface testing was undertaken on and in the vicinity of the *heiau* in order to define its boundaries and identify any buried cultural deposits (TUs 9-12 and 18; see *Figure 2*). TU-9 was located to the west of the site next to an outcrop where the Site 5036, Feature C wall terminates. The excavation revealed four deposits (*Figure 4*), none of which contained cultural remains. Layer I consisted of 0.05 to 0.08 m of a very dark grayish brown (10YR 3/2) silty loam with 50% cobble and pebble inclusions.

Layer II was comprised of 0.13 to 0.22 m of a very dark brown (7.5YR 3/2) silty loam with 75% cobble and pebble inclusions. Layer III consisted of 0.07 to 0.18 m of a dark yellowish brown (10YR 3/6) decomposing bedrock. Layer IV was comprised of 0.03 to 0.05 m of a yellowish brown (10YR 5/6) decomposing bedrock. An area of a'a cobbles was present in the southeastern portion of the unit within the Layer III and IV deposits. The excavation of TU-9 was terminated on bedrock.

TU-10 was situated in a level area 7.5 m north of the base of the knoll. This excavation identified two soil deposits overlying bedrock (*Figure 5*). Layer I consisted of 0.14 to 0.2 m of a very dark brown (10YR 2/2) silty loam with 50 to 75% cobble and pebble inclusions. Cultural remains from this deposit consisted of four fragments of marine shell and a small piece of waterworn coral. Layer II was comprised of 0.16 to 0.23 m of a dark brown (10YR 3/3) silty loam with 75% cobble and pebble inclusions. Cultural remains from this layer consisted of ten fragments of marine shell and two pieces of waterworn coral.

TU-11 was located 16.0 m northeast of the *heiau* in a level area covered in *koa haole* and *kiawe*. The excavation identified similar soil stratigraphy as that observed in TU-10, consisting of two soil deposits over bedrock (*Figure 6*). Layer I consisted of 0.02 to 0.06 m of a very dark brown (10YR 2/2) silty loam with 50% cobble and pebble inclusions. Layer II was comprised of 0.17 to 0.21 m of a dark brown (10YR 3/3) silty loam with 75% cobble and pebble inclusions. No cultural remains were recovered from either deposit.

TU-12 was located 11.0 m east of the notch along the eastern side of the *heiau* in a level grassy area. This excavation revealed three soil deposits overlying bedrock (*Figure 7*). Layer I consisted of 0.02 to 0.04 m of a very dark grayish brown (10YR 3/2) silty loam with 50% cobble and pebble inclusions. Cultural remains from this deposit consisted of two fragments of marine shell, a piece of waterworn coral, a volcanic glass flake and a *Conus* shell adze (*Figure 8, D*).

Layer II was comprised of 0.04 to 0.41 m of a dark yellowish brown (10YR 3/6) silty loam with 75% cobble, pebble and small boulder inclusions. No cultural remains were recovered from Layer II. The Layer III deposit consisted of 0.04 to 0.07 m of a yellowish brown (10YR 5/6) decomposing bedrock with no cultural remains.

TU-18 was situated on the level grass and soil covered surface of the *heiau*, along the northern side of the Site 5036, Feature A wall. This excavation identified three soil deposits (*Figure 10*). Layer I was comprised of 0.04 to 0.06 m of a very dark grayish brown (10YR 3/2) silty loam with organic material and 50% a'a and waterworn basalt pebble ('*ili'ili*) inclusions. Cultural remains from this deposit consisted of nine fragments of marine shell, two volcanic glass flakes, a coral file (*Figure 8, B*), and 14 fragments of waterworn coral.

Layer II was comprised of 0.16 to 0.24 m of a very dark brown (10YR 2/2) silty loam with 90% cobble, pebble and small boulders including approximately 25 liters of '*ili'ili*. This deposit likely represents the architectural layer associated with the surface structure. The stones within this layer intrude slightly into the Layer III soil. Cultural remains from Layer II consisted of 275 fragments of marine shell, eight fragments of bird bone, a piece of dog bone, charcoal, 70 fragments of coral, 29 volcanic glass flakes, eleven basalt flakes, a basalt core, a basalt adze flake, an echinoid file (*Figure 8, C*), a coral abrader (*Figure 8, A*), two pieces of modified bone, and a fragment of modified shell.

Two soil features were identified at the base of the Layer II deposit. Feature A was comprised of a shallow, oval-shaped pit located in the northeast portion of the unit at depths of 0.23 to 0.28 m below datum. The pit measured 0.28 m long (east-west) and 0.2 m wide, extending out of the unit to the east and north. Feature A was 0.04 to 0.07 m in thickness and was comprised of a dark gray (10YR 4/1) ash and

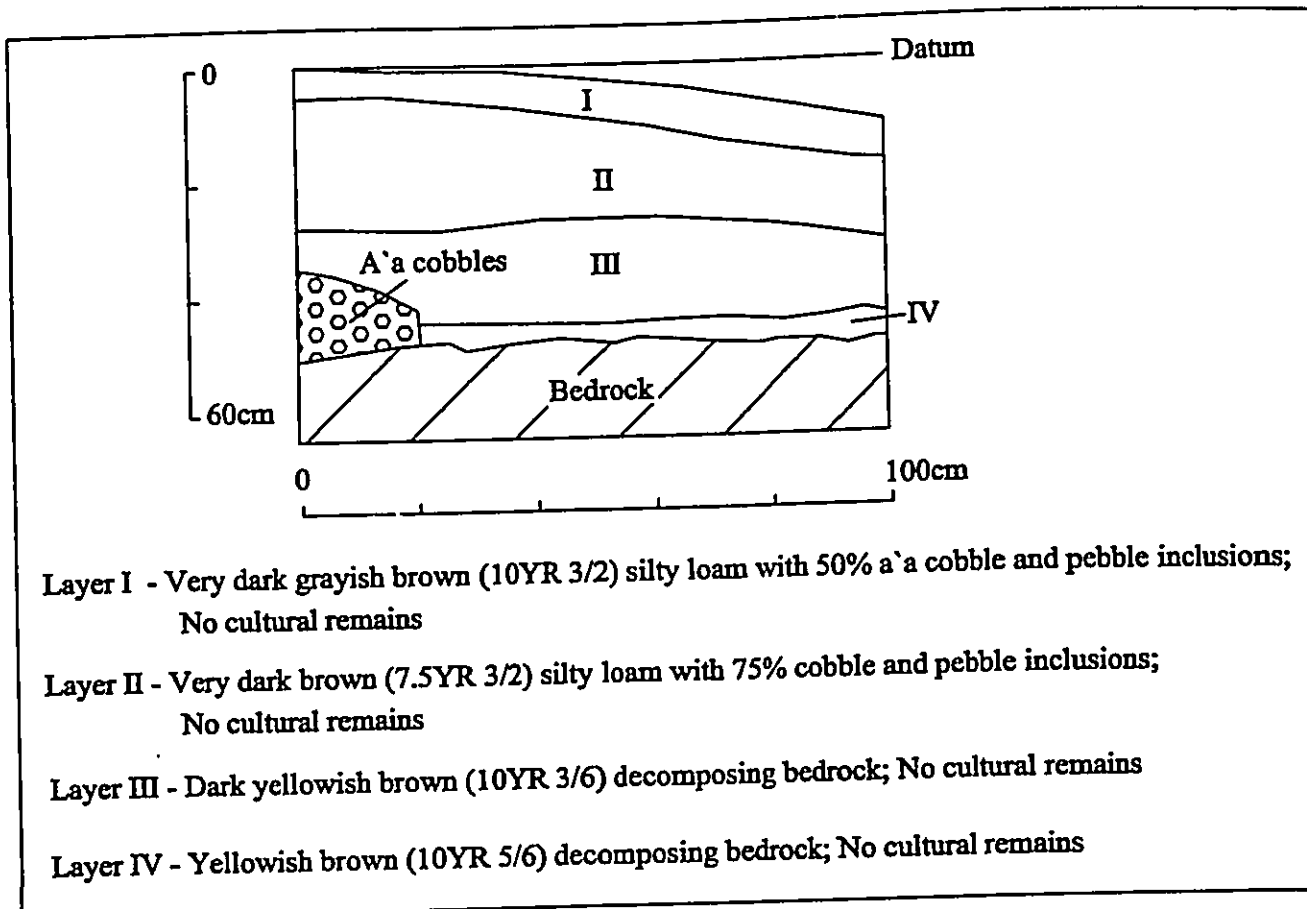


Figure 4. Site 196, TU-9 South Face Profile

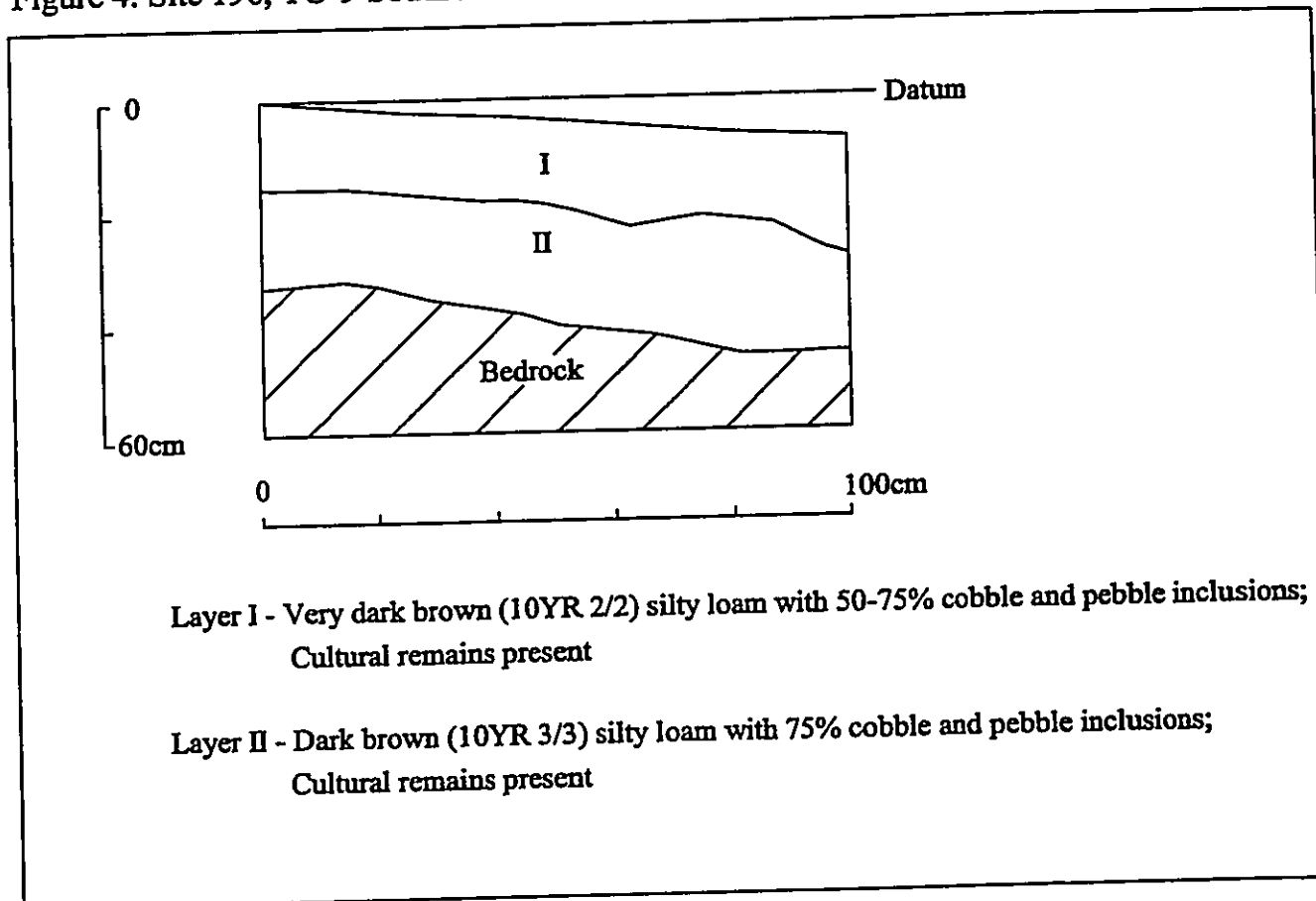


Figure 5. Site 196, TU-10 South Face Profile

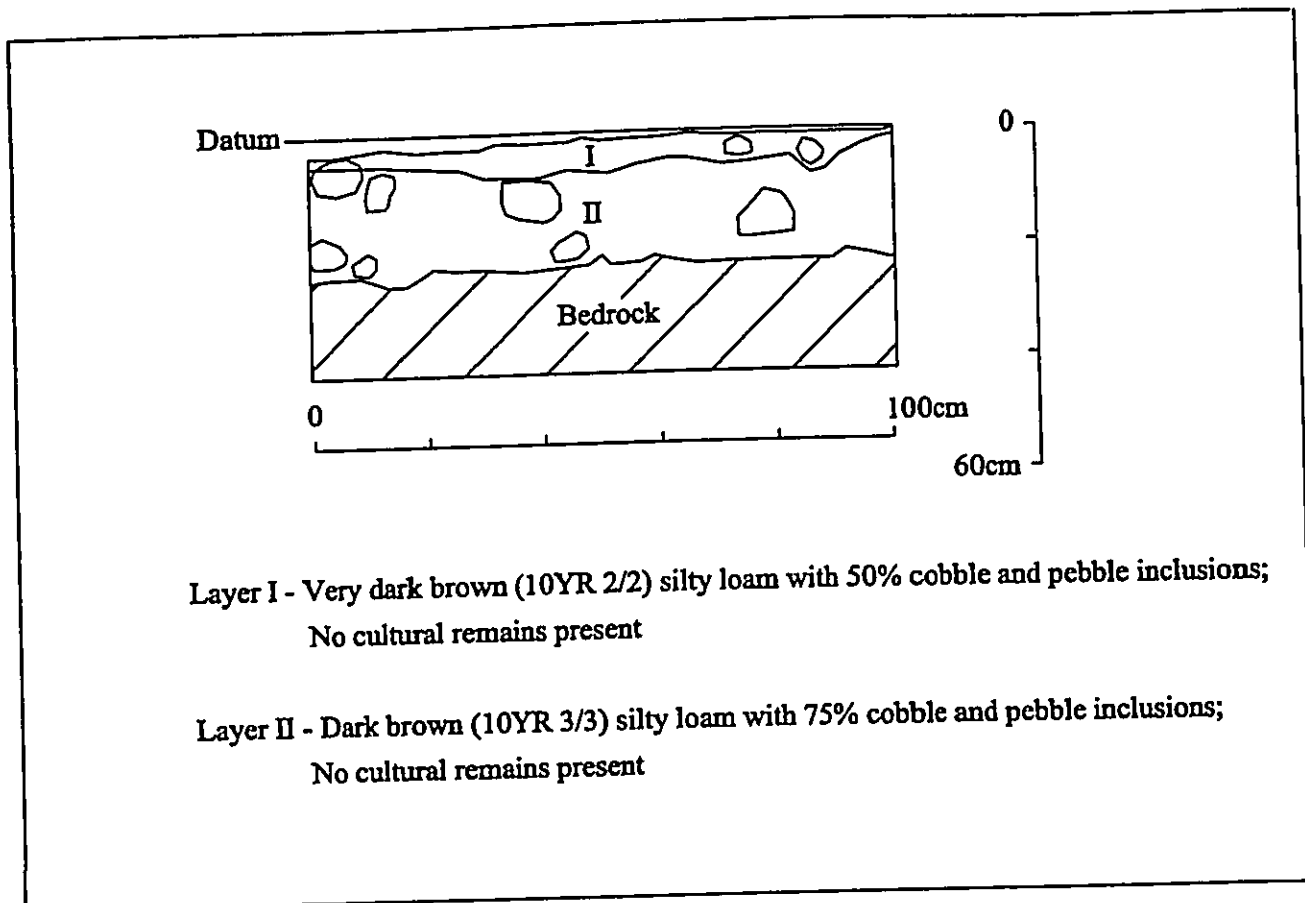


Figure 6. Site 196, TU-11 South Face Profile

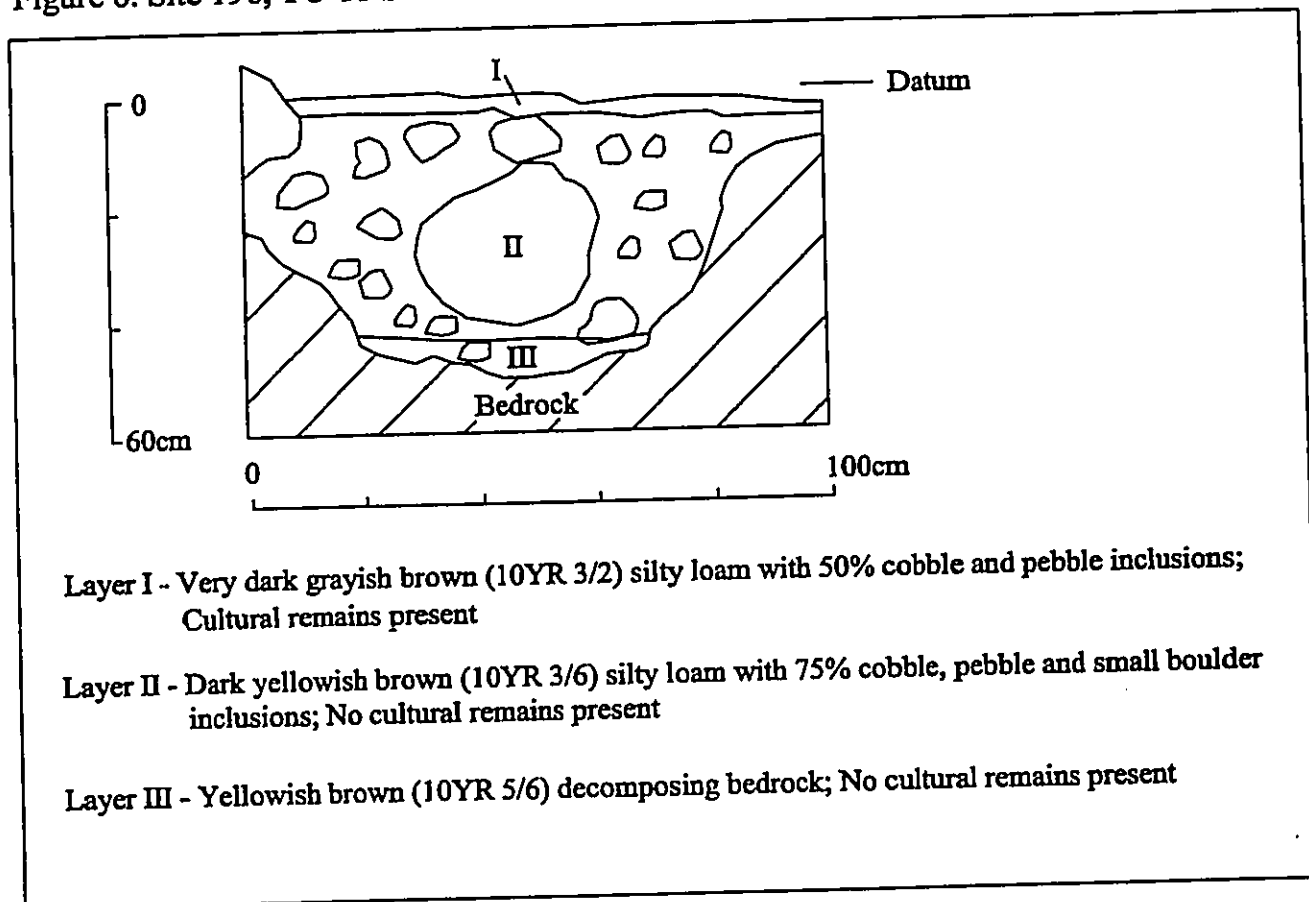


Figure 7. Site 196, TU-12 North Face Profile

A = Site 196, TU-18, Layer II-3
 B = Site 196, TU-18, Layer I-1
 C = Site 196, TU-18, Layer II-2
 D = TU-12, Layer I-1
 E = Site 196, TU-18, Layer III-5

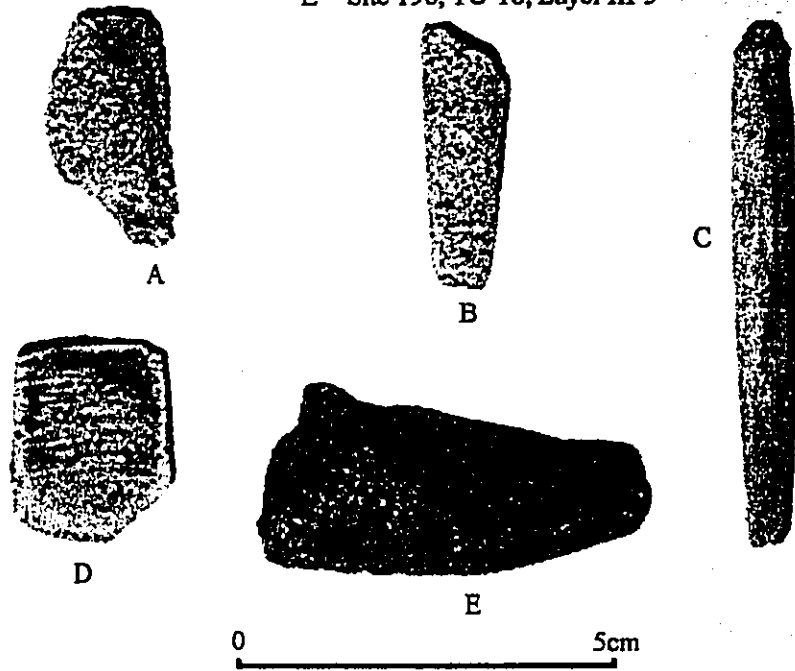


Figure 8. Indigenous Artifacts

A, B & C = Site 5040, Feature C, TU-17, Layer I-3
 D = Site 5079, TU-15, Layer I-2
 E = Site 5040, Feature C, TU-17, Layer I-2

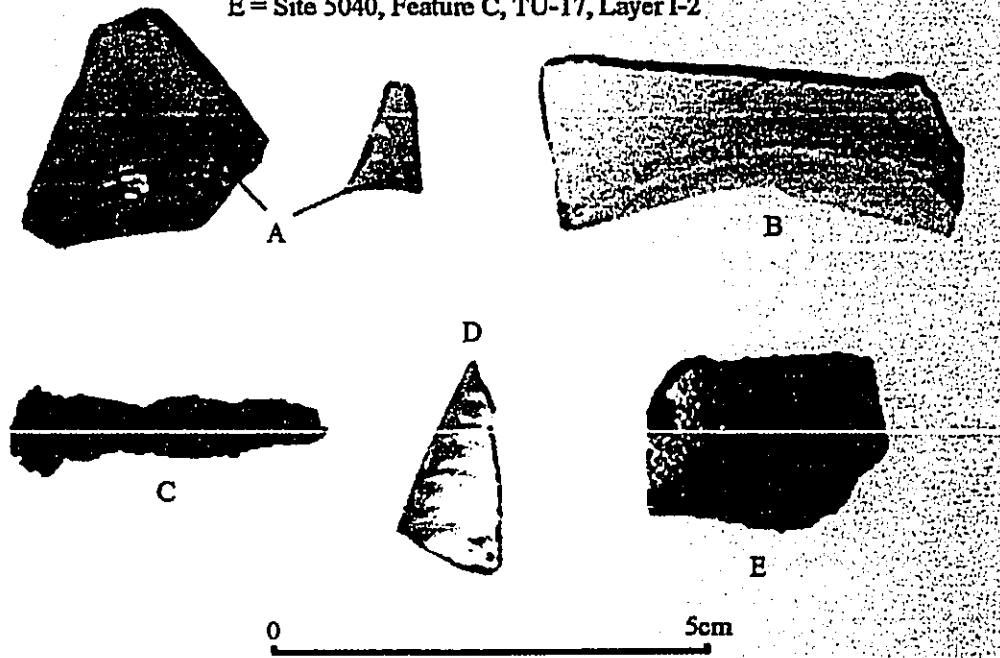


Figure 9. Historic Artifacts

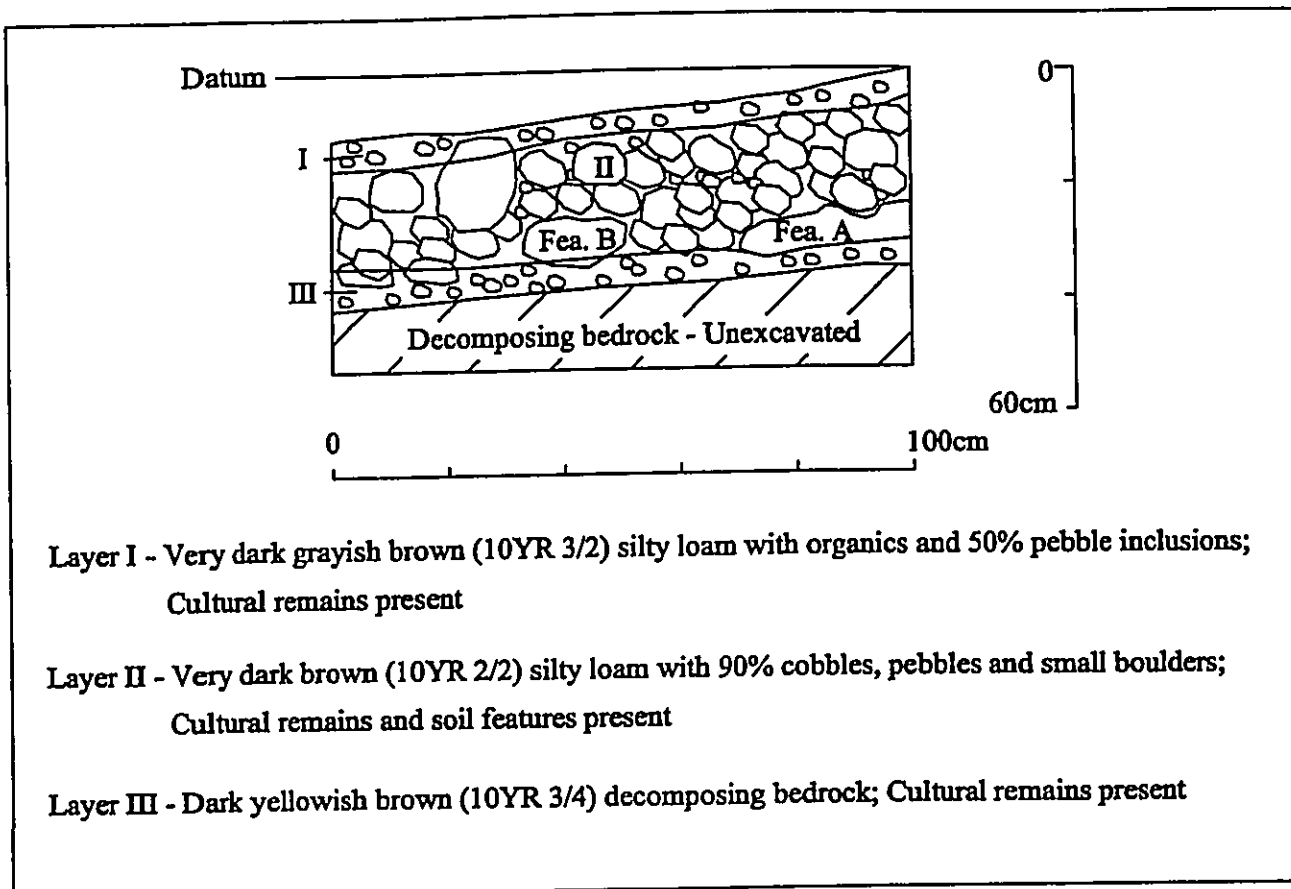


Figure 10. Site 196, TU-18 North Face Profile

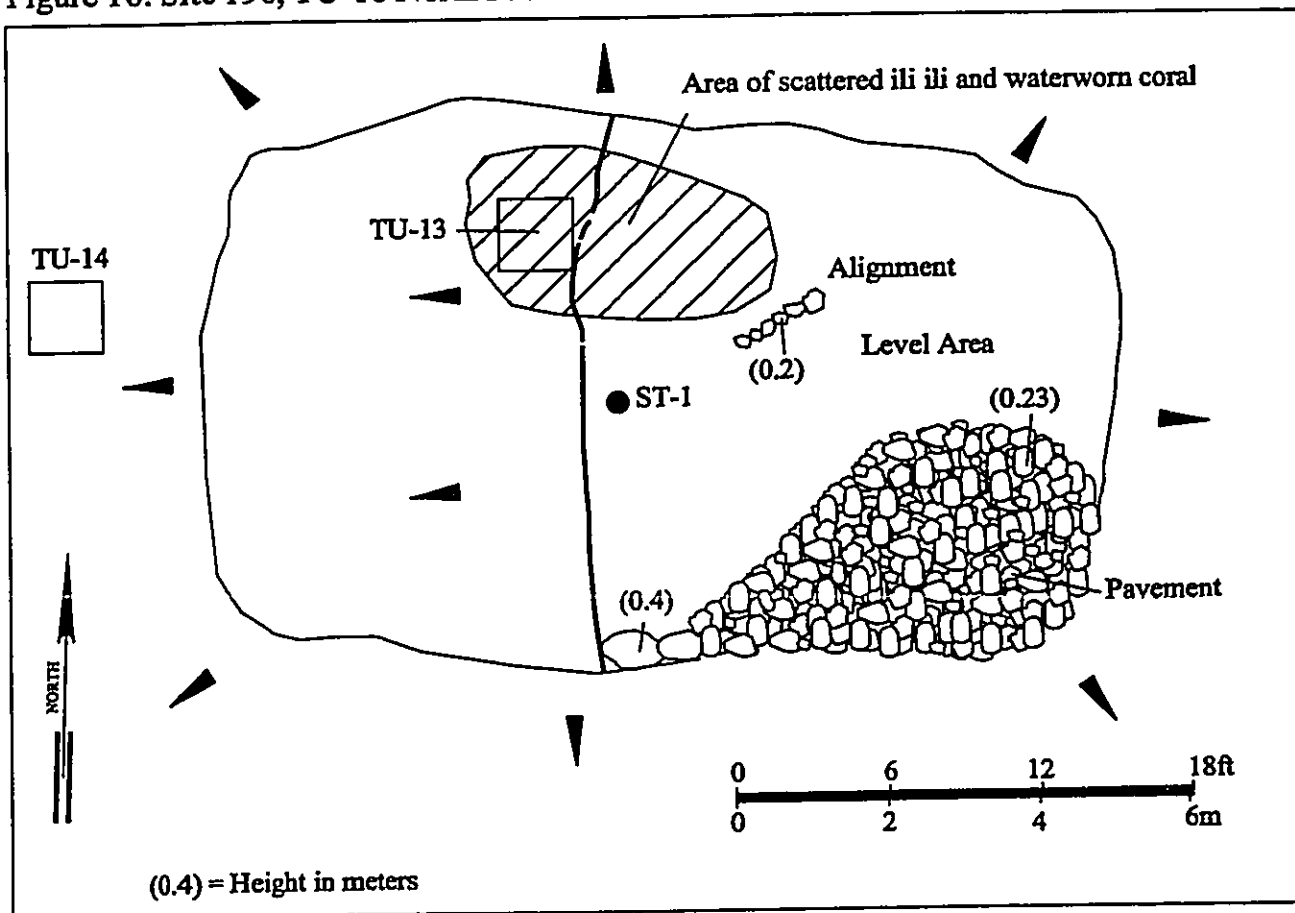


Figure 11. Site 5036, Feature AA Plan Map

charcoal. A piece of charcoal from the pit produced a calibrated radiocarbon age range of A.D. 1420-1490 (Beta -176271; Appendix A).

Feature B consisted of an oval-shaped pit situated along the northern side of the unit in the approximate center at depths ranging from 0.17 to 0.25 m below surface. It measured 0.17 m long (east-west) and 0.16 m wide, extending out of the unit to the north. The soil within this feature was also comprised of a dark gray (10YR 4/1) ash. The size, shape, and contents of the soil features indicate that they likely functioned as hearths.

The Layer III deposit consisted of a dark yellowish brown (10YR 3/4) decomposing bedrock. This layer originated below the Layer II soil at depths of 0.22 to 0.25 m below surface. Cultural remains were recovered from the uppermost portion of the deposit. These materials consist of 12 'ili'ili, 106 fragments of marine shell, 17 fragments of dog bone, four fragments of fish bone, nine fragments of coral, charcoal, 20 volcanic glass flakes, six basalt flakes, a coral file, a coral abrader (Figure 8, E), and three pieces of coral. The excavation of TU-18 was terminated within the Layer III deposit.

Site 5036, Feature AA

Feature AA of the Site 5036 complex is a modified knoll located in the east-central portion of the project area, 40.0 m east of Site 196. The knoll is roughly oval in shape, measuring 12.5 m long (east-west) by 7.8 m wide (Figure 11). The knoll is approximately 4.0 m in height above the surrounding ground surface. The eastern portion of the knoll's surface is relatively level, with the western portion sloping gently to the west.

A rough pavement of a'a cobbles and small boulders is located in the southeastern corner of the knoll (Figures 12 and 13). This pavement is 6.5 m long (east-west) and from 0.6 to 3.3 m wide. The surface of the pavement is uneven and irregular, ranging in height from 0.10 to 0.23 m. The southern side of the pavement, at the edge of the knoll, has been built up to a height of 0.4 m and incorporated lava outcrops. Several pieces of cowrie shell were observed on the surface of the pavement.

An alignment of large cobbles is located on the top of the knoll, 2.0 m northwest of the pavement. The alignment is 1.4 m long (northeast-southwest) and comprised of cobbles ranging in size from 0.22 to 0.4 m in diameter. An area of sparsely scattered 'ili'ili and waterworn coral is present at the northwestern portion of the level knoll. This area is 4.4 m long (east-west) by 2.4 m wide.

A 0.3 m diameter shovel test (ST-1) was excavated on the surface of the knoll near the western edge of the level area by Haun and Henry (2000). The excavation of this shovel test revealed two soil deposits over bedrock. Layer I consisted of 0.25 m of a brown (10YR 4/3) loose silt with 20-30 % cobble and pebble inclusions. Several pieces of waterworn coral, 'ili'ili, and five marine shell fragments were recovered from the deposit. The marine shell consisted of two *conus* shell fragments (1.8 g), two cowrie shell fragments (1.5 g), and one indeterminate shell fragment (0.4 g). Layer II is a 0.05 m thick deposit of dark yellowish brown compact silt with a'a cobbles and no cultural remains. Feature AA was interpreted as a temporary habitation feature based on the feature's insubstantial construction and limited range and quantity of cultural remains.

Additional subsurface testing was undertaken at the feature, consisting of the excavation of two test units (TUs 13 and 14; see Figure 11). TU-13 was situated on the surface of the modified knoll at the northern end, in an area of scattered 'ili'ili, and waterworn coral fragments. The ground surface in this area slopes moderately to the west. This excavation revealed two soil deposits (Figure 14). Layer I consisted of 0.03 to 0.07 m of a dark reddish brown (5YR 2.5/2) silt loam with organic material and 50% cobble and pebble inclusions. Cultural remains from Layer I consisted of one fragment of marine shell, 10 fragments of waterworn coral, and a basalt flake.

Layer II was comprised of 0.02 to 0.18 m of a mottled dark reddish brown (5YR 2.5/2) and reddish brown (5YR 4/3) silt loam with 'ili'ili. The excavation of TU-13 was terminated on a layer of decomposing



Figure 12. Site 5036, Feature AA Pavement, view to east



Figure 13. Site 5036, Feature AA Pavement, view to south

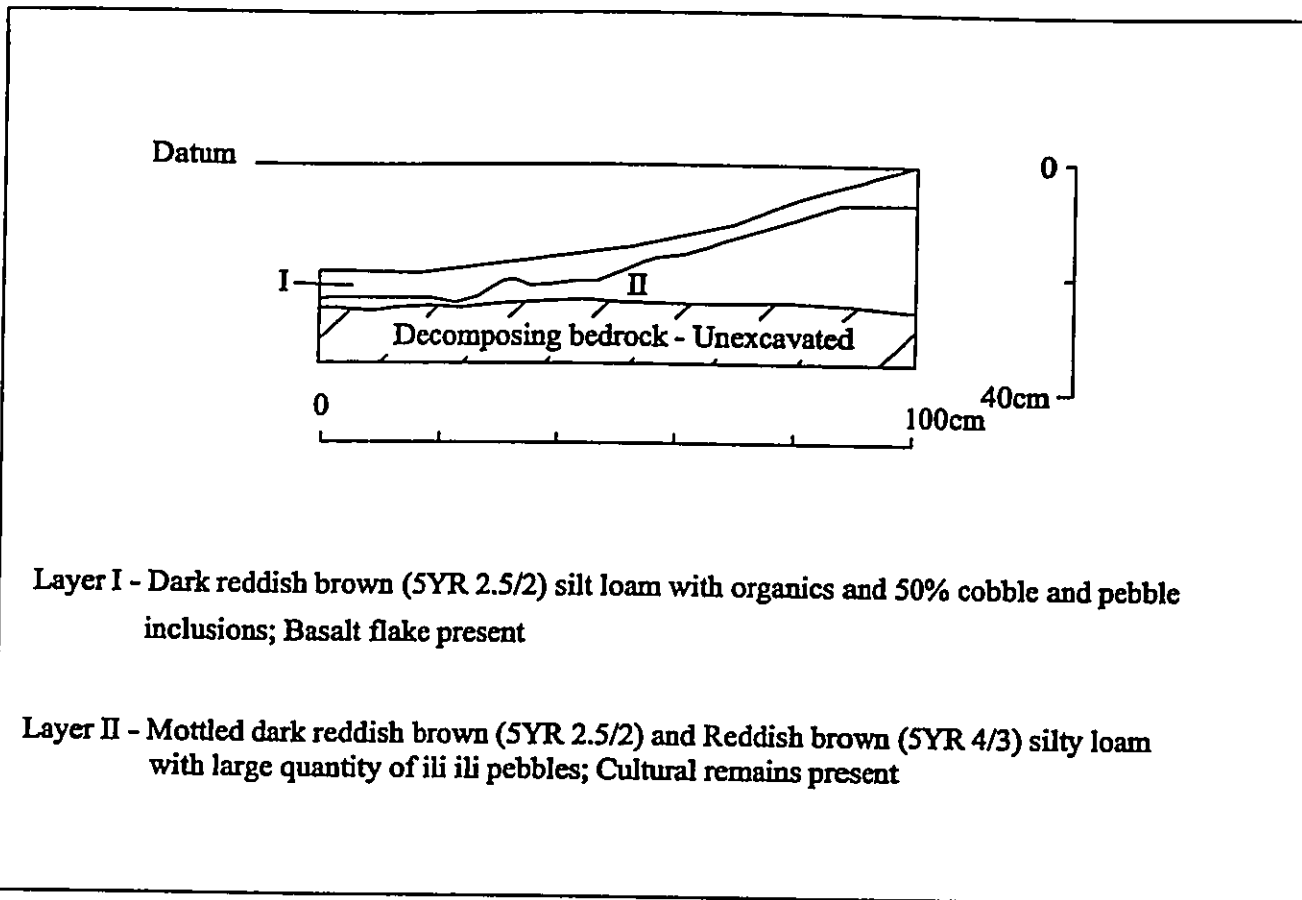


Figure 14. Site 5036, Feature AA, TU-13 North Face Profile

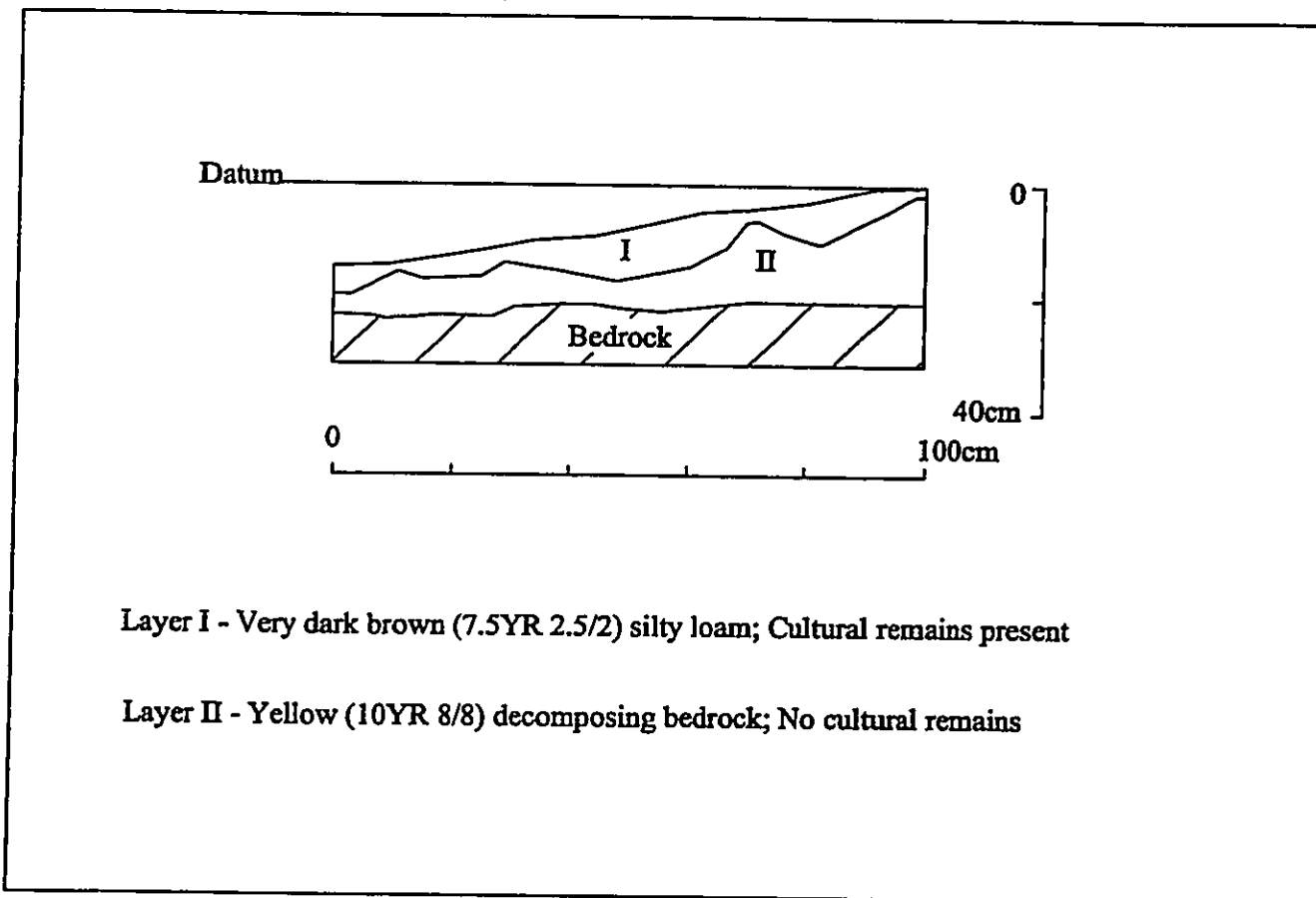


Figure 15. Site 5036, Feature AA, TU-14 East Face Profile

bedrock. 'Ili'ili from the unit was quantified by arbitrary 10 cm levels. 'Ili'ili comprised 12.5% of Level 1 fill, 15.0% of Level 2 and 0.4% of Level 3.

TU-14 was situated on the western slope of the knoll under a kiawe tree, in a grassy area that slopes slightly to the west. The excavation of this unit identified two soil layers over bedrock (*Figure 15*). Layer I consisted of 0.02 to 0.09 m of a very dark brown (7.5YR 2.5/2) silty loam with one fragment of marine shell and one piece of coral. Layer II was comprised of 0.04 to 0.18 m of a yellow (10YR 8/8) decomposing bedrock with no cultural remains.

Site 5079

Site 5079 is a truncated habitation deposit previously identified by Haun and Henry (2000) in the northwestern portion of the project area. Previous excavations in this area (TUs 6 and 7) revealed the remnants of a cultural deposit with partially mixed historic and prehistoric cultural remains. Three test units (TUs 15-17) were excavated in this area to determine if additional remnants of this deposit could be identified.

TU-15 was excavated on a gently sloping grassy area between TU-7 and an area where bedrock is exposed at the surface. This excavation revealed two soil deposits overlying bedrock (*Figure 16*). Layer I consisted of 0.05 to 0.13 m of a very dark brown (10YR 2/2) sandy silt. One fragment of marine shell, a beverage can pull tab, a 1980 penny, and a fragment of green glass were recovered from Layer I. Layer II was comprised of 0.11 to 0.18 m of a very dark grayish brown (10YR 3/2) sandy silt with 33 fragments of marine shell, two pieces of fish bone, three pieces of coral, one volcanic glass flake, a basalt adze fragment, a piece of modified bone, a piece of green bottle glass, a ceramic rim fragment with a blue on white design (*Figure 9, D*), and a piece of modified shell. The two historic artifacts came from the upper portion of Layer II.

TU-16 was situated to the north-northwest of TU-15, on the northern side of a driveway and to the west of a stone wall (Site 5039). This excavation revealed two soil layers over bedrock (*Figure 17*). Layer I consisted of 0.19 to 0.24 m of a dark reddish brown (5YR 2.5/2) sandy loam with 50% cobble and pebble inclusions. Cultural remains from this layer consisted of two fragments of marine shell, brown and clear glass bottle fragments, and a basalt flake. Layer II was comprised of 0.35 to 0.37 m of a dark reddish brown (5YR 3/2) sandy clay with 32 fragments of marine shell, a metal grommet, four aqua bottle glass fragments, a piece of bird bone, a fragment of fish bone, a fragment of volcanic glass, and a piece of modified bone.

TU-17 was situated in the northwestern corner of the parcel, on the Feature C terrace of Site 5040. The excavation revealed three deposits over bedrock (*Figure 18*). Layer I was comprised of 0.03 to 0.23 m of a dark yellowish brown (10YR 4/4) sandy loam with 50% cobble and pebble inclusions. Cultural remains from this layer consisted of four fragments of marine shell, a piece of coral, ceramic and glass fragments (*Figure 9, A, B and E*), a square nail (*Figure 9, C*), a piece of plastic, and a volcanic glass flake.

Layer II was comprised of a thin (0.02 to 0.04 m thick) band of a dark reddish brown (5YR 3/2) sandy clay with no cultural remains present. This was underlain by a 0.11 to 0.18 m thick layer of coarse ash cinders above bedrock (Layer III). No cultural remains were present in Layer III.

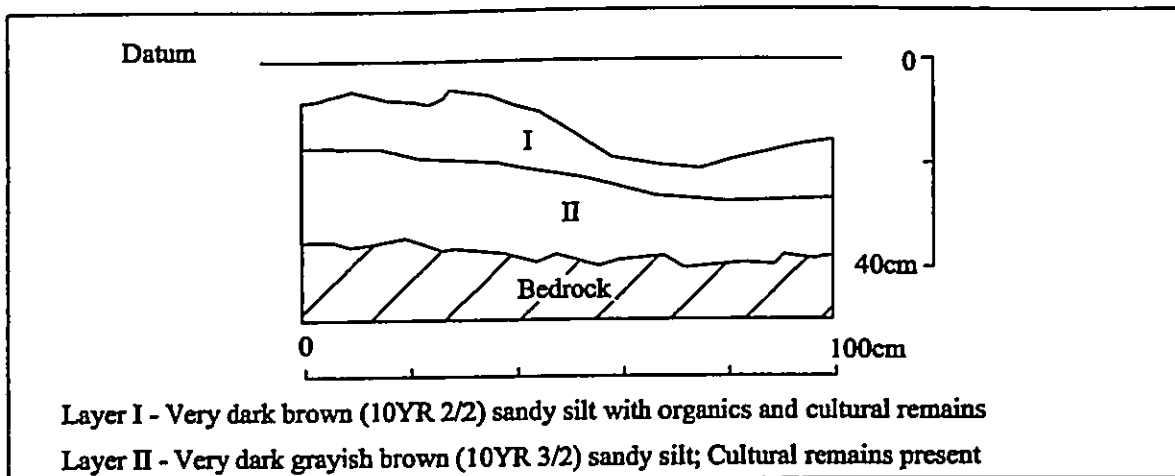


Figure 16. TU-15 South Face Profile

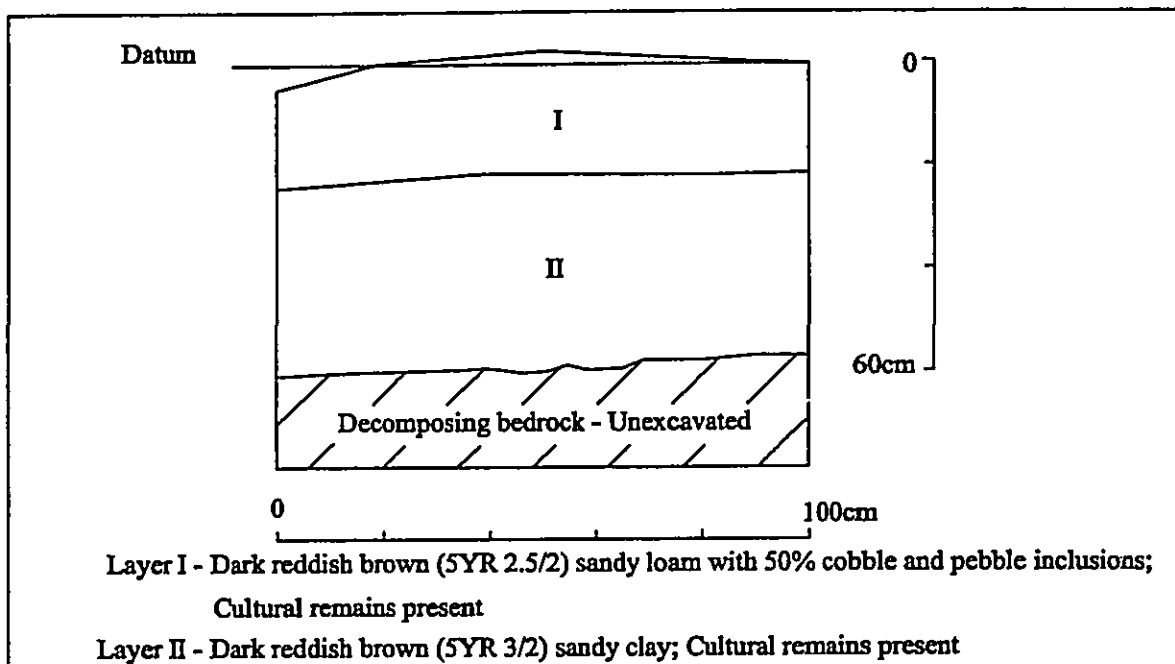


Figure 17. TU-16 North Face Profile

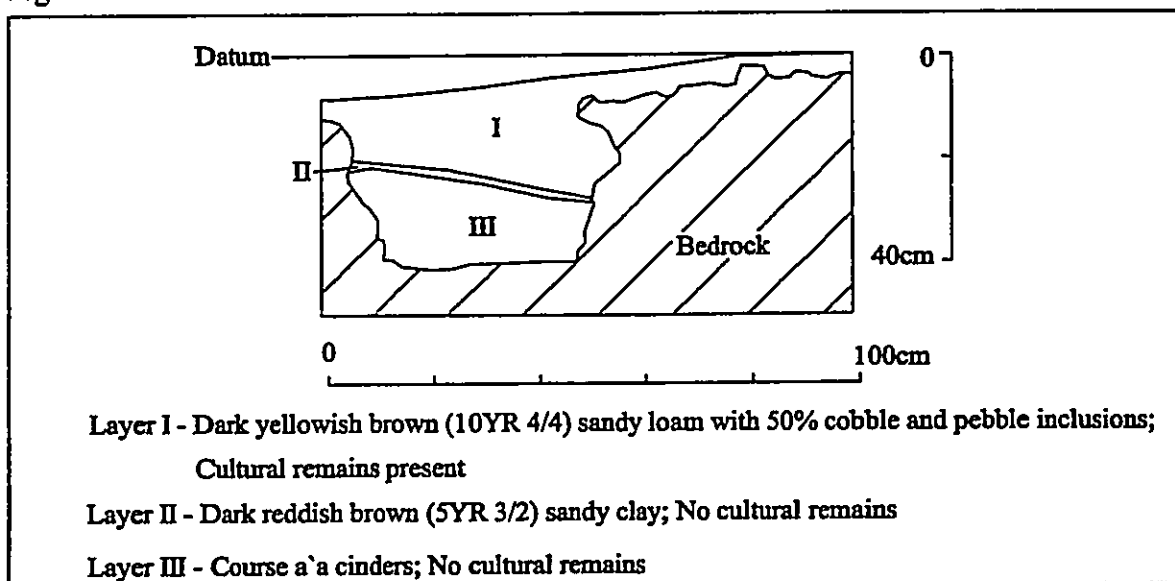


Figure 18. TU-17 South Face Profile

CONCLUSION

Discussion

The objectives of the additional fieldwork were to (a) test for the presence of subsurface deposits in the western portion of the project area and around Kalani Heiau; (b) better define the boundaries of Kalani Heiau; and (c) verify the function of the Site 5036, Feature AA knoll. Seven test units were excavated to determine the presence or absence of cultural deposits. TU-9, -10, -11, and -12 were excavated around Kalani Heiau and TU-15, -16 and -17 were excavated around the residences in the western portion of the project area.

TU-9 and TU-11, situated on the northwest and northeast sides of Kalani Heiau, respectively, did not encounter any cultural remains. TU-10, situated on the north side of the *heiau*, yielded cultural material from Layers I and II consisting of 12.3 grams of marine invertebrate remains and three pieces of waterworn coral. TU-12 was situated on the east side of the *heiau* and produced 0.2 grams of marine shell, a piece of waterworn coral, a volcanic glass flake and a *Conus* shell adze, all from the upper portion of Layer I.

None of the deposits encountered around Site 196 contained charcoal or subsurface features. The sparse midden content of the deposits and absence of artifacts in TU-10 may indicate that it was peripheral to a more intensively occupied area, such as the Site 196 knoll. Alternatively, the remains may be secondarily deposited by sheetwash down the slopes of the knoll. The presence of pieces of waterworn coral potentially support the latter alternative because it is scattered over much of the knoll where the coral is mixed in *'ili'ili* paving.

Two artifacts and one piece of marine shell were recovered from the surface layer in TU-12. These materials indicate habitation-related activity, although as with TU-10 the low density of remains indicates that the vicinity was either peripheral to a more intensively utilized area, such as the Site 196 knoll, or was utilized for a very brief period of time. As with the remains from TU-10, the cultural material from TU-12 could have been washed to the location from the adjacent Site 196, which is slightly upslope from TU-12. The single piece of waterworn coral from the unit potentially supports this interpretation. The TU-12 cultural remains were confined to the surface layer that was only 2-4 cm in thickness and subject to historic disturbance by cattle, vegetation grown, and other agencies.

TU-15 was situated in the vicinity of the previously excavated TU-7 that first identified a truncated cultural deposit designated Site 5079. This excavation revealed two layers. The upper layer (I) contained one piece of marine shell and recent historic artifacts. The basal layer (II) contained traditional Hawaiian artifacts, food remains, and ceramic and glass fragments. The latter historic artifacts were restricted to the upper portion of Layer II suggesting that the lower portion of the layer, less than 10 cm in thickness, may be a truncated, but intact prehistoric habitation deposit. A similar truncated deposit was encountered in the adjacent TU-7 excavated during the inventory survey. In that excavation the intact, but truncated deposit consisted of a 8 cm thick habitation layer with probable *'ili'ili* paving.

TU-16 was excavated between a driveway and the Site 5039 wall. The excavation revealed two soil layers over bedrock. Both layers contained a mixture of historic and traditional Hawaiian cultural remains. TU-17 was excavated on the Feature C terrace of Site 5039. The excavation encountered three deposits over bedrock. Cultural remains were restricted to the upper layer and consisted of a mixture of traditional and historic remains including a square nail and piece of plastic.

None of the deposits in the western portion of the project area contained charcoal or subsurface features. All of the units revealed cultural deposits containing traditional Hawaiian artifacts and probable food remains that were mixed with historic materials including recent items such as plastic, a pull top, and a 1980 penny. The square nail and some of the glass fragments probably date to the 1800s to early 1900s. These findings are identical to the results of testing during the inventory survey and confirm the

conclusions of that study (Haun and Henry 2000). The only intact probable prehistoric deposit is an 8-10 cm thick truncated remnant of a habitation deposit designated Site 5079.

The second goal of the additional fieldwork was to better define the boundaries of Site 196, Kalani Heiau. Detailed mapping and test excavations were conducted to achieve this goal. Careful examination of the knoll where the *heiau* is situated revealed alignments of small boulders embedded in the slopes of the knoll (see *Figure 3*). When mapped, the alignments outline a notched rectangular structure that is a typical Maui form well documented in nearby areas of Kula (Kolb et al. 1997). With an overall area of approximately 880 sq m, the structure falls within the upper end of the size range for large ritual structures reported for Kula and Honua'ula Districts (Kolb et al. 1997). Walker's (1931) informant(s) referred to Kalani as a sacrificial, or *luakini heiau* and the structure's large area supports this information.

The structure was originally a large notched platform with at least two stepped terraces or tiers on the seaward, west side of the structure. Portions of the upper surface, and probably the seaward stepped terraces were paved with waterworn basalt pebbles (*'ili'ili*) mixed with coral based on distribution of these materials on the seaward slope of the structure and in the test excavation, TU-18. The exterior walls and terraces apparently retained large amounts of small to medium cobble-size stones that were used as fill between the retaining walls and the natural topography of the knoll to create level upper surfaces. This fill material now covers the slopes surrounding the structure's foundation. A linear mound of stone in the southeastern corner of the structure, adjacent to the notch may be the remnant of a wall along the inland side of this portion of the structure. Three shallow pits on the stone-paved surface seaward of the mound may be post holes for a structure, such as an oracle tower, or supported wooden idols. There is a low notched rectangular platform on the northern portion of the *heiau* that is probably either a structural foundation or an altar.

The alignments of embedded boulders apparently formed the basal, foundation course of the exterior wall faces that were faced with large cobbles and small boulders as is evident in the only remaining intact section of faced wall on the southern side of the structure. The maximum combined height of the retaining walls on the seaward side of the structure was probably as much as three meters and probably at least one meter or more on the other sides. As mentioned previously, the poor condition of the structure was attributed to the removal of stones to build historic ranch walls bisecting the structure and on the west side of the structure; however, given the large size of the structure it was probably a source for building material for other walls and buildings in the vicinity. Very few large cobble to small boulder-size stones are present on the structure and the only reason the wall foundation alignment stones are still present is because the stones were apparently too embedded in the ground to be readily removed.

The amount of large cobble to small boulder-size stone mined from the *heiau* is considerably more than would be needed to construct the ranch walls surrounding the site. During a subsequent visit to the project area in December 2003, we had the opportunity to view ongoing restoration work at Keawala'i Church, which is situated approximately 100 m north of Site 196. The restoration work involved the replacement of a cement veneer on the exterior walls of the church (*Figure 19*). The restoration process revealed that the walls are constructed of large cobble to small boulder-size, basalt stones (*Figure 20*). The walls are nearly 3 ft thick and approximately 10 ft high and would have required a very large quantity of stone. The church was built in 1832 after the abolition of traditional Hawaiian religion and was potentially constructed with stone from Kalani Heiau.

One test unit was excavated on the surface of the *heiau* and four were excavated around the structure. TU-9 and TU-11 did not encounter any cultural remains. TU-10 produced 14 fragments of marine invertebrate remains and four pieces of waterworn coral. TU-12 yielded two artifacts and single pieces of shell and coral. TU-18 was excavated on the upper surface of the *heiau* to sample deposits that are clearly associated with the structure and provide a basis for evaluating the results of testing around the structure.

The TU-18 excavation yielded nearly 200 grams of marine invertebrate remains, primarily marine shell, over 100 pieces of coral, charcoal, and 9.2 grams of dog, fish, and bird bone. Most of the coral came from Layer II, which consisted of an *'ili'ili* pavement that undoubtedly functioned as part of the *heiau*. Two small fire pits were present in the lower portion of Layer II, possibly indicating initial use of *heiau*, or prior



Figure 19. Keawalai Church, Makai Wall

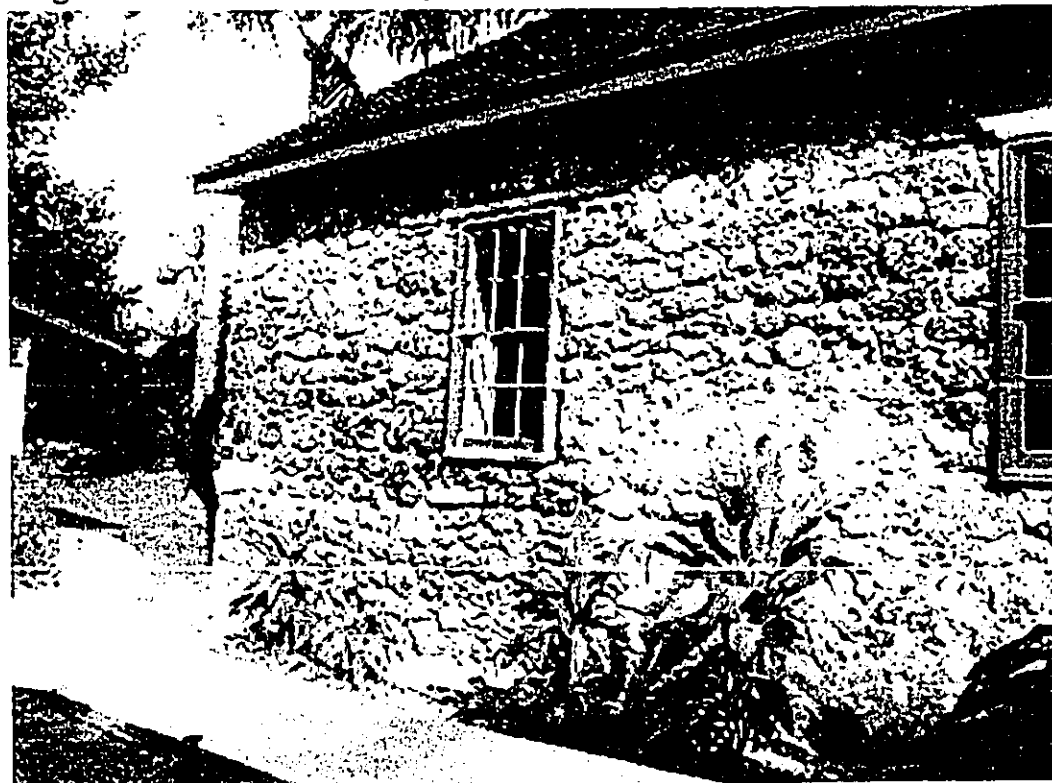


Figure 20. Keawalai Church showing Wall Stones

use of the knoll. A piece of charcoal from one pit produced a calibrated radiocarbon age range of A.D. 1420-1490.

The TU-18 excavation produced a large assemblage of artifacts consisting of fifty-one volcanic glass flakes, seventeen basalt flakes, a sea urchin file, two coral files, two coral abraders, a basalt core, and several worked pieces of bone and shell. Layer I contained midden, artifacts, and 'ili'ili. Layer I is apparently the result of post-occupation, natural accumulation of organic material on the surface of the 'ili'ili pavement that covered this portion of the *heiau* surface. The Layer III matrix is typical of the natural subsoil transition to decomposing bedrock found through the project area. Artifacts, midden, and a few 'ili'ili were present in the upper portion of this layer, which represents the original ground surface prior to occupation.

The relatively large and diverse assemblage of midden and artifacts from TU-18 is atypical of *heiau* deposits excavated by Kolb et al. (1997) in upland Kula. Kolb et al. excavated 22 sq m at eight *heiau*. Table 3 compares the values for quantities of portable remains per square meter of excavation at these upland *heiau* with values derived from the TU-18 excavation and the test units around the site. The TU-18 excavation produced a huge amount of marine shell compared to the upland *heiau* and significantly higher numbers of all categories of artifacts, except basalt tools. At the upland sites, pig and dog, interpreted to be ritual offerings, were common and marine shell was rare. This could be a reflection of the distance from the coast, but the associated upland residential sites had plentiful amounts of marine shell midden. The assemblage from TU-18 suggests a range of domestic activity including food preparation and consumption, and stone, bone, and shell tool manufacturing and use.

Table 3. Comparison of Recovered Cultural Remains

Cultural Remains	Kolb et al. (1997)	TU-18	TU-9	TU-10	TU-11	TU-12	TU-13	TU-14
Midden (gms/sq m)								
Marine Shell	0.62	174.35	-	12.30	-	0.20	1.10	0.70
Fish	0.51	0.10	-	-	-	-	-	-
Bird	1.50	2.00	-	-	-	-	-	-
Pig	5.57	-	-	-	-	-	-	-
Dog	0.11	7.30	-	-	-	-	-	-
Artifacts (items/sq m)								
Basalt tools	0.55	-	-	-	-	-	-	-
Basalt cores, flakes, and shatter	11.05	18	-	-	-	-	1	-
Volcanic glass	0.14	51	-	-	-	1	-	-
Bone & shell artifacts	0.90	3	-	-	-	1	-	-
Abraders/files	-	5	-	-	-	-	-	-
Coral (pieces/sq m)	21.36	97	-	3	-	1	10	1

The midden and artifact assemblage, and presence of two hearth features in the lower portion of Layer II, appear to be more characteristic of a habitation deposit, although the thick layer of 'ili'ili and presence of non-waterworn coral are attributes that characterized the ritual use of the knoll for a *heiau*. It is quite possible that the knoll's initial occupation was residential and later developed into a ritual feature when the *heiau* was constructed.

The four excavations around the east, north, and west sides of Site 196 yielded either sparse amounts of habitation-related portable remains, or no evidence of cultural activity. As *Table 3* illustrates, there is little similarity in the range and quantity of portable remains between the test units surrounding Site 196 and excavations conducted in known *heiau* including Site 196. The results indicate that the tested areas around Site 196 either lack evidence of cultural activity or contain very limited evidence of habitation-related activity. The testing results do provide a basis to refine the boundaries of the site because the results indicate that the site apparently did not extend to the tested locations. The re-mapping of the site provides the best means of delineating its extent. As is illustrated in *Figure 3*, the *heiau* structure was defined by the notched rectangular outline of its exterior wall faces formed by stone alignments and the remaining wall face on the south side of the structure. In part, as a result of historic mining of building stone from the site, and in part from natural deterioration, stones and portable remains from the *heiau* now cover the slopes of the knoll surrounding the footprint of the original structure and form the physical limits of the remains of the site.

The final goal of the additional field work was to further investigate the function of a small knoll, Feature AA of Site 5036, to the east of Site 196, and in particular, determine if it had any ritual significance or connection to Site 196. The feature consists of a leveled knoll with a scatter of waterworn pebbles (*'ili'ili*) indicating the former presence of a pavement or prepared floor, and a sparse scatter of marine shell. During the inventory survey (Haun and Henry 2002), excavated a shovel test on the upper surface of the knoll and encountered a 25 cm thick deposit containing several pieces of waterworn coral, *'ili'ili*, and five marine shell fragments, but no charcoal or other artifacts. The feature was interpreted as a temporary habitation feature used for a limited period of time based on its insubstantial construction and limited range and quantity of cultural remains.

Two additional test units were excavated on the knoll, TU-13 was situated on the top of the knoll and TU-14 was excavated on the western slope of the knoll. TU-13 encountered two layers. The upper 4-7 cm thick layer contained one fragment of marine shell, 10 pieces of waterworn coral, *'ili'ili*, and a basalt flake. The lower 2-18 cm thick layer contained abundant *'ili'ili*. TU-14 revealed a 2-9 cm thick surface layer containing one fragment of marine shell and one piece of coral overlying decomposing bedrock. Neither excavation contained charcoal or subsurface features. The cultural remains encountered during the additional testing are nearly the same as those identified during the inventory survey. The only new item recovered during the additional testing is a basalt flake, which is consistent with a habitation function for the knoll. The presence of pieces waterworn coral is common in *'ili'ili* paving material because it occurs naturally in pebble beach deposits where the paving material was obtained. *Figure 21* shows a portion of the *'ili'ili* scatter on Feature AA, and *Figure 22* shows an area of paving on the Site 196 *heiau* for comparison.

Mr. Rory Frampton of Chris Hart & Partners accompanied Ms. Dana Naone Hall and Mr. Leslie Kuloloio on a site visit to Kalani Heiau in March 2002. Their communication with Mr. Frampton is presented in a letter from Ms. Hall to Maui County Planning Director Mr. John Min dated November 7, 2002. They explained that the site is very significant and that site's location on a prominent knoll with views of the ocean, Haleakala, and the surrounding terrain was central to its selection for the *heiau*. They indicated that the views from the knoll where the *heiau* is situated and the Site 5036, Feature AA knoll were "an integral aspect of the sites' significance" as ceremonial and religious sites. They indicated that the *heiau* site boundaries possibly extended to the base of the knoll. They also indicated that they were not aware of anyone recently visiting or caring for the sites. They requested additional community consultation regarding the sites' significance.

In a subsequent letter from Ms. Hall to SHPD Maui archaeologist Dr. Melissa Kirkendall dated July 22, 2003, she reiterated the request for consultation and requested the inclusion of a map that better depicted the topographic setting of the *heiau* and Feature AA knoll. In response to her request, two additional individuals with knowledge of historical sites in the area were consulted and a topographic map of the project area showing the identified sites was prepared (*Figure 23*).

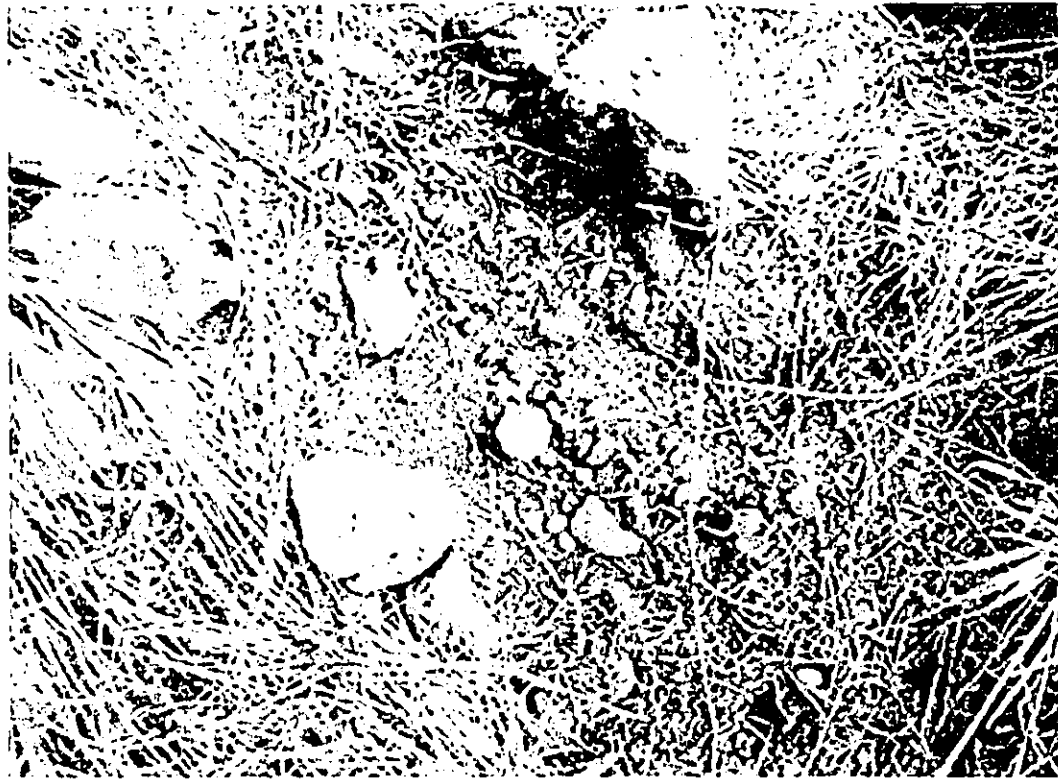


Figure 21. Site 5036, Feature AA 'Ili'ili



Figure 22. Site 196 Pavement

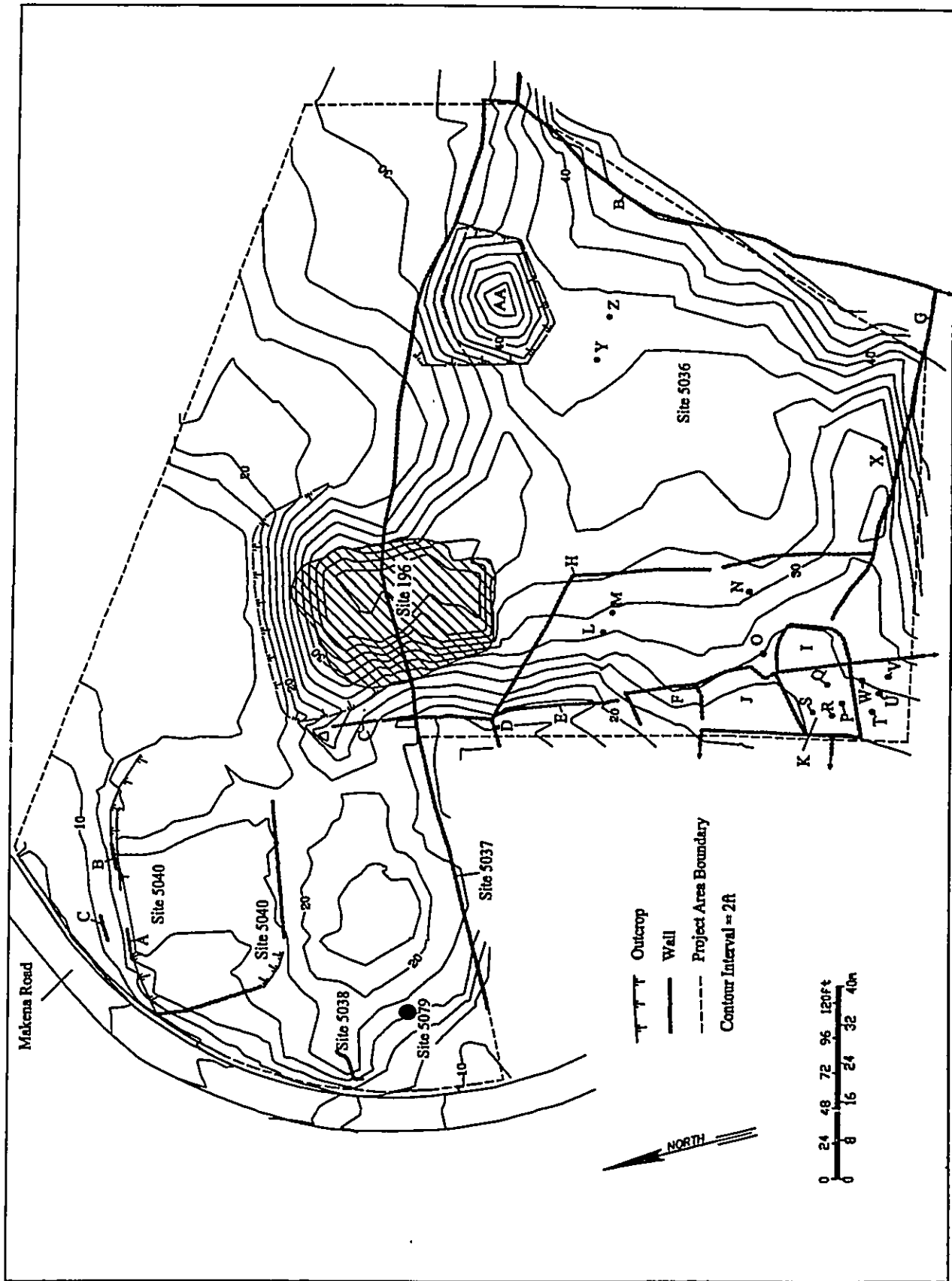


Figure 23. Topographic Map of Project Area

Ms. Marie Olsen was interviewed by Mr. Frampton in March 2004 and during a site visit to Kalani Heiau in November 2003. She was familiar with many archaeological sites in the Keoneoio and Makena areas. Ms. Olsen has known the Garcia Family since the 1950s. She was a close friend of the family, especially Ms. Marjorie (Moikea) Garcia. She remembers when Ms. Garcia obtained the Makena property from Ulupalakua Ranch as part of a land exchange in the late 1950s. Prior to the transfer, she recalled that there used to be a post office or mail collection site on the property. Ulupalakua Ranch also used the area for cattle operations. A number of stone walls and pens had been built on the site and in the surrounding area for cattle ranching.

Prior to the Garcia's acquiring the property, Ms. Olsen was aware that there were remains of a *heiau* on the property; however, she was not aware of anyone visiting or taking care of the site. She feels that it is important to preserve the site since it was used by Hawaiians for religious practices. While at the site, she walked to base of the Feature AA knoll. She was not aware of any significance of the knoll. She had never heard of it or whether it had any connection to the *heiau*.

Mr. Charles Pili Keau was interviewed by Mr. Frampton on two occasions in February 2004, including a site visit to Kalani Heiau. Mr. Keau has extensive experience in documenting and researching archaeological sites on Maui, especially in the Honua'ula area and has long been familiar with the site. He noted that the *heiau* is considered a "good" *heiau*, that is, not the kind that would make you get hurt. It has good *mana* or energy. He also noted that the name given to the *heiau*, Kalani, is that of a family from the area (David Lono's). He notes that this use of a family name makes it more difficult to determine what type of *heiau* the site represents.

Although he spent considerable time at the site in the 1970s, he was not aware of any significance attributed to the Feature AA knoll. He was aware of the complex of walls in the south-central portion of the project area, but he did not recall the knoll or anyone attributing significance to the knoll, especially as it relates to Kalani Heiau. Mr. Keau noted that it would be very difficult to determine the function of the knoll based on the available data. He added that the knoll could have had different functions over time. He stated that the knoll may have had some connection to the *heiau*; however, many other features in the area, both natural and man-made, would have been related to the site as parts of the overall regional setting.

Valeri (1985) describes "stone infrastructure" (1985:236) associated with, but external to the main temple feature of a *luakini heiau*. He lists large stones used for sacrifice, ovens used to cook sacrificial victims, pits for bones, *papahola*, and *hale o papa* (1985:236-237). There are no large stones, pits, or evidence for ovens on the Feature AA knoll. The *papahola* was situated on the "akau ('right' or 'north') side" of the main temple enclosure and was a structure used by the "audience" during temple rituals (1985:237). The *hale o papa* was a structure situated on the "hema ('left' or 'south') side" of the main temple where high ranking women stayed during rites in the main temple (1985:237). Kalani Heiau faces the ocean to the west and the Feature AA knoll is situated inland, approximately 50 m east of the *heiau*. This location of Feature AA relative to the *heiau* is not consistent with its potential function as a *papahola* or *hale o papa*, if the orientation described by Valeri was rigidly adhered to. The area of the knoll's upper surface (c. 50 sq m) is rather small to have functioned as a place for people to congregate and its elevated position overlooking the *heiau* (c. 8 ft higher in elevation) is potentially inconsistent with its use by individuals whose status precluded entrance to the main temple structure during rituals.

The archaeological data from the inventory survey, and from the additional testing, support a habitation function for the knoll. Consultation with individuals familiar with the history of the area did not produce any specific information relating to the function of the Feature AA knoll, but it did indicate that the function of the knoll may have changed over time and that its prominent nature may have had ritual significance. The feature does not exhibit characteristics that suggest it functioned as infrastructure as described by Valeri for *luakini heiau*; however, if one accepts Cachola-Abad's (1996) contention that stereotypical expectations about *heiau* do not encompass the full range of variation in the physical and cultural manifestations of such sites, then a potential ritual function cannot be ruled out.

Significance Assessments

Based on the results of the additional fieldwork, there is no change in the significance assessments recommended in the original inventory survey report (Haun and Henry 2000).

Recommended Treatments

The mapping, written descriptions, photography, and test excavations at Feature AA of Site 5036 conducted during the inventory survey and additional testing fieldwork adequately document it and no further archaeological work is recommended. Although the additional testing for Site 5079 cultural deposits did not obtain any dating material, it is recommended that the area be archaeologically monitored during construction to recover dating samples if other intact deposits containing datable materials are revealed. Kalani Heiau is recommended for preservation and the landowner has decided to preserve the Site 5036, Feature AA knoll as well. The specific plans for preservation would be detailed in a Preservation Plan prepared for DLNR-SHPD review and approval.

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APPENDIX A – RADIOCARBON CALIBRATION

CALIBRATION OF RADIOCARBON AGE TO CALENDAR YEARS

(Variables: C13/C12=-23.9:lab. mult=1)

Laboratory number: Beta-176271

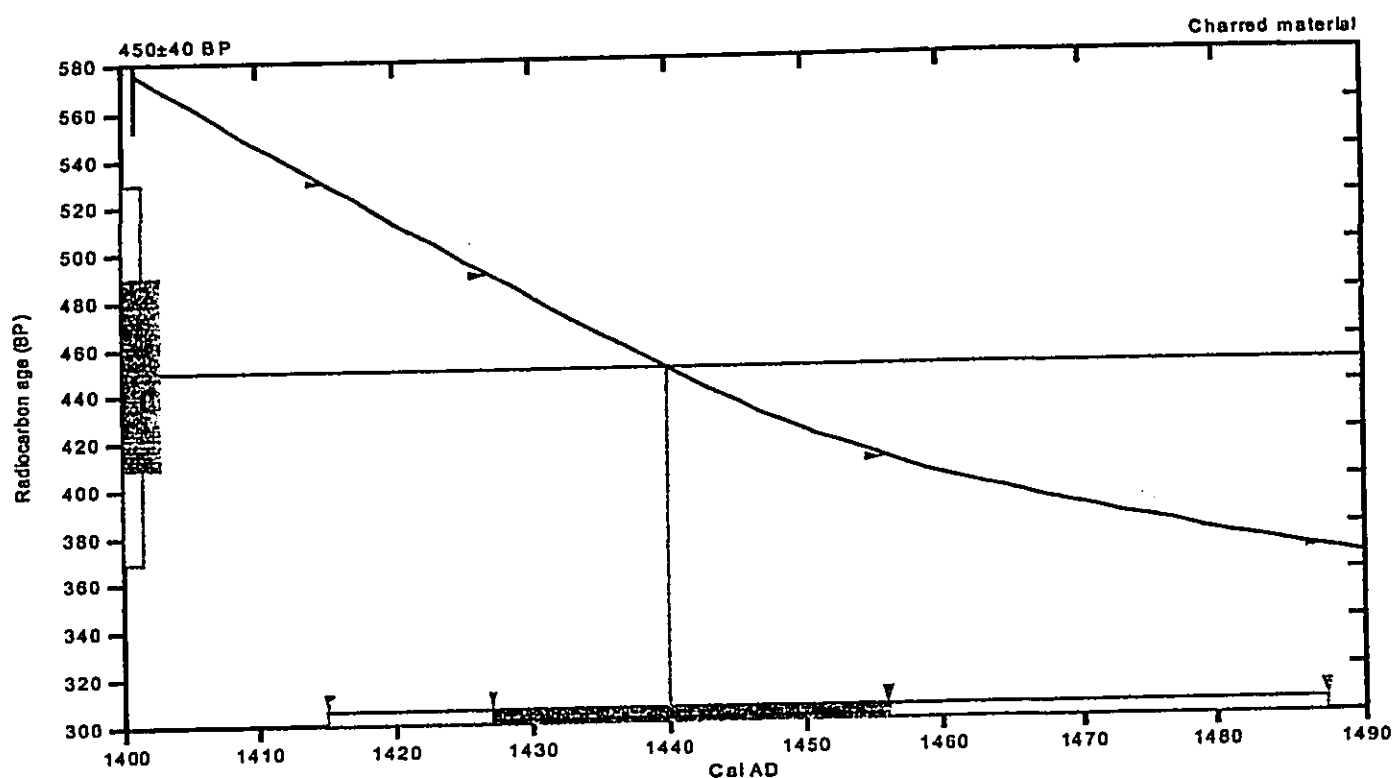
Conventional radiocarbon age: 450±40 BP

2 Sigma calibrated result: Cal AD 1420 to 1490 (Cal BP 540 to 460)
(95% probability)

Intercept data

Intercept of radiocarbon age
with calibration curve: Cal AD 1440 (Cal BP 510)

1 Sigma calibrated result: Cal AD 1430 to 1460 (Cal BP 520 to 490)
(68% probability)



References:

Database used

Calibration Database

Editorial Comment

Stuiver, M., van der Plicht, H., 1998, *Radiocarbon* 40(3), pxi-xlii

INTCAL98 Radiocarbon Age Calibration

Stuiver, M., et al., 1998, *Radiocarbon* 40(3), p1041-1083

Mathematics

A Simplified Approach to Calibrating C14 Dates

Talma, A. S., Vogel, J. C., 1993, *Radiocarbon* 35(2), p317-322

Beta Analytic Inc.

4985 SW 74 Court, Miami, Florida 33155 USA - Tel: (305) 667 5167 - Fax: (305) 663 0964 - E-Mail: beta@radiocarbon.com

Appendix - D
State Historic Preservation Letter dated May 10, 2001

Rec'd 5/14/01

BENJAMIN J. CAYETANO
GOVERNOR OF HAWAII



OLBERT S. COLOMA-AGARAN, CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

DEPUTIES
JANET E. KAWALO
LUNNEL NISHIOKA

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

HISTORIC PRESERVATION DIVISION
Kakuhewa Building, Room 555
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Kapolei, Hawaii 96707

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

May 10, 2001

Alan Haun
Haun and Associates
Archaeological, Cultural, and Historical Resource Management Services
HCR 1 Box 4730
Kea'au, Hawai'i 96749

LOG NO: 27399 ✓
DOC NO: 0104MK13

Dear Dr. Haun

**SUBJECT: Review of A Revised Archaeological Inventory Survey
Land of Ka'eo, Makawao District, Maui TMK 2-1-097:67**

Thank you for the opportunity to review this revised report which our staff received on March 19, 2001 (Haun and Henry 2001) *Archaeological Inventory Survey TMK 2-1-07:67, Land of Ka'eo, Makawao District, Island of Maui...Haun and Associates ms.*

You have responded to the requested revisions in our February 16, 2001 letter (Doc.0101MK10). A site number has now been assigned to the habitation deposit (Site 5079) and additional testing is recommended should plans be made to remove the existing houses.

We also agree with your assessment that Site 5079 is significant under Criterion "d", information content.

Sites 5036, 5037, 5038, 5039, and 5040 need no further protection. Site 5079, a partially intact subsurface habitation deposit will require additional testing (data recovery) prior to development of that area. Kalani heiau is committed to preservation.

The report is now acceptable.

The next step in the historic preservation review process will be the submittal of a data recovery plan for the additional testing at site 5079 and a preservation plan for Kalani heiau. We will await the submittal of these plans.

As always, if you disagree with our comments or have questions, please contact Dr. Melissa Kirkendall (Maui/Lana'i SHPD 243-5169) as soon as possible to resolve these concerns

Aloha,

Don Hibbard, Administrator
State Historic Preservation Division

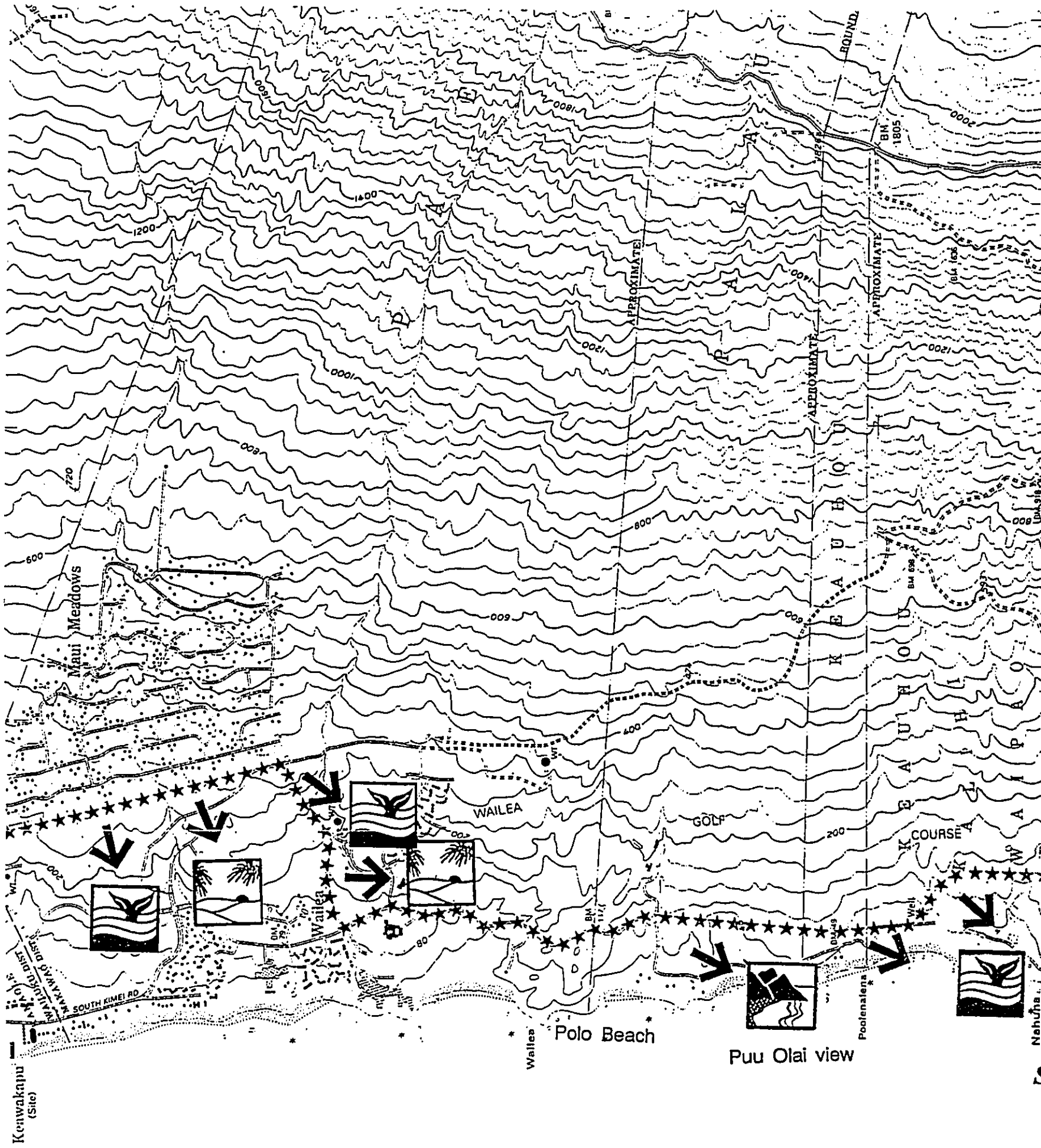
MK:jen

Post-it* Fax Note	7671	Date	3-3-02	# of pages	1
To	RORY FRAMPTON	From	ALAN HAUN		
Co./Dept.		Co.			
Phone #		Phone #			
Fax #	242-1956	Fax #			

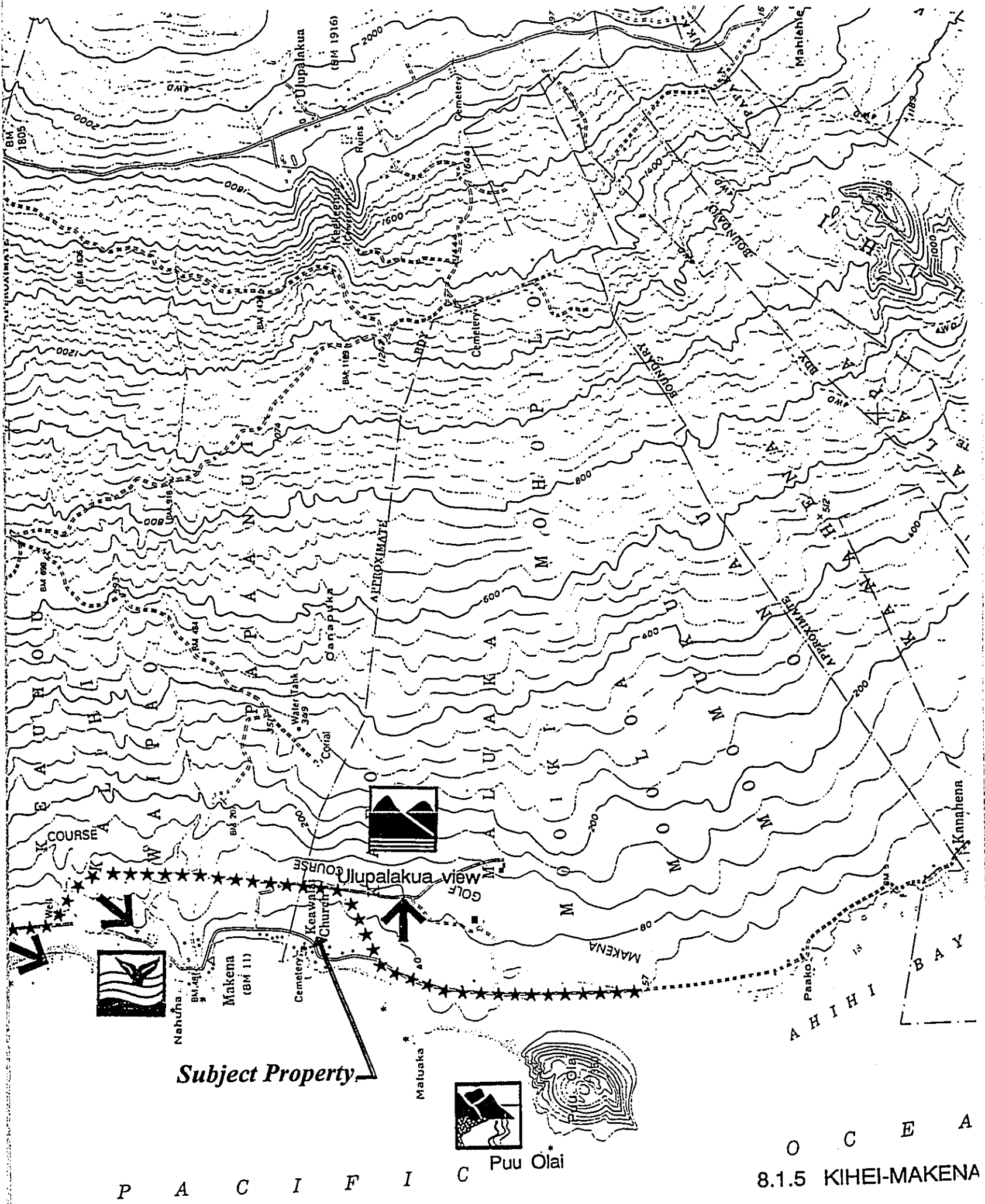
- c: John Min, Director, Department of Planning, County of Maui, FAX 270-7634
- Bert Ratté, County of Maui, Land Use and Codes, FAX 270-7972
- Glen Ueno, County of Maui, Land Use and Codes, FAX 270-7972

DOCUMENT CAPTURED AS RECEIVED

Appendix - E
Maui Scenic Coastal Resources Study, Kihei Map



DOCUMENT CAPTURED AS RECEIVED



Appendix - F
Preliminary Engineering and Drainage Report

PRELIMINARY ENGINEERING REPORT

FOR

**A PROPOSED 11 LOT
SUBDIVISION AT MAKENA, MAUI**

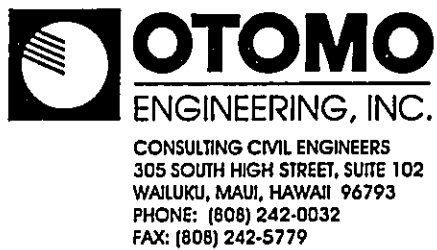
T.M.K.: (2) 2-1-007: 067

Prepared For:

**MR. SAM GARCIA
193 Makena Road
Kihei, Hawaii 96753**



Prepared By:



December, 2001

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- II. SITE LOCATION AND PROJECT DESCRIPTION
- III. ROADWAYS
- IV. DRAINAGE
- V. SEWER
- VI. WATER
- VII. ELECTRIC, TELEPHONE, AND CABLE TV

**PRELIMINARY ENGINEERING REPORT
FOR
A PROPOSED 11 LOT
SUBDIVISION AT MAKENA, MAUI**

I. INTRODUCTION

The purpose of this report is to provide information on the existing infrastructure which will be servicing the proposed project. It will also evaluate the adequacy of the existing infrastructure and any improvements which may be required for the proposed project.

II. SITE LOCATION AND PROJECT DESCRIPTION

The subject parcel is identified as T.M.K.: (2) 2-1-007: 067 which encompasses an area of approximately 5.497 acres. The project site is bordered by a private roadway to the north, undeveloped lands to the east and south, and undeveloped land and Makena-Keoneoio Road to the west.

The proposed project consists of 11 lots, ranging in area from 13,000 square feet to 33,000 square feet. Associated improvements includes paved roadways, sewer system, water system, drainage system, and landscaping.

III. ROADWAYS

The major roadways servicing the Makena area are Piilani Highway and South Kihei Road. Wailea Ike Drive serves as the main entrance into the Wailea Resort area. It intersects Wailea Alanui near the Shops at Wailea. Wailea Alanui becomes Makena Alanui Road south of its intersection with Kaukahi Street. Makena-Keoneoio Road intersects Makena Alanui Road immediately south of the Makena Surf condominiums. The subject project is approximately three-fourths of a mile south of said intersection.

The right-of-way width of Makena-Keoneoio Road varies fronting the subject property. The existing pavement width is approximately 24 feet wide with a raised curb/sidewalk along the frontage of the property.

Access to the property will be provided by a private roadway from Makena-Keoneoio Road along the northern boundary of the parcel. Private driveways will provide access to the lots within the subdivision.

IV. DRAINAGE

Approximately one-half of the onsite runoff sheet flows across the project site in an east to west direction, then across T.M.K.: (2) 2-1-007: 066. The runoff then sheet flows in a southerly direction along Makena-Keoneoio Road into a low lying area situated on T.M.K.: (2) 2-1-007: 004.

The remainder of the runoff sheet flows across the project site in an east to west direction onto Makena-Keoneoio Road. A small portion of the runoff from the southwesterly corner of the project site, adjacent to Makena-Keoneoio Road flows in a southerly direction into the low lying area on Parcel 004. The remainder of the runoff sheet flows in a northerly direction on Makena-Keoneoio Road, then across said roadway via an existing concrete swale. This runoff eventually enters into the ocean.

It is estimated that the existing 50-year storm runoff from the project site is 6.6 cfs. After the development of the proposed project, it is estimated that the 50-year storm runoff will be 13.7 cfs, a net increase of 7.1 cfs.

Presently, there is no drainage system in the vicinity of the project site. The onsite runoff will be intercepted by catch basins and diverted to an onsite underground subsurface drainage system or retention basin, which will be designed to accommodate the increase in runoff from a 50-year storm. No additional runoff generated from the project site will sheet flow onto Makena-Keoneoio Road. This is in accordance with Chapter 4, Rules for the Design of Storm Drainage Facilities in the County of Maui.

V. SEWER

The existing dwellings on the property is serviced by onsite cesspools. There is no County wastewater system in this area of Makena. Makena Resort Corp. is presently constructing a new private wastewater collection system and treatment plant. As part of their wastewater system, a new sewer pump station was constructed immediately north of the subject property.

Pending approval from the Makena Resort Corp., the sewer system for the proposed subdivision can connect their private wastewater system. An

alternative to this connection , each lot can be served by an individual wastewater system, approved by the Department of Health.

VI. WATER

Domestic water and fire flow for the for the proposed project will be provided by the County's water system. Presently, there is an existing 8-inch waterline along Makena-Keoneoio Road, which will service the project.

Based on a single dwelling on each lot, the estimated domestic water demand is 6,600 gallons per day. The required fire flow for the residential project is 1,000 gallons per minute.

As part of the subdivision improvements, and onsite water system will be constructed to provide water service and fire protection to each lot, in accordance with the rules of the Department of Water Supply.

VII. ELECTRIC, TELEPHONE AND CABLE TV

Existing overhead utility lines are located along the frontage of the property on Makena-Keoneoio Road. The installation of electrical, telephone and cable TV systems for the project will be coordinated with Maui Electric Company, Verizon Hawaii, and Hawaiian Cablevision.

PRELIMINARY
DRAINAGE AND SOIL EROSION CONTROL REPORT

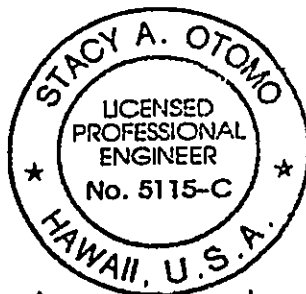
FOR

A PROPOSED 11 LOT
SUBDIVISION AT MAKENA, MAUI

T.M.K.: (2) 2-1-007: 067

Prepared For:

MR. SAM GARCIA
193 Makena Road
Kihei, Hawaii 96753



Stacy A. Otomo

Prepared By:



December, 2001

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- 2 Vicinity Map
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- B Universal Soil Loss Calculations

**PRELIMINARY
DRAINAGE AND SOIL EROSION CONTROL REPORT
FOR
A PROPOSED 11 LOT
SUBDIVISION AT MAKENA, MAUI**

I. INTRODUCTION

The purpose of this report is to examine both the existing and proposed drainage conditions for the proposed project.

In addition, this examination and plan has been prepared to determine the potential movement of soil due to rainfall and surface runoff from the project site, and to prepare for measures which will control erosion therefrom. This is in accordance with Chapter 20.08 "Soil Erosion and Sediment Control" of the Maui County Code as part of the application for a grading permit.

II. SITE LOCATION AND PROJECT DESCRIPTION

The subject parcel is identified as T.M.K.: (2) 2-1-007: 067 which encompasses an area of approximately 5.497 acres. The project site is bordered by a private roadway to the north, undeveloped lands to the east and south, and undeveloped land and Makena-Keoneoio Road to the west.

The proposed project consists of 11 lots, ranging in area from 13,000 square feet to 33,000 square feet. Associated improvements includes paved roadways, sewer system, water system, drainage system, and landscaping.

III. EXISTING TOPOGRAPHY AND SOIL CONDITIONS

The northwesterly section of the project site is partially developed with 3 existing residences and other miscellaneous structures. The remainder of the site is vacant and is overgrown with kiawe trees and weeds. A historic site occupies the center portion of the parcel.

The elevation on the site ranges from 49 feet above mean sea level at the southeasterly corner to 10 feet above mean sea level at the westerly boundary, averaging approximately 5.6%.

According to the "Soil Survey of Islands of Kauai, Oahu, Maui, Molokai, and Lanai, State of Hawaii (August, 1972)," prepared by the United States Department of Agriculture Soil Conservation Service, the soil within the project site is classified as Makena loam, stony complex (MXC). Makena loam, stony complex occurs on the lower leeward slopes of Haleakala, between Makena and Kamaole. On the Makena part of the complex, permeability is moderately rapid, runoff is slow to medium, and the erosion hazard is slight to moderate. On the stony land part, permeability is very rapid and there is no erosion hazard.

IV. EXISTING DRAINAGE CONDITIONS

Approximately one-half of the onsite runoff sheet flows across the project site in an east to west direction, then across T.M.K.: (2) 2-1-007: 066. The runoff then sheet flows in a southerly direction along Makena-Keoneoio Road into a low lying area situated on T.M.K.: (2) 2-1-007: 004.

The remainder of the runoff sheet flows across the project site in an east to west direction onto Makena-Keoneoio Road. A small portion of the runoff from the southwesterly corner of the project site, adjacent to Makena-Keoneoio Road flows in a southerly direction into the low lying area on Parcel 004. The remainder of the runoff sheet flows in a northerly direction on Makena-Keoneoio Road, then across said roadway via an existing concrete swale. This runoff eventually enters into the ocean.

It is estimated that the existing 50-year storm runoff from the project site is 6.6 cfs.

V. FLOOD AND TSUNAMI ZONE

According to Panel Number 150003 0330 B of the Flood Insurance Rate Map, June 1, 1981, prepared by the United States Federal Emergency Management Agency, the project site is situated in Flood Zone C. Flood Zone C represents areas of minimal flooding.

VI. PROPOSED DRAINAGE PLAN

After the development of the proposed project, it is estimated that the 50-year storm runoff will be 13.7 cfs, a net increase of 7.1 cfs.

The onsite runoff will be intercepted by catch basins and diverted to an onsite underground subsurface drainage system or retention basin, which will be designed to accommodate the increase in runoff from a 50-year storm. No additional runoff generated from the project site will sheet flow onto Makena-Keoneoio Road. This is in accordance with Chapter 4, Rules for the Design of Storm Drainage Facilities in the County of Maui.

VII. HYDROLOGIC CALCULATIONS

The hydrologic calculations are based on the "Drainage Master Plan for the County of Maui," and the "Rainfall Frequency Atlas of the Hawaiian Islands," Technical Paper No. 43, U.S. Department of Commerce, Weather Bureau.

Rational Formula Used: $Q = CIA$

Where Q = rate of flow (cfs)

C = rainfall coefficient

I = rainfall intensity for a duration equal to the time of concentration (in/hr)

A = drainage area (Acres)

See Appendix A for Hydrologic Calculations

VIII. SOIL EROSION CONTROL PLAN

A. General:

Based on the Hawaii Environmental Simulation Laboratory (HESL) equations to estimate soil loss during the construction period, and complemented by the following erosion control plan, the soil loss during the construction period is well within the tolerable limits (See Appendix B).

Based on the County Erosion Control Standards and Guidelines, the allowable erosion rate is 5,000 tons/acre/year for a 12-month grading period and the maximum tolerable severity rating number (H) is 50,000.

B. Erosion Control Plan:

The following measures will be taken to control erosion during the site development period (estimated 12 months).

1. Minimize time of construction.
2. Retain existing ground cover until latest date to complete construction.
3. Early construction of drainage control features.
4. Use temporary area sprinklers in non-active construction areas when ground cover is removed.
5. Station water truck on site during construction period to provide for immediate sprinkling, as needed, in active construction zones (weekends and holidays included).
6. Use temporary berms and cut-off ditches, where needed, for control of erosion.
7. Graded areas shall be thoroughly watered after construction activity has ceased for the day and on weekends.
8. All cut and fill slopes shall be sodded or planted immediately after grading work has been completed.

The development project is provided with adequate facilities for drainage control and storm water disposal. This, together with ultimate ground cover, shall preclude any appreciable onsite erosion.

IX. CONCLUSION

The proposed development is expected to generate a 50-year storm runoff volume of 13.7 cfs, with an increase of 7.1 cfs. The onsite runoff generated from the project will be diverted to an onsite subsurface drainage system or retention basin, which will be designed to accommodate the increase in runoff from a 50-year storm.

Based on our calculations, the sedimentation hazard to coastal waters and downstream properties is minimal (see Exhibit B). The soil loss per unit area and severity rating computed for the proposed development are well within the tolerable limits.

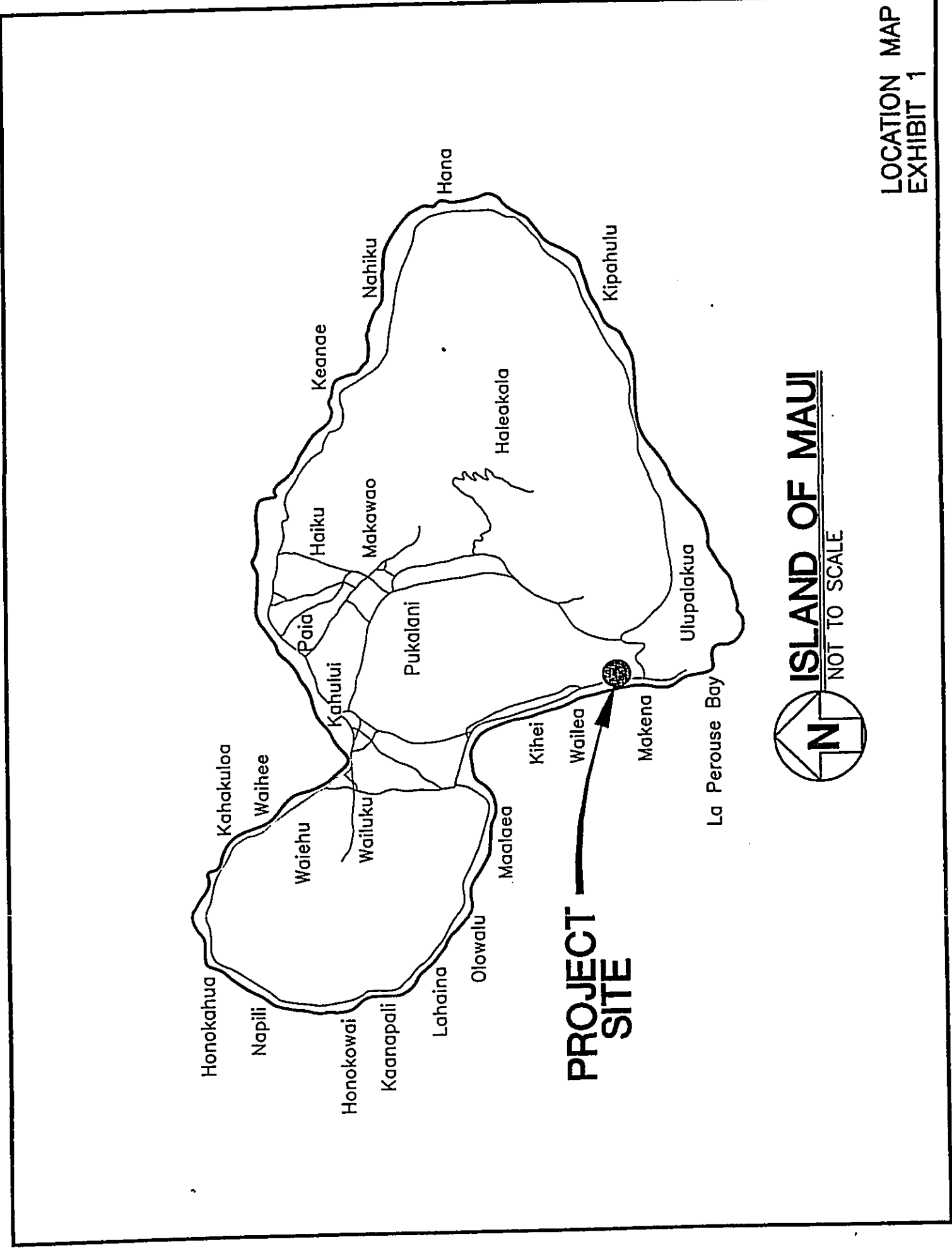
Therefore, it is our professional opinion that the proposed development will not have an adverse effect on the adjoining or downstream properties.

X. REFERENCES

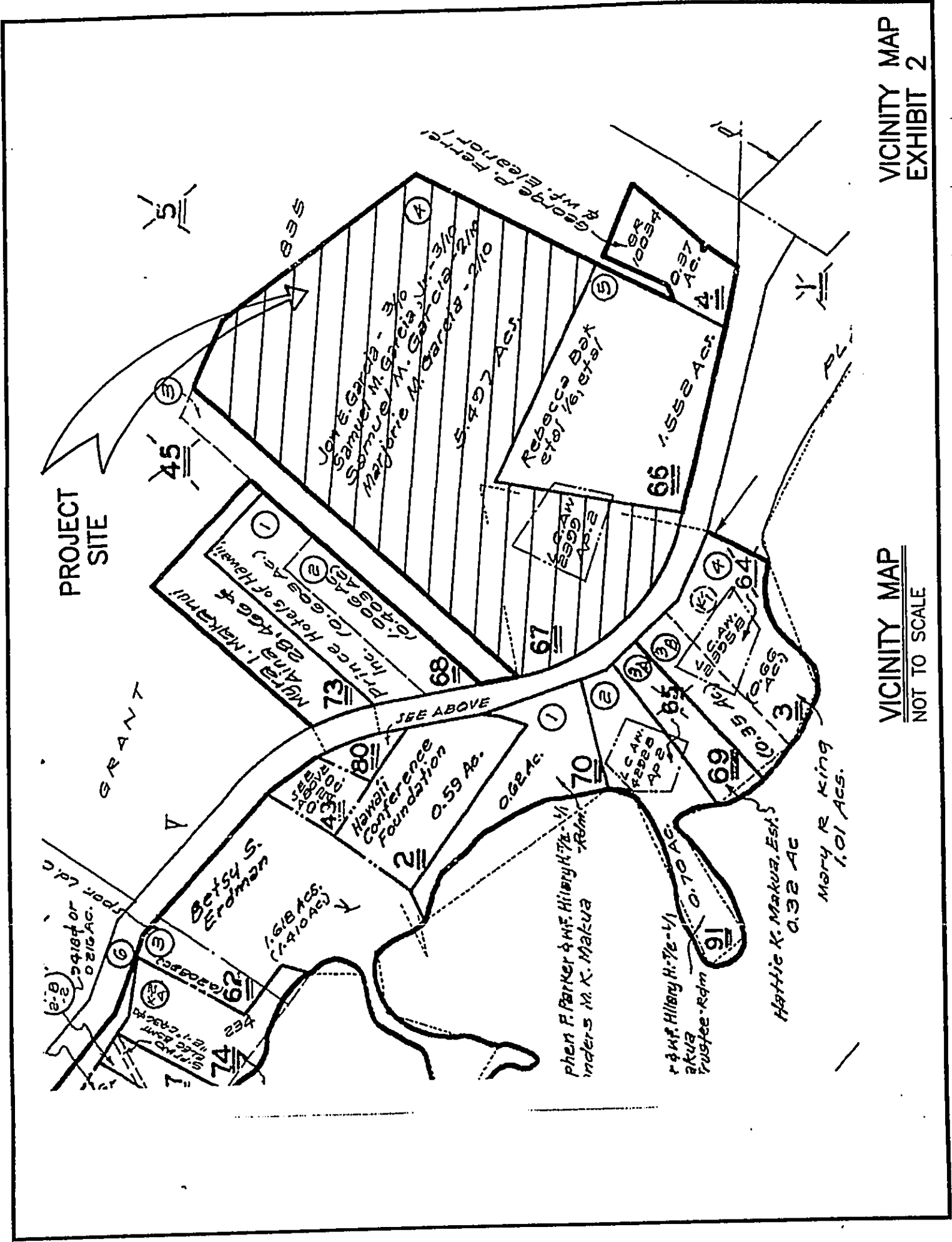
- A. Soil Survey of Islands of Kauai, Oahu, Maui, Molokai and Lanai, State of Hawaii, prepared by U.S. Department of Agriculture, Soil Conservation Service, August, 1972.
- B. Erosion and Sediment Control Guide for Hawaii, prepared by U.S. Department of Agriculture, Soil Conservation Service, March, 1981.
- C. Rainfall-Frequency Atlas of the Hawaiian Islands, Technical Paper No. 43, U.S. Department of Commerce, Weather Bureau, 1962.
- D. Flood Insurance Rate Maps of the County of Maui, September, 1989.
- E. Chapter 4, Rules for the Design of Storm Drainage Facilities in the County of Maui, prepared by the Department of Public Works and Waste Management, County of Maui, 1995.

EXHIBITS

- 1 Location Map**
- 2 Vicinity Map**
- 3 Soil Survey Map**
- 4 Flood Insurance Rate Map**



LOCATION MAP
EXHIBIT 1

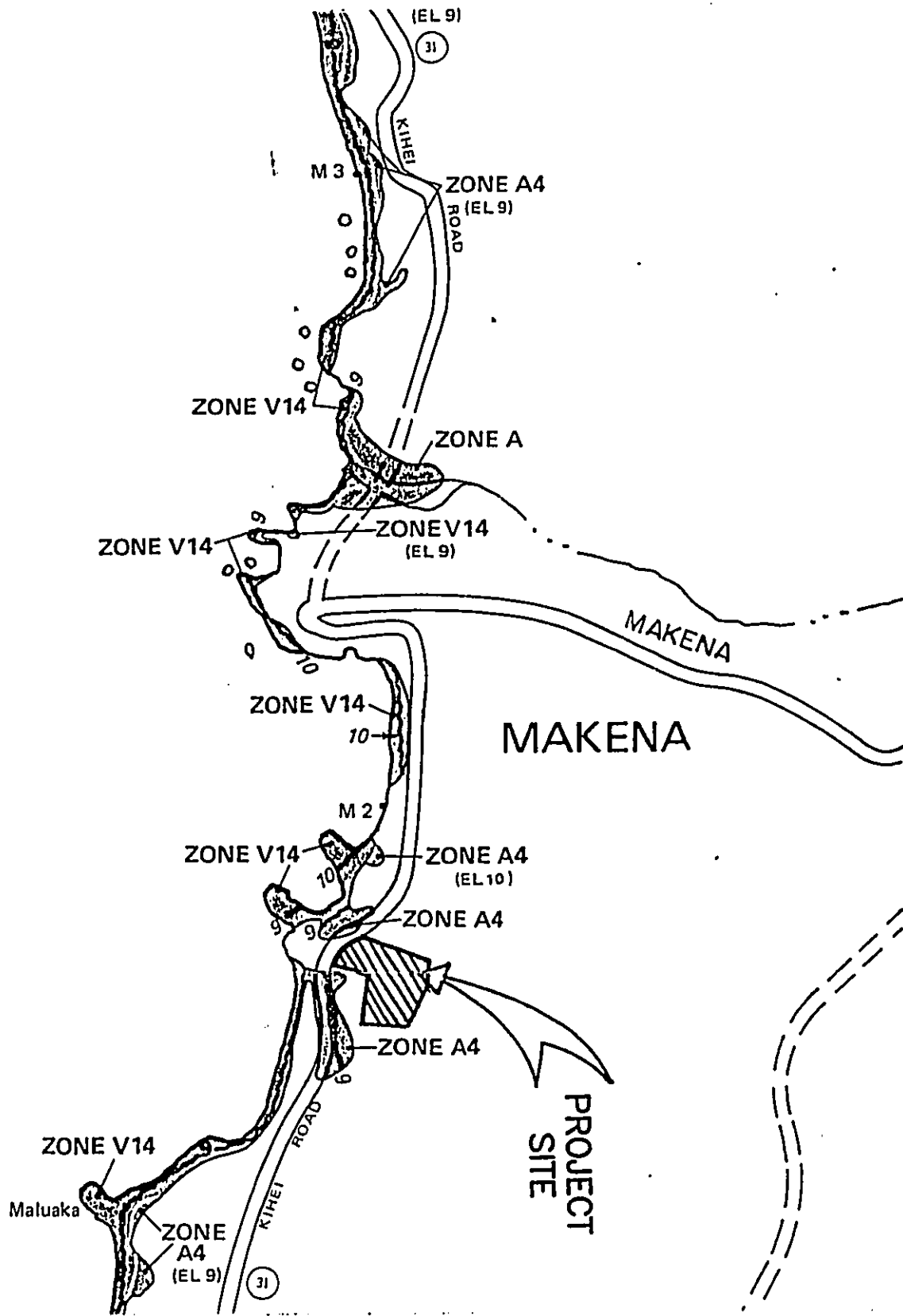


VICINITY MAP
EXHIBIT 2

VICINITY MAP
NOT TO SCALE



FLOOD INSURANCE
RATE MAP
EXHIBIT 4



APPENDIX A
HYDROLOGIC CALCULATIONS

Hydrologic Calculations

Purpose: Determine the increase in surface runoff from the development of the proposed project based on a 50-year storm.

A. Determine the Runoff Coefficient (C):

EXISTING CONDITIONS:

Infiltration (Medium) = 0.07

Relief (Rolling) = 0.03

Vegetal Cover (Good) = 0.03

Development Type (Open) = 0.15

C = 0.28

PAVEMENT AREAS:

Infiltration (Negligible) = 0.20

Relief (Rolling) = 0.03

Vegetal Cover (None) = 0.07

Development Type (Pavement) = 0.55

C = 0.85

ROOF AREAS:

Infiltration (Negligible) = 0.20

Relief (Hilly) = 0.06

Vegetal Cover (None) = 0.07

Development Type (Roof) = 0.55

C = 0.88

LANDSCAPED AREAS:

Infiltration (Medium) = 0.07

Relief (Rolling) = 0.03

Vegetal Cover (High) = 0.00

Development Type (Open) = 0.15

C = 0.25

EXISTING CONDITION:

Roof Areas = 0.10 Acres

Paved Areas = 0.13 Acres

Open Areas = 5.27 Acres

WEIGHTED C = 0.28

DEVELOPED CONDITIONS:

Residential Areas = 5.50 Acres

C = 0.53

- B. Determine the 50-year 1-hour rainfall:

$$i_{50} = 2.5 \text{ inches}$$

Adjust for time of concentration to compute Rainfall Intensity (I):

Existing Condition:

$$T_c = 18 \text{ minutes}$$

$$I = 4.3 \text{ inches/hour}$$

Developed Condition:

$$T_c = 14 \text{ minutes}$$

$$I = 4.7 \text{ inches/hour}$$

- C. Drainage Area (A) = 5.50 Acres

- D. Compute the 50-year storm runoff volume (Q):

$$Q = CIA$$

Existing Conditions:

$$Q = (0.28)(4.3)(5.50)$$

$$= 6.6 \text{ cfs}$$

Developed Conditions:

$$\begin{aligned} Q &= (0.53)(4.7)(5.50) \\ &= 13.7 \text{ cfs} \end{aligned}$$

The increase in runoff due to the proposed development is $13.7 - 6.6 = 7.1$ cfs.

APPENDIX B
UNIVERSAL SOIL LOSS CALCULATIONS

Universal Soil Loss Calculations

A. HESL Soil Loss Calculations:

1. Erosion rate, as set forth by the County of Maui Ordinance:

$$E = R \times K \times LS \times C \times P$$

Where:

E = Soil Loss in tons/acre/year

R = Rainfall Factor = 150 tons/acre/year

K = Soil Erodibility Factor = 0.17 (Makena)

L = Slope Length = 700 ft.

S = Slope Gradient = 0.056

LS = Slope Length Factor = 1.60

C = Cover Factor, Use Bare Soil = 1.0

P = Control Factor, Construction Site = 1.0

$$E = 150 \times 0.17 \times 1.60 \times 1.0 \times 1.0$$

$$= 41 \text{ tons/acre/year}$$

2. Maximum Allowable Soil Loss:

$$E_{\text{max}} = H_{\text{max}} / (2 F T + 3 D) A$$

$$\text{Coastal Water Hazard (D)} = \text{Class A} = 2$$

$$\text{Downstream Hazard (F)} = 2$$

$$\text{Duration of Site Work} = 12 \text{ months}$$

$$\text{Maximum Allowable Construction Area} \times \text{Erosion Rate} \\ = 5,000 \text{ tons/acre/year}$$

B. Severity Rating Number:

1. The degree of hazard from potential damage by erosion and sediment, known as "Severity Rating Number" will be determined for each grading site as follows:

$$H = (2 F T + 3 D) A E$$

Where:

H = Severity Rating Number

F = Unit Downslope/Downstream factor = 2

D = Unit Coastal Water Hazard = 2

T = Time of Distribution (years) = 1.0

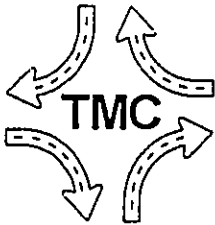
A = Area of Disturbance (acres) = 5.50

E = Erosion Rate in tons/acre/year

$$H = ((2 \times 2 \times 1.0) + (3 \times 2)) \times 5.50 \times 41 = 2,255$$

The maximum allowable severity rating number established is 50,000, and is greater than 2,255 which is computed for the project.

Appendix - G
Traffic Assessment



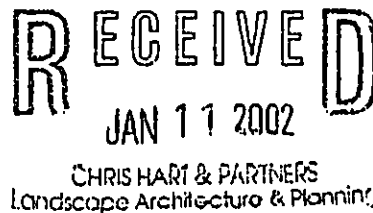
THE TRAFFIC MANAGEMENT CONSULTANT

Randall S. Okaneku, P.E., P.T.O.E., Principal • 1188 Bishop Street, Suite 1907 • Honolulu, Hawaii 96813
Telephone: (808) 536-0223 • Facsimile: (808) 537-2985 • Email: TMCHawaii@aol.com

TMC Job No. 200127

January 10, 2002

Mr. Sam Garcia
c/o Chris Hart & Partners, Inc.
1955 Main Street, Suite 200
Wailuku, Maui, Hawaii 96893-1706
Attention: Mr. Rory Frampton



Gentlemen:

Subject: 5.5-Acre Subdivision in Makena, Maui, Hawaii
Tax Map Key (2) 2-1-007:067

The Traffic Management Consultant (TMC) is pleased to present this Traffic Assessment on the proposed 5.5-acre residential subdivision, located in Makena, Maui, Hawaii. The purpose of this assessment is to identify potential traffic issues that could result from the development of the proposed subdivision.

Description of the Proposed Project

The subject project is located on the mauka (east) side of Makena-Keoneoio Road in Makena, Maui, Hawaii. The site is located immediately north of the Maui Prince Hotel. An eleven-lot residential subdivision is being proposed. The 5.5-acre parcel is identified as Tax Map Key (2) 2-1-007:067. Assuming a maximum of one (1) dwelling unit per lot, eleven (11) single-family dwellings could be constructed on the proposed subdivision.

Access to nine of the eleven lots would be via an existing easement, which is located immediately south of a beach access public parking lot, and opposite the historic Keawalai Church. Access to the remaining two lots would be located on Makena-Keoneoio Road. Regional access is provided via Makena Alanui, via Honoiki Street.

Roadways

Makena Alanui is the primary access road in the Makena area. Makena-Alanui is the continuation of Wailea Alanui, which is a two-way two- to four-lane collector roadway providing access to the Wailea and Makena Resorts.

Honoiki Street is a short two-way, two-lane connector roadway between Makena Alanui and Makena-Keoneoio Road. Honoiki Street is stop-controlled at Makena Alanui and at Makena-Keoneoio Road.

Makena-Keoneoio Road is a two-way, two-lane curvilinear roadway, which begins at Makena Alanui, runs along the coast, and terminates at the Maui Prince Hotel. The property is located along the inside of a curved section of Makena-Keoneoio Road, which results in restricted sight distances caused by existing vegetation, fences, and topography.

Trip Generation

The trip generation methodology was based upon generally accepted techniques developed by the Institute of Transportation Engineers (ITE) and published in the "Trip Generation", 6th Edition. ITE "single-family detached housing" trip rates were used to estimate the number of trips generated by the proposed project during the peak hours of traffic.

The trip generation characteristics for the proposed residential subdivision are based upon a total of 11 single-family dwelling units (one dwelling unit per lot). The proposed subdivision is expected to generate a total of 17 vehicle trips per hour (vph) during the AM peak hour of traffic – 4 vph entering the site and 13 vph exiting the site. During the PM peak hour of traffic, the proposed project is expected to generate a total of 14 vph – 9 vph entering the site and 5 vph exiting the site. Table 1 summarizes the trip generation characteristics of the proposed project.

Peak Hour		Trip Rate	Vph
AM	Enter	0.39	4
	Exit	1.17	13
	Total	1.56	17
PM	Enter	0.85	9
	Exit	0.45	5
	Total	1.30	14

Site Access

The curvilinear roadway section would restrict the sight distances from the proposed driveways and the access easement. The sight distance requirements for the driveway and access easement are based upon intersection sight distance guidelines presented in A Policy on Geometric Design of Streets and Highways 2001, published by the American Association of State Highways and Transportation Officials, (AASHTO). Sight distance is primarily based upon the design speed of the roadway. There were no posted speed limits on Makena-Keoneoio Road in the vicinity of the project.

Stopping sight distance is the distance traversed by a vehicle from the instant the motorist recognizes a hazard within the roadway, applies the brakes, and comes to a complete stop. Based upon an assumed speed limit of 20 miles per hour (mph) and a 25 mph design speed, the AASHTO stopping sight distance requirement is 155 feet for a flat grade. The stopping sight

distance should be adjusted to account for the roadway grade, which varies along the property frontage. Stopping sight distance is the minimum requirement for roadways and intersections.

AASHTO also recommends intersection sight distances for departure sight triangles, which provides sufficient sight distance for a motorist stopped on an approach of a minor road, to turn onto the major road without being overtaken by a vehicle traveling in the same direction. In this case, the line of sight is measured from a point on the driveway/easement located 14.4 feet from the edge of traveled way to the center of the approaching lane, 240 feet to the left and 280 feet to the right of the driveway/easement, based upon a 25 mph design speed. The sight triangle, which is defined as the area between the line of sight and the roadway, should be clear of all objects that would obstruct the motorist's views of the approaching lanes to the left and to the right, such as structures, vegetation, fencing, graded slopes, etc.

Findings and Conclusions

The peak hour trip generation of the proposed residential subdivision is not expected to significantly impact traffic operations in the surrounding streets.

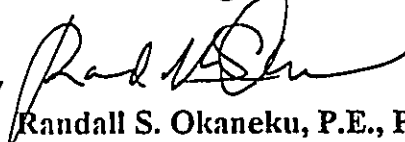
The subject property fronts a curved section of Makena-Keoneoio Road, which limits sight distances along the roadway and from the proposed access points. Stopping sight distance should be considered the absolute minimum sight distance requirement, which would allow a vehicle traveling at the design speed to make an emergency stop under normal conditions. Intersection sight distance is a more desirable criterion because vehicles can turn onto the major roadway from the side street without significantly impeding through traffic.

Appropriate sight distances along Makena-Keoneoio Road and sight distance triangles from the proposed driveways and access easement should be determined and maintained. If appropriate sight distance cannot be attained, consideration should be given to reducing the regulatory speed limit, as necessary, or posting advisory speed limit signs/warning signs on both approaches to the curved section of Makena-Keoneoio Road.

If you require clarification on any of the above material or have any other questions, please do not hesitate to call me.

Very truly yours,

The Traffic Management Consultant

By 

Randall S. Okaneku, P.E., P.T.O.E.
Principal

Appendix - H
Agency Comment and
Response Letters

Jul-11-2006 03:34pm

From-STATE Historic Preservation

809 692 6020

T-550 P 001/003 F-046

LINDA LINCLE
GOVERNOR OF HAWAII



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

STATE HISTORIC PRESERVATION DIVISION
601 KAMOKILA BOULEVARD, ROOM 555
KAPOLEI, HAWAII 96707

COMMISSION ON WATER RESOURCES MANAGEMENT

ROBERT K. MASUDA
CHIEF DIRECTOR - LAND

DEAN NAKANO
JULIUS DEPUTY DIRECTOR - WATER

AGRICULTURE
BOATING AND OCEAN RECREATION
BUREAU OF CONSERVATION
COMMISSION ON WATER RESOURCES MANAGEMENT
CONSERVATION AND COASTAL LANDS
CONSERVATION AND RESOURCES ENFORCEMENT
ENGINEERING
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
KAWAHAU ISLAND RESERVE COMMISSION
LAND
STATE PARKS

DOCUMENT CAPTURED AS RECEIVED

July 10, 2006

Mr. Kepa Maly
Kumu Pono Associates LLC
554 Keonaona Street
Hilo, Hawaii 96720

LOG NO: 2006.2293
DOC NO: 0607MK04
Archaeology

Dear Mr. Maly:

**SUBJECT: Chapter 6E-42 Historic Preservation Review –
Preservation Plan for Kalani Heiau, SHP 50-50-14-196
Ka'eo Ahupua'a, Makawao District, Island of Maui
TMK: (2) 2-1-007:067**

Thank you for the opportunity to review and provide comments on the preservation plan received by our staff on April 17, 2006 (Maly and Maly 2006, *Preservation Plan for Kalani Heiau [Site No. 196] and Vicinity, Ka'eo Ahupua'a, Honua'ula [Makawao] District, Island of Maui*)...Kumu Pono Associates, LLC, ms. We have delayed our review to allow ample time for the community to comment on the proposed preservation measures prior to our formal review of the plan. The Maui Cultural Resources Commission has reviewed the plan and has provided no additional comments, accepting the plan "as is." An additional Cultural-Historical Study of the Ka'eo area was conducted as part of the overall project, and included detailed ethnographic work. Summaries of the information from interviewees are provided in the Preservation Plan.

We have previously provided comments on the subject parcel including the following.

1. LOG NO: 26927/DOC NO:0101MK10: review of an Archaeological Inventory Survey, requesting revisions
2. LOG NO:27399/DOC NO: 0104MK13: review of a revised Archaeological Inventory Survey, initial review comments addressed, report accepted.
3. Letter from Don Hibbard (then SHPD Administrator) to John Min (then Director Maui County Planning Department): Review of a Draft Environmental Assessment (no LOG NO: or DOC NO: numbers), in which we express additional Archaeological concerns and recommend additional testing.
4. Letter from Don Hibbard (then SHPD Administrator) to Rory Frampton (Chris Hart and Partners): regarding additional testing, results of which were to be submitted as an addendum to the original survey (no LOG NO: or DOC NO: numbers) We indicate that a research proposal that was submitted to Mr. Frampton might meet our recommended scope of additional testing.
5. LOG NO: 31418/DOC NO: 0212CD63: review of a Special Management Area Permit, Change in Zoning Application, Community Plan Amendment Application, and District Boundary

Mr. Kepa Maly
Page 2

Reclassification for the Garcia Family Subdivision (Subject I.D.: CPA 2002/0009, DBA 2002/0004, CIZ 2002/0013, SMI 2002/0016), in which we indicate that the additional testing is necessary prior to finalizing our comments,

6. LOG NO: 31331/DOC NO: 0212MK08: review of the proposed scope for additional testing.
7. LOG NO: 2003.1907/DOC NO:0309MK18: Review of the addendum, in which we indicate that the supplemental testing met our requirements (as per review of scope of work for additional testing) but awaited some revision to the significance assessments for Feature AA of SIHP 50-50-14-5036.
8. LOG NO: 2005.0271/DOC NO: 0502CD19: Review of the Draft Environmental Assessment, Special Management Area Permit, Change in Zoning Application, Community Plan Amendment Application, and District Boundary Reclassification for the Proposed Garcia Family Subdivision (Subject I.D.: EA 2002/0008; CPA 2002/0009; CIZ 2002/0013; DBA 2002/0004; SMI 2002/0016). In this letter we indicate that the proposed development/subdivision would divide Kalani Heiau (SIHP 50-50-14-196) into three (3) separate residential lots, and that imported fill material will be used to elevate the mauka lots, including the area surrounding SIHP-5036. We have subsequently received information from Chris Hart and Partners, planning firm, indicating that the SIHP 50-50-14-196 will not be divided into multiple lots, and that the subdivision has been reconfigured to accommodate this concern.
9. LOG NO: NO: 2005.1189/DOC NO: NO: 0506MK20: Review of the revised Archaeological Inventory Survey Submitted as an Addendum, in which we concurred, with the significance assessments that Kalani Heiau is significant under multiple Criteria "D" and "E", and that preservation is appropriate. The property owner expressed willingness to preserve Feature AA of SIHP 5036 as well. We also agreed that monitoring is an appropriate mitigation during any ground altering activities.

The preservation plan provides details for both permanent and interim preservation measures for SIHP 50-50-14-196, and Feature AA of SIHP 50-50-14-5036. Measures for overall interim site protection include the following: buffer zones plotted on all grading, construction plans and six (6) foot high construction fencing demarcating the boundaries to remain in place for the duration of construction, no construction within the buffer zones the installation of which will be supervised by an archaeologist, notification to all construction supervisors and workers of the preservation buffer, on-site monitoring by both archaeologists and cultural practitioners (detailed in a monitoring plan), and no stone removal from within the preservation area.

Long-term preservation measures include documentation of site conditions, with regular updates by project manager, as to site condition, stability and change over time. Two (2) permanent preservation areas are proposed. The preservation area surrounding which SIHP 50-50-14-196 will be within LOT 4 and will measure 37,400 square feet in size (0.86 acre). This encompasses the knoll upon which the heiau is situated. The preservation area for SIHP 50-50-14-5036 will measure 10,430 square feet, and will be located within Lot 6. The two (2) areas are contiguous and free of residential structures. A vehicular access right-of-way separates the two (2) preservation areas, the surface of which will be color molded concrete to diminish differentiation suggested by the roadway. The boundaries of the preservation area are demarcated by existing historic stone walls on the west and southwestern sides. The northeast boundary is also demarcated by a stone wall.

Building setbacks and/or no build zones will be established on lots 4, 6, and 10, resulting in the closest potential build zone at 47 feet away from the heiau. Maximum building heights are set at 40 feet above sea level on Lot 3 and 2, reducing visual impact from future residential structures. The mauka portions of the preservation area on Lot 6 will be filled to provide a level building pad for future residential areas, while the makai portion will remain unmodified to provide topographic integrity as viewed from the heiau.

DOCUMENT CAPTURED AS RECEIVED

Mr. Kepa Maly
Page 3

View planes will be created by a 20 foot view corridor along the *makai* southwest boundary, which taken in concert with the 20 foot corridor proposed by the adjacent property owner will result in a 40 foot view corridor. No vertical structures will be within this corridor. Residential structures on lots bordering the *heiau* preserve will be screened by the cultivation of native plants.

Only landscaping and maintenance will be allowed within the preservation area, the perimeter of which will be planted with *nai'a*. All metes and bounds will be recorded in the deed(s) and plotted on all subdivision maps as a restrictive covenant which will include preservation measures. The covenant will be recorded with the Bureau of Conveyances. Long-term maintenance and interpretation will be a community based effort, via a non-profit umbrella organization in coordination with DLNR-SHPD. The homeowner's association will be responsible for vegetation control and maintenance

Removal of the historic ranching era wall which currently bisects the *heiau*, should it be proposed for removal will be subject to a "removal" plan submitted for review and acceptance by SHPD, and will incorporate community consultation. The proposed signage, prior to installation, will also be formally approved by SHPD. A sample of possible text appears in the plan, and we anticipate feedback from community organizations and individuals regarding appropriate language. We will delay approval of the signage until such consultation has occurred.

Removal of *kiawe* will be conducted with as part of the previously proposed monitoring program, and the monitoring plan should detail procedures to be utilized. Only native vegetation will be allowed within the preservation areas, and will be consistent with traditional native vegetation within the Makena shoreline area.

The preservation plan is acceptable. We will await submittal of interpretive text for signage as discussions with interested parties occur, and anticipate a monitoring plan in the future. Should you have any questions, please contact Dr. Melissa Kirkendall at (808) 243-5169.

Aloha,


Melanie Chinen, Administrator
State Historic Preservation Division

MK-kf

c: Bert Rane, DPWEM, County of Maui, FAX 270-7972
Michael Foley, Director, Dept. of Planning, FAX 270-7634
Maui Cultural Resources Commission, Dept. of Planning, 250 S. High Street, Wailuku, HI 96793
Rory Frampton via Chris Hart and Partners, FAX 242-1956

DOCUMENT CAPTURED AS RECEIVED



July 11, 2006

Ms. Melanie Chinen, Administrator
Department of Land and Natural Resources
Historic Preservation Division
Kakuhihewa Building, Room 555
601 Kamokila Boulevard
Kapolei, Hawaii 96707

Dear Ms. Chinen:

RE: Garcia Subdivision
Draft Environmental Assessment (EA 2002/0009; CPA 2002/0009; CIZ 2002/0013;
DBA 2002/004; SM1 2002/0016) TMK: (2) 2-1-007:067 Makena, Maui, Hawaii.

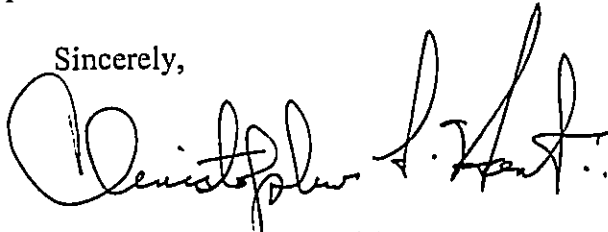
Thank you for your comment letter dated February 28, 2005, regarding the above referenced applications. We apologize for the delay in responding to your comment letter, the delay was primarily due to additional historical and cultural studies which were performed within the last year. The following responses are provided to your comments.

1. Revised Addendum Archaeological Survey. At the time of your letter this report was under review by your department and you requested that no action be taken until it was approved. By letter dated June 20, 2005 (Doc No: 0506MK20) your department accepted said report.
2. Preservation Areas. The proposed subdivision has been amended so that the preservation areas are not separated into multiple lots.
3. Preservation Plan. A detailed preservation plan was submitted to your Department for review and comment on March 17, 2006. It is our understanding that comments are forthcoming.

Ms. Melanie Chinen, SHPD
Re: Garcia Family Subdivision
July 11, 2006
Page 2

Thank you for your review of this matter. If you have any further questions please do not hesitate to contact Mr. Rory Frampton at 298-4956.

Sincerely,

A handwritten signature in black ink, appearing to read "Christopher L. Hart". The signature is written in a cursive, flowing style.

Christopher L. Hart, ASLA
Landscape Architect - Planner

c: Mr. Sam Garcia
Mr. Jon Garcia
Ms. Kivette Caigoy, Planning Department

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LINDA LINGOLE
GOVERNOR OF HAWAII



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

HISTORIC PRESERVATION DIVISION
KAKUHIHEWA BUILDING, ROOM 555
801 KAMOKILA BOULEVARD
KAPOLEI, HAWAII 96707

2-1-1.021
PETER T. YOUNG
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

DAN DAVIDSON
DEPUTY DIRECTOR - LAND

YVONNE Y. IZU
DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
BUREAU OF CONVEYANCES
COMMISSION ON WATER RESOURCE MANAGEMENT
CONSERVATION AND COASTAL LANDS
CONSERVATION AND RESOURCES ENFORCEMENT
ENGINEERING
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

February 28, 2005

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

LOG NO: 2005.0271
DOC NO: 0502CD19

Dear Mr. Foley,

SUBJECT: Chapter 6E-42 Historic Preservation Review – Draft Environmental Assessment, Special Management Area Permit, Change in Zoning Application, Community Plan Amendment Application, and District Boundary Reclassification for the Proposed Garcia Family Subdivision (Subject I.D.: EA 2002/0008; CPA 2002/0009; CIZ 2002/0013; DBA 2002/0004; SM1 2002/0016) [County/Planning] Ka'eo Ahupua'a, Makawao District, Island of Maui TMK: (2) 2-1-007:067

Thank you for the opportunity to review and comment on the Draft Environmental Assessment (Draft EA), Special Management Area Permit (SMA), Change in Zoning Application (CIZ), Community Plan Amendment Application (CPA), and District Boundary Reclassification (DBA) for the Proposed Garcia Family Subdivision, which was received by our staff January 10, 2005. The submitted document also includes a Draft Cultural Impact Assessment Report (Frampton 2002).

Based on the submitted document, we understand the proposed undertaking consists of the subdivision of the subject property in order to develop an eleven lot single-family residential subdivision to accommodate eleven single-family residences. Currently there are three existing residential dwellings located on the western portion of the property with the remaining portion vacant and undeveloped. We note the site plan (Figure 11) indicates that the subdivision as currently proposed will divide Kalani Heiau (SIHP 50-50-14-196) into three separate residential lots and SIHP 50-50-14-5036, Feature AA knoll will be divided into two separate lots. We also note that the proposed grading plan and site plan (Figures 12 & 13) indicate an imported fill material will be used to elevate the mauka lots, including the area surrounding SIHP-5036, AA to an elevation of 40ft amsl.

Mr. Michael Foley, Planning Director
Page 2

In 2000 Haun and Associates conducted an archaeological inventory survey of the proposed project area. During the survey six historic sites were identified, including two pre-contact sites (SIHP -196, Kalani Helau; -5036, Feature AA) and 5 historic sites, comprised of 4 ranching sites and a possible kuleana house lot (SIHP-5036 thru -5040). We have reviewed the report documenting the findings (*Archaeological Inventory Survey TMK: 2-1-07:67, Land of Ka'eo, Makawao District, Island of Maui...Haun and Henry 2000*), requested additional work, and concurred that SIHP-196 is significant under multiple criteria and merits preservation (SHPD DOC NO.: 0101MK10/LOG NO.: 26927). Haun and Associates have conducted the requested additional work and the addendum report documenting the findings is currently under review.

As a preliminary comment we believe it is inappropriate to divide an historic site as significant as Kalani Helau into multiple lots. However, we cannot comment formally on the proposed undertaking until we have completed our review of the revised addendum report and an approved preservation plan is in place. Please note the Cultural Impact Assessment Report will be reviewed by our Culture and History Branch under separate cover.

Given the above information, we recommend that no action be taken on the proposed undertaking until we have reviewed and accepted the addendum inventory survey report and a preservation plan for SIHP-196. Please note that additional sites may also be recommended for preservation based on the findings of the archaeological addendum and on our review of the Cultural Impact Assessment.

If you have any questions, please call Cathleen A. Dagher at 692-8023.

Aloha,

Nathan Nephe
for Melanie Chinen, Administrator
State Historic Preservation Division

CD:jen

c: Dana Hall (facsimile 244-6775)

MAR - 1 2005



June 28, 2006

Mr. James Pennaz, Chief
Civil Works Branch
Department of the Army
U.S. Army Engineer District, Honolulu
Fort Shafter, Hawaii 96858-5440
Attention: Jessie Dobinchick

Dear Mr. Pennaz:

RE: Garcia Subdivision
Draft Environmental Assessment (EA 2002/0009; CPA 2002/0009; CIZ 2002/0013;
DBA 2002/004; SM1 2002/0016) TMK: (2) 2-1-007:067 Makena, Maui, Hawaii.

Thank you for your January 24, 2005 letter in response to the Draft Environmental Assessment for the subject project.

It is not anticipated that dredged or filled material will be discharged into wetlands or other waters. We also acknowledge your confirmation of the flood hazard information.

If you have any further questions, please do not hesitate to contact me.

Sincerely,

Christopher L. Hart, ASLA
Landscape Architect - Planner

c: Mr. Sam Garcia
Mr. Jon Garcia
Ms. Kivette Caigoy, Planning Department

Feb-01-05 04:37pm

From-DEPT OF PL

NG COUNTY OF MAUI

808-242819

T-898 P.02/03 F-348



DEPARTMENT OF THE ARMY
U.S. ARMY ENGINEER DISTRICT, HONOLULU
BUILDING 223
FORT SHAFTER, HAWAII 96858-5440

REPLY TO
ATTENTION OF: CEPOH-EC-T

05 JAN 26 P1:13

January 24, 2005

DEPT OF PLANNING
COUNTY OF MAUI
RECEIVED

Civil Works Technical Branch

Mr. Kivette Caigoy, Staff Planner
County of Maui
Department of Planning
250 South High Street
Wailuku, Maui, Hawaii 96793

PREPARED BY
FEB 01 2005
CHRIS HART & PARTNERS
Landscape Architecture & Planning

Dear Mr. Caigoy:

Thank you for the opportunity to review and comment on the Draft Environmental Assessment (DEA) for the Garcia Family Subdivision Project, Maui (TMK 2-1-7: 67). The following comments are provided in accordance with Corps of Engineers authorities to provide flood hazard information and to issue Department of the Army (DA) permits.

a. Based on the information provided, the proposed development at this location is confined to upland areas outside of our jurisdiction. Consequently, a DA permit would not be required. However, if the proposed construction would result in the discharge of dredged or fill material into currently unidentified wetlands or other waters of the U.S., consultation would need to take place with Corps' Regulatory Branch to determine whether a permit may be required. For further information, please contact Mr. Farley Watanabe at (808) 438-7701 and refer to file number POH-2005-0035.

b. We concur with the flood information provided on page 9 of the DEA.

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

Sincerely,

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

Mike S

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June 28, 2006

Ms. Diana L. Perry
Natural Resources Conservation Service
US Department of Agriculture
210 Imi Kala Street, Suite #209
Wailuku, Hawaii 96793-2100

Dear Ms. Perry:

RE: Garcia Subdivision
Draft Environmental Assessment (EA 2002/0009; CPA 2002/0009; CIZ 2002/0013;
DBA 2002/004; SM1 2002/0016) TMK: (2) 2-1-007:067 Makena, Maui, Hawaii.

Thank you for your January 18, 2005 letter in response to the Draft Environmental Assessment application for the subject project.

During the subdivision process, an operation and maintenance plan will be prepared for the proposed retention basin.

If you have any further questions, please do not hesitate to contact me.

Sincerely,

Christopher L. Hart, ASLA
Landscape Architect - Planner

c: Mr. Sam Garcia
Mr. Jon Garcia
Ms. Kivette Caigoy, Planning Department

'05 JAN 19 AM 11:51

United States Department of Agriculture **DEPT OF PLANNING** **USDA**
 Natural Resources Conservation Service **COUNTY OF MAUI**
RECEIVED

Our People...Our Islands...in Harmony

210 Imi Kala Street, Suite #209, Wailuku, HI 96793-2100

January 18, 2005

Ms. Kivette Caigoy, Staff Planner
 Department of Planning
 County of Maui, Hawaii
 250 South High Street
 Wailuku, Hawaii 96793

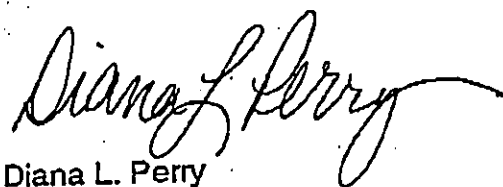
Regarding: Garcia Subdivision (revised application) TMK: (2) 2-1-007: 067

Dear Ms. Caigoy,

I have received a copy of the Draft Environmental Assessment Special Management Area (SMA) Permit Change in Zoning (CIZ) Application Community Plan Amendment Application and District Boundary Reclassification for the Garcia Family Subdivision. I would like to reiterate the comments made by Neal Fujiwara, former NRCS District Conservationist, in the letter dated December 10, 2002. The proposed retention basin should not only be designed with a compacted auxiliary (emergency) spillway, but it should also include an operation and maintenance plan.

I would also like to mention that reclassifying agricultural lands to residential land will only encourage more development in the surrounding areas.

Sincerely,



Diana L. Perry
 Civil Engineer

Cc: Ranae Ganske-Cerizo, NRCS

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June 28, 2006

Mr. Rodney K. Haraga, Director
Department of Transportation
869 Punchbowl Street
Honolulu, Hawaii 96813-5097

Dear Mr. Haraga:

RE: Garcia Subdivision
Draft Environmental Assessment (EA 2002/0009; CPA 2002/0009; CIZ 2002/0013;
DBA 2002/004; SM1 2002/0016) TMK: (2) 2-1-007:067 Makena, Maui, Hawaii.

Thank you for your January 31, 2005 letter in response to the Draft Environmental Assessment for the subject project.

We acknowledge that you have determined that the proposed subdivision will not have a significant impact on State transportation facilities.

If you have any further questions, please do not hesitate to contact me.

Sincerely,

Christopher L. Hart, ASLA
Landscape Architect - Planner

c: Mr. Sam Garcia
Mr. Jon Garcia
Ms. Kivette Caigoy, Planning Department

Feb-15-05 10:14am From-DEPT OF PLANNING COUNTY OF MAUI
LINDA LINGLE
GOVERNOR

808-242818

T-877 P.02/03 F-527

RODNEY K. HARAGA
DIRECTOR



Deputy Directors
BRUCE Y. MATSUI
BARRY FUKUNAGA
BRENNON T. MORIOKA
BRIAN H. SEKIGUCHI

15 FEB -9 P2:19

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
869 PUNCHBOWL STREET
HONOLULU, HAWAII 96813-5097

DEPT OF PLANNING
COUNTY OF MAUI
RECEIVED

IN REPLY REFER TO:

STP 8.1573

January 31, 2005

Mr. Michael W. Foley
Director
Department of Planning
County of Maui
250 South High Street
Wailuku, Hawaii 96793

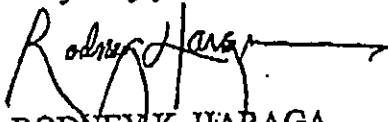
Dear Mr. Foley:

Subject: Garcia Family Subdivision – Revised Application
Draft Environmental Assessment (EA 2002/0008);
Community Plan Amendment (CPA 2002/0009);
Change in Zoning Application (CIZ 2002/0013);
District Boundary Reclassification (DBA 2002/0004); and
Special Management Area Use Permit (SM1 2002/0016)
TMK: (2) 2-1-007: 067

In reply to your request for our review of the subject revised application, this is to advise you that the proposed subdivision will not have a significant impact on our State transportation facilities.

We appreciate the opportunity to provide our comments.

Very truly yours,


RODNEY K. HARAGA
Director of Transportation

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June 28, 2006

Ms. Genevieve Salmonson, Director
Office of Environmental Quality Control
235 South Beretania Street, Suite 702
Honolulu, Hawaii 96813
Attention: Leslie Segundo

Dear Ms. Salmonson:

RE: Garcia Subdivision
Draft Environmental Assessment (EA 2002/0009; CPA 2002/0009; CIZ 2002/0013;
DBA 2002/004; SM1 2002/0016) TMK: (2) 2-1-007:067 Makena, Maui, Hawaii.

Thank you for your February 7, 2005 "no comments to offer" letter in response to the Draft Environmental Assessment (EA) for the subject project.

If you have any further questions, please do not hesitate to contact me.

Sincerely,

Christopher L. Hart, ASLA
Landscape Architect - Planner

c: Mr. Sam Garcia
Mr. Jon Garcia
Ms. Kivette Caigoy, Planning Department

Feb-15-05 10:14am

From-DEPT OF PLANNING COUNTY OF MAUI

808-242818

T-977 P.03/03 F-527

LINDA LINGLE
GOVERNOR OF HAWAII



GENEVIEVE SALMONSON
DIRECTOR

15 FEB -9 P2:19

STATE OF HAWAII
OFFICE OF ENVIRONMENTAL QUALITY CONTROL

235 SOUTH BERETANIA STREET
SUITE 702
HONOLULU, HAWAII 96813
TELEPHONE (808) 586-4185
FACSIMILE (808) 586-4185
E-mail: oeqc@health.state.hi.us

DEPT OF PLANNING
COUNTY OF MAUI
RECEIVED

February 7, 2005

Messrs. Samuel M. Garcia and Jon E. Garcia
193 Makena Road
Makena, Hawaii 96753

Mr. John Min
Planning Department, County of Maui
250 South High Street
Wailuku, Hawaii 96793

Mr. Rory Frampton
Chris Hart & Partners, Inc.
1955 Main Street, Suite 200
Wailuku, Hawaii 96793

Dear Messrs. Garcia, Garcia, Frampton and Min:

The Office of Environmental Quality Control has reviewed your revised draft environmental assessment for the Garcia Family Subdivision, situated at Makena, Tax Map Key (2nd) 2-1-007, parcel 067 in the judicial district of Makawao. We had previously sent you a comment letter, dated November 7, 2002 a copy of which (along with your response) had been reproduced in the revised draft environmental assessment. We have no comments to offer at this time. Thank you for the opportunity to comment.

If you have any questions, please call Mr. Leslie Segundo at (808) 586-4185.

Sincerely,

Genevieve Salmonson
GENEVIEVE SALMONSON
Director

DOCUMENT CAPTURED AS RECEIVED



June 28, 2006

Mr. Anthony J. H. Ching
Department of Business, Economic Development & Tourism
P.O. Box 2359
Honolulu, Hawaii 96804-2359

Dear Mr. Ching:

RE: Garcia Subdivision
Draft Environmental Assessment (EA 2002/0009; CPA 2002/0009; CIZ 2002/0013;
DBA 2002/004; SM1 2002/0016) TMK: (2) 2-1-007:067 Makena, Maui, Hawaii.

Thank you for your January 10, 2005 "no comments to offer" letter in response to the Draft Environmental Assessment for the subject project.

If you have any further questions, please do not hesitate to contact me.

Sincerely,

Christopher L. Hart, ASLA
President

c: Mr. Sam Garcia
Mr. Jon Garcia
Ms. Kivette Caigoy, Planning Department

LINDA LINGLE
GOVERNOR

ANTHONY J.H. CHING
EXECUTIVE OFFICER



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

'05 JAN 13 12:09

DEPT OF PLANNING
COUNTY OF MAUI
RECEIVED

January 10, 2005

Mr. Michael W. Foley, Planning Director
Department of Planning
County of Maui
250 South High Street
Wailuku, Hawaii 96793

Dear Mr. Foley:

Subject: EA 2002/0008; CPA 2002/0009; CIZ 2002/0013; DBA 2002/0004; SM1 2002/0016
TMK (2) 2-1-007: 067
Garcia Subdivision (Revised Application)
Samuel and John Garcia c/o Chris Hart & Partners

We acknowledge receipt of your transmittal dated January 5, 2005, regarding the above subject application.

Given the location, scope, and nature of the proposed activity, the State Land Use Commission defers to the judgment of the County of Maui in this matter. We have no comments to offer at this time.

Thank you for the opportunity to comment on the subject project. Please feel free to contact me at 587-3822, should you require clarification or any further assistance.

Sincerely,

Anthony J.H. Ching
ANTHONY J. H. CHING
Executive Officer

Post-It® Fax Note	7671	Date	4/28/06	# of pages	1
To	R. FRAMPTON	From	K. CHING		
Co./Dept.	RAYMOND	Co.			
Phone #					
Fax #					

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June 28, 2006

Mr. Milton M. Arakawa, Director
Department of Public Works and Environmental Management
200 South High Street
Wailuku, Hawaii 96793
Attention: Michael Miyamoto

Dear Mr. Arakawa:

RE: Garcia Subdivision
Draft Environmental Assessment (EA 2002/0009; CPA 2002/0009; CIZ 2002/0013;
DBA 2002/004; SM1 2002/0016) TMK: (2) 2-1-007:067 Makena, Maui, Hawaii.

Thank you for your February 15, 2005 letter in response to the Draft Environmental Assessment application for the subject project.

1. Construction and demolition debris will be reused or recycled when practical, or disposed at a construction and demolition waste landfill.
2. The applicant recognizes that the project is subject to possible tsunami and flood inundation. The project will conform to Ordinance 1145 pertaining to flood hazard districts.
3. The proposed project will comply with Section 16.26.3304 (Improvement to Public Streets) of the Maui County Code (MCC).
4. A grading plan with erosion control measures will be submitted by a registered engineer as part of the subdivision process.
5. Final drainage report and best management practices (BMP) plan shall be submitted with grading plans. The report will comply with the "Rules and Design of Storm Drainage Facilities in the County of Maui" and will detail mitigation measures for grading and stormwater runoff impacts.
6. As part of the subdivision submittal, the project plat plan will show all existing features including structures, driveways, drainage ways, edge of pavement, etc.
7. Site distance plan will be prepared and submitted to your department.
8. The applicant will obtain street name approval from the Commission of Naming Streets, Parks and Facilities.

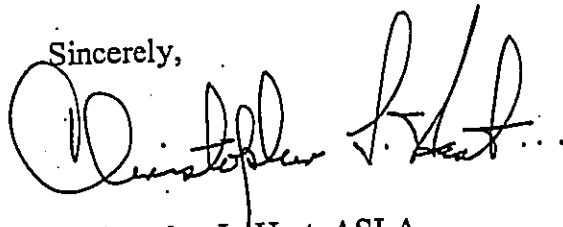
LANDSCAPE ARCHITECTURE AND PLANNING
1955 MAIN STREET, SUITE 200 • WAILUKU, MAUI, HAWAII 96793-1706 • PHONE: 808-242-1955 • FAX: 808-242-1956

Mr. Milton M. Arakawa
Department of Public Works and Environmental Management
Re: Garcia Subdivision
June 28, 2006
Page 2

9. A final Traffic Impact Assessment Report will be submitted to your department for review and approval. The Police Department has reviewed the project and offered no traffic concerns.
10. The applicant will comply with Title 18 (Subdivision Ordinance) of the Maui County Code.
11. The applicant will provide more project information on roadway access upon application for subdivision.
12. During grading, these Best Management Practices (BMP) are to be implemented, but not limited to:
 - Providing an adequate water source prior to start-up of construction for use in dust control.
 - Landscape planting and the rapid covering of bare areas, including slopes, beginning with the initial grubbing and grading phase.
 - Controlling of dust from shoulders, project entrances and other access roads.
 - Providing adequate dust control measures during weekends, after hours and prior to daily start-up of construction activities.
 - Controlling of dust from debris hauled away from the project site.

If you have any further questions, please do not hesitate to contact me.

Sincerely,



Christopher L. Hart, ASLA
Landscape Architect - Planner

c: Mr. Sam Garcia
Mr. Jon Garcia
Ms. Kivette Caigoy, Planning Department

Feb-17-05 04:48pm From-DEPT OF PLANNING COUNTY OF MAUI

808-242819

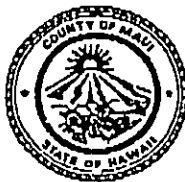
T-007 P.05/07 F-603

ALAN M. ARAKAWA
Mayor

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

MICHAEL M. MIYAMOTO
Deputy Director

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



COUNTY OF MAUI
DEPARTMENT OF PUBLIC WORKS
AND ENVIRONMENTAL MANAGEMENT
200 SOUTH HIGH STREET, ROOM 322
WAILUKU, MAUI, HAWAII 96793

RALPH NAGAMINE, L.S., P.E.
Development Services Administration

TRACY TAKAMINE, P.E.
Wastewater Reclamation Division

CARY YAMASHITA, P.E.
Engineering Division

BRIAN HASHIRO, P.E.
Highways Division

Solid Waste Division

February 15, 2005

DEPT OF PLANNING
COUNTY OF MAUI
RECEIVED
05 FEB 16 13:45

MEMO TO: MICHAEL W. FOLEY, PLANNING DIRECTOR

FROM: MILTON M. ARAKAWA, A.I.C.P., DIRECTOR OF PUBLIC WORKS
AND ENVIRONMENTAL MANAGEMENT *Milton M. Arakawa*

SUBJECT: DRAFT ENVIRONMENTAL ASSESSMENT, DISTRICT BOUNDARY
RECLASSIFICATION, SPECIAL MANAGEMENT AREA PERMIT,
CHANGE IN ZONING, AND COMMUNITY PLAN AMENDMENT
GARCIA FAMILY SUBDIVISION
TMK: (2) 2-1-007:067
EA 2002/0008, DBA 2002/0004, SM1 2002/0016, CIZ 2002/0013,
CPA 2002/0009

We reviewed the subject application and have the following comments:

1. Section C.5, Page 18, addresses only green waste from initial clearing. Need to have a plan for handling of construction waste.
2. The architect and owner are advised that the project is subject to possible tsunami and flood inundation. As such, said project must conform to Ordinance No. 1145, pertaining to flood hazard districts.
3. A road-widening lot shall be provided for the adjoining half of Makena-Keoneoio Road to provide for a future 56 foot wide right-of-way and improved to County standards to include, but not be limited to pavement widening, construction of curb, gutter and sidewalk, street lights and relocation of utilities underground. Said lot shall be dedicated to the County upon completion of the improvements.

Memo to Michael W. Foley, Planning Director
February 15, 2005
Page 2

4. A verification shall be provided by a Registered Civil Engineer that the grading and runoff water generated by the project will not have an adverse effect on the adjacent and downstream properties.
5. A detailed and final drainage report and a Best Management Practices (BMP) plan shall be submitted with the grading plans for review and approval prior to issuance of grading permits. The drainage report shall include hydrologic and hydraulic calculations and the schemes for disposal of runoff waters. It must comply with the provisions of the "Rules and Design of Storm Drainage Facilities in the County of Maui" and must provide verification that the grading and runoff water generated by the project will not have an adverse effect on adjacent and downstream properties. The BMP plan shall show the location and details of structural and non-structural measures to control erosion and sedimentation to the maximum extent practicable.
6. All existing features such as structures, driveways, drainage ways, edge of the pavement, etc. shall be shown on the project plat plan.
7. A site plan and a sight distance report to determine required sight distance and available sight distance at existing and proposed street intersections shall be provided for our review and approval.
8. The applicant shall obtain street name approvals from the Commission on Naming Streets, Parks and Facilities and show street names on the map.
9. A detailed, final Traffic Impact Assessment Report for the entire subdivision shall be submitted for our review and approval. The report shall also address regional traffic impacts and include assessments from the local community police officer.
10. The subject project shall comply with Title 18 (Subdivision Ordinance) of the Maui County Code.
11. All roadway access requirements (offsite and onsite) will be reviewed upon the receipt of more detailed information.
12. All grading/grubbing work for the subject project shall comply with Chapter 20.08 (Soil Erosion and Sedimentation Control) of the Maui County Code. Best Management Practices shall be

Memo to Michael W. Foley, Planning Director
February 15, 2005
Page 3

implemented to the maximum extent practicable to prevent
pollutants including dust and sediment from discharging off the
project site.

If you have any questions regarding this memorandum, please call Michael
Miyamoto at 270-7845.

MMA:MMI:da

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67_da



June 28, 2006

Mr. Thomas M. Phillips, Chief of Police
Police Department
55 Mahalani Street
Wailuku, Hawaii 96793
Attention: Officer Brad Hickle

Dear Chief Phillips:

RE: Garcia Subdivision
Draft Environmental Assessment (EA 2002/0009; CPA 2002/0009; CIZ 2002/0013;
DBA 2002/004; SM1 2002/0016) TMK: (2) 2-1-007:067 Makena, Maui, Hawaii.

Thank you for your January 24, 2005 memorandum in response to the Environmental Assessment for the subject project.

While we acknowledge that new development has an impact on emergency services in Kihei, this development does not extend the area covered by these services.

This project is for a subdivision and there are no building plans for the proposed project at this stage, however individual owners of the new lots can be asked to consider "best practices" in Crime Prevention Through Environmental Design (CPTED). The applicant acknowledges that CPTED strategies that include natural surveillance, territorial reinforcement, natural access control, and target hardening.

If you have any further questions, please do not hesitate to contact me.

Sincerely,

Christopher L. Hart, ASLA
Landscape Architect - Planner

c: Mr. Sam Garcia
Mr. Jon Garcia
Ms. Kivette Caigoy, Planning Department

LANDSCAPE ARCHITECTURE AND PLANNING
1955 MAIN STREET, SUITE 200 • WAILUKU, MAUI, HAWAII 96793-1706 • PHONE: 808-242-1955 • FAX: 808-242-1956



ALAN M. ARAKAWA
MAYOR

OUR REFERENCE
YOUR REFERENCE

POLICE DEPARTMENT

COUNTY OF MAUI

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



JAN 25 05 9:47
THOMAS M. PHILLIPS
CHIEF OF POLICE
DEPT OF PLANNING
COUNTY OF MAUI
RECEIVED
KEKUAUPIO R. AKANA
DEPUTY CHIEF OF POLICE

January 24, 2005

MEMORANDUM


TO : MICHAEL W. FOLEY, PLANNING DIRECTOR

FROM : THOMAS M. PHILLIPS, CHIEF OF POLICE

SUBJECT : I.D. : EA 2002/0008; CPA 2002/0009; CIZ
2002/0013; DBA 2002/0004; SM1 2002/0016
TMK : (2) 2-1-007:067
Project :
Name : Garcia Subdivision (Revised Application)
Applicant : Samuel and John Garcia c/c Chris Hart & Partners

- No recommendation or comment to offer.
- Refer to enclosed comments and/or recommendations.

Thank you for giving us the opportunity to comment on this project. We are returning the Applications which were submitted for our review.


Assistant Chief Sydney Kikuchi
For: THOMAS M. PHILLIPS
Chief of Police

Enclosure

COPY

*Comments & recommendations forwarded to Dept of Planning
Copy by [Signature]
1/12/05*

TO : THOMAS PHILLIPS, CHIEF OF POLICE, COUNTY OF MAUI
VIA : CHANNELS *[Handwritten mark]*
FROM : BRAD HICKLE, POLICE OFFICER III, DISTRICT VI KIHEI
SUBJECT : DRAFT ENVIRONMENTAL ASSESSMENT, SPECIAL MANAGEMENT AREA (SMA) PERMIT, CHANGE IN ZONING (CIZ) APPLICATION, COMMUNITY PLAN AMENDMENT APPLICATION, DISTRICT BOUNDARY RECLASSIFICATION FOR THE GARCIA FAMILY SUBDIVISION TMK(2) 2-1-007:067

Sirs, on 01/12/05 this Office received a copy of the above application. The application was prepared by Chris HART and Partners for the applicants Samuel and John GARCIA.

REVIEW AND COMMENTS:

The applicants are proposing to develop an eleven lot single-family residential subdivision to accommodate eleven single-family residences on the 5.495-acre parcel.

The property in its current condition supports three residential dwellings on the western portion of the site while the remainder of the property is currently undeveloped.

I do not believe that the additional development of this land parcel will greatly contribute to the further decline of the infrastructure.

IMPACT ON POLICE/EMERGENCY SERVICES:

I do however believe that the development of this land parcel combined with the many other new developments will have some impact on Police and other emergency services in the Kihei, Wailea and Makena areas.

This development will create a greater need for additional Police Officers and the creation of additional Police beats in the south Maui area to meet the needs of the growing communities. With any new development of land there will undoubtedly be opportunity for new crimes and criminal activities.

RECOMMENDATIONS:

In the interest of Crime Prevention, it is recommended that the developer use "Best Practices" in Crime Prevention Through Environmental Design (CPTED) when developing this land and building the homes.

CORRECTION

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

Jan-25-05 01:47pm

From-DEPT OF PLANNING COUNTY OF MAUI

808-242819

T-853 P.07/08 F-230

COPY

*Comments & recommendations forward to Dept of Planning
C. Garcia
1/24/05*

TO : THOMAS PHILLIPS, CHIEF OF POLICE, COUNTY OF MAUI

VIA : CHANNELS *[Signature]* 01/24/05

FROM : BRAD HICKLE, POLICE OFFICER III, DISTRICT VI KIHEI

SUBJECT : DRAFT ENVIRONMENTAL ASSESSMENT, SPECIAL MANAGEMENT AREA (SMA) PERMIT, CHANGE IN ZONING (CIZ) APPLICATION, COMMUNITY PLAN AMENDMENT APPLICATION, DISTRICT BOUNDARY RECLASSIFICATION FOR THE GARCIA FAMILY SUBDIVISION TMK(2) 2-1-007:067

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RECOMMENDATIONS:

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DOCUMENT CAPTURED AS RECEIVED

DOCUMENT CAPTURED AS RECEIVED

RECOMMENDATIONS:

Page 2

The CPTED concept has been utilized in many cities across the nation and has proven to be the most proactive method of deterring crime and criminal activities in communities and around businesses.

For more information regarding the principals of CPTED you can find it on the World Wide Web at, <http://www.ncjrs.org>. This is the National Criminal Justice Reference Service.

Respectfully Submitted,

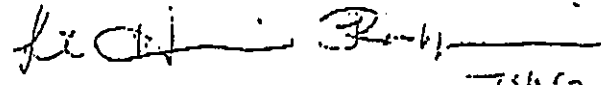
Officer Brad Hickle



E-9966

01/13/05

Concern with Officer Hickle.



01-13-05

1756 1664



June 28, 2006

Mr. George Y. Tengan, Director
Department of Water Supply
County of Maui
200 South High Street
Wailuku, Hawaii 96793

Dear Mr. Tengan:

Re: Garcia Subdivision
Draft Environmental Assessment (EA 2002/0009; CPA 2002/0009; CIZ
2002/0013; DBA 2002/004; SM1 2002/0016) TMK: (2) 2-1-007:067 Makena,
Maui, Hawaii.

The following comments are offered to your letter dated January 12, 2005 related to the
subject Environmental Assessment:

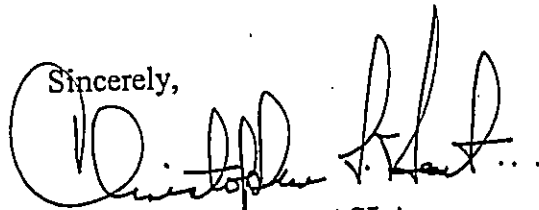
- Source Availability and Consumption: We acknowledge that additional water source cannot be guaranteed for the subject project. The applicant will apply for meters as required during the subdivision application process. The individual owners of the proposed lots will submit domestic and irrigation calculations during application for building permit(s) as needed.
- System Infrastructure: The applicant will provide water system improvements to provide the required fire flow for residential districts during review of the subdivision application.
- Conservation: The applicant will implement the conservation measures, including but not limited to no single-pass cooling; use of low-flow fixtures and devices; proper maintenance of fixtures; proper maintenance of the automated irrigation system to prevent over watering; and use of climate-adapted plants, including native species.
- Pollution Prevention: The applicant will specify Best Management Practices (BMPs) to minimize infiltration and runoff during construction

Mr. George Y. Tengan
RE: Garcia Subdivision
June 28, 2006
Page 2

in project construction documents; including applicable BMPs suggested
in your letter.

Your constructive comments are appreciated. Please contact me, should further
clarification be necessary.

Sincerely,

A handwritten signature in black ink, appearing to read "Christopher L. Hart". The signature is written in a cursive style with a large initial "C".

Christopher L. Hart, ASLA
Landscape Architect - Planner

Cc: Mr. Sam Garcia
Mr. Jon Garcia
Ms. Kivette Caigoy, Planning Department

Jan-25-05 01:46pm
MAYOR

From-DEPT OF PLANNING COUNTY OF MAUI

808-242818

T-853 P.02/08 F-230
GEORGE T. PEARSON
DIRECTOR
JEFFREY T. PEARSON,
P.E.



'05 JAN 24 8:33
DEPARTMENT OF WATER SUPPLY
COUNTY OF MAUI
DEPT OF PLANNING P.O. BOX 1109
COUNTY OF MAUI, HAWAII 96793-7109
RECEIVED Telephone (808) 270-7816 • Fax (808) 270-7833

January 12, 2005

Ms. Kivette Caigoy
Department of Planning
County of Maui
250 South High Street
Wailuku HI 96793

Re: I.D.: EA 2002/0008, CPA 2002/0009, CIZ 2002/0013, DBA 2002/0004, SM1 2002/0016
TMK: 2-1-007:067
Project Name: Garcia Subdivision (Revised Application)

Dear Ms. Caigoy:

Thank you for the opportunity to comment on this revised application. We provide the following updated information:

Source Availability and Consumption

The project area is served by the Central Maui System. The main sources of water for this system are the designated Iao aquifer, the Waihee aquifer, the Iao tunnel and the Iao-Waikapu Ditch. The Department will not issue reservations for future meters until new sources are brought on-line. There is currently no moratorium on issuance of meters in Central Maui. However, from now on the Department will not issue temporary construction meters for Central Maui projects. Reclaimed water is readily available from the Department of Public Works and Environmental Management Wastewater Division. The subject property is served by one 3/4-inch meter. The Department does not guarantee that additional meters will be available for this project.

The applicant estimates water demand to approximately 6,600 gpd. The estimate is consistent with system per unit standards. Based on empirical water use data for Makena area of 2,091 gpd for single family services, anticipated demand would be about 23,000 gpd. Domestic and irrigation calculations will be required in the building permit process.

System Infrastructure

The subject properties is served by an 8-inch waterline and one fire hydrant along Makena Road. Subdivision of the subject property is subject to the Department rules and regulations for subdivision. Fire flow for residential subdivisions is 1000 gallons for 2 hours duration at 350 ft spacing.

Conservation

Please refer to the conservation material we provided with the original comments to this application. We recommend that the following water conservation measures be included in project design and implementation to alleviate demand from the Central Maui system:

Use Non-potable Water: We encourage the applicant to pursue using brackish irrigation well water for all landscaping purposes. Reclaimed water, readily available at the Kihei Sewage Treatment Plant, or brackish water should be used for dust control during construction.

Eliminate Single-Pass Cooling: Single-pass, water-cooled systems should be eliminated per Maui County Code Subsection 14.21.20. 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 16.20A.680 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

Kivette Calgoy
Garcia Family Subdivision
Page 2

hundreds or even thousands of gallons a day. The applicant should establish a regular maintenance program.
Use Climate-adapted Plants: The project is located in the "Maui County Planting Plan" - Plant Zone 5. Native plants adapted to the area conserve water and protect the watershed from degradation due to invasive alien species. We encourage the applicant to use native plants for landscaping of common areas. Please distribute the brochure: "Saving Water In The Yard - What and How to Plant In Your Area" to future homeowners.
Prevent Over-Watering By Automated Systems: Provide rain-sensors on all automated irrigation controllers in common areas. Check and reset controllers at least once a month to reflect the monthly changes in evapo-transpiration rates at the site. As an alternative, provide the more automated, soil-moisture sensors on controllers.

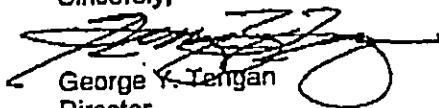
Pollution Prevention

The project overlies the Kamole aquifer. In order to protect ground and surface water sources in the area, we encourage the applicant to utilize Best Management Practices (BMPs) designed to minimize infiltration and runoff from construction. Sample BMPs for reference were provided with original comments to this application. Additional mitigation measures are enumerated below and should be implemented during construction.

- Prevent cement products, oil, fuel and other toxic substances from falling or leaching into the water
- Properly and promptly dispose of all loosened and excavated soil and debris material from drainage structure work
- Retain ground cover until the last possible date
- Stabilize denuded areas by sodding or planting as soon as possible. Replanting should include soil amendments, fertilizers and temporary irrigation. Use high seeding rates to ensure rapid stand establishment
- Avoid fertilizers and biocides, or apply only during periods of low rainfall to minimize chemical run-off.
- Keep run-off on site
- Construct drainage control features, such as berms
- Maintain drainage structures, detention, silt and debris basins
- Control dust by proper stockpiling and use non-potable water for dust control
- Cover open vehicles carrying soils, gravel or other particulate matter.

Should you have any questions, please contact our Water Resources and Planning Division at 270-7199.

Sincerely,



George Y. Tenjan
Director
emb

c: engineering division
applicant

C:\WPdocs\Permcomm\Garcia Family SD revised EA CPA CIZ DBA SM.wpd

DOCUMENT CAPTURED AS RECEIVED



June 28, 2006

Ms. Alice L. Lee, Director
Department of Housing and Human Concerns
200 South High Street
Wailuku, Hawaii 96793

Dear Ms. Lee:

RE: Garcia Subdivision
Draft Environmental Assessment (EA 2002/0009; CPA 2002/0009; CIZ 2002/0013;
DBA 2002/004; SM1 2002/0016) TMK: (2) 2-1-007:067 Makena, Maui, Hawaii.

Thank you for your January 11, 2005 letter in response to the Environmental Assessment for the subject project. We acknowledge that the affordable housing requirements of the Maui County Administrative Affordable Housing Recommended Guidelines do not apply to this project.

Thank you for your cooperation. If you have any further questions, please do not hesitate to contact me.

Sincerely,

Christopher L. Hart, ASLA
Landscape Architect - Planner

c: Mr. Sam Garcia
Mr. Jon Garcia
Ms. Kivette Caigoy, Planning Department

Jan-25-05 01:46pm From-DEPT OF PLANNING COUNTY OF MAUI

808-242819

T-853 P.05/08 F-230



DEPARTMENT OF
HOUSING AND HUMAN CONCERNS
HOUSING DIVISION
COUNTY OF MAUI

ALAN M. ARAKAWA
Mayor

ALICE L. LEE
Director

HERMAN T. ANDAYA
Deputy Director

86 W. KAMEHAMEHA AVENUE • KAHULUI, HAWAII 96732-2259 • PHONE (808) 270-7351 • FAX (808) 270-6284

January 11, 2005

DEPT OF PLANNING
COUNTY OF MAUI
RECEIVED
'05 JUN 18 09:50

TO: KIVETTE CAIGOY, Staff Planner
Department of Planning

FROM: ALICE L. LEE, Director
Department of Housing and Human Concerns

SUBJECT: I.D.: EA 2002/0008 & CPA 2002/0009;
CIZ 2002/0013; DBA 2002/0004; SMI 2002/0016
TMK: (2) 2-1-007:067
PROJECT NAME: GARCIA SUBDIVISION (REVISED APPLICATION)
APPLICANT: SAMUEL AND JOHN GARCIA C/O CHRIS HART &
PARTNERS

The subject project will involve the subdivision of a 5.497 acres parcel into eleven (11) residential lots. There are three existing dwellings on the parcel and two of the dwellings are occupied by the applicants.

Since the increase in the number of residential units in the project is eight, the project is not subject to the affordable housing requirements of the Maui County Administrative Affordable Housing Recommended Guidelines. This memo supersedes my December 19, 2002 memo to Mr. Joseph Alueta and my May 5, 2003 letter to Mr. Rory Frampton of Chris Hart & Partners, Inc.

Thank you for the opportunity to comment.

ETO:hs

d: Housing Administrator

TO SUPPORT AND EMPOWER OUR COMMUNITY TO REACH ITS FULLEST POTENTIAL
FOR PERSONAL WELL-BEING AND SELF-RELIANCE

PRINTED ON RECYCLED PAPER

DOCUMENT CAPTURED AS RECEIVED



June 28, 2006

Captain Valeriano F. Martin
Department of Fire and Public Safety
200 Dairy Road
Kahului, Hawaii 96732

Dear Capt. Martin:

RE: Garcia Subdivision
Draft Environmental Assessment (EA 2002/0009; CPA 2002/0009; CIZ 2002/0013;
DBA 2002/004; SM1 2002/0016) TMK: (2) 2-1-007:067 Makena, Maui, Hawaii.

Thank you for your October 5, 2005 letter in response to the Environmental Assessment for the subject project.

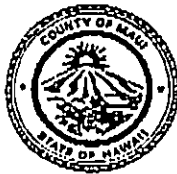
The access roadway will be designed to comply with your department's requirements.
If you have any further questions, please do not hesitate to contact me.

Sincerely,

Christopher L. Hart, ASLA
Landscape Architect - Planner

c: Mr. Sam Garcia
Mr. Jon Garcia
Ms. Kivette Caigoy, Planning Department

ALAN M. ARAKAWA
MAYOR



CARL M. KAUPALOLO
CHIEF

NEAL A. BAL
DEPUTY CHIEF

COUNTY OF MAUI
DEPARTMENT OF FIRE AND PUBLIC SAFETY

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

October 5, 2005

DEPT OF PLANNING
COUNTY OF MAUI
RECEIVED

05 OCT -5 AM 54

Kivette Caigoy
Department of Planning, County of Maui
250 South High Street
Wailuku, Hawaii 96793

Subject: Garcia Subdivision (Revised Application) TMK (2)2-1-007:067
EA 2002/0008; CPA 2002/0009; CIZ 2002/0013; DBA 2002/0004; SM1 2002/0016

Dear Kivette Caigoy,

I have had the opportunity to read the subject application. It appears that the project will have adequate water for fire protection with the nearby 8" water line from the County system. The applicant agrees to provide water hydrant locations as required by the County.

I would also like to remind the applicant that any access road that will serve three or more R-3 facilities will need a minimum width of 20 feet. Please feel free to contact me if there are any questions or concerns.

Sincerely,

Valeriano F. Martin
Captain
Fire Prevention Bureau



June 28, 2006

Ms. Dana Naone Hall
2087 Wells Street
Wailuku, Hawaii 96793

Dear Ms. Hall:

Re: Response to Comments on the Revised Draft Environmental Assessment (EA) for the Garcia Family Subdivision; TMK 2-1-007:067, Makena, Maui, Hawaii

This letter is in response to your comment letter to the Maui Planning Commission, dated February 7, 2005, related to the above referenced matter. We note that you have been previously provided copies of the *Preservation Plan for Kalani Heiau (Site No. 196)* prepared by Kumu Pono Associates LLC, March 5, 2006. The following responses are listed according the subject headings in your letter:

II. Description of the Property and Proposed Action

D. Description of the Proposed Action

This section has been revised to include a description of the height limitations proposed by the applicant. As you are aware, the applicant has revised the proposed project by including additional height limitations on lots 2 and 3. Please understand that this section of the Environmental Assessment (EA) includes a summary of description of the proposed action and that a more detailed discussion of the proposed height limitations is found in the body of the EA as well as in the Cultural Impact Assessment (CIA) and the proposed Site Preservation Plan, which are incorporated into the Final EA as Appendices.

E. Alternatives

Contrary to your opinion, the "hotel" alternative is very realistic given the existing Kihei-Makena Community Plan designation as well as the project site's location which abuts the existing Maui Prince Hotel. The applicant looked at this option very seriously and decided to pursue a lower density single family residential project. Also, as described in the EA and Site Preservation Plan, the project has been amended by reducing the number of lots from 10 to 11, increasing the size of the buffer, and reconfiguring proposed lot lines so that the respective buffers are contained in one lot each.

Ms. Dana Naone Hall
Re: Garcia Subdivision
June 28, 2006
Page 2

III. Description of the Existing Environment, Potential Impacts and Mitigation Measures

A. Physical Environment

7. Archaeological/Historic Resources

As you are aware, since the date of your letter, the State Historic Preservation Division has accepted the *Revised Addendum Archaeological Inventory Survey* report via letter June 20, 2005 Doc. No. 0506MK20. In addition, as described in the Preservation Plan, the proposed buffer areas, lot lines and grading plan have been amended.

8. Visual Resources

The Final EA includes a discussion of the mitigation measures proposed in order to reduce potential impacts on views from the heiau toward Haleakala as well as towards the ocean. As noted previously, the applicant has proposed additional height limitations and larger buffer areas in order to enhance views from the heiau.


B. Socio-Economic Environment

3. Cultural Resources

Additional oral history interviews as well as additional research into the origin of the name of Kalani Heiau has been conducted. Please refer to the *Cultural-Historical Study of Ka'eo and Other Lands in Honua'ula, Island of Maui; Appendix "A", Oral History Interviews with Kama'aina of the Honua'ula Region; and Preservation Plan for Kalani Heiau (Site No. 196)* prepared by Kumu Pono Associates LLC, October 2005.

Thank you for providing comments on this matter. If you have any further questions, please do not hesitate to contact me.

Sincerely,



for Christopher L. Hart, ASLA
Landscape Architect - Planner

c: Mr. Sam Garcia
Mr. Jon Garcia
Ms. Kivette Caigoy, Planning Department

DOCUMENT CAPTURED AS RECEIVED

Dana Naone Hall
2087 Wells Street
Wailuku, Maui, Hawaii 96793
Telephone: (808) 244-9017
Facsimile: (808) 244-6775

February 7, 2005

Via Hand Delivery

Chairperson Randy Piltz and
Members of the Maui Planning Commission
c/o Maui Planning Department
County of Maui
250 South High Street
Wailuku, Maui, Hawaii 96793

Re: Comments on the Revised Draft Environmental Assessment
for the Garcia Family Subdivision Proposed by Samuel Garcia, Jr. &
Jon Garcia; TMK No. (II) 2-1-007:067, Makena, Maui, Hawaii

Dear Chairperson Randy Piltz and Members of the Maui Planning Commission:

These comments are submitted on behalf of Hui Alanui o Makena, Dana Naone Hall and Leslie Kuloloio on the Revised Draft Environmental Assessment ("RDEA") for the Garcia Family Subdivision, designated as TMK No. (II) 2-1-007:067 ("Parcel 67"). Hui Alanui o Makena is a Native Hawaiian organization dedicated to protecting and preserving Native Hawaiian rights and interests, including archaeological, cultural and historical resources. Leslie Kuloloio and Dana Naone Hall, individually and as members of Hui Alanui o Makena, are vitally concerned about the identification and proper treatment of Native Hawaiian archaeological, cultural and historical sites and resources.

Hui Alanui o Makena ("Hui"), Hall and Kuloloio's comments are directed to the Maui Planning Commission as the entity which must determine whether a full Environmental Impact Statement ("EIS") is required or not.

The Hui, Hall and Kuloloio's comments address the following specific sections of the RDEA:

II. DESCRIPTION OF THE PROPERTY AND PROPOSED ACTION

D. Description of the Proposed Action (pages 4-5)

The Kalani Heiau exists on a prominent knoll within the project area. It was first inventoried by Winslow Walker (see Walker's Archaeology of Maui, 1931). The Heiau has been assigned SIHP Site No.196. This Heiau is a significant Native Hawaiian archaeological, cultural and historical site and resource.

Documents prepared pursuant to Chapter 343 are intended to be disclosure documents. The original DEA disclosed, in this section, that CC&Rs would be recorded limiting the height of the residences on lots 10 and 11 to one story to preserve the views of other lots (7, 8 and 9) in the proposed Subdivision. In addition, the subdivision/site plan revealed that fill would be imported to elevate residences in the mauka sections of the Subdivision which would have the effect of providing these lots with views towards the ocean over the homes in the makai areas of the Subdivision. As such, in our original comments, we provided historical and cultural information on the importance of views from the heiau and suggested that it was equally, if not more, important to protect and preserve views from the heiau.

The Applicant has deleted any discussion in the RDEA of building height limitations for the purpose of protecting views of other lots within the Subdivision. This discussion is necessary since protecting the views of the proposed subdivision lots may adversely impact the views from Kalani Heiau. To protect the views from the heiau towards the ocean, a height limitation on structures of one story must be imposed on lots 1 through 4. The lack of discussion of the foregoing renders the RDEA inadequate.

The view corridor for the heiau shown in the Figure 11 Site Plan is inadequate, and one half of the proposed ocean view corridor (20 feet) is located on a neighboring property to the south. This adjacent property has not received necessary governmental approvals and permits for development and there has been no formal commitment to the 20 feet easement. The Cultural Impact Assessment does not address the issue of the height of the residences in the Subdivision on the heiau. The Subdivision, as currently planned, may clearly have a significant adverse impact on this important Native Hawaiian archaeological, cultural and historical site and resource. In

addition, the Subdivision, as currently planned, may clearly have a significant adverse impact upon those Native Hawaiians, such as the members of the Hui, Hall and Kuloloio, who may in the future wish to exercise traditional and customary practices within this important Native Hawaiian archaeological, cultural and historical site and resource. Access to Kalani Heiau has been restricted to date because Site 196 is on private property.

E. Alternatives (pages 5-6)

It has been judicially determined that the "heart" of environmental analysis is the study of alternatives to the proposed action. Friends of the Bitterroot v. U.S. Forest Service, 900 F. Supp. 1368 (D.C. Mont. 1994); Conner v. Burford, 836 F. 2d 1521 (9th Cir. 1988). Even an EA is required to address alternatives under Hawaii law.

The study of the "hotel" alternative is unrealistic given the size of the parcel, the State Land Use Commission "agriculture" classification and the county "interim" zoning designation. Neither of the latter designations allow hotel development,

The Applicant also minimally mentions "more lots" and "fewer lots" as alternatives. There is no meaningful discussion of these alternatives.

The Applicant should have addressed an alternative that involves fewer lots in a reconfigured subdivision such that the heiau and the knoll it is located on, as well as the mauka knoll with Feature AA of Site 5036, can be protected together as a related site complex in a single or separate lot, which also incorporates a larger buffer around the heiau.

State Historic Preservation Rules require buffer zones to ensure preservation of the integrity and context of historic properties, including their visual integrity. See HAR § 13-277-4(a).

In compliance with the above-referenced provision of SHPD's archaeological rules, buffer zones have recently been established around two other heiau on Maui as follows. Through a letter dated September 1, 2004 (DOC NO: 0408MK22), SHPD approved an archaeological preservation plan which included a permanent 100 foot buffer around the perimeter of Site 2701, an unnamed heiau in Pukalani, within the Kualono Subdivision.

In a letter dated December 10, 2004 (DOC No. 0142MK13), SHPD approved an archaeological preservation plan which included a permanent 75 foot buffer around the outer edge of Site 5533, an unnamed heiau in Omaopio.

III. DESCRIPTION OF THE EXISTING ENVIRONMENT, POTENTIAL IMPACTS AND MITIGATION MEASURES

A. Physical Environment

7. Archaeological/Historical Resources (pages 11-12)

There is no final acceptance by SHPD for the Applicant's archaeological inventory survey report. SHPD accepted a revised archaeological inventory survey report by letter dated May 10, 2001 (Doc No. 0104MK13). Hall then wrote a letter to SHPD requesting reconsideration of SHPD's determination that the archaeological inventory survey for Parcel 67 was adequate. SHPD subsequently required that additional inventory survey testing be conducted on the parcel.

By letter dated October 7, 2003 (DOC NO: 0309MK18), SHPD required various revisions to the Addendum Archaeological Inventory Survey report. The Revised Addendum Archaeological Inventory Survey report is attached to the RDEA. SHPD is currently reviewing this report. The RDEA is inadequate without an accepted final archaeological inventory survey report.

The Applicant's Site Plan shows Kalani Heiau being divided among three separate proposed residential subdivision lots. Site 196 and the knoll on which it is situated must be located within a single subdivided lot, otherwise, it cannot be properly protected, given its admitted significance. It is insufficient to subject all three lots to CC&R restrictions involving the preservation of Kalani Heiau because this proposal complicates and compromises protection and preservation of the site, as well as access to the site. The Hui knows of no instance on the island of Maui in which SHPD has permitted a significant heiau to be subdivided with portions of the heiau located on three different lots.

In addition, the knoll on which Site 5036, Feature AA is located is divided between proposed lots 6 and 7. From a traditional cultural

perspective, the knoll is very likely to have been the site of ceremonial activities, in part because it is a few feet higher at 46 feet amsl than the knoll that is the foundation for Kalani Heiau at 38-40 feet amsl. The placement of imported fill around this knoll will destroy the integrity of the knoll by literally burying all but the top several feet of this feature.

8. Visual Resources (pages 12-13)

Adverse visual impacts are recognized as one kind of adverse effect to significant historic properties. See HAR § 13-284-7(b). The adverse visual impacts to Kalani Heiau have not been adequately addressed in the RDEA.

Applicant states that views from the heiau are currently obstructed by existing vegetation. The Applicant has attached photographs to the RDEA purportedly to show the extent of these visual obstructions. See Photographs attached to the RDEA in the Cultural Impact Assessment. These photographs are not entirely accurate in their depiction of the views from Kalani Heiau.

Existing views of Haleakala from Kalani Heiau are not discussed in any detail. The RDEA fails to describe the significance of these mauka views.

Plans for the proposed Subdivision include placing large amounts of fill around the easternmost knoll and the upper (mauka) sections of the property to provide elevated building and yard areas. The RDEA does not assess or discuss the visual impacts on historic properties of houses erected within these elevated building and yard areas.

In any case, the Applicant's planning consultant states, in a letter dated December 6, 2004 attached to the RDEA, that: "The proposed project will result in removal of existing vegetation on the subject property which will enhance views of the upper slopes of Haleakala." Once the vegetation, including kiawe trees, is removed (the vast majority of this vegetation is non-native), the panoramic views, both mauka and makai, that Kalani Heiau offered during much of its existence will be restored. Because these views will be restored as a result of the proposed grubbing of the property, in combination with preservation measures for the heiau to be detailed in an archaeological preservation plan, the RDEA cannot confine its discussion of

visual resources to existing conditions. The construction of large single family residences (and likely other structures) as proposed, will have far more serious, permanent adverse effects on the view planes of Kalani Heiau than the current vegetation.

B. Socio-Economic Environment

3. Cultural Resources (pages 15-16)

The following comments are relevant to the preceding section on archaeological/historical resources and to the section on cultural resources.

It is important to consider the two prominent knolls on Parcel 67 as significant elements in a traditional Native Hawaiian cultural landscape. The height of these geological features, within the immediate physical landscape of coastal Ka'eo, imbued them with a substantial visual status that would have been respected and augmented by religions and cultural practices.

The height of the knolls in the context of the surrounding landscape would have been an important factor in the uses and activities conducted at these sites during traditional times. As Theresa Donham states in a letter dated July 14, 2003 (a copy of which is attached), "traditional perceptions . . . viewed the built and the natural as elements of a single, unified space." She also states that a ritual or ceremonial function could be ascribed to Site 5036, Feature AA "due to its setting, the spatial association of the site with Kalani Heiau and its location on a promontory overlooking the heiau."

Neither of the two individuals interviewed by the Applicant's planning consultant had any knowledge of Site 5036, Feature AA or the knoll on which it is located.

With respect to Kalani Heiau, Mrs. Marie Olsen was aware that there was a heiau on the Garcia property, but she did not visit the site until November 14, 2003 when she did so in the company of the Applicant, Sam Garcia, Jr., and the Applicant's planning consultant, Rory Frampton. Mrs. Olsen did not have any particular information about Kalani Heiau. She did have some recollections of twentieth century uses of the Parcel 67 for a post office, and cattle ranching.

Mr. Charles Pili Keau visited Kalani Heiau in the early 1970s during a survey of Maui sites conducted by Bishop Museum for the State of Hawaii. The work performed included the re-surveying of sites identified by Winslow Walker (Lesley Bruce was in charge of the field crew for the museum).

Mr. Keau offers the opinion that "the name given to the heiau, Kalani, is that of a family from the area (David Lono's). See the Cultural Impact Assessment. Members of the Bak, Kalani, Lono families are former owners of an adjoining parcel, TMK 2-1-007: 065, and it is not clear whether or not this is the primary basis for Mr. Keau's statement. The name Kalani Heiau was recorded by Walker. There is no mention by Walker that the heiau was named for a family in the area. Kalani Heiau is described as a "large heiau said to be of sacrificial class" by Walker, who often received information on sites from Native informants. In contrast, Mr. Keau states that "the heiau is considered a 'good' heiau, that is, not the kind that would make you get hurt." *Ibid*

The Cultural Impact Assessment remains deficient for all of the reasons stated earlier. Additional informant interviews should also be conducted.

It will be insufficient to simply respond to the comments received on the RDEA. The inadequacies of the RDEA are so serious that the document must be withdrawn, rewritten, republished as a RDEA, and public review recommenced.

We trust that you will properly exercise your responsibility to enforce the environmental laws of our State, and refuse to accept or approve this document until it has been adequately prepared to serve its intended purpose.

Thank you for the opportunity to comment on this RDEA.

Sincerely yours,

Dana Naone Hall

Dana Naone Hall

cc: Samuel M. Garcia, Jr. and Jon E. Garcia
Chris Hart & Partners (via facsimile 242-1956)
Office of Environmental Quality Control

dnh/ctpiltzgarcia

DOCUMENT CAPTURED AS RECEIVED

LINDA LINCOLN
GOVERNOR OF HAWAII



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

STATE HISTORIC PRESERVATION DIVISION
601 KAMOKILA BOULEVARD, ROOM 555
KAPOLEI, HAWAII 96707

2-1-7:67

PETER T. YOUNG
CHAIRMAN
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCES MANAGEMENT

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DEPUTY DIRECTOR - LAND

DEAN HAKAHO
ACTING DEPUTY DIRECTOR - WATER

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KAWAHAU ISLAND RESERVE COMMISSION
LAND
STATE PARKS

ATTENTION RAYMOND

RECEIVED
JUN 28 2006

June 20, 2005

Chris Hart & Associates
Landscape Architecture & Planning

LOG NO: 2005.1189
DOC NO: 0508MK20

Ray 01/079

Alan Haun
Haun and Associates
HCR 1 Box 4730
Koa'au, Hawaii 96749

Dear Dr. Haun:

SUBJECT: Historic Preservation Review - 6E-42 - Revised Archaeological Inventory Survey Submitted as an Addendum, property known as the Garcia Parcel Ka'eo Ahupua'a, Makawao District, Island of Maui TMK (2) 2-1-07:67

Thank you for the opportunity to review this report which our staff received on August 3, 2004 (Haun and Henry 2004, *Revised Addendum Archaeological Inventory Survey, TMK 2-107:67, Land of Ka'eo, Makawao District, Island of Maui*)...Haun and Associates ms. We have previously provided comments on the subject parcel including the following:

1. Log 28927/Doc 0101MK10: review of an Archaeological Inventory Survey, requesting revisions.
2. Log 27399/Doc 0104MK13: review of a revised Archaeological Inventory Survey, initial review comments addressed, report accepted.
3. Letter from Don Hibbard (then SHPD Administrator) to John Min (then Director Maui County Planning Department): Review of a Draft Environmental Assessment (no Log or Doc numbers), in which we express additional archaeological concerns and recommend additional testing.
4. Letter from Don Hibbard (then SHPD Administrator) to Rory Frampton (Chris Hart and Partners): regarding additional testing, results of which were to be submitted as an addendum to the original survey (no Log or Doc numbers). We indicate that a research proposal that was submitted to Mr. Frampton might meet our recommended scope of additional testing.
5. Log 31418/Doc 0212CD63: review of a Special Management Area Permit, Change in Zoning Application, Community Plan Amendment Application, and District Boundary Reclassification for the Garcia Family Subdivision (Subject I.D.: CPA 2002/0009, DBA 2002/0004, CIZ 2002/0013, SM1 2002/0018), in which we indicate that the additional testing is necessary prior to finalizing our comments.
6. Log 31331/Doc 0212MK08: review of the proposed scope for additional testing.

Alan Haun
Page 2

7. Log 2003.1907/Doc0309MK18: Review of the addendum, in which we indicate that the supplemental testing met our requirements (as per review of scope of work for additional testing) but awaited some revision to the significance assessments for Feature AA of SIHP 50-50-14-5038.
8. Log 2005.0271/Doc 0502CD19: Review of the Draft Environmental Assessment, Special Management Area Permit, Change in Zoning Application, Community Plan Amendment Application, and District Boundary Reclassification for the Proposed Garcia Family Subdivision (Subject I.D.: EA 2002/0008; CPA 2002/0009; CIZ 2002/0013; DBA 2002/0004; SM1 2002/0016). In this letter we indicate that the proposed development/subdivision would divide Kalani Heiau (SIHP 50-50-14-196) into three separate residential lots, and that imported fill material will be used to elevate the mauka lots, including the area surrounding SIHP-5038. We have subsequently received information from Chris Hart and Partners, planning firm, indicating that the SIHP 50-50-14-196 *will not* be divided into multiple lots, and that the subdivision has been reconfigured to accommodate this concern.

We believe that the survey has adequately covered the subject parcel, as we indicated in our initial review of the addendum. We requested some revisions including the following (in summary):

1. Photographs of diagnostic artifacts,
2. Revision of discussion to reflect the change in interpretation based on the radiocarbon assay (pre-contact 1420-1490 at two standard deviations),
3. Community input with knowledgeable individuals,
4. Further discussion of possible functional interpretations for the "knoll" Feature AA of SIHP - 5038.

All of the above recommendations have been included in the revised addendum. Photos of diagnostic artifacts are included, the discussion includes the pre-contact radiocarbon range for the *heiau*, superseding information in the original inventory survey report. The functional interpretations, especially for Feature AA of SIHP 5038 have been revised to acknowledge the possibility that the "knoll" may have served a ritual purpose, and two individuals, Mr. Charles Keau and Ms. Marie Olsen were interviewed to provide additional input on the project area.

We have two comments on the status of the archaeological work. First, the test excavations, during both phases of work, evidenced a relatively shallow deposit, with bedrock encountered at 10 cmbs (@4 inches) in EU 17, to 60 cmbs (@24 inches) in EUs 16 and 18. The other EUs encountered bedrock at approximately 30-40 cmbs (12-16 inches). Overall, this suggests a relatively shallow deposit on the majority of the parcel. The ridge arm on which Kalani Heiau and Feature AA are situated, is clearly depicted on the included topographic map, as well as on a map provided to our office by Mr. Rory Frampton of Chris Hart and Partners. Both the *heiau* and Feature AA are at geologic termini of the lava flow, and were constructed on natural "peaks" of this ridge arm; their construction creating increased elevation.

We concur with the significance assessments that Kalani Heiau is significant under multiple Criteria "D" and "E", and that preservation is appropriate. We appreciate the property owner's willingness to preserve Feature AA of SIHP 5038 as well, and wish to indicate that significance assessments may be revised in the future as additional information becomes available, and as community input regarding the to-be-submitted Preservation Plan becomes available. All of the sites are significant under Criterion "D" and have the potential to yield additional information important to understanding the history and prehistory of the region.

Alan Haun
Page 3

We will anticipate a Preservation Plan for both the *heiau* and Feature AA, -SIHP 5036. During preparation, please consult our Culture and History Branch Chief, Mr. Nathan Napoka. We believe that the Preservation Plan will resolve the following issues:

1. The appropriateness of "site complex preservation" for Kalani Heiau (SIHP 196) and Feature AA (SIHP 5036),
2. Appropriate buffers for the two sites, as a complex,
3. Appropriate view planes from the *heiau* and Feature AA, -5036,
4. Revised significance assessment for Feature AA, SIHP -5036
5. Contingencies for additional findings at all of the sites within the project area. In other words, a provision for revising the Preservation Plan should new findings or additional information be recovered.

We also believe that archaeological monitoring is appropriate on the full extent of the parcel. Archaeological concerns regarding the extent of the cultural deposits will be resolved by adopting a modified approach to archaeological monitoring that will include excavation at a slow enough pace during all ground altering activities to allow the archaeologist to a) identify extent of both traditional and historic cultural deposits, b) obtain additional information on all of the sites, c) to allow an opportunity for SHPD to revise significance assessments in light of new information that may become available during monitoring and may necessitate revision to the Preservation Plan. In other words, the monitoring program will also necessitate a flexible scope of work.

We find this addendum report to be acceptable and believe that moving forward with Preservation issues will provide resolution of SHPD and community concerns. As always, if you disagree with our comments or have questions, please contact Dr. Melissa Kirkendall (Maui/Lana'i SHPD 243-5189) as soon as possible to resolve these concerns.

Aloha,


MELANIE A. CHINEN, Administrator
State Historic Preservation Division

MK: kf

c: Bert Ratte, DPWEM, County of Maui
Michael Foley, Director, Dept of Planning, 250 S. High Street, Wailuku, HI 96793
Maui Cultural Resources Commission, Dept. of Ping, 250 S. High Street, Wailuku, HI 96793

JUN 23 2005

DANA NAONE HALL

2007 WELLS STREET
WAILUKU, MAUI, HAWAII 96793
(808) 244-9017
FAX (808) 244-6775

February 18, 2005

Via Facsimile and U.S. Mail
243-5838

Dr. Melissa Kirkendall
State Historic Preservation Division
Maui Office Annex
130 Mahalani Street
Wailuku, Maui, HI 96793

Re: Revised Addendum
Archaeological Inventory Survey for the Garcia Family Subdivision
TMK: 2-1-07:67, Land of Ka'eo
Makawao District, Island of Maui

Dear Melissa Kirkendall:

I would appreciate very much SHPD's consideration of the following comments, concerns and questions regarding the above-referenced project prepared by Alan Haun and Dave Henry of Haun & Associates.

INTRODUCTION

Page 1, paragraph 4: "Test units (TU) 9 through 12 were proposed to define the limits of Kalani Heiau and test for possible buried cultural deposits."

FINDINGS

Site 196: According to the revised addendum report (p. 11), TU-9 was placed to the west of the site, TU-10 was placed in a level area 7.5 m north of the base of the knoll, TU-11 was in a level area 16 m northeast of the heiau and TU-12 was in a level grassy area 11 m to the east of the heiau. How do these test units define the limits of the heiau? All three test units appear to be located well beyond the heiau and its knoll. Furthermore, Table 2, Summary of Recovered Artifacts, does not list a site or feature number for EU-12.

Figure 3 on page 10, which is a plan map of Kalani Heiau, does not show the locations of TU-11 or TU-12, nor does this figure depict the entire base of

slope around Site 196. TU-10, which is shown, is clearly located beyond the base of the slope. Figure 3 should be revised to include the locations of TUs-10 and -11, and the entire base of the slope. It is worth noting that only traditional cultural remains were recovered from deposits in TU-10 and TU-12, no cultural remains were present in TU-9 and -11. There was an absence of historic period artifacts/remains in TU-9 to -12.

As you are aware, Kalani Heiau is located on a knoll within Parcel 67. The knoll's prominence as a physical feature in the coastal landscape undoubtedly played a central role in its selection as the site of an important heiau. The knoll affords views of the surrounding area, including Keawala'i Church and the church grounds (where a significant site complex has been identified), as well as views of Haleakala, the ocean and the islands of Molokini and Kahoolawe. While kiawe trees and other vegetation on Parcel 67 intermittently obscure the view from Kalani Heiau in places, this current condition can be substantially remedied by cutting and/or removing the kiawe trees and other non-native vegetation on the knoll. The existing vegetation and trees on the rest of the property will be removed during grubbing and grading associated with development of the subdivision, resulting in an even greater restoration of view planes from the heiau.

Based on Winslow Walker's (1931) description of Site 196 as a "large heiau said to be of sacrificial class", and the historic properties context both within the project area and in the near vicinity, Kalani Heiau was and is regionally significant.

The importance of Site 196 is further augmented by the reported findings for Test Unit 18, which was excavated on the surface of the heiau. TU-18 was the only test unit excavated within the heiau architecture.

By far, the largest number and richest assemblage of cultural remains were recovered from TU-18. Three layers were identified, all of which contain cultural remains. The densest concentration occurred in Layer II. This 0.16 to 0.24 m layer "was comprised of silty loam with 90% cobble, pebble and small boulders including approximately 25 liters of 'ili'ili." (Emphasis added) This approximately 3 inch thick layer also contained marine shell fragments (275), bird bone fragments (8), coral fragments (70), volcanic glass flakes (29), basalt flakes (11), a basalt core, a basalt adze flake, an echinoid file, a coral abrader, a piece of dog bone, modified bone pieces (2), modified shell fragment, and charcoal. In addition, the Haun and Henry (2004) report states that two thin soil features were identified at the base of Layer II. Given their reported sizes, are Features A and B in TU-18, actual hearths or charcoal pockets? A charcoal sample from Feature A produced a dating range of A.D. 1420-1490.

Cultural remains in Layer III consisted of 'ili'ili (12), marine shell fragments (106), dog bone fragments (17), fish bone fragments (4), coral fragments (9), volcanic glass flakes (20) basalt flakes (6), coral pieces (3), a coral file, a coral abrader, and charcoal. Charcoal was reportedly found in only three test units, TU-2, TU-8 and TU-18. At least one more sample should have

been obtained and submitted for radiocarbon analysis given the obvious importance of the historical and cultural properties present on Parcel 67 and what appears to be continuous use of the area from at least the 15th century and very likely earlier.

Site 5036 Feature AA: During the initial inventory testing, a shovel test (ST-2) excavated in the surface of the second knoll resulted in the recovery of traditional cultural remains. Two test units (TU-13 and TU-14) were excavated during additional testing. Again, only traditional cultural remains were encountered. No historic period artifacts or remains were reported in subsurface layers for Kalani Heiau, the Feature AA knoll or the area between the two knolls.

The only other test unit (TU-1), in relatively close proximity to the Feature AA knoll, was excavated at Feature Z of Site 5036 (a complex of 27 features). The remains reportedly recovered from this feature, described as an oval-shaped mound, were a piece of waterworn coral and a small mammal bone fragment; no historic period remains were present.

Only three out of ten mound features associated with Site 5036 underwent limited subsurface testing. All of the mounds have been interpreted as agricultural features, based largely on the "informal construction" of the features. It is possible that one or more of those mounds may mark burials. As such, procedures for controlled excavation of the mounds and the subsurface layers beneath the mounds, during grubbing, grading and other ground disturbing activities, should be included in a monitoring plan for the project area. A qualified archaeologist should be present on a full-time basis during all ground disturbing activities associated with the project.

Site 5079: The size and horizontal extent of Site 5079 have not been adequately identified, as required by HAR § 13-276-5(d)(4). Three test units (TUs 15-17) were purportedly excavated "to determine if additional remnants of this deposit could be identified." A cultural deposit consisting of partly mixed prehistoric and historic cultural remains was found in all three test units, according to the Haun and Henry 2004 revised addendum report.

In fact, TU-15 (EU-15), excavated in close proximity to TU-7, encountered a 10 cm thick prehistoric habitation deposit. Only traditional artifacts (a basalt adze fragment, modified bone and modified shell) were found at 20-30 cmbs, along with a majority of the midden recovered from this unit. (See Tables 1 and 2.)

TU-16 (EU-16), approximately 40 meters north of TU-15 (a considerable distance away), contained sparse midden and a greater number of historic period artifacts. At 10-20 cmbs, a basalt flake and two glass fragments were recovered and a piece of modified bone was collected along with a metal grommet and four glass bottle fragments at 40-50 cmbs. A volcanic glass flake was found at 50-60 cmbs.

Lastly, TU-17 (EU-17) is listed in Tables 1 and 2 as Site 5040, not 5079. Site 5040 is a three feature complex comprised of two modified outcrops and a terrace (Feature C). TU-17 was excavated in Feature C, which is located roughly 24 meters north of TU-16. Historic period artifacts dominated the assemblage, primarily glass fragments and ceramic fragments. Was there any attempt made to date these historic artifacts to more specific periods of time?

For example, TU-5 directly north of TU-17, was excavated during the initial inventory testing. The Haun and Henry 2000 Archaeological Inventory Survey report describes the glass and ceramic fragments recovered from TU-5 and further states:

Modern and probable mid-1800 to 1900's ceramic fragments and glass are scattered on the sloping terrain north of Features B and C of Site 5040 where TU-5 was excavated.

Traditional cultural remains were also present in both TU-5 and TU-17. The deposits in these units appear to be related, indicating more than one habitational period.

Other historic period finds from TU-17 included a piece of plastic and a square nail fragment. The only other square nail fragments were found at TU-6, just south of TU-17 in the northwestern portion of Parcel 67, and TU-2 at the parcel's southwestern end. It is quite possible that 19th century structures were located in these areas.

Conclusion

The limited supplemental testing that occurred failed to determine the size and horizontal extent of Site 5079, particularly the size and extent of the traditional cultural deposit present in TU-7 and TU-15. (Please also note that on page 21 the report states that "TU-17 was excavated on Feature C terrace of Site 5039." The correct site designation is 5040.) At a minimum, additional testing and data recovery are warranted for Site 5079 with particular attention to the area around TU-7 and TU-15. Better efforts must be made to obtain charcoal samples for dating purposes. The revised addendum report should also contain a discussion about whether the historic artifacts are related to kuleana house lots in the project area.

It is undisputed that the land contained within the boundaries of Parcel 67 has been the location of human use and occupation over a long period of time. Haun and Henry's inventory survey generally suggests broad periods of time with which various sites and features may be associated, often offering speculative statements about site and/or feature types and functions in lieu of

actual testing results. The majority of the 35 features identified during the inventory survey were not subjected to subsurface testing.

As an example, there was no testing conducted at the base of numerous rock walls on the property to determine if subsurface deposits were present which would assist in dating and determining the functions of the various walls. In the 2000 survey report, Haun and Henry state that Site 5037 and Site 5039 wall segments may formerly have enclosed a kuleana house lot. Testing of these wall segments may have helped to determine the period of construction and the function of these sites. The former existence of nineteenth century structures is also indicated by square nail fragment findings in three test units.

Significance Assessments

In consideration of all of the above, I do not agree with the significance assessments proposed by Haun and Henry. The entire complex of sites representing a wide range of time periods is collectively significant under Criterion "a." At a minimum, an example of each major site/feature type should be preserved. For instance, Feature I of Site 5036 should be considered for preservation. Although a portion of the enclosure wall is described as deteriorated, the rest of the feature appears to be well built and intact.

Finally, the absence of historic period artifacts at Kalani Heiau, and Site 5036, Feature AA knoll, and in the areas between and surrounding the two knolls, argues for the preservation of both knolls and the area between them as a contiguous preservation area.

Thank you for your attention to this matter.

Sincerely,

Dana Naone Hall

Dana Naone Hall

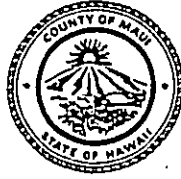
DNH/sn

cc: Cathleen Dagher (via facsimile)
dnh/leldrkendall2

ALAN M. ARAKAWA
Mayor

MICHAEL W. FOLEY
Director

WAYNE A. BOTEILHO
Deputy Director



COUNTY OF MAUI
DEPARTMENT OF PLANNING

APR 11 2006

cc: Rory + Chris 01/079

April 7, 2006

Mr. Rory Frampton
Chris Hart & Partners, Inc.
1955 Main Street, Suite 200
Wailuku, Maui, Hawaii 96793

Dear Mr. Frampton:

RE: Maui County Cultural Resources Commission Comments on the Preservation Plan for the Garcia Family Subdivision, at TMK: 2-1-007:067, Makena, Maui, Hawaii (EA 2002/0008)

At its regular meeting on April 6, 2006, the Maui County Cultural Resources Commission (CRC) reviewed the *Preservation Plan for Kalani Heiau (Site No. 196) and Vicinity, Ka'eo Ahupua'a, Honua Ula (Makawao) District, Island of Maui, March 5, 2006*, prepared by Kumu Pono Associates LLC, and had no comments.

Should you have further questions, please contact Ms. Kivette Caigoy, Environmental Planner, at 270-7841.

Sincerely,

Handwritten signature of Michael W. Foley in black ink.

MICHAEL W. FOLEY
Planning Director

MWF:KAC:bv

c: Clayton I. Yoshida, AICP, Planning Program Administrator
Kivette A. Caigoy, Environmental Planner
Joe W. Alueta, Staff Planner
CRC Members
CRC file
Dana Hall,
Project File
General File
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March 27, 2006

Mr. Sam Kalalau III, Chair
Maui County Cultural Resources Commission
Planning Department
County of Maui
250 S. High Street
Wailuku, Hawaii 96793

Dear Mr. Kalalau:

Re: Draft Environmental Assessment (EA) for the Garcia Family Subdivision,
TMK 2-1-007: 067

This letter is in response to a letter from the Maui County Cultural Resources Commission (CRC) dated February 9, 2005, which provided comments on the above referenced Draft EA. Before directly addressing the CRC's comments, we note that the delay in our response was due to the time needed for further cultural-historical research which has been undertaken for the property. First, an extensive Cultural-Historical study of the area was conducted by Kumu Pono Associates LLC. This report includes a detailed study of archival documentary accounts as well as oral history interviews with kupuna and kamaina known to be familiar with the history of lands in the Ka'eo-Makena vicinity. Second, a Preservation Plan for the property also has been prepared. The results of both of these documents will be presented to the CRC for discussion at the April 6, 2006 meeting.

The following responses are provided to the CRC comments in the order they were received:

1. The draft Preservation Plan for the property will be submitted to the CRC under separate cover. The buffer zone for Kalani Heiau has been amended by expanding the buffer zone area to the north and east. In addition, additional no-build zones have been incorporated such that the minimum distance to any potential future structure would be at least 50 feet (except for a small area nearest the southwest corner of the heiau where the buffer setback could be a little as 47 feet.)

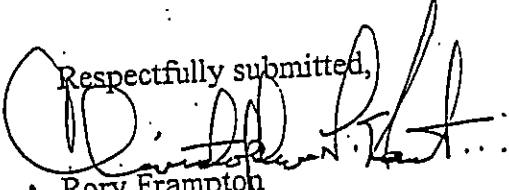
Specific dimensions are as follows. To the north of the heiau, the buffer edge is established along the property boundary and the width varies between 80 and 120 feet. Similarly, to the west, the buffer edge is established by the property boundary as well as a historic lava ranching wall. The width in this area ranges between 50 and 60 feet. To the south, the buffer edge is established by a historic ranch wall and ranges in width from 27 to 60 feet. An additional no build zone of 20 feet has been incorporated into the adjacent lot in this area. To the east the buffer zone width ranges from 30 feet to 105 feet, with an additional 20 feet no build zone incorporated into the area with the 30 feet width.

2. The lots have been reconfigured so that the heiau and the associated buffer area are contained within one parcel. In addition, the number of lots has been reduced from 11 to 10.
3. The lots which were previously referred to as 4, 5 and 11 have been renumbered to 3, 4 and 10, respectively. These lots have been reconfigured and will also contain additional no-build zones (lots 4 and 10) as well as a height limitation of 40 feet above mean sea level for lot 3.
4. A separate preservation area has been established for the modified 'ahua, Site 5036 Feature AA. The fill area has also been modified in order to preserve the natural topography of the 'ahua as viewed from Kalani Heiau.
5. A grading plan was submitted within the Draft EA that was reviewed by the CRC. It was identified as Figure No. 13 and was titled "Grading Plan."
6. The applicant had additional testing performed as part of the revised addendum archaeological report. This report was accepted by the State Historic Preservation Division.
7. Expansion of the view plane to the north would not provide additional views towards the ocean since there are structures and existing vegetation on properties located across Makena-Keoneoio which would block ocean views. A height limit of 40 feet above mean sea level has been established for lot 3. In addition, mauka views will be preserved over the Feature AA.
8. As noted above, a cultural-historical study was performed by Kumu Pono Associates LLC. The study was unable to determine the origin of the name "Kalani Heiau" or of any interrelationship between the site and other cultural features nearby. The report does provide a rich and vivid collection of cultural narratives for lands in the Honuauia district, many of which had not been previously translated or cited in cultural studies.
9. The Final Environmental Assessment will include copies of all correspondence from SHPD.

Mr. Sam Kalalau III, CRC Chair
March 27, 2006
Page 3

10. As noted above, a preservation plan has been prepared and will be submitted to the CRC for review and comment at the April 6, 2006 meeting.
11. We acknowledge the CRC's support of the plan to work with Keawala'i Church to provide appropriate stewardship of the sties.
12. Ground altering work will not begin until a monitoring plan has been accepted and approved by SHPD.
13. We acknowledge the CRC's support of the requested re-zoning for single family residential use.

Thank you for you comments. If you have any further questions or concerns, please contact me at 298-4956.

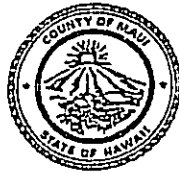
Respectfully submitted,

Rory Frampton
Project Consultant

Cc: Kivette Caigoy, Planning Department

ALAN M. ARAKAWA
Mayor

MICHAEL W. FOLEY
Director

WAYNE A. BOTEILHO
Deputy Director



COUNTY OF MAUI
DEPARTMENT OF PLANNING

February 9, 2005

Mr. Rory Frampton
Chris Hart & Partners
1955 Main Street, Suite 200
Wailuku, Maui, Hawaii 96793

Dear Mr. Frampton:

RE: Maui County Cultural Resources Commission Comments on the Draft Environmental Assessment for the Garcia Family Subdivision, at TMK: 2-1-007: 067, Makena, Maui, Hawaii (EA 2002/0008)

At its regular meeting on February 3, 2005, the Maui County Cultural Resources Commission (CRC) reviewed the above-referenced Draft Environmental Assessment, which considers archaeological resources, including a heiau, located within the proposed Garcia Family Subdivision in Makena. The Commission offered the following comments on the Draft EA:

1. The CRC recommended a greater buffer zone around the heiau. Commissioners encouraged the Applicant to create a minimum buffer of 50 feet, with 75 feet being the preferred buffer. An appropriate buffer zone should be determined in cooperation with the State Historic Preservation Division (SHPD) and an appropriate Native Hawaiian organization.
2. The Commission requested that the Applicant consider a reconfiguration of the lots so that the heiau is not on three separate parcels, which is likely to complicate the preservation plan and access rights. Fewer lots may be required to adequately preserve the heiau.
3. Commissioners recommended that building sites be designated for the lots immediately adjacent to the heiau, in particular, lots 4, 5 and 11. The siting of houses should be carefully planned as to not impact the heiau and its viewplanes.

Mr. Rory Frampton
February 9, 2004
Page 2

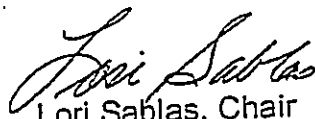
4. The Commission noted that the knoll slated for preservation was likely related to the heiau and commended the Applicant for preserving the knoll. They were concerned, however, about the fill that will be added. The addition of fill in the vicinity of the knoll will significantly diminish the visual impact of this cultural resource and radically affect the cultural context of the area and its sites. The knoll should remain visually prominent and not be reduced in height by the addition of fill. This site should also be protected by a buffer, and the preservation plan should establish what types of access and use will be permitted.
5. Commissioners were disappointed that a grading plan was not submitted to the CRC. The grading plan for this project is extremely important as it will impact the project's cultural sites.
6. In order to determine whether archaeological resources may be discovered during construction, the Commission strongly recommended additional archaeological testing and the identification of site boundaries. Commissioners explained that additional testing, especially on the modified outcrops and mounds, will help assess what may be discovered during ground-altering work. In addition, Commissioners cautioned the Applicant that the lack of clearly defined site boundaries may result in unexpected finds during construction.
7. Commissioners supported the view corridor being established for the heiau. They requested that the Applicant also consider the impact of houses (rooflines) on the viewplanes to and from the heiau. A viewplane greater than 20' may be appropriate.
8. The CRC recommended that more research be done. In particular, Commissioners suggested that research focus on the heiau's name, the interrelationship between cultural features, and more post-contact history of the area.
9. Please include all SHPD correspondence regarding this project in the Final Environmental Assessment. The letter provided to the Commission was dated May 10, 2001. The SHPD issued several other letters since that date, including correspondence on October 23, 2003, which stated that the addendum archaeological report was not accepted as final.

Mr. Rory Frampton
February 9, 2005
Page 3

10. An acceptable preservation plan should be reviewed and approved by the State Historic Preservation Division (SHPD) and in place prior to construction. The CRC requests that it be allowed to review the preservation plan prior to the plan being submitted to the SHPD.
11. Commissioners supported the Applicant's efforts to work with Keawalai Church to provide for the appropriate stewardship of these cultural sites.
12. Commissioners reminded the Applicant that an archaeological monitoring plan must be in effect for all ground-altering work associated with this project.
13. The Commission supported the rezoning of this property for single-family residential use rather than hotel.

Thank you for your cooperation. If additional clarification is required, please contact Ms. Dawn E. Duensing, Cultural Resources Planner, at 270-7841.

Sincerely,



Lori Sablas, Chair
Maui County Cultural Resources Commission

LS:DED:do

c: Clayton I. Yoshida, AICP, Planning Program Administrator
Kivette Caigoy, Environmental Planner
Dawn Duensing, Cultural Resources Planner
CRC Members
CRC file
Dana Hall, 2087 Wells Street, Wailuku
Project File
General File
K:\WP_DOCS\PLANNING\EA\2002\8_GarciaSubd\CRCcomments.wpd



March 27, 2006

Mr. Clyde W. Namu'o, Administrator
Office of Hawaiian Affairs
711 Kapiolani Boulevard, Suite 500
Honolulu, Hawaii 96813

Re: Revised Draft Environmental Assessment, Garcia Family Subdivision, Makena,
Maui, TMK : (2) 2-1-007:067

Dear Mr. Namu'o

This letter is in response to your letter dated February 14, 2005, which provided comments on the above referenced Draft Environmental Assessment. We apologize for the delay in responding to you, the delay was due to additional historical and cultural studies which were performed within the last year. Transmitted herewith is a copy of a draft Preservation Plan for the property which has been submitted to the State Historic Preservation Division (SHPD).

Historical and Cultural Resources

1. Kalani Heiau

Buffer size. The buffer zone for the heiau was based on site specific factors including, topography, existing parcel configuration, existing historic ranch walls and future uses. Your letter recommends a buffer size of 75 to 100 feet. The proposed buffer varies in width. See attached Figure 8 in the Preservation Plan. The size of the buffer area has been increased to the north, towards the access road, and to the east, towards Site 5036, Feature AA. The expansion to the north was accomplished by eliminating a lot in the makai portion of the project. This provides an improved view of the heiau from the road and the designated access point for any future visitation or interpretative activities. To the east, the expanded buffer area provides for a visual connection to Feature AA.

To the north of the heiau, the buffer edge is established along the property boundary and the width varies between 80 and 120 feet. Similarly, to the west, the buffer edge is established by the property boundary as well as a historic lava ranching wall. The width in this area ranges between 50 and 60 feet. To the south, the buffer edge is established by a historic ranch wall and ranges in width from 27 to 60 feet. An additional no build zone

of 20 feet has been incorporated into the adjacent lot in this area. To the east the buffer zone width ranges from 30 feet to 105 feet, with an additional 20 feet no build zone incorporated into the area with the 30 feet width.

View planes. Views to the ocean from the heiau are limited due to existing vegetation and structures on properties adjacent to and across the street from the Garcia property. A view plane corridor to the ocean has been established along the southern property line where the potential for view plane creation exists. A similar view plan will be incorporated into the neighboring property to create a combined width of 40 feet. In addition, a height restriction of 40 feet above mean sea level has been established for lot 3 and a portion of lot 2. Mauka views toward significant pu'u in the Ulupalakua region are being preserved across the modified 'ahua (Site 5036 AA).

Preservation area configuration. The preservation areas and lot lines have been revised so that the entire heiau and associated preservation area is included in one parcel.

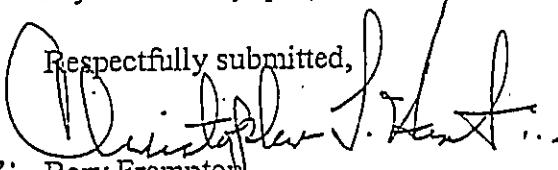
2. Site 5036, Feature AA

Despite an extensive cultural and historical study by, the relationship of Feature AA to the heiau is still unknown. Nevertheless, a separate preservation area has been created for this site. The preservation area has been created so that it creates a visual connection with the preservation area for Kalani Heiau. Portions of the mauka side of Feature AA's preservation area will include fill, however, the north and west facing sides of the 'ahua will be not be significantly altered to as to preserve the visual integrity of the 'ahua as viewed from Kalani Heiau.

Lastly, the surface of the driveway which is located between the two preservation areas will be colored molded concrete or asphalt. Alternative routing configurations have been explored but were deemed infeasible to subdivision requirements and resultant effects on the proposed project.

If you have any questions or concerns please contact me at 298-4956.

Respectfully submitted,


Rory Frampton
Project Consultant

Encls.

Cc: Kivette Caigoy, Planning Department

PHONE (808) 594-1888

FAX (808) 594-1865



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

'05 FEB 18 P12:23

DEPT OF PLANNING
COUNTY OF MAUI
RECEIVED

HRD05/856B

February 14, 2005

Kivette Caigoy, Planner
Department of Planning
County of Maui
250 South High Street
Wailuku, Hawai'i 96793

Re: Revised Draft Environmental Assessment, Garcia Family Subdivision, Makena,
Island of Maui, TMK: (2) 2-1-007:067

Dear Ms. Caigoy:

The Office of Hawaiian Affairs (OHA) is in receipt of the Draft Environmental Assessment (DEA) from your office, regarding the proposal to develop an eleven lot single-family residential subdivision to accommodate eleven single-family residences. After reviewing the submitted materials, OHA has comments and concerns in the area of historical and cultural resources.

Historical and Cultural Resources

1. Kalani Heiau

According to the submitted information, the proposed subdivision project is planned on lands that include Kalani Heiau, a native Hawaiian *wahi kapu* located in the Makena area. Kalani Heiau, like many other formally recorded *heiau* sites, is of an indeterminate class. There have been several assertions, including possible informant testimony noted by Winslow Walker in 1931, that Kalani may be a *luacini*, or sacrificial *heiau*, and OHA proceeds with comments with this possibility in mind.

What is known about the site is that it is vitally important to the native Hawaiian population to preserve this important tangible remnant of a quickly disappearing Hawaiian material culture. Aside from preserving the physical aspects of the *heiau*, it is equally important to make every effort to preserve the integrity and context of the *heiau*, particularly as it may relate to the cultural landscape which surrounds it.

Kivette Caigoy
February 14, 2005
Page 2

The following comments from OHA are provided from the perspective of a landowner of a similarly situated, and comparable sized *heiau*, Pahua Heiau in Maunaloa on the island of O'ahu, located within the midst of residential development. Pahua Heiau was conveyed to OHA by the Kanebameha Schools in 1988 and OHA has served as stewards of the site ever since. When OHA acquired the *heiau*, development had already occurred in close proximity to the *heiau* and in our opinion, greatly compromised the integrity of this significant site.

In reviewing the Site Plan (Figure 11) for the subdivision, it appears problematic in several areas. First, the proposed buffer around Kalani Heiau proper appears to be inadequate for such a large and significant site. Although the buffer varies in size, the minimum stated buffer of 30 feet is inadequate given the size and nature of the historic property to be preserved. A buffer size of 75 to 100 feet would appear more adequate and appropriate.

There is also concern as to the preservation of view planes from Kalani Heiau to the neighboring areas as these lines of sight are very important to preserve. It is unclear as to the height limitations on the adjacent dwellings and how these will impact the view plane, which should remain open and unobstructed.

A further concern regarding Kalani Heiau is that it appears that the *heiau* itself is divided among several individual lots. This may be advantageous to the developer for unknown purposes but makes no sense from a cultural standpoint to divide up a significant historic feature into artificial divisions. Such divisions may actually be harmful to the integrity of the site as a whole and OHA would strongly recommend against it.

2. Site 5306, Feature AA, Pu'u

In reviewing the archeological inventory survey and revised addendum for the parcel, several other concerns come to the forefront. Aside from the general absence of any previously identified burials on the subject property, Site 5306, Feature AA, as noted in the archaeological reports appears to be a small *pu'u*, roughly four meters in height, which was found to contain remnant portions of a *pōhaku* pavement consisting of *a'a* cobbles.

Given the disturbance to the form and structure of Kalani Heiau from years of cattle grazing and other man made disturbance, including the possible appropriation of *heiau pōhaku* for other uses, it does appear that the *pu'u* also suffered from temporal degradation.

While contemporary recollections of the project area by various individuals interviewed during the cultural assessment process add some color to the discussions, the manners in which Kalani Heiau and the associated *pu'u* functioned are not entirely known.

There does, however, appear to be a basis for a relationship between the *pu'u* and Kalani Heiau, especially in noting the higher elevation of the *pu'u* as compared to the *heiau* elevations. Given what is currently known regarding the relationships of height and status in the Hawaiian culture,

Kivette Caigoy
February 14, 2005
Page 3

it would appear that the *pu'u* maintained an important role in the ceremonial functioning of Kalani Heiau.

OHA recommends that, in recognition of the likely ceremonial, and spatial, relationship between the *pu'u* and Kalani Heiau, that the *pu'u* be considered for the same protections afforded Kalani Heiau, with adjustments appropriate for its relative size. It should also be noted that, the fill proposed for the project would adversely affect the setting and context of both Kalani Heiau and the *pu'u*.

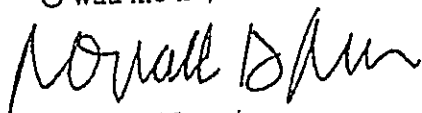
Conclusion

Kalani Heiau is an important component of the cultural landscape in the Makena area and as such, should be entitled to its own subdivided preservation lot with a buffer of 75 to 100 feet around the outer edges of the site except in those areas where the buffer is constrained by the current boundary line of the parcel. The proposed residential development should be adjusted to preserve the view planes from the *heiau*.

With regards to Site 5306, Feature AA *pu'u*, this feature should be recognized as an important component of a historic complex along with Kalani Heiau. Special consideration should be given to preserve the feature intact and incorporate it into the preservation lot for Kalani Heiau. At a minimum, the *pu'u* should receive its own preservation lot and appropriate sized buffer. The planned driveway between the two cultural sites should be rerouted so as to preserve the setting and context of these sites. OHA further recommends that fill not be utilized within the protective buffer areas for Kalani Heiau and Site 5306, Feature AA *pu'u*.

Thank you for your patience during our review and assessment of this important matter. If you have any questions or concerns, please contact Kai Markell, Policy Advocate, at 594-1945 or kaim@oha.org.

'O wau iho nō,


Clyde W. Nāmu'o
Administrator

c. Office of Environmental Quality Control
235 S. Beretania Street, Suite 702
Honolulu, Hawaii 96813

State Historic Preservation Division



December 21, 2004

Mr. Michael W. Foley
Planning Director
Department of Planning
250 South High Street
Wailuku, Hawaii 96793

Attention: Ms. Kivette Caigoy

Dear Mr. Foley:

RE:

RE: Draft Environmental Assessment Prepared for the Proposed Garcia Family Subdivision located at TMK: 2-1-007:067, Makena, Island of Maui, Hawaii.

This is in response to your letter dated December 14, 2004, regarding the above-referenced project. The following letter addresses your concerns:

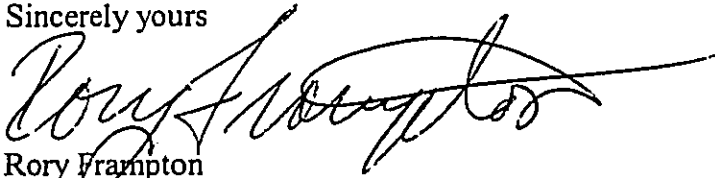
1. Ohana units and additional subdivisions will not be permitted (See: Section II.D page 4 of the report). A discussion of a full build-out scenario is provided in Section II.E page 6.
2. For assessment purposes, we have included an analysis of eleven single-family lots with dwellings. Actual construction of dwelling units will be the responsibility of individual lot buyers (See: Sections I.A page 1 and II.D page 4.)
3. It is anticipated that once permits have been issued, the construction of subdivision improvements will require approximately six (6) months to complete (See: Section II.D page 5).
4. A list of required land use and development permits is provided in Section I.C, page 1, of the report.
5. Lot sizes have been provided on Figure No. 12 of the report.

Mr. Michael Foley, Director
December 21, 2004
Page 2

6. Reclaimed water is not currently planned for the project area and is therefore not proposed for irrigation purposes (See: Section III.D.1 of the report).

Thank you again for your consideration of our request. Should you have any questions, please contact myself, or Mr. Michael Summers, at 242-1955.

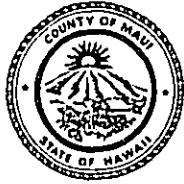
Sincerely yours



Rory Frampton
Principal Planner

cc. Project File

ALAN M. ARAKAWA
Mayor
MICHAEL W. FOLEY
Director
WAYNE A. BOTEILHO
Deputy Director



COUNTY OF MAUI
DEPARTMENT OF PLANNING

December 14, 2004

M. Lumm

Mr. Rory Frampton
Chris Hart & Partners
1955 Main Street, Suite 200
Wailuku, Hawaii 96793

Dear Mr. Frampton:

RE: Draft Environmental Assessment for the Proposed Garcia Family Subdivision Located at TMK: 2-1-007: 067, Makena, Island of Maui, Hawaii (EA 2002/0008) (CPA 2002/0009) (CIZ 2002/0013) (DBA 2002/0004) (SM1 2002/0016)

The Maui Planning Department (Department) has reviewed the above referenced document and requires the following to continue processing:

1. Clarify whether ohana units and additional subdivisions be allowed, and revise the discussion of potential impacts to address the increased density as needed.

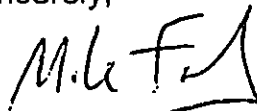
Include a discussion of a full build-out scenario with the proposed R-3, Residential zoning designation.
2. Clarify whether the proposed project includes the construction of the dwellings.
3. Discuss the anticipated time frames for the proposed project.
4. Provide a list of permits, variances and approvals required by the proposed project in Section I.
5. Identify the lot sizes on the "Site Plan."
6. Include a discussion of reclaimed water for irrigation purposes.

Mr. Rory Frampton
December 14, 2004
Page 2

7. Typographical error on Page 37: the text should be corrected from "...objectives and policies of the Makawao-Pukaiani-Kula Community Plan" to "...objectives and policies of the Kihei-Makena Community Plan..."

Thank you for your cooperation. If you require additional clarification, please contact Ms. Kivette A. Caigoy, Environmental Planner, of this at 270-7735.

Sincerely,



MICHAEL W. FOLEY
Planning Director

MWF:KAC:lar

c: Joe Alueta, Administrative Planning Officer
Kivette A. Caigoy, Environmental Planner
EA Project File
General File
K:\WP_DOCS\PLANNING\EA\2002\8_GarciaSubd\DEAcomments.wpd



December 3, 2004

Mr. Raynor M. Minami
Director
Facilities and Support Services Branch
State of Hawaii
Department of Education
P.O. Box 2360
Honolulu, Hawaii 96804

Dear Mr. Minami:

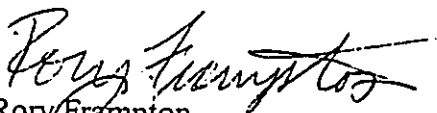
RE: Garcia Family Subdivision (CPA 2002/009, DBA 2002/004, CIZ
2002/0013, SM1 2002/0016); TMK 2-1-007:067

Thank you for your letter dated December 13, 2002, regarding the above-referenced project. We apologize for the delay, which was the result of additional archaeological testing required of the project, but would like to emphasize that the project has not changed significantly from that which was initially reviewed by your agency in December 2002. There have been minor adjustments to lot lines and potential building envelopes. A copy of the revised site plan is included herewith.

Pursuant to your letter, we understand that the DOE has no comments to offer regarding the project. However, please note that we will be transmitting a Draft Environmental Assessment to the Maui Planning Commission for review. In addition, notice of availability of the Draft EA for public review and comment will be published in the OEQC Environmental Notice. Should you have further questions regarding the project or would like to offer additional comments, please forward them to the Maui Department of Planning by January 7, 2005, with a copy to our office.

Should you have any questions, please contact myself, or Mr. Michael Summers, at 242-1955.

Sincerely,


Rory Frampton
Senior Planner

Mr. Raynor M. Minami
December 3, 2004
Page 2

Attachment

cc. Mr. Mike Foley, Department of Planning
Mr. Sam Garcia, Jr.
Mr. John Garcia
Project File

Linda Lingle
GOVERNOR

150



PATRICIA HAMAMOTO
SUPERINTENDENT

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

'02 DEC 17 P2:43

DE OF BUSINESS SERVICES

December 13, 2002

Mr. John E. Min
Planning Director
County of Maui
250 South High Street
Wailuku, Hawai'i 96793

Attn: Joseph W. Alueta, Staff Planner

Dear Mr. Min:

Subject: Garcia Family Subdivision
Makena, Hawai'i, TMK: 2-1-007:067

The Department of Education (DOE) has reviewed the applications for Special Management Area Permit (SMA), Change in Zoning (CIZ), Community Plan Amendment, and District Boundary Reclassification for Sam and John Garcia to develop an 11-unit single-family residential subdivision on 5.497 acres of land in Makena, Maui.

The DOE has no comment to offer on the application and appreciates the opportunity to review the plans. Should you have any questions, please call Ms. Heidi Meeker of our branch at 733-4862.

Thank you.

Sincerely yours,

A handwritten signature in cursive script that reads "Raynor M. Minami".

Raynor M. Minami, Director
Facilities and Support Services Branch

RMM:hy

cc: A. Suga, OBS

AN AFFIRMATIVE ACTION AND EQUAL OPPORTUNITY EMPLOYER



December 3, 2004

Mr. Melvin M. Masuda, State Land Surveyor
DAGS Survey Division
State of Hawaii
Department of Accounting and General Services
P.O. Box 119
Honolulu, Hawaii 96810-0119

Dear Mr. Hashimoto:

RE: Garcia Family Subdivision (CPA 2002/009, DBA 2002/004, CIZ
2002/0013, SM1 2002/0016); TMK 2-1-007:067

This is in response to your agency's letter dated December 6, 2002, from then State Land Surveyor, Mr. Randall M. Hashimoto. We apologize for the delay, which was the result of additional archaeological testing required of the project, but would like to emphasize that the project has not changed significantly from that which was initially reviewed by your agency in December 2002. There have been minor adjustments to lot lines and potential building envelopes. A copy of the revised site plan is included herewith.

Pursuant to your letter, we understand that the project has been reviewed and it has been confirmed that no Government Triangulations or Benchmarks will be affected and that your office has no objections to the project.

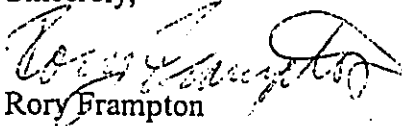
Please note that we will be transmitting a Draft Environmental Assessment to the Maui Planning Commission for review. In addition, notice of availability of the Draft EA for public review and comment will be published in the OEQC Environmental Notice. Should you have further questions regarding the project or would like to offer additional comments, please forward them to the Maui Department of Planning by January 7, 2005, with a copy to our office.

Should you have further questions regarding the project or would like to offer additional comments, please forward them to the Maui Planning Department by January 7, 2005, with a copy to our office.

Mr. Melvin M. Masuda
December 3, 2004
Page 2

Thank you for your consideration of our application. Should you have any questions, please contact myself, or Mr. Michael Summers, Chris Hart & Partners, at 242-1955.

Sincerely,


Rory Frampton
Principal Planner

Attachment

cc. Mr. Mike Foley, Department of Planning
Mr. Sam Garcia, Jr.
Mr. John Garcia
Project File

12/5/02
v/w/s-1
BENJAMIN J. CAYETANO
GOVERNOR



MARY ALICE EVANS
Comptroller

DEAN H. SEKI
Deputy Comptroller

STATE OF HAWAII
DEPARTMENT OF ACCOUNTING
AND GENERAL SERVICES
SURVEY DIVISION
P.O. BOX 119
HONOLULU, HAWAII 96810-0119

PA:13

December 6, 2002

MEMORANDUM

TO: John E. Min, Planning Director
Maui County Planning Department

ATTN: Joseph W. Alueta, Staff Planner

FROM: Randall M. Hashimoto, State Land Surveyor *RH*
DAGS, Survey Division

SUBJECT: I.D.: CPA 2002/0009, DBA 2002/0004, CIZ 2002/0013,
SM1 2002/0016
TMK: 2-1-007:067
Project Name: Garcia Family Subdivision
Applicant: Rory Frampton

The subject proposal has been reviewed and confirmed that no Government Survey Triangulation Stations or Benchmarks are affected. Survey has no objections to the proposed project.



December 6, 2004

Dana Naone Hall
2087 Wells Street
Wailuku, Hawaii 96793

Re: Response to Comments on Draft Environmental Assessment for the Garcia Family Subdivision; TMK 2-1-007: 67, Makena, Maui, Hawaii

Dear Ms. Hall:

This is in response to your comment letter to Mr. John Min, Planning Director, dated November 7, 2002, regarding the Draft Environmental Assessment (EA) for the Garcia Family subdivision. For your information, due to the length of time which has transpired since the original publication of the Draft EA as well as the change in determination of the accepting agency for the project, the revised Draft EA will be re-noticed in the OEQC Bulletin. Our responses to your comments are as follows:

- 1. Accepting Agency.** The Maui Planning Commission has been determined to be the accepting agency for this project.
- 2. Requested height limit on Lots 1 through 4.** An analysis of views from Kalani Heiau has been presented in the Revised Cultural Impact Assessment (CIA) which is included in the Draft EA as Appendix A. A Draft Revised CIA is transmitted herewith for your review and comment. In sum, views from Kalani Heiau are severely limited at present due to existing vegetation and structures on the subject property as well as on neighboring properties. The proposed project will result in removal of existing vegetation on the subject property which will enhance views of the upper slopes of Haleakala. While the prominence of Site 196's physical feature also will be enhanced through vegetation removal, there is limited opportunity for establishment of ocean views from the site due to existing vegetation on properties on the makai side of Keoneoio Road. However, a view corridor will be established toward the ocean in an area where there are no visual obstructions on makai properties.
- 3. Archaeology.** A revised addendum archaeological inventory survey report has been prepared and submitted to SHPD. This document addresses your concerns regarding archaeological and cultural features of the site, the boundaries for Kalani Heiau and preservation plans and mitigation measures. A copy of the addendum report is transmitted herewith for your review and comment.

4. Visual Resources. As noted above, an analysis of views from Kalani Heiau has been included in the Draft CIA. Contrary to your assertions, existing views from the Kalani Heiau are extremely limited due to vegetation. Many of the trees are higher than the proposed structures, therefore, views from the heiau in many cases will be enhanced after removal of the kiawe vegetation. In addition, the site plan has been revised such that the mauka knoll (Feature AA) will be preserved. The proposed house site for Lot 7 also has been shifted to the south.

5. Cultural Resources. As noted, the Draft CIA has been amended to address your concerns. We apologize for your feeling that the report improperly characterized the site visit you attended. Your letter has been included as an appendix in the CIA, and your statements have been included in the text of the document.

6. Recreational Resources. The spelling for Maipoina Oe Iau Beach Park has been corrected. Thank you.

7. State Land Use Law. While it is true that the Makena area is largely undeveloped, the immediate vicinity of the project area meets the criteria for the Urban district. Contrary to your understanding, the subject property does directly abut the 310 room Maui Prince Hotel property. Please refer to the Figure Nos. 1B, 2, 3, 4 and 5. The property is also located across the street from a Church as well as residential dwellings. See Figure 1B, Surrounding Land Uses. A public restroom, parking lot and sewer pump station are located to the immediate north of the property. The road right of way fronting the property is developed with a concrete sidewalk. An eight inch water line with fire hydrants front the property. In addition, the property directly abuts Urban zoned land on three sides. See Figure 5. Lastly, and rather significantly, the subject property was zoned BR-Resort in 1969 by the County of Maui and the current Community Plan designation for the property is Hotel. See Figure Nos. 3 and 4. Based on these facts, as well as others listed in the Draft EA, the criteria for Urban designation is warranted.

8. Kihei-Makena Community Plan. Your comments on Community Plan issues related to the Archaeological Inventory Survey and the Cultural Report which were discussed above.

9. County Zoning. The request for R-3 Residential zoning is warranted based on many of the same reasons listed above in response number 7, as well as the reasons listed in the Draft EA. The requested R-3 Residential zoning is appropriate given the existing and proposed land uses in the area and allows the applicant greater design flexibility while striving to achieve the design objectives of the project.

10. Special Management Area Objectives and Policies. Again, your issues here pertain to the comments on the Archaeological Inventory Survey and the Cultural Report.

Dana Naone Hall
Re: Garcia Family Subdivision – Draft EA Responses
December 6, 2004
Page 3

11. Finding of No Significant Impact. We disagree with your conclusions regarding significant impacts. The action will result in the preservation of Site 196, not its destruction. The action will establish access to the heiau site; access that is not currently existing cannot be “curtailed.” The preservation and protection of Kalani Heiau is consistent with state and county policies and goals. The project will succeed in protecting the heiau and, therefore, will not result in substantial degradation of environmental quality. The proposed action will result in the creation and enhancement of view planes from the heiau; views that do not exist cannot be significantly obstructed. Lastly, please indicate which county and state plans you are referring to that provide protection of scenic vistas and views planes from the Kalani Heiau.

12. Draft EA processing. As indicated above, notice of the availability of the Draft EA for public review will be published in the OEQC Bulletin. Also, for your information the Draft EA will be presented before the Maui Planning Commission for review and comment.

Thank you for commenting on the Draft EA. Please do not hesitate to contact me if you would like to discuss any of the above responses or the materials in the CIA or Revised Archaeological Addendum.

Sincerely yours,


Rory Frampton

enclosures

cc: Sam Garcia, Jr.
John Garcia
Maui Planning Department
Melissa Kirkendall, SHPD Maui Office

DANA NAONE HALL

2087 WELLS STREET

WAILUKU, MAUI, HAWAII 96793

(808) 244-9017

FAX (808) 244-6775

NOV -7 12:55

November 7, 2002

Via Hand Delivery

John E. Min, Planning Director
County of Maui
Planning Department
250 South High Street
Wailuku, Maui, HI 96793

Re: Comments on Draft Environmental Assessment for the Garcia
Family Subdivision Proposed by Samuel Garcia, Jr. & Jon Garcia;
TMK No. (II) 2-1-007:067, Makena, Maui, Hawaii

Dear John E. Min:

These comments are submitted on behalf of Hui Alanui o Makena, Dana Naone Hall and Leslie Kuloloio on the Draft Environmental Assessment ("DEA") for the Garcia Family Subdivision, designated as TMK No. (II) 2-1-007:067 ("Parcel 67"). Hui Alanui o Makena is a Native Hawaiian organization dedicated to protecting and preserving Native Hawaiian rights and interests, including archaeological, cultural and historic resources. Leslie Kuloloio and Dana Naone Hall individually and as members of Hui Alanui o Makena are vitally concerned about the identification and proper treatment of Native Hawaiian archaeological, cultural and historic sites and resources.

Hui Alanui o Makena ("Hui"), Hall and Kuloloio's comments are directed to the person and entity identified as the approving agency/ accepting authority for this project in "The Environmental Notice" dated October 8, 2002, with copies to the applicant, in accordance with Hawaii's "Environmental Impact Statement Rules," HAR §11-200-22(b). This submittal is without prejudice to our view that the approving agency/ accepting authority has not been properly identified and should be the Maui Planning Commission.

The Hui, Hall and Kuloloio's comments address the following specific sections of the DEA.

II. DESCRIPTION OF THE PROPERTY AND PROPOSED ACTION

D. Description of Proposed Action

... Lots 10 and 11 will be limited to one story in order to preserve views for lots 7, 8 and 9. (See page 4.)

A similar provision limiting residences on Lots 1 through 4 to one story in height should be incorporated into the proposed project in order to preserve views from Kalani Heiau and to maintain the knoll on which the heiau is located as a prominent feature of the physical and cultural landscape. For those who visit the heiau for traditional and customary or other purposes, the views from the heiau are an integral part of the experience of this important site.

III. DESCRIPTION OF THE EXISTING ENVIRONMENT, POTENTIAL IMPACTS AND MITIGATION MEASURES

A. Physical Environment

7. Archaeological/Historical Resources

The DEA relies on an archaeological inventory survey of the subject property conducted by Haun & Associates, and a May 10, 2001 letter from the State Historic Preservation Division, which accepts the archaeological inventory survey report and requires the submittal of a data recovery plan and a preservation plan for Kalani Heiau (see Appendices A and B). As will be discussed in detail later, the Haun archaeological inventory survey does not identify all of the archaeological and cultural sites and features present on the property. Furthermore, the boundaries for Kalani Heiau (Site 196) have not been adequately determined nor have an appropriate buffer and other necessary mitigation measures been approved for the site.

8. Visual Resources

Existing Conditions. The subject property is located within the destination resort area of Makena, which is renowned for its significant views of the Pacific Ocean and Haleakala. The Pacific Ocean and the islands of Molokini and Kaho'olawe are visible from the property. (See page 12.)

The knoll on which Kalani Heiau is situated and an adjacent knoll located to the east (mauka) offer panoramic views of Haleakala, the surrounding land, the ocean and the islands of Molokini and Kaho'olawe. For ceremonial and religious sites, among others, these visual conditions are an integral aspect of the sites' significance. The proposed project as shown in Figure 11 of the DEA will significantly disrupt the current open view planes from both knolls.

Kalani Heiau's knoll appears to be at approximately the 38-40 foot elevation (see Figure 11 Subdivision Site Plan and Figure 12 Grading Plan). Construction of two-story houses on Lots 1-9 will result in roof lines that are at the level of or higher than the knoll where Kalani Heiau is located.

Residences constructed on Lots 10 and 11 will also result in significant visual obstructions. For example, houses built at the 30-32 foot elevation on Lots 10 and 11 will result in roof lines at approximately the 45-47 foot elevation (30-32 feet, plus 15 feet for a single family residence). In addition, the mauka knoll will be severely compromised by construction of a single-family residence on the knoll itself.

B. Socio-Economic Environment

3. Cultural Resources

The DEA notes on page 15 that the Cultural Impact Assessment Report ("Cultural Report") was prepared by Rory Frampton of Chris Hart & Partners, Inc. This purported Cultural Report (Appendix A) does not comport with the Guidelines for Assessing Cultural Impacts issued by the Environmental Council. The Cultural Report is primarily a regurgitated summary of the Haun Archaeological Inventory Survey Report. In this respect, the Cultural Report is inadequate since the initial archaeological inventory survey failed to identify all of the cultural and historic properties present within the subject parcel.

As an example, Land Commission Award 2399, Apana 2 to Kalili is referred to in the text and shown on Figure 2 in the archaeological report, however, a review of the report's Figure 7 Site Location Map shows that no subsurface testing was conducted in the area of the kuleana. No attempt was made during the inventory survey to determine whether or not any of the walls and/or enclosures located on the property were associated with the kuleana rather than cattle ranching. In fact, no radiocarbon dates were obtained for any of the sites on Parcel 67.

The Environmental Council's Guidelines encourage "field visits by preparers accompanied by informants" and also recommends that individuals interviewed "should be afforded an opportunity to review the record of the interview, and [their] consent to publish the record should be obtained whenever possible." We (Leslie Kuloloio and Dana Naone Hall) accompanied Rory Frampton on a site visit to Kalani Heiau in March 2002. Mr. Frampton stated that the purpose of the site visit was to solicit our comments on a proposed preservation buffer for Kalani Heiau. During the site visit, we made it clear to Mr. Frampton that Site 196 is very significant. We remarked on the knoll's prominence as a physical feature, which undoubtedly played a central part in its selection as the site of an important heiau. The knoll affords panoramic views of the surrounding land and Haleakala as well as of the ocean. We spoke about the connection of the heiau to the significant sites identified a short distance away at Keawala'i Church. We expressed our concerns that the boundaries of Site 196 were not properly identified, including

the possibility that the site may extend to the foot of the knoll. Most importantly, we informed Mr. Frampton that we would not be able to comment on a preservation buffer area for the heiau until the boundaries of this site were properly located.

Mr. Frampton never informed us that he would be including his discussion with us in a Cultural Report. Therefore, we were surprised to see that we, along with Hui Alanui o Makena, were used in the Cultural Report solely for the purpose of supporting the Report's position that "the property has not been used in recent times for traditional and customary native Hawaiian practices." (See page 10.) We object to the improper characterization of the limited site visit we attended. If we had been asked directly by Mr. Frampton, we would have stated that we feel there will be significant impacts on cultural resources which must be mitigated. The Cultural Report's proposal of a buffer around Kalani Heiau and a side yard setback, as well as provisions for access for cultural and religious practices should be incorporated into a Preservation Plan. At a minimum, the Office of Hawaiian Affairs, the Maui County Cultural Resources Commission, Hui Alanui o Makena and other interested groups and individuals should be given the opportunity to comment on a draft Preservation Plan, including commenting on the appropriate size for buffer areas, as part of the State Historic Preservation Division's review of this plan.

C. Public Services

1. Recreational Facilities

On page 16 "Maipoina Oe Lau Beach Park" should be "Maipoina Oe Iau Beach Park."*

IV. Relationship to Governmental Plans, Policies and Controls

A. State Land Use Law

A district boundary amendment from Agricultural to Urban will be sought by the Applicant. The DEA on page 24 recites the following standard for determining Urban District boundaries as contained in Subchapter 2 of the Land Use Commission Rules, §15-15-18.

- 1) It shall include lands characterized by "city-like" concentrations of people, structures, streets, urban level of services, and other related land uses.

Contrary to the above characterization, the DEA states on the same page that "Makena is still largely undeveloped and therefore a significant amount of urban-zoned land remains in open space." The DEA also notes that the Garcia property "is adjacent to the Maui Prince Hotel which is in

*Mai Poina 'Oe I'au

the Urban District" when in fact this property is separated from the hotel by undeveloped land. (See Figure 8 Site Photographs.)

The DEA finds that "the proposed project is located in an area characterized by 'city-like' concentrations of people, structures, streets, urban level of services, and other related land uses." (See page 25.) However, the Figure 8 Site Photographs depict a distinctly rural landscape. This particular parcel may be more appropriately reclassified to the Rural District, especially since the Applicant proposes to develop roadways to "non-urban standards." (See page 31.) Furthermore, the DEA states that "[t]o the west of the project, across Makena-Keoneoio Road, are Rural lands which are developed for residential use." (See page 25.) A Rural District classification would be consistent with the relatively low-key residences makai of the Garcia parcel.

C. Kihei-Makena Community Plan

On page 30, the DEA discusses the Cultural Resources section of the Kihei-Makena Community Plan and the following item under Objectives and Policies:

- a. Identify, preserve, protect and restore significant historical and cultural sites.

The DEA also includes the following Implementing Action:

- b. Require development projects to identify all cultural resources located within or adjacent to the project area, prior to application, as part of the County development review process. Further require that all proposed activity include recommendations to mitigate potential adverse impacts on cultural resources, including site avoidance, adequate buffer areas and interpretation. Particular attention should be directed toward the southern areas of the planning region.

These provisions of the Kihei-Makena Community Plan have not been met. Please refer to earlier comments on the inadequacies of the Haun Archaeological Inventory Survey and the Cultural Report.

D. Maui County Zoning

In describing the proposed action, the DEA claims that a "primary design objective of the project is to maintain the rural residential feel of Makena-Keoneoio Road." (See page 4.) The document further states that "the project incorporates relatively large lot sizes as well as rural design standards for the proposed road improvements." *Ibid.* In keeping with this characterization of the project, it may be more appropriate that a Change in Zoning to Rural be sought rather than R-3 Residential. At the same time, a request for a

Community Plan amendment from Hotel to Rural should be submitted, in order to achieve conformity between zoning and the Community Plan designation for Parcel 67.

Also note that the Makawao-Pukalani-Kula Community Plan is referred to in the Analysis section on page 33 of the DEA. This is an error. The relevant community plan is the Kihei-Makena Community Plan.

E. Special Management Area Objectives and Policies

The DEA lists an SMA objective and several policies related to historical/cultural resources on page 36. Neither the objective nor the policies listed can be met for reasons stated earlier in this letter.

The DEA concludes that the proposed project will not result in significant impacts to the environment and that a Finding of No Significant Impact ("FONSI") is warranted. (See page 46.) A FONSI cannot be supported as a matter of fact or law. The action, as currently proposed, will result in the loss or destruction of cultural resources. It will curtail the range of beneficial uses of the environment to the extent that it will curtail access to the Kalani Heiau and other sites. The proposed action will conflict with state and county environmental policies and goals because it does not protect and preserve significant cultural and historic sites. The proposed action will involve substantial degradation of environmental quality because of its failure to protect significant historic and cultural resources. Finally, the proposed action will substantially affect scenic vistas and view planes protected through county and state plans because views from the Kalani Heiau will be significantly obstructed.

The archaeological inventory survey prepared for the property by Haun and Associates is inadequate in many respects. Among other things, it fails to adequately inventory the historic properties on Parcel 67. Further archaeological research and testing must be undertaken before the significance of the sites can be assessed and site treatment, including mitigation measures, can be determined. Until this further work is completed, the DEA is incomplete. At a minimum, the comment period for the DEA must be extended until the further archaeological work is completed and a report on this work is circulated for public review and comment.

In addition, the Cultural Report attached to the DEA is severely deficient. Consultation with Native Hawaiian organizations and individuals should take place in the manner recommended in the Guidelines for Assessing Cultural Impacts and a new Cultural Impact Assessment prepared. Thereafter, the comment period should be extended for review and comment by interested individuals and parties before any determination is made on whether an Environmental Impact Statement should be prepared.

It will be insufficient to simply respond to the comments received on the DEA. The inadequacies of the DEA are so serious that the document must be withdrawn, rewritten, republished as a DEA, and public review recommenced.

We trust that you will properly exercise your responsibility to enforce the environmental laws of our State, and refuse to accept or approve this document until it has been adequately prepared to serve its intended purpose.

Thank you for the opportunity to comment on this DEA.

Sincerely yours,

Dana Naone Hall

Dana Naone Hall

DNH/sn

Enclosures

cc: Samuel Garcia, Jr.
John Garcia
Chris Hart & Partners (via facsimile 242-1956)
Office of Environmental Quality Control

keau/garcialetmin



December 3, 2004

Mr. Rodney K. Haraga
Director of Transportation
869 Punchbowl Street
Honolulu, Hawaii 96813-5097

Dear Mr. Haraga:

RE: Garcia Family Subdivision (CPA 2002/009, DBA 2002/004, CIZ
2002/0013, SM1 2002/0016); TMK 2-1-007:067

This is in response to your agency's letter dated December 23, 2002, from then acting interim director, Mr. Glenn M. Okimoto. We apologize for the delay, which was the result of additional archaeological testing required of the project, but would like to emphasize that the project has not changed significantly from what was initially reviewed by your agency in December 2002. There have minor adjustments to lot lines and potential building envelopes. A copy of the revised site plan is included herewith.

Per your December 23rd letter, we understand that the project will not impact State transportation facilities.

Please note that we will be transmitting a Draft Environmental Assessment to the Maui Planning Commission for review. In addition, notice of availability of the Draft EA for public review and comment will be published in the OEQC Environmental Notice. Should you have further questions regarding the project or would like to offer additional comments, please forward them to the Maui Department of Planning by January 7, 2005, with a copy to our office.

Should you have any questions, please contact myself, or Mr. Michael Summers, at 242-1955.

Sincerely,


Rory Frampton
Senior Planner

Mr. Rodney K. Haraga
December 3, 2004
Page 2

Attachment

cc. Mr. Mike Foley, Department of Planning
Mr. Sam Garcia, Jr.
Mr. John Garcia
Project File

IDA LINGLE
GOVERNOR



GLENN M. OKIMOTO
INTERIM DIRECTOR

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
869 PUNCHBOWL STREET
HONOLULU, HAWAII 96813-5097

IN REPLY REFER TO:

STP 8.0590

December 23, 2002

Mr. John E. Min
Director
Department of Planning
County of Maui
250 South High Street
Wailuku, Hawaii 96793

RECEIVED
DEC 26 10 25 AM '02

Dear Mr. Min:

Subject: Garcia Family Subdivision
Special Management Area Permit (SM1 2002/0016),
Change in Zone Application (CIZ 2002/0013),
Community Plan Amendment (CPA 2002/0009) and
District Boundary Reclassification (DBA 2002/0004)
TMK: 2-1-007: 067

Thank you for your transmittal requesting our review of the subject proposal.

The subject proposal to subdivide a 5.5 acres lot with 3 existing dwelling units into a lot with 11 single family dwelling units with access to Makena-Keoneoio Road will not impact our State transportation facilities.

We appreciate the opportunity to provide comments.

Very truly yours,

A handwritten signature in black ink, appearing to read "Glenn M. Okimoto".

GLENN M. OKIMOTO
Interim Director of Transportation



December 3, 2004

Mr. Neal Shinyama
Manager, Energy Division
Maui Electric Company, Ltd.
210 West Kamehameha Avenue
P.O. Box 398
Kahului, HI

RE: Garcia Family Subdivision (CPA 2002/009, DBA 2002/004, CIZ
2002/0013, SM1 2002/0016); TMK 2-1-007:067

Thank you for your letter dated December 4, 2002, regarding the above-referenced project. We apologize for the delay, which was the result of additional archaeological testing required of the project, but would like to emphasize that the project has not changed significantly from that which was initially reviewed by your agency in December 2002. There have been minor adjustments to lot lines and potential building envelopes. A copy of the revised site plan is included herewith.

Pursuant to your letter, we understand that you have no objections to the project. However, please note that we will be transmitting a Draft Environmental Assessment to the Maui Planning Commission for review. In addition, notice of availability of the Draft EA for public review and comment will be published in the OEQC Environmental Notice. Should you have further questions regarding the project or would like to offer additional comments, please forward them to the Maui Department of Planning by January 7, 2005, with a copy to our office.

Should you have any questions, please contact myself, or Mr. Michael Summers, at 242-1955.

Sincerely,

A handwritten signature in cursive script, appearing to read 'Rory Frampton'.

Rory Frampton
Principal Planner

Mr. Neal Shinyama
December 3, 2004
Page 2

Attachment

cc. Mr. Mike Foley, Department of Planning
Mr. Sam Garcia, Jr.
Mr. John Garcia
Project File



'02 12 04 5 21 04

December 4, 2002

Mr. Joseph W. Alueta
Staff Planner
Maui Planning Department
250 S. High Street
Wailuku, HI 96793

Dear Mr. Alueta:

Subject: Garcia Family Subdivision
TMK: 2-1-007:067
I.D.: CPA 2002/0009, DBA 2002/0004, CIZ 2002/0013, SM1 2002/0016

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

In reviewing the information transmitted and our records, we have no objection to the subject project. We encourage the developer's electrical consultant to meet with us as soon as practical to verify the project's electrical requirements so that service can be provided on a timely basis.

If you have any questions or concerns, please call Dan Takahata at 871-2385.

Sincerely,

A handwritten signature in cursive script that reads "Neal Shinyama".

Neal Shinyama
Manager, Energy Delivery

NS/dt:ikh



December 3, 2004

Mr. Anthony J.H. Ching
Executive Officer
Land Use Commission
Department of Business Economic Development & Tourism
P.O. Box 2359
Honolulu, Hawaii 96804--2359

Dear Mr. Ching:

RE: Garcia Family Subdivision (CPA 2002/009, DBA 2002/004, CIZ 2002/0013, SM1 2002/0016); TMK 2-1-007:067

Thank you for your letter dated December 9, 2002, regarding the above-referenced project. We apologize for the delay, which was the result of additional archaeological testing required of the project, but would like to emphasize that the project has not changed significantly from what was initially reviewed by your agency in December 2002. There have been minor adjustments to lot lines and potential building envelopes. A copy of the revised site plan is included herewith.

Pursuant to your letter, the applicant understands that given the location, scope, and nature of the proposed activity, the State Land Use Commission will defer to the County on this matter.

Please note that we will be transmitting a Draft Environmental Assessment to the Maui Planning Commission for review. In addition, notice of availability of the Draft EA for public review and comment will be published in the OEQC Environmental Notice. Should you have further questions regarding the project or would like to offer additional comments, please forward them to the Maui Department of Planning by January 7, 2005, with a copy to our office.

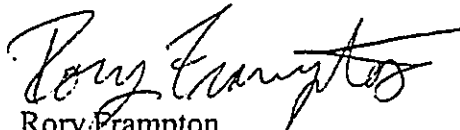
Should you have any questions, please contact myself, or Mr. Michael Summers, Chris Hart & Partners, at 242-1955.

THE SCOPE ARCHITECTURE AND PLANNING

1000 Kalia Road, Suite 300, Honolulu, HI 96813-1000

Mr. Anthony J.H. Ching
December 3, 2004
Page 2

Sincerely,


Rory Frampton
Senior Planner

Attachment

cc. Mr. Mike Foley, Department of Planning
Mr. Sam Garcia, Jr.
Mr. John Garcia
Project File

LINDA LINGLE
BENJAMIN J. CAYETANO
GOVERNOR



ANTHONY J.H. CHING
EXECUTIVE OFFICER

STATE OF HAWAII
DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT & TOURISM
LAND USE COMMISSION

P.O. Box 2359
Honolulu, HI 96804-2359
Telephone: 808-587-3822
Fax: 808-587-3827

'02 DEC 13 P1:30

December 9, 2002

Mr. John E. Min, Planning Director
Department of Planning
County of Maui
250 South High Street
Wailuku, Hawaii 96793

Dear Mr. Min:


Subject: CPA 2002/0009, DBA 2002/0004 & CIZ 2002/0013, SM1 2002/0016
Applicant: Samuel M. Garcia, Jr. and Jon E. Garcia
TMK No. 2-1-007:067
Project Name: Garcia Family Subdivision

We acknowledge receipt of your transmittal dated November 21, 2002, regarding the above subject application and confirm that the subject parcel is designated within the State Land Use Agricultural District, in proximity to LUC Docket No. A97-721/Makena Resort Corporation.

Given the location, scope, and nature of the proposed activity, the State Land Use Commission defers to the judgment of the County of Maui in this matter. We have no further comments to offer at this time.

Thank you for the opportunity to comment on the subject project. Please feel free to contact me at 587-3822, should you require clarification or any further assistance.

Sincerely,


ANTHONY J. H. CHING
Executive Officer



December 3, 2004

Mr. Neal S. Fujiwara
District Conservationist
Natural Resources Conservation Service
210 Imi Kala Street, Suite #209
Wailuku, Hawaii 96793-2100

RE: Garcia Family Subdivision (CPA 2002/009, DBA 2002/004, CIZ
2002/0013, SM1 2002/0016); TMK 2-1-007:067

Dear Mr. Fujiwara:

Thank you for your letter dated December 10, 2002, regarding the above-referenced project. We apologize for the delay, which was the result of additional archaeological testing required of the project, but would like to emphasize that the project has not changed significantly from that which was initially reviewed by your agency in December 2002. There have been minor adjustments to lot lines and potential building envelopes. A copy of the revised site plan is included herewith.

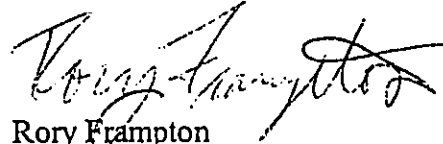
Pursuant to your letter, the applicant understands that an emergency spillway will be required to be incorporated into the underground drainage system. The applicant also understands that the soil in the area is a loam, stony complex that may not be suitable for compaction.

Please note that we will be transmitting a Draft Environmental Assessment to the Maui Planning Commission for review. In addition, notice of availability of the Draft EA for public review and comment will be published in the OEQC Environmental Notice. Should you have further questions regarding the project or would like to offer additional comments, please forward them to the Maui Department of Planning by January 7, 2005, with a copy to our office.

Should you have any questions, please contact myself, or Mr. Michael Summers, at 242-1955.

Mr. Neal S. Fujiwara
December 3, 2004
Page 2

Sincerely,

A handwritten signature in black ink, appearing to read "Rory Frampton". The signature is fluid and cursive, with the first name "Rory" being more prominent.

Rory Frampton
Principal Planner

cc. Mr. Mike Foley, Department of Planning
Mr. Sam Garcia, Jr.
Mr. John Garcia
Project File



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

'02 DEC 12 P2:25

Date: December 10, 2002

DEPT OF LAND
CL
MAIL

Mr. Joseph W. Alueta, Staff Planner
County of Maui
Department of Planning
250 S. High Street
Wailuku, Hawaii 96793

Dear Mr. Alueta,

SUBJECT: Garcia Family Subdivision; TMK: 2-1-007: 067
I.D.: CPA 2002/0009, DBA 2002/0004, CIZ 2002/0013, SM1 2002/0016

It is noted that the drainage will be diverted to a subsurface drainage system or retention basin. Should a retention basin is constructed, it should be noted that an emergency spillway be designed into the system and it outlets into a safe outlet area. The soil in the area is a loam, stony complex that may not be suitable for compaction. Firm compaction is needed within the retention basin.

Thank you for the opportunity to comment.

Sincerely,


Neal S. Fujiwara
District Conservationist



December 3, 2004

Ms. Genevive Salmonson
Director
State of Hawaii
Office of Environmental Quality Control
235 South Beretania Street, Suite 702
Honolulu, HI 96793

RE: Garcia Family Subdivision (CPA 2002/009, DBA 2002/004, CIZ
2002/0013, SM1 2002/0016); TMK 2-1-007:067

Thank you for your letter dated November 7, 2003, regarding the above-referenced project. We apologize for the delay, which was the result of additional archaeological testing required of the project, but would like to emphasize that the project has not changed significantly from what was initially reviewed by your agency in November 2002. There have been minor adjustments to lot lines and potential building envelopes. A copy of the revised site plan is included herewith.

In response to your letter, we offer the following comments:

1. Land Owner Identification for Future Parcels. The proposed lots will be sold in fee-simple. Permission to access the Kalani Heiau would be provided by the future owner of lot no. 4 or the future Homeowners Association.
2. Guidelines for Sustainable Building Design in Hawaii. A number of sustainable building design techniques have or will be implemented, including but not limited to the following:
 - Assessment of site characteristics such as vegetation, topography, geology, climate, natural access, solar orientation patterns, water and drainage, and existing utility and transportation infrastructure to determine the appropriate use of the site.
 - Selection of a site with short connections to existing municipal infrastructure systems.

Ms. Genevieve Salmonson
December 3, 2004
Page 3

- Placement of buildings to take advantage of natural features and to maximize their beneficial effects. Building placement maximizes and preserves positive site characteristics, enhances human comfort, safety and health, and achieves operational efficiencies.
 - Provision of erosion and dust control measures.
 - Tree planting to shade buildings and paved areas.
 - Incorporating water efficient landscaping (xeriscaping) into the landscape design.
 - Utilizing properly planned and efficient irrigation systems.
 - Selecting appropriate plants for the Makena area, thereby minimizing need
3. Use of Recycled Glass. The applicant will utilize materials with minimum recycled glass content in design and construction, if such materials are available and practical for use at the time of construction.
 4. Indegenous and Polynesian Introduced Plants for Use in Public Landscaping Native, indigenous and Polynesian introduced plants will be utilized to the maximum extent practicable in the landscape design.

Please note that we will be transmitting a Draft Environmental Assessment to the Maui Planning Commission for review. In addition, notice of availability of the Draft EA for public review and comment will be published in the OEQC Environmental Notice. Should you have further questions regarding the project or would like to offer additional comments, please forward them to the Maui Planning Department by January 7, 2005, with a copy to our office.

Thank you for your consideration of our application. Should you have any questions, please contact myself, or Mr. Michael Summers, Chris Hart & Partners, at 242-1955.

Sincerely,


Rory Frampton
Principal Planner

Ms. Genevieve Salmonson
December 3, 2004
Page 3

Attachment

cc. Mr. Mike Foley, Department of Planning
Mr. Sam Garcia, Jr.
Mr. John Garcia
Project File

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

NOV 12 2002

November 7, 2002

Messrs. Samuel M. Garcia and Jon E. Garcia
193 Makena Road
Makena, Hawai'i 96753

Mr. Rory Frampton
Chris Hart & Partners, Inc.
1955 Main Street, Suite 200
Wailuku, Hawai'i 96793

Mr. John Min
Planning Department, County of Maui
250 South High Street
Wailuku, Hawai'i 96793

Dear Messrs. Garcia, Garcia, Frampton and Min:

We have reviewed your draft environmental assessment (DEA) for the subdivision involving an 11-lot single family residential development supporting on- and off-site infrastructure situated at Makena, Tax Map Key (2nd) 2-1-007, parcel 067, in the judicial district of Makawao. We offer the following comments for your consideration and response.

- (1) **LAND OWNER IDENTIFICATION FOR FUTURE PARCELS:** The draft EA indicates that permission to access the Kalani Heiau site will be at the discretion of the landowner. Please disclose whether the 11-lots will be leased or sold in fee simple.
- (2) **GUIDELINES FOR SUSTAINABLE BUILDING DESIGN IN HAWAII:** We ask that you consider implementing some of the techniques discussed in the enclosed guidelines for sustainable building design.
- (3) **USE OF RECYCLED GLASS:** To promote the use of recycled materials in-state as found in section 103D-407, Hawai'i Revised Statutes, we ask that you consider using materials with minimum recycled glass content in the design.
- (4) **INDIGENOUS AND POLYNESIAN INTRODUCED PLANTS FOR USE IN PUBLIC LANDSCAPING:** We ask that you consider the use of native, indigenous and polynesian introduced plants in your landscaping.

If there are any questions, please call Leslie Segundo of my staff at (808) 586-4185. Thank you for the opportunity to comment.

Sincerely,

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

GENEVIEVE SALMONSON
Director

Enclosures



December 3, 2004

Mr. Clyde W. Nāmu'o
Administrator
State of Hawaii
Office of Hawaiian Affairs
Kapiolani Boulevard, Suite 500
Honolulu, Hawaii 96813

Dear Mr. Clyde W. Nāmu'o:

RE: Garcia Family Subdivision (CPA 2002/009, DBA 2002/004, CIZ
2002/0013, SM1 2002/0016); TMK 2-1-007:067

This is in response to your department's letter dated December 13, 2002, regarding the above-referenced project. We apologize for the delay, which was the result of additional archaeological testing required of the project, but would like to emphasize that the project has not changed significantly from that which was initially reviewed by your agency in December 2002. There have been minor adjustments to lot lines and potential building envelopes. A copy of the revised site plan is included herewith.

In response to your letter, we offer the following comments:

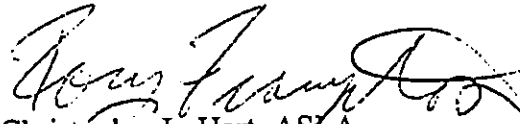
- Archaeological monitoring will take place during digging and trench work. Said monitoring will be done in conformance with the requirements of SHPD. In addition, consultation with Hui Ala Nui o Makena and other members of the community familiar with traditional and customary native Hawaiian practices will continue to occur through the permitting process.

Please note that we will be transmitting a Draft Environmental Assessment to the Maui Planning Commission for review. In addition, notice of availability of the Draft EA for public review and comment will be published in the OEQC Environmental Notice. Should you have further questions regarding the project or would like to offer additional comments, please forward them to the Maui Department of Planning by January 7, 2005, with a copy to our office.

Mr. Clyde W. Nāmu'o
December 3, 2004
Page 2

Should you have any questions, please contact myself, or Mr. Michael Summers,
at 242-1955.

Sincerely,


for Christopher L. Hart, ASLA
Landscape Architect - Planner

Attachment

cc. Mr. Mike Foley, Department of Planning
Mr. Sam Garcia, Jr.
Mr. John Garcia
Project File

PHONE (808) 594-1888

FAX (808) 594-1865



STATE OF HAWAII
OFFICE OF HAWAIIAN AFFAIRS
711 KAPI'OLANI BOULEVARD, SUITE 500
HONOLULU, HAWAII 96813
DEC 13 2002 10:35

December 13, 2002

HRD02/856

John E. Min, Planning Director
Department of Planning
County of Maui
250 South High Street,
Wailuku, Maui, HI 96793

Dear Mr. Min;

SUBJECT: Garcia Family Subdivision; Tax Map Key (TMK): 2-1-007:067; Makena,
Maui, Hawaii

This letter is in response to your request for comments or recommendations from the Office of Hawaiian Affairs (OHA) with regard to: 1) an application for a State Land Use Commission District Boundary Amendment (DBA) from Agricultural to Urban; 2) a County Change in Zoning (CIZ) from interim to R-3 Residential; 3) a Community Plan Amendment from Hotel to Single-Family; and 4) a Special Management Area (SMA) Permit to allow for an eleven unit single-family residential subdivision on a 5.497-acre parcel at Makena, Maui, Hawaii, TMK: 2-1-007:067.

Although a site reconnaissance survey reveals no endangered or threatened species of flora and fauna will be impacted, there are significant archaeological and historical resources on the property that require protection and preservation.

OHA concurs with the State Historic Preservation Division (SHPD) of the Department of Land and Natural Resources on the need for; a data recovery plan, additional testing at site 5079 in the middle of the parcel and a preservation plan for Kalani heiau. We also take positive note of the Scope of Work established in I.B. of the Cultural Impact Assessment, the inclusion of Haun's Archaeological Inventory Survey as Appendix A, and the applicant's long familial association with the area.

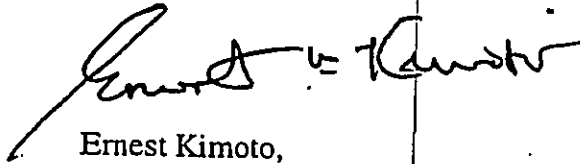
DOCUMENT CAPTURED AS RECEIVED

OHA recommends that compliance with HRS Chapter 6E be observed when digging and trenching occur, given the proximity of the Garcia property to the Keawala'i Church Cemetery, and documented evidence of a large pre-historic and historic population.

We agree that consultation with members of Hui Alanui O Makena is beneficial to becoming more familiar with traditional and customary native Hawaiian practices, and they should continue to be included as the permitting and applications procedure progresses.

Should you have any questions, please contact Pua Aiu, at 808-594-1931.

Sincerely,



Ernest Kimoto,
Acting Director
Hawaiian Rights Division



December 3, 2004

Ms. Mary Lou Kobayashi
Acting Director
Office of Planning
Department of Business, Economic Development & Tourism
235 South Beretania Street, 6th Floor
Honolulu, Hawaii 96813

RE: Garcia Family Subdivision (CPA 2002/009, DBA 2002/004, CIZ
2002/0013, SM1 2002/0016); TMK 2-1-007:067

This is in response to your letter dated December 26, 2002, regarding the above-referenced project. We apologize for the delay, which was the result of additional archaeological testing required of the project, but would like to emphasize that the project has not changed significantly from what was initially reviewed by your agency in December 2002. There have been minor adjustments to lot lines and potential building envelopes. A copy of the revised site plan is included herewith.

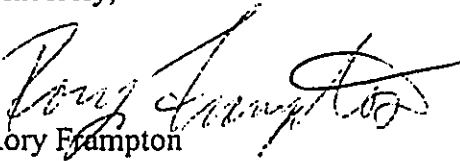
In response to your December 26 letter, we would like to acknowledge that your department has no objections to the proposed redistricting of the property to the Urban Land Use District.

Please note that we will be transmitting a Draft Environmental Assessment to the Maui Planning Commission for review. In addition, notice of availability of the Draft EA for public review and comment will be published in the OEQC Environmental Notice. Should you have further questions regarding the project or would like to offer additional comments, please forward them to the Maui Planning Department by January 7, 2005, with a copy to our office.

Should you have any questions, please contact myself, or Mr. Michael Summers, at 242-1955.

Ms. Mary Lou Kobayashi
December 3, 2004
Page 2

Sincerely,


Rory Frampton
Senior Planner

Attachment

cc. Mr. Mike Foley, Department of Planning
Mr. Sam Garcia, Jr.
Mr. John Garcia
Project File



December 3, 2004

Mr. Glenn T. Correa, Director
County of Maui
Department of Parks and Recreation
700 Halia Nako Street, Unit 2
Wailuku, Hawaii 96793

Dear Mr. Correa:

RE: Garcia Family Subdivision (CPA 2002/009, DBA 2002/004, CIZ 2002/0013, SM1
2002/0016); TMK 2-1-007:067

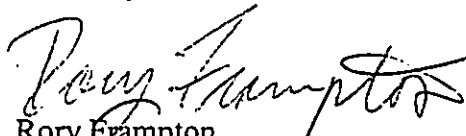
This is in response to your agency's letter dated December 23, 2002, from the prior Director, Mr. Floyd S. Miyazono. We apologize for the delay, which was the result of additional archaeological testing required of the project, but would like to emphasize that the project has not changed significantly from what was initially reviewed by your agency in December 2002. There have been minor adjustments to lot lines and potential building envelopes. A copy of the revised site plan is included herewith.

The applicant is aware that the project is subject to the park dedication requirements pursuant to MCC Title 18.16.320 Parks and playgrounds.

Please note that we will be transmitting a Draft Environmental Assessment to the Maui Planning Commission for review. In addition, notice of availability of the Draft EA for public review and comment will be published in the OEQC Environmental Notice. Should you have further questions regarding the project or would like to offer additional comments, please forward them to the Maui Planning Department by January 7, 2005, with a copy to our office.

Should you have any questions, please contact myself, or Mr. Michael Summers, Chris Hart & Partners, at 242-1955.

Sincerely,


Rory Frampton
Senior Planner

Mr. Glenn T. Correa, Director
December 3, 2004
Page 2

Attachment

cc. Mr. Mike Foley, Department of Planning
Mr. Sam Garcia, Jr.
Mr. John Garcia
Project File



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

LINDA LINGLE
GOVERNOR
SANDRA L. KUNIMOTO
ACTING DIRECTOR

DIRECTOR, OFFICE OF PLANNING

OFFICE OF PLANNING

235 South Beretania Street, 6th Floor, Honolulu, Hawaii 96813
Mailing Address: P.O. Box 2359, Honolulu, Hawaii 96804

Telephone: (808) 587-2846
Fax: (808) 587-2824

Ref. No. P-9944

02 03 27 10:35

December 26, 2002

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

Attn: Mr. Joseph Alueta

Dear Mr. Foley:

Subject: I.D.: CPA 2002/0009, DBA 2002/0004,
CIZ 2002/0013, SM1 2002/0016
TMK: 2-1-007: 067 - 5.497 acres
Project Name: Garcia Family Subdivision
Applicant: Rory Frampton for Landowners
Samuel M. Garcia Jr. and Jon E. Garcia

The Office of Planning has reviewed the environmental assessment supporting applications submitted by Mr. Rory Frampton to the County of Maui Planning Department for a Community Plan Amendment (CPA), District Boundary Amendment (DBA), Change in Zoning (CIZ), and Special Management Area (SMA) Permit. Samuel M. Garcia Jr. and Jon E. Garcia are identified in the applications as the owners of the subject 5.497-acre property located in Makena, Maui, Hawaii.

The owners want to subdivide the 5.497-acre parcel into 11 lots ranging in size from 13,500 to 34,000 square feet to allow construction of 11 single family dwelling units. Before they can proceed with the subdivision, the landowners must obtain a district boundary amendment from the Agricultural District to the Urban District, a change in zoning from interim to R-3 residential, a community plan amendment from hotel to single family and a special management area permit.

Mr. Michael Foley
Page 2
December 26, 2002

The subject property is located in the State Land Use Agricultural District and designated 'interim' on the County of Maui Zoning map. The northwestern portion of the property, mauka of Makena Road, is partially developed with three residential dwellings. The remainder of the property is undeveloped and overgrown with Kiawe trees and weeds.

The subject parcel is north and adjacent to the Maui Prince Hotel. To the south is undeveloped urban land planned as part of the Maui Prince Hotel complex and residential development. West of the subject parcel are single-family residences, the historic Keawalai Church, and Maluaka Beach. Public parking and restroom facilities to accommodate visitors to Maluaka Beach are north of the subject parcel as well as undeveloped urban-zoned land planned for residential and resort-commercial development. To the east are undeveloped lands zoned for resort-commercial uses and the Makena Golf Course.

The proposed Garcia Family subdivision is contiguous to lands classified for urban uses to the north, east, and southeast of the property, and is close to existing infrastructure and services with the capacity to serve the proposed development. Improvements to the property include a sewer collection system that will connect to the Makena Resort's wastewater collection and treatment system; paved roadways; underground utilities; water distribution and fire protection system improvements; and a drainage collection and retention system. The project is expected to use 6,600 gallons of water a day, provided by the county's 8-inch line. According to the draft assessment "...given the projected demographic profile of prospective purchasers," the subdivision will not contribute to the population of the area's schools. Of the residents who would purchase and live on each of the 11 lots, only five children of school age are expected: three from kindergarten through 6th grade, one in middle school, and one in high school.

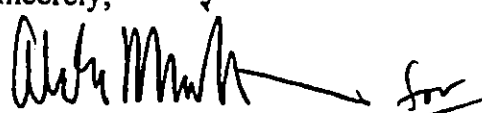
The parcel contains several archaeological features, including the Kalani Heiau, which sits atop a knoll. According to a survey conducted in the year 2000, there are a total of seven sites and 35 component features on the property. A 30-foot buffer will be established around the heiau to prevent the intrusion of structures or utility lines onto the site. The developer continues to coordinate the development of a data recovery and preservation plan for the archaeological sites on the subject parcel.

Considering the parcel's location and surroundings in an area which includes adjacent parcels within the Urban District zoned for residential and resort-commercial uses, we have no objections to the proposed redistricting of the property to the Urban Land Use District.

Mr. Michael Foley
Page 3
December 26, 2002

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

Sincerely,

A handwritten signature in black ink, appearing to read "Mary Lou Kobayashi", with a horizontal line underneath. An arrow points from the signature to the typed name below.

Mary Lou Kobayashi
Acting Director
Office of Planning

c: Anthony Ching, LUC



December 3, 2004

Mr. Glenn T. Correa, Director
County of Maui
Department of Parks and Recreation
700 Halia Nakoia Street, Unit 2
Wailuku, Hawaii 96793

Dear Mr. Correa:

RE: Garcia Family Subdivision (CPA 2002/009, DBA 2002/004, CIZ 2002/0013, SM1
2002/0016); TMK 2-1-007:067

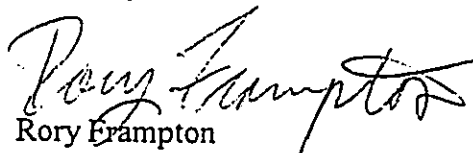
This is in response to your agency's letter dated December 23, 2002, from the prior Director, Mr. Floyd S. Miyazono. We apologize for the delay, which was the result of additional archaeological testing required of the project, but would like to emphasize that the project has not changed significantly from what was initially reviewed by your agency in December 2002. There have been minor adjustments to lot lines and potential building envelopes. A copy of the revised site plan is included herewith.

The applicant is aware that the project is subject to the park dedication requirements pursuant to MCC Title 18.16.320 Parks and playgrounds.

Please note that we will be transmitting a Draft Environmental Assessment to the Maui Planning Commission for review. In addition, notice of availability of the Draft EA for public review and comment will be published in the OEQC Environmental Notice. Should you have further questions regarding the project or would like to offer additional comments, please forward them to the Maui Planning Department by January 7, 2005, with a copy to our office.

Should you have any questions, please contact myself, or Mr. Michael Summers, Chris Hart & Partners, at 242-1955.

Sincerely,

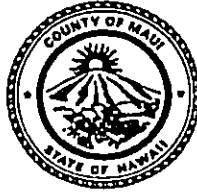

Rory Frampton
Senior Planner

Mr. Glenn T. Correa, Director
December 3, 2004
Page 2

Attachment

cc. Mr. Mike Foley, Department of Planning
Mr. Sam Garcia, Jr.
Mr. John Garcia
Project File

JAMES "KIMO" APANA
Mayor



FLOYD S. MIYAZONO
Director

GLENN T. CORREA
Deputy Director

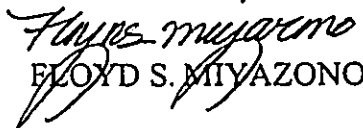
(808) 270-7230
Fax (808) 270-7934

DEPARTMENT OF PARKS & RECREATION

1580-C Kaahumanu Avenue, Wailuku, Hawaii 96793

December 23, 2002

MEMO TO: John E. Min, Planning Director

FROM:  FLOYD S. MIYAZONO, Director

SUBJECT: GARCIA FAMILY SUBDIVISION
CPA 2002/0009, DBA 2002/0004, CIZ 2002/0013, SM1 2002/016

We have reviewed the subject application and have no comments to submit at this time.

Thank you for the opportunity to review and comment. Please contact me or Mr. Patrick Matsui, Chief of Planning and Development, at extension 7387 if there are any questions.

c: Patrick Matsui, Chief-Planning and Development



December 3, 2004.

Mr. Herbert S. Matsubayashi
District Environmental Health Program Chief
State of Hawaii
Department of Health
P.O. Box 3378
Honolulu, Hawaii 96801-3378

Dear Mr. Matsubayashi:

RE: Garcia Family Subdivision (CPA 2002/009, DBA 2002/004, CIZ
2002/0013, SM1 2002/0016); TMK 2-1-007:067

Thank you for your letter dated December 9, 2002, regarding the above-referenced Special Management Area Permit Application. We apologize for the delay, which was the result of additional archaeological testing required of the project, but would like to emphasize that the project has not significantly changed from that which was initially reviewed by your agency. There have been minor adjustments to lot lines and potential building envelopes. A copy of the revised site plan is included herewith.

In response to your December 9th letter, we offer the following comments:

1. Noise Concerns. Activities associated with the construction phase of the project will comply with the Department of Health's Administrative Rules, Chapter 11-46, "Community Noise Control." We note that the contractor will be required to obtain a noise permit should the noise levels from the construction activities exceed the maximum permissible sound levels as per Section 11-46-6(a).
2. Vector Control. Pursuant to Hawaii Administrative Rules, Chapter 11-26, "Vector Control", all rodents will be eradicated prior to demolition or site clearing activities.
3. Control of Fugitive Dust. Adequate dust control measures that comply with the provisions of Hawaii Administrative Rules, Chapter 11-60.1, "Air Pollution Control," Section 11-60.1-33, Fugitive Dust, will be implemented during all phases of construction.

Mr. Herbert S. Matsuyabashi
December 3, 2004
Page 2

Please note that we will be transmitting a Draft Environmental Assessment to the Maui Planning Commission for review. In addition, notice of availability of the Draft EA for public review and comment will be published in the OEQC Environmental Notice. Should you have further questions regarding the project or would like to offer additional comments, please forward them to the Maui Planning Department by January 7, 2005, with a copy to our office.

Thank you for your consideration of our application. Should you have any questions, please contact myself, or Mr. Michael Summers, Chris Hart & Partners, at 242-1955.

Sincerely yours,


Rory Frampton
Principal Planner

Attachment

cc. Mr. Mike Foley, Department of Planning
Mr. Sam Garcia, Jr.
Mr. John Garcia
Project File

15641

LINDA LINGLE
GOVERNOR OF HAWAII



LORETTA J. FUDDY, A.C.S.W., M.P.H.
ACTING DIRECTOR OF HEALTH

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

In reply, please refer to:
File:

DEC -9 P3:23

December 9, 2002

Mr. John Min
Director
Department of Planning
County of Maui
250 South High Street
Wailuku, Hawai'i 96793

Attn: Joseph Alueta

Dear Mr. Min:

Subject: **Garcia Family Subdivision**
TMK: (2) 2-1-007:067
CPA 2002/0009, DBA 2002/0004, CIZ 2002/0013,
SM1 2002/0016

Thank you for the opportunity to comment on the land use application for the Garcia Family Subdivision. The following comments are offered:

1. The noise created during the construction phase of the project may exceed the maximum allowable levels as set forth in Hawaii Administrative Rules (HAR), Chapter 11-46 "Community Noise Control". A noise permit may be required and should be obtained before the commencement of work.
2. The property may be harboring rodents that will be dispersed to the surrounding areas when any buildings are demolished or the site is cleared. The applicant is required by HAR, Chapter 11-26, "Vector Control" to eradicate any rodents prior to demolition or site clearing activities and to notify the Department of Health by submitting Form VC-12 to the Maui Vector Control program when such action is taken. Rodent traps and/or rodenticides should be set out on the project site for at least a week or until the rodent activity ceases. The Maui Vector Control program phone number is 873-3560.
3. Due to the nature and location of the project, there is a significant potential for fugitive dust emissions during site work preparations. It is recommended that a dust control management plan be developed. Implementation of adequate dust control measures during all phases of the project is warranted. Construction activities must comply with the provisions of HAR Chapter 11-60.

Mr. John Min
December 9, 2002
Page 2

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

Sincerely,



for Herbert S. Matsubayashi
District Environmental Health Program Chief

c: Vector Control

11/10/02 10:10 AM



December 3, 2004

Mr. George Y. Tengan
Director
Department of Water Supply
County of Maui
P.O. Box 1109
Wailuku, Hawaii 96793-6109

Dear Mr. Tengan:

RE: Garcia Family Subdivision (CPA 2002/009, DBA 2002/004, CIZ
2002/0013, SM1 2002/0016); TMK 2-1-007:067

Thank you for your letter dated January 10, 2003, regarding the above-referenced project. We apologize for the delay, which was the result of additional archaeological testing required of the project, but would like to emphasize that the project has not changed significantly from what was initially reviewed by your agency in December 2002. There have been minor adjustments to lot lines and potential building envelopes. A copy of the revised site plan is included herewith.

In response to your letter, we offer the following comments:

1. Source Availability and Consumption. Based upon more current information provided by the DWS, the Applicant understands until new water sources are on-line the DWS will not issue reservations for future meters and that water for the property may not be available.

Furthermore, that Applicant notes that the three existing dwellings use about 2,700 gpd and that based upon DWS system design standards the increase in usage is in the range of 4,800 – 15,000 gpd.

2. System Infrastructure. The applicant notes that the project site is served by an 8-inch waterline which runs along Makena Road, 2 fire hydrants within 200-750 feet, and a ¾ inch water meter serving existing dwellings. The applicant

Mr. George Y. Tengan
December 3, 2004
Page 2

understands that domestic fire and irrigation calculations will be required during the building permit process in order to determine meter capacity and that actual fire demand for structures is determined by fire flow calculations prepared, signed and stamped by a certified engineer or architect.

3. Conservation Measures. The applicant will consider implementation of the following water conservation measures:
- Use of brackish and/or reclaimed water sources for all non-potable water uses;
 - Utilize low-flow fixtures and devices;
 - Maintenance of fixtures to prevent leaks; and
 - Use of climate adapted plants

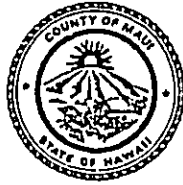
Please note that we will be transmitting a Draft Environmental Assessment to the Maui Planning Commission for review. In addition, notice of availability of the Draft EA for public review and comment will be published in the OEQC Environmental Notice. Should you have further questions regarding the project or would like to offer additional comments, please forward them to the Maui Planning Department by January 7, 2005, with a copy to our office.

Thank you for your consideration of our application. Should you have any questions, please contact myself, or Mr. Michael Summers, Chris Hart & Partners, at 242-1955.

Sincerely,


Rory Frampton
Principal Planner

cc. Mr. Mike Foley, Department of Planning
Mr. Sam Garcia, Jr.
Mr. John Garcia
Project File



DEPARTMENT OF WATER SUPPLY
COUNTY OF MAUI
P.O. BOX 1109
WAILUKU, MAUI, HAWAII 96793-7109
Telephone (808) 270-7816 • Fax (808) 270-7833

January 10, 2003

Mr. Michael W. Foley, Director
Planning Department,
County of Maui
250 South High Street
Wailuku HI 96793

Project Name: Garcia Family Subdivision - 11-lot single family residences
TMK: (2) 2-1-007:067
ID : CPA 2002/0009, DBA 2002/0004, CIZ 2002/0013, SM1 2002/0016

Dear Mr. Foley:

Thank you for the opportunity to comment on this project proposal.

Source Availability and Consumption

The project area is served by the Central Maui System. The sources of water for this system are the Iao and Waihee aquifers, the Iao tunnel and the Iao-Waikapu Ditch. Rolling annual average groundwater withdrawals from the Iao and Waihee aquifers as of December 5, 2002 were 21.333 MGD. The regulatory sustainable yield of these aquifers combined is 28 MGD. The Commission on Water Resource Management has determined that Iao aquifer will be automatically designated should: 1) Pumpage exceed 18 MGD, and 2) Midpoint of the transition zone rise above 680 feet as measured in the Waiehu deep monitor well. Waihee aquifer will be automatically designated if water level elevation drops below 6 feet at the Kanoa test hole. Water availability will be reviewed at the time of application for meter or meter reservation.

The three existing dwellings use about 2,700 gpd. We understand that these dwellings will be part of the 11-lot subdivision. Based on system standard guidelines, anticipated increase in usage is in the range of 4,800 - 15,000 gpd. Based on empirical usage it would be approximately 7,200 gpd.

System Infrastructure

The project area is served by an 8" waterline which runs along Makena Road, 2 fire hydrants within 200 - 750 ft., and a 3/4" water meter serving existing dwellings. The applicant will be required to provide fire and domestic services in accordance with standards. Domestic, fire flow and irrigation calculations will be required to determine meter capacity and adequate fire protection. Actual fire demand for structures is determined by fire flow calculations prepared, signed and stamped by a certified engineer or architect. The approved fire flow calculation methods for use include - Guidance for Determination of Fire Flow - Insurance Service Office, 1974 and Fire Flow - Hawaii Insurance

Bureau, 1991. At the time of application for meter the applicant will be subject to current water system development fees (\$6,030 per lot for 5/8"meter).

Pollution Prevention

The project overlies the Iao aquifer which has a sustainable yield of 20 MGD. In order to protect ground and surface water resources, we recommend that the applicant adopt best management practices (BMPs) designed to minimize infiltration and runoff from daily operations. We have attached sample BMPs for principle operations for reference. Additional information can be obtained from the State Department of Health.

Conservation

We encourage the applicant to consider the following water conservation techniques, integrate the same in the project design and construction and convey to future homeowners:
Use brackish and/or reclaimed water sources for all non-potable water uses, including irrigation and dust control during construction, if such alternative sources are available.

Eliminate Single-Pass Cooling: Single-pass, water-cooled systems should be eliminated per Maui County Code Subsection 14.21.20. 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 16.20A.680 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.

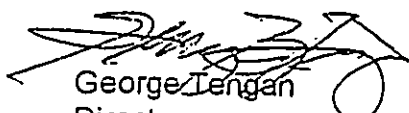
Maintain Fixtures to Prevent Leaks: A simple, regular program of repair and maintenance can prevent the loss of hundreds or even thousands of gallons a day. Refer to the attached handout, "The Costly Drip".

Use Climate-adapted Plants: The project is located in the "Maui County Planting Plan"- Plant Zones 3 & 5. We encourage the applicant to utilize appropriate native and non invasive species in landscaping. Native plants adapted to the area conserve water and protect the watershed from degradation due to invasive alien species. Please refer to the attached brochure: "Saving Water in the Yard- What and How to Plant in Your Area".

Look for Opportunities to Conserve Water: A few examples of these are as follows: When clearing driveways, etc. of debris, use a broom instead of a hose. When washing cars, use a hand-operated spray nozzle instead of an open hose. Additionally, check for leaks in faucets and toilet tanks.

Should you have any questions regarding system infrastructure and requirements, please call our engineering division at 270-7835 and any questions on source availability or conservation and resource matters, please contact our water resources and planning division at 270-7199.

Sincerely,


George Tengan
Director

eam

c: engineering division

applicant, with attachments:

The Costly Drip

A Checklist of Water Conservation Ideas for the Home and Yard

Maui County Planting Plan - Plant Zones 3 & 5 - "Saving Water in the Yard - What and How to Plant in your Area"

Ordinance 2108- A Bill for an Ordinance Amending Chapter 16.20 of the Maui County Code, Pertaining to the Plumbing Code

Selected BMP's from "Guidance Specifying Management Measures for Sources of Nonpoint Pollution in Coastal Waters"-EPA



December 3, 2004

Mr. Dierdre S. Mamiya
Administrator
State of Hawaii
Department of Land and Natural Resources
Land Division
Post Office Box 621

Dear Mr. Mamiya:

RE: Garcia Family Subdivision (CPA 2002/009, DBA 2002/004, CIZ
2002/0013, SM1 2002/0016); TMK 2-1-007:067

Thank you for your letter dated January 8, 2003, regarding the above-referenced project. We apologize for the delay, which was the result of additional archaeological testing required of the project, but would like to emphasize that the project has not changed significantly from what was initially reviewed by your agency in December 2002. There have been minor adjustments to lot lines and potential building envelopes. A copy of the revised site plan is included herewith.

As per comments received from the Engineering Division dated December 15, 2002, we understand that the project is located within Flood Zone C, which is an area of minimal flooding. Otherwise, we understand that your agency has no other comments regarding the proposed project.


Please note that we will be transmitting a Draft Environmental Assessment to the Maui Planning Commission for review. In addition, notice of availability of the Draft EA for public review and comment will be published in the OEQC Environmental Notice. Should you have further questions regarding the project or would like to offer additional comments, please forward them to the Maui Department of Planning by January 7, 2005, with a copy to our office.

Should you have any questions, please contact myself, or Mr. Michael Summers, at 242-1955.

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION
POST OFFICE BOX 621
HONOLULU, HAWAII 96820
PHONE: (808) 541-2100
FAX: (808) 541-2101
WWW: WWW.DLNRS.HAWAII.GOV

Mr. Dierdre S. Mamiya
December 3, 2004
Page 2

Sincerely,


Rory Frampton
Principal Planner

Attachment

cc. Mr. Mike Foley, Department of Planning
Mr. Sam Garcia, Jr.
Mr. John Garcia
Project File

LINDA LINGLE
GOVERNOR



ERIC T. HIRANO
ACTING CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES

DEAN A. NAKANO
ACTING DEPUTY DIRECTOR FOR
THE COMMISSION ON WATER
RESOURCE MANAGEMENT

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

LAND DIVISION
P.O. Box 621

HONOLULU, HAWAII 96809

January 8, 2003
L-3703/3573/3798/3721
Ref.: CPA2002-0009.RCM

Honorable Michael W. Foley
Planning Director
County of Maui
Planning Department
250 S. High Street
Wailuku, Hawaii 96793

Dear Mr. Foley:

Subject: Garcia Family Subdivision
I.D. No.: CPA 2002/0009, CIZ 2002/0013 & SH1 2002/0016 and
DNA 2002/00043
Applicant: Roy Frampton
Authority: County of Maui Department of Planning
TMK: 2nd/ 2-1-007: 067

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

The Department of Land and Natural Resources' (DLNR) Land Division distributed or made available the one (1) copy of the document covering the subject matter to the following DLNR Divisions for their review and comment:

- Division of Aquatic Resources
- Division of Forestry and Wildlife
- Na Ala Hele Trails
- Division of State Parks
- Engineering Division
- Historic Preservation (Received Directly)
- Commission on Water Resource Management
- Land Division Maui District Land Office (Received Directly)
- Land Division (Scott Whiting)

Attached herewith is a copy of the Engineering Division comment.

Based on the attached responses, the Department of Land and Natural Resources has no other comment to offer.

Should you have any questions, please feel free to contact Nicholas A. Vaccaro of the Land Division Support Services Branch at 1-808-587-0384.

Very truly yours,

Charlene S. Mamiya
DIERDRE S. MAMIYA
Administrator

C: MDLO

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
COMMISSION ON WATER RESOURCE
MANAGEMENT
CONSERVATION AND RESOURCES
ENFORCEMENT
CONVEYANCES
ENGINEERING
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
KAHOOLAWE ISLAND RESERVE
COMMISSION
LAND
STATE PARKS
LD-NAV



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

LAND DIVISION
P.O. BOX 621
HONOLULU, HAWAII 96809

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

November 27, 2002
LD/NAV
Ref.: CPA2002-0009.CMT

L-3573
Suspense Date: 12/15/02

MEMORANDUM:

TO: **XXX Division of Aquatic Resources
 **XXX Division of Forestry & Wildlife
 **XXX Na Ala Hele Trails
 **XXX Division of State Parks
 **XXX Engineering Division
Division of Boating and Ocean Recreation
Historic Preservation Division (RD)
 **XXX Commission on Water Resource Management
Land Division:
 **XXX Planning and Technical Services
XXX Maui District Land Office (Distributed Doc)

FROM: Charlene E. Unoki, Acting Assistant Administrator
Land Division *Charlene*

SUBJECT: Project: Garcia Family Subdivision
I.D. Nos.: CPA 2002-0009, DBA 2002-0004, CIZ 2002-20013
and SM1 2002-0016
Applicant: Roy Frampton
Authority: County of Maui Department of Planning
TMK: 2nd/ 2-1-007: 067

Please review the document covering the subject matter and submit your comments (if any) on Division letterhead signed and dated within the time requested above.

**NOTE: One (1) copy of the document is available for review in the Land Division Office, Room 220. Sign out slips are available at the counter for those who wish to review the document for a 24-hour period.

Should you need more time to review the subject matter, please contact Nick Vaccaro at ext.: 7-0384. If this office does not receive your comments on or before the suspense date, we will assume there are no comments.

We have no comments.

Comments attached.

Signed: MICHAEL G. BUCK, ADMINISTRATOR
Date: DIVISION OF FORESTRY AND WILDLIFE

NOV 29 2002



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

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

November 27, 2002
 LD/NAV
 Ref.: CPA2002-0009.CMT

L-3573
 Suspense Date: 12/15/02

MEMORANDUM:

TO: **XXX Division of Aquatic Resources
 **XXX Division of Forestry & Wildlife
 **XXX Na Ala Hele Trails
 **XXX Division of State Parks
 ✓**XXX Engineering Division
 Division of Boating and Ocean Recreation
 Historic Preservation Division (RD)
 **XXX Commission on Water Resource Management
 Land Division:
 **XXX Planning and Technical Services
 XXX Maui District Land Office (Distributed Doc)

FROM: Charlene E. Unoki, Acting Assistant Administrator
 Land Division *Charlene Unoki*

SUBJECT: Project: Garcia Family Subdivision
 I.D. Nos.: CPA 2002-0009, DBA 2002-0004, CIZ 2002-20013
 and SM1 2002-0016
 Applicant: Roy Frampton
 Authority: County of Maui Department of Planning
 TMK: 2nd/ 2-1-007: 067

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RECEIVED
 DIVISION

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Please review the document covering the subject matter and submit your comments (if any) on Division letterhead signed and dated within the time requested above.

**NOTE: One (1) copy of the document is available for review in the Land Division Office, Room 220. Sign out slips are available at the counter for those who wish to review the document for a 24-hour period.

Should you need more time to review the subject matter, please contact Nick Vaccaro at ext.: 7-0384. If this office does not receive your comments on or before the suspense date, we will assume there are no comments.

() We have no comments.

Comments attached.

Signed: *Caitie Kemi*
 Date: 12/5/02

RECEIVED
DIVISION OF
LAND MANAGEMENT



2002 DEC -2 PM 2:14

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

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

L-3573

Suspense Date: 12/15/02

November 27, 2002
LD/NAV
Ref.: CPA2002-0009.CMT

MEMORANDUM:

TO: **XXX Division of Aquatic Resources
 **XXX Division of Forestry & Wildlife
 **XXX Na Ala Hele Trails
 **XXX Division of State Parks
 **XXX Engineering Division
 Division of Boating and Ocean Recreation
 Historic Preservation Division (RD)
 **XXX Commission on Water Resource Management
 Land Division:
 ✓**XXX Planning and Technical Services
 XXX Maui District Land Office (Distributed Doc)

FROM: Charlene E. Unoki, Acting Assistant Administrator
 Land Division *Charlene E. Unoki*

SUBJECT: Project: Garcia Family Subdivision
 I.D. Nos.: CPA 2002-0009, DBA 2002-0004, CIZ 2002-20013
 and SM1 2002-0016
 Applicant: Roy Frampton
 Authority: County of Maui Department of Planning
 TMK: 2nd/ 2-1-007: 067

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Should you need more time to review the subject matter, please contact Nick Vaccaro at ext.: 7-0384. If this office does not receive your comments on or before the suspense date, we will assume there are no comments.

(✓) We have no comments.

() Comments attached.

Signed: *Jan K. Kye*
Date: 12-9-02



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

LAND DIVISION
P.O. BOX 621
HONOLULU, HAWAII 96809

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

November 27, 2002
LD/NAV
Ref.: CPA2002-0009.CMT

L-3573
Suspense Date: 12/15/02

MEMORANDUM:

TO: **XXX Division of Aquatic Resources
 **XXX Division of Forestry & Wildlife
 **XXX Na Ala Hele Trails
 **XXX Division of State Parks
 **XXX Engineering Division
Division of Boating and Ocean Recreation
Historic Preservation Division (RD)
 **XXX Commission on Water Resource Management
Land Division:
 **XXX Planning and Technical Services
XXX Maui District Land Office (Distributed Doc)

FROM: Charlene E. Unoki, Acting Assistant Administrator
Land Division *Unoki*

SUBJECT: Project: Garcia Family Subdivision
I.D. Nos.: CPA 2002-0009, DBA 2002-0004, CIZ 2002-20013
and SM1 2002-0016
Applicant: Roy Frampton
Authority: County of Maui Department of Planning
TMK: 2nd/ 2-1-007: 067

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Should you need more time to review the subject matter, please contact Nick Vaccaro at ext.: 7-0384. If this office does not receive your comments on or before the suspense date, we will assume there are no comments.

We have no comments.

Comments attached.

Signed: *[Signature]*
MICHAEL G. BUCK, ADMINISTRATOR
DIVISION OF FORESTRY AND WILDLIFE

Date: NOV 29 2002



RECEIVED

NOV 27 3:28

02 NOV 27 P3:57

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

LAND DIVISION
P.O. BOX 521
HONOLULU, HAWAII 96809

COMMISSION ON WATER
RESOURCE MANAGEMENT

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

November 27, 2002
LD/NAV
Ref.: CPA2002-0009.CMT

L-3573
Suspense Date: 12/15/02

MEMORANDUM:

TO: **XXX Division of Aquatic Resources
 **XXX Division of Forestry & Wildlife
 **XXX Na Ala Hele Trails
 **XXX Division of State Parks
 **XXX Engineering Division
 Division of Boating and Ocean Recreation
 Historic Preservation Division (RD)
 ✓ **XXX Commission on Water Resource Management
 Land Division:
 **XXX Planning and Technical Services
 XXX Maui District Land Office (Distributed Doc)

FROM: Charlene E. Unoki, Acting Assistant Administrator
 Land Division *Charlene Unoki*

SUBJECT: Project: Garcia Family Subdivision
 I.D. Nos.: CPA 2002-0009, DBA 2002-0004, CIZ 2002-20013
 and SM1 2002-0016
 Applicant: Roy Frampton
 Authority: County of Maui Department of Planning
 TMK: 2nd/ 2-1-007: 067

Please review the document covering the subject matter and submit your comments (if any) on Division letterhead signed and dated within the time requested above.

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Should you need more time to review the subject matter, please contact Nick Vaccaro at ext.: 7-0384. If this office does not receive your comments on or before the suspense date, we will assume there are no comments.

We have no comments.

Comments attached.

Signed: W. Roy Frampton

Date: 12/3/02

DEPARTMENT OF LAND AND NATURAL RESOURCES
ENGINEERING DIVISION

LA/NAV

Ref.: CPA2002-0009.CMT

COMMENTS

We confirm that the project site is located in Zone C (No shading). This is an area of minimal flooding. The National Flood Insurance Program (NFIP) does not have any specific regulations for development within Zone C.

If you have any questions, please call Mr. Andrew Monden of the Planning Branch at 587-0229.

Signed: *Eric T. Hirano*
ERIC T. HIRANO, CHIEF ENGINEER

Date: 12/5/02



DEPARTMENT OF
HOUSING AND HUMAN CONCERNS
HOUSING DIVISION
COUNTY OF MAUI

JAMES "KIMO" APANA
Mayor

ALICE L. LEE
Director

PRISCILLA P. MIKELL
Deputy Director

86 KAMEHAMEHA AVENUE • KAHULUI, HAWAII 96732 • PHONE (808) 270-7351 • FAX (808) 270-6284

December 19, 2002

'02 DEC 20 P3:35

DEPT. OF HOUSING AND HUMAN CONCERNS

TO: JOSEPH W. ALUETA, Staff Planner
Department of Planning

FROM: ALICE L. LEE, Director
Department of Housing and Human Concerns

SUBJECT: I.D.: CPA 2002/0009, DBA 2002/0004,
CIZ 2002/0013, SM1 2002/0016
TMK: 2-1-007:067
PROJECT NAME: GARCIA FAMILY SUBDIVISION
APPLICANT: RORY FRAMPTON

The subject project will involve a change in zoning and the development of eleven (11) residential lots. That being the case, it is our recommendation that approval of the Change In Zoning application be conditioned upon the project being required to comply with the provisions of the Maui County Housing Policy (copy enclosed).

Thank you for the opportunity to comment. We are returning the applications for your use.

ETO:df

Enclosures

c: Housing Administrator

MAUI COUNTY
HOUSING POLICY

I. PURPOSE

The purpose of this policy is to enhance the public welfare by ensuring that housing needs of Maui County are addressed in accordance with the Maui County General Plan. It is the intent of this policy to encourage the provision of housing units which will meet the needs of income qualified households.

II. DEFINITIONS

1. "Affordable Sales Price" means the following:

For a single-family unit, the sales price for the one hundred and ten percent (110%) of the applicable median income, single-family category, established by the Department of Housing and Human Concerns' annual "Affordable Sales Price Guidelines" for the applicable island or community plan region;

For a multi-family unit, the sales price for the one hundred percent (100%) of the applicable median income, multi-family category, established by the Department of Housing and Human Concerns' annual "Affordable Sales Price Guidelines" for the applicable island or community plan region;

2. "Affordable Rental Price" means the monthly rental payment of income qualified households in the ninety percent (90%) of the applicable median income category, as established by the Department of Housing and Human Concerns' annual "Affordable Rental Price Guidelines" for the applicable island or community plan region.


3. "Director" means the Director of the Department of Housing and Human Concerns.

4. "Income Qualified Households" means the following:

For a rental unit - Means an individual or family having a gross annual income of not more than ninety percent (90%) of the applicable median family income and meeting the specific eligibility criteria which may be established by the County.

For multi-family unit - Means an individual or family having a gross annual income of not more than one hundred percent (100%) of the applicable median family

1

APPROVED:

MAYOR, COUNTY OF MAUI
MAY

income and meeting the specific eligibility criteria which may be established by the County.

For single-family unit - Means an individual or family having a gross annual income of not more than one hundred ten percent (110%) of the applicable median family income and meeting the specific eligibility criteria which may be established by the County.

5. "Median Family Income" means the median family income, as established and published by the Director, for each of the Maui County islands of Maui, Molokai and Lanai, and the Hana Community Plan region.
6. "Multi-Family Unit" means a multi-family ownership unit that is affordable to an individual or family whose gross annual income does not exceed one hundred percent (100%) of the applicable median family income, as published by the Director.
7. "Rental Housing Unit" means a multi-family or single-family unit which is offered for rent in accordance with this policy, to income qualified households having a gross annual income which does not exceed ninety percent (90%) of the applicable median family income, as published by the Director.
8. "Residential Housing Project" means a project which provides ten (10) or more long-term residential housing units or lots.
9. "Single-Family Unit" means a single-family ownership unit that is affordable to an individual or family whose gross annual income does not exceed one hundred ten percent (110%) of the applicable median family income, as published by the Director.

III. APPLICABILITY

- A. This policy shall apply to applications for County change in zoning which establish land use designations under which a residential housing project is developed. This trigger would enable the imposition of a housing condition on requests for change in zoning which currently allow for residential uses as permitted uses. Such condition may state that in the event any portion of a property which is the subject of the change in zoning request, is developed as a residential housing project, said project shall be subject to the provisions of the affordable housing policy. This policy may also be used as a guideline in instances where the administration receives requests for comments and/or review concerning other land-use related requests, such as State land use boundary amendments, where the County is called upon to effectuate an affordable housing requirement imposed by the State Land Use Commission.

APPROVED:

MAYOR
MAUI

- B. This policy shall not apply to housing projects involving the use of County lands or funds, and shall not apply to projects processed pursuant to Chapter 201G, Hawaii Revised Statutes.

IV. AFFORDABLE HOUSING REQUIREMENTS

- A. The applicant for a change in zoning pursuant to Section III of this policy, shall offer for sale or for rent, affordable housing units to income qualified households. The applicant may choose to provide either multi-family or single family units to satisfy this policy. The number of affordable units to be provided shall be calculated by multiplying the total number of units proposed in the residential housing project by 10 percent (i.e., 0.10). Thus, a residential housing project with 100 units proposed shall be required to provide a total of 10 affordable units.

The Director may reduce the total number of affordable units required to be provided if the residential housing project includes for sale, multi-family or single-family units which are affordable to individuals or families having a gross annual income of more than one hundred ten percent (110%), but not greater than one hundred forty percent (140%) of the applicable median family income. Such reduction shall be in accordance with the following equivalency guidelines.

<i>Median Income Sales Price Range</i>	<i>Equivalent Affordable Unit Factor</i>
111% to 120%	0.75
121% to 130%	0.5
131% to 140%	0.25

Thus, if an applicant for a 100 unit residential housing project having an affordable housing requirement of 10 affordable units, offers for sale one (1) unit priced in the 111% to 120% sales price category, the total number of affordable units required to be provided by the applicant shall be reduced by an equivalent of 0.75 unit, yielding a total affordable requirement of 9.25 units. Any fractional amount required may be satisfied by the equivalent pro-rata monetary contribution.

Affordable units shall be provided either within the residential housing project site or alternatively, within the same community plan region in which the proposed residential housing project is located. Units shall be sold at or below the applicable affordable sales price.

Details of sales pricing and marketing shall be defined in the affordable housing agreement, as described in Section V of this policy.

APPROVED:

 MAYOR, COUNTY OF MAUI

B. In lieu of providing affordable units, the applicant may choose to pay a monetary contribution. The monetary contribution shall be based upon the equivalent number of affordable units which would have otherwise been provided by the applicant (i.e., 10 percent of the total number of units proposed for the residential housing project). The monetary contribution shall be calculated by multiplying the affordable sales price by 20 percent (i.e., 0.20).

1. For residential housing projects proposing single-family units and/or lots only, the contribution shall be calculated by multiplying the affordable sales price for a single-family unit by 20 percent.
2. For residential housing projects proposing multi-family units, the contribution shall be calculated by multiplying the affordable sales price for a multi-family unit by 20 percent.

C. In lieu of providing affordable units, the applicant may also choose to provide land or in-kind services:

1. Provision of developable lands (i.e. lands physiographically usable for residential development) which may be used to address the housing needs of income qualified households and special housing target groups. Such lands may be used by the County of Maui or others acceptable to the County to develop resource centers for the homeless, day care centers for seniors or other types of projects which address the housing needs of income qualified households and special housing target groups. The appraised value of the land required shall not be less than the in-lieu monetary contribution amount which would otherwise have been required under this policy.
2. Provision of other in-kind services which are approved by the Director. In-kind services may include the provision of infrastructure services to a proposed or existing affordable housing project, facility upgrades to existing affordable housing projects as approved by the Director. The value of in-kind services shall not be less than the in-lieu monetary contribution amount which would otherwise have been required under this policy and the estimated value of the proposed in-kind service.

V. AFFORDABLE HOUSING AGREEMENT

A. Prior to the filing of a building permit application for a residential housing project, as set forth herein, or prior to the granting of final subdivision approval, the applicant or developer shall execute an affordable housing agreement which shall set forth the detailed terms and conditions of compliance with the housing policy, which may include, but not be limited to:

APPROVED:

COUNTY OF MAUI

1. Affordable sales periods for the affordable units;
2. Affordable sales prices for the affordable units;
3. Identification of the number, type and location of units;
4. Marketing process for the affordable units;
5. Eligibility criteria for income qualified households;
6. Provision for credits (including duration and assignment), as applicable; and
7. Terms and conditions relating to provision of in-lieu monetary contribution, land or in-kind services.

With regard to the affordable sales periods (item no. 1), the agreement shall specify offering durations, as well as procedures for the release of units from the affordable sales requirements should there be unsold units following the expiration of the sales periods.

VI. CREDITS

- B. An applicant for a change in zoning under which a residential housing project may be developed may receive credits for affordable units if the number of affordable units provided exceeds the policy requirement set forth in Section IV. Such credits shall be subject to execution of an affordable housing agreement.
- C. Credits for affordable housing units may be granted in advance of the filing of a change in zoning application under which a residential housing project may be developed. Such credits shall be approved by the Director and subject to the execution of an affordable housing agreement.
- D. As warranted through case-by-case evaluation, the Director, may grant enhancement credits to provide incentives to applicants to offer rental units which are affordable to families having incomes 70% or lower than the median family income. Such enhancement credits shall be in accordance with the following guidelines.

<i>Family Income Range</i>	<i>Enhancement Credits</i>
61% to 70% of Median Income	2.5
up to 60% of Median Income	3

Thus, one (1) rental unit offered to families in the 61% to 70% median income range equals 2.5 enhancement credits, or 2.5 affordable units.

Any granting of approval for enhancement credits shall be subject to the execution of an affordable housing agreement.

APPROVED:




April 15, 2003

Ms. Alice L. Lee, Director
Department of Housing and Human Concerns
200 S. High Street
Wailuku, Hawaii 96793

Subject: Garcia Family Subdivision (CPA 2002/009, DBA 2002/004, CIZ
2002/0013, SM1 2002/0016); TMK 2-1-007: 067

This letter is in response to your memorandum to the Planning Department dated December 19, 2002, regarding the above referenced project, in which you recommended that approval of the Change in Zoning application be conditioned upon the project complying with the provisions of the Maui County Housing Policy. We are requesting clarification of the applicability of the County's Housing Policy to the proposed project in light of the actual net increase in proposed long-term residential housing units.

At present, there are three existing single family dwellings on the property. The owners of the property, Sam Garcia, Jr. and John Garcia, currently utilize two of the dwellings-for long-term residential purposes. The third dwelling has been used for long-term residential use for over 20 years, however, it is currently vacant. While the proposed development would create a total of eleven single family lots on the approximately 5.5 acre parcel, two of the lots will continued to be utilized by the Garcias for their personal long-term residential dwellings. Thus, the actual net increase in new residential units would be maximum of nine (or eight, in consideration of the fact that three residential units current exist on the property.)

The purpose of this letter is to seek clarification as to how the number of residential units or lots are calculated under the definition of "Residential Housing Project" when there are existing long-term residential housing units existing on a property proposed for further housing development. In the case of the proposed Garcia Family Subdivision, the existence of three single family dwellings and the fact that the Garcias themselves will continue to reside on two of the future lots would appear to be important considerations in calculating the number of residential units within the proposed project.

We look forward to your response to this inquiry. If you have any further questions or need additional clarification, please do not hesitate to contact me at 242-1955.

Respectfully submitted,


Rory Frampton
Senior Planner

Cc: Edwin Okubo, Housing Administrator
Sam Garcia, Jr.
John Garcia



DEPARTMENT OF
HOUSING AND HUMAN CONCERNS
COUNTY OF MAUI

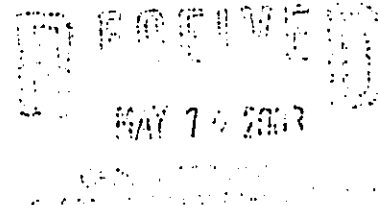
ALAN M. ARAKAWA
Mayor

ALICE L. LEE
Director

HERMAN T. ANDAYA
Deputy Director

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

May 5, 2003



Mr. Rory Frampton
Principal Planner
Chris Hart & Partners, Inc.
1955 Main Street, Suite 200
Wailuku, Hawaii 96793-1706

Dear Mr. Frampton:

SUBJECT: GARCIA FAMILY SUBDIVISION
(CPA 2002/009, DBA 2002/004,
CIZ 2002/0013, SM1 2002/0016);
TMK 2-1-007:067

The Maui County Housing Policy defines "Residential Housing Project" as a project which provides ten (10) or more long-term residential housing units or lots. Based on this definition, we are of the opinion that the Garcia Family Subdivision is subject to the provisions of the policy. However, it may be more appropriate for the County Council to determine if the policy should only apply to ten or more newly created units or lots.

Very truly yours,

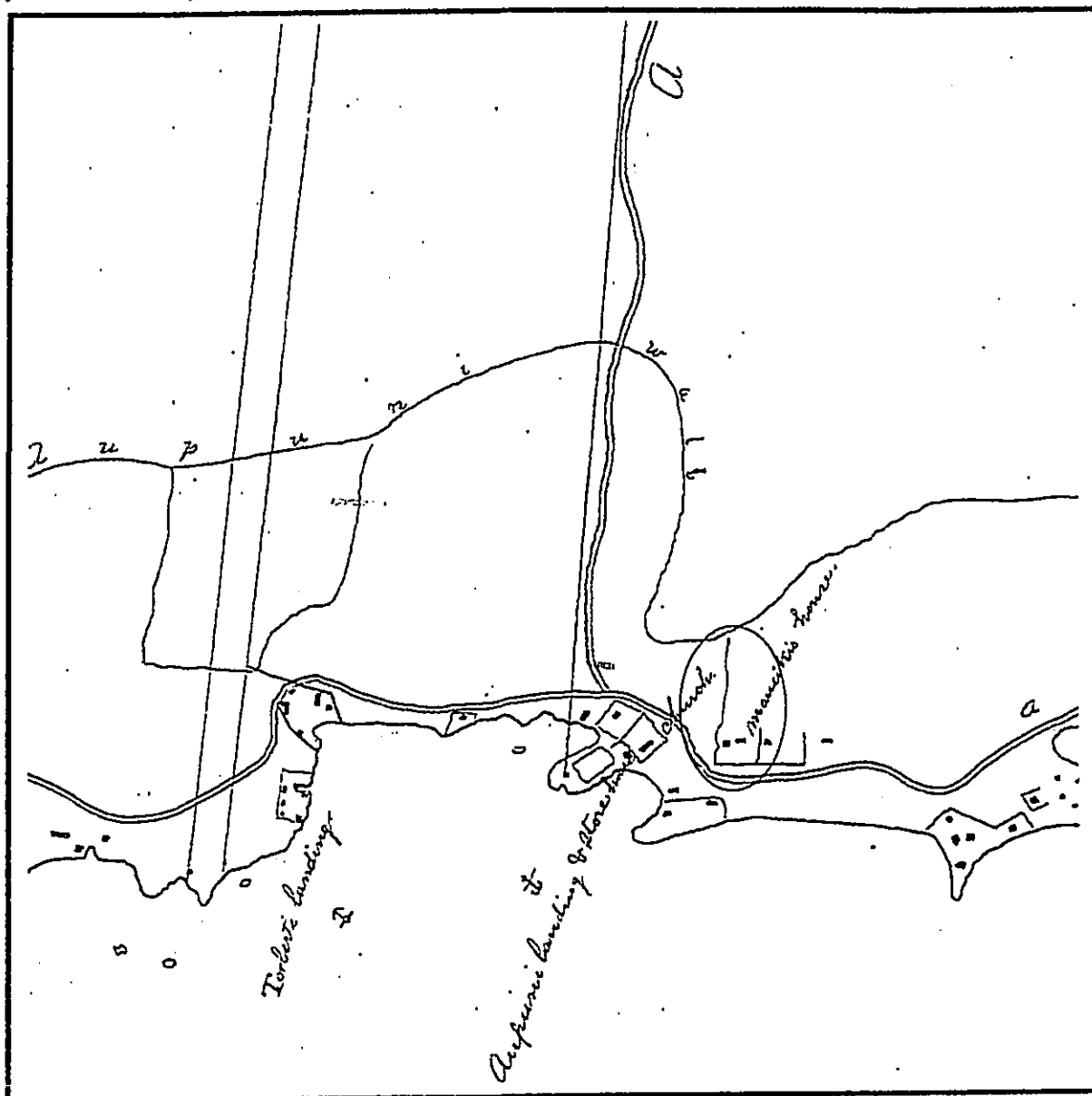
ALICE L. LEE
Director

ETO:hs

c: Housing Administrator

APPENDIX I
PRESERVATION PLAN FOR KALANI
HEIAU

**PRESERVATION PLAN FOR KALANI HEIAU
(SITE NO. 196) AND VICINITY, KA'EO AHUPUA'A, HONUA'ULA
(MAKAWAO) DISTRICT, ISLAND OF MAUI**



Portion of Register Map No. 1202 – Torbert's Map of Ulupalakua (1850).
Detail of Cultural Landscape of Coastal Ka'eo and Vicinity of "Kalani Heiau" (encircled).



Kumu Pono Associates LLC

Historical & Archival Documentary Research · Oral History Interview Studies ·
Researching and Preparing Studies from Hawaiian Language Documents ·
Māhele 'Āina, Boundary Commission, & Land History Records ·
Integrated Cultural Resources Management Planning ·
Preservation & Interpretive Program Development

**PRESERVATION PLAN FOR KALANI HEIAU
(SITE NO. 196) AND VICINITY, KA'EO AHUPUA'A,
HONUA'ULA (MAKAWAO) DISTRICT, ISLAND OF MAUI
(TMK 2-1-07:67)**

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*Historical & Archival Documentary Research • Oral History Interview Studies •
Researching and Preparing Studies from Hawaiian Language Documents •
Māhele 'Āina, Boundary Commission, & Land History Records •
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EXECUTIVE SUMMARY AND ACKNOWLEDGEMENTS

The following preservation plan was compiled by *Kumu Pono Associates LLC*, at the request of Sam Garcia, Jr., and Jon Garcia, owners of a 5.497 acre parcel of land, situated in the *ahupua'a* (native land division) of Ka'eo, in the Honua'ula region of Maui (TMK 2-1-007:067). The Garcia parcel extends from near sea level at the shore to about fifty feet in elevation above sea level, and the family proposes to develop their five-plus acre parcel into a small subdivision, containing eleven single family residences. As a part of the planning process, a preservation plan is needed for a site identified as a *heiau* (temple), that is situated on the property. In addition to the *heiau*, stone walls, habitation features, agricultural mounds, terraces, enclosures, and modified outcrops were also identified, as a part of an archaeological survey conducted by Haun and Associates (Haun et al., 2000 & 2004). The cultural resources are interpreted as dating from the period of pre-history to historic ranching and later residency activities (Haun, 2000 & 2004; and Frampton, 2002, revised, 2004).

(in alphabetical order)

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Also to Kahu Kealahou Alike; Nanea Armstrong; Coochie (Cockett) Cayan; Sam and Jon Garcia and family; Mau Foo Sum-Armstrong; Rory Frampton; Maile Lu'uwai; staff of the Bernice Pauahi Bishop Museum, Hawaiian Mission Children's Society Library, Maui Historical Society and Maui Public Library; and Tom Witten of PBR Hawaii —

We extend our sincerest — *Mahalo a nui!*

O ka mea maika'i mālama, o ka mea maika'i 'ole, kāpae 'ia
(Keep the good, set the bad aside)

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PRESERVATION PLAN OVERVIEW

This document sets forth the preservation plan for *Kalani Heiau* (Site No. 196) and vicinity on the Garcia family property at Ka'eo in the Honua'ula District, Island of Maui (*Figure 1*). The plan was developed in consultation with participants in the Ka'eo-Makena vicinity oral history study conducted by *Kumu Pono Associates LLC* in 2005 (Maly and Maly 2005), and also incorporates findings from archaeological field work and recommendations for site treatment as prepared by Haun & Associates (Haun and Henry 2000 & 2003). The plan has been prepared in accordance with the Department of Land and Natural Resources-State Historic Preservation Division (DLNR-SHPD) requirements for site preservation (DLNR-SHPD 2002, Chapter 13-277), and includes both general and site-specific recommendations for interim and long-term protection of *Kalani Heiau* and other cultural features.

Hawaii Administrative Rules – Preservation Plan Development

Chapter 13-277, Hawaii Administrative Rules, entitled "Rules Governing Requirements for Archaeological Site Preservation and Development," was adopted November 15, 2002. The specific sections of Chapter 13-277, sets forth the following conditions by which this plan has been prepared.

...§13-277-3 Preservation plan. A preservation plan prepared pursuant to chapters 13-275 or 13-284, shall:

- (1) Identify for each significant historic property which forms of preservation will be implemented: avoidance and protection (conservation), stabilization, rehabilitation, restoration, reconstruction, interpretation, or appropriate cultural use;
- (2) Specify the buffer zones around each significant historic property and depict them on a map of sufficient scale;
- (3) Specify short-term protection measures for each significant historic property that will be within or near a construction area;
- (4) Discuss the agency or person's consultation process for historic properties deemed significant under paragraphs 13-275-6(b)(5) or 13-284-6(b)(5). The agency or person shall consult with ethnic organizations and individuals for whom the historic properties are of significance. The comments on preservation treatment expressed by these individuals or organizations shall be considered when preparing the preservation plan. The plan shall include a list of individuals and organizations consulted, and shall summarize their input.
- (5) Specify the long term preservation measures to be undertaken at each significant historic property. [Eff_____] (Auth: HRS §6E-3) (Imp: HRS §§6E-1, 6E3, 6E-7, 6E-8, 6E-42)

§13-277-4 Buffer zones.

- (a) Buffer zones shall ensure that the integrity and context of the historic property is preserved, in many cases including the visual integrity.
- (b) The size of a buffer zone shall be proposed by the person or agency on a site-by-site basis. Size will vary with the local terrain, eventual use of the site, surrounding land uses, the type of site, and the criterion for which a site is significant.

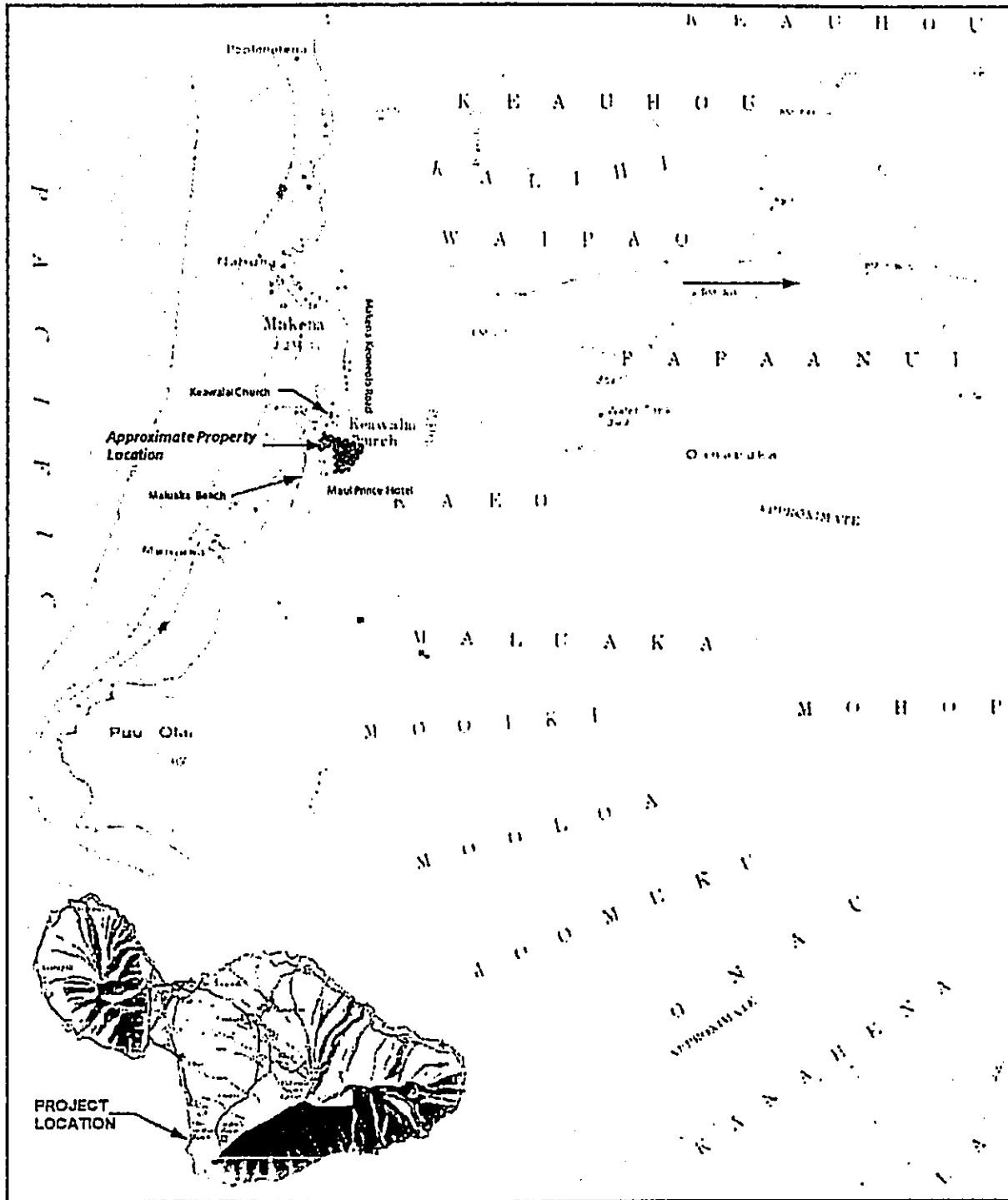


Figure 1. The Garcia Family Parcel at Ka'eo, Honua'ula District, Island of Maui
(Chris Hart & Partners, 2004)

- (c) The manner in which a buffer zone will be treated with regards to demarcation, landscaping and other activities shall be proposed by the person or agency on a site-by-site basis.
- (d) Once approved, buffer zones shall be marked on overall project maps, and physical markers shall be placed in the ground delineating the buffers.
[Eff____] (Auth: HRS §6E-3) (Imp: HRS §§6E-1, 6E-3, 6E-7, 6E-8, 6E-42)

§13-277-5 Interim protection measures. Interim protection measures shall protect the significant historic property and its buffer zone during construction activities. Interim measures may include:

- (1) Flagging the perimeter of the buffer zone;
- (2) Erecting barriers (such as plastic fencing) along the buffer zone;
- (3) Placing avoidance instructions on construction plans and specifications;
- (4) On-site, pre-construction briefing of the hired construction firm; and
- (5) Having an archaeological monitor on-site during ground alteration activities.
[Eff____] (Auth: HRS §6E-3) (Imp: HRS §§6E-3, 6E-7, 6E-8, 6E-42)

§13-277-6 Long term reservation measures.

Long term preservation measures shall follow the appropriate Secretary of the Interior's standards for Historic Preservation Projects. The preservation plan shall address the following long term preservation measures:

- (1) Maintenance measures to be followed;
- (2) Methods for clearing vegetation;
- (3) The manner in which litter is controlled;
- (4) Access to the site and possible use of the site for cultural practices, if appropriate;
- (5) Approaches to interpret and inform the public about the site, if appropriate;
- (6) Permanent marked markers, if appropriate;
- (7) If appropriate, provisions to address potential future impacts and site stability; and
- (8) Provisions for reasonable monitoring of site integrity by the person or agency, and SHPD inspection to assure compliance.
[Eff____] (Auth: HRS §6E-3) (Imp: HRS §§6E-3, 6E-7, 6E-8, 6E-42)

§13-277-7 Interpretation requirements.

- (a) when using interpretive text or signs, brochures, etc., the text shall be reviewed and approved by SHPD.
- (b) interpretive signs shall be:
 - (1) Of sufficient quality to enhance public understanding of the site;
 - (2) Culturally sensitive, based on consultation with appropriate organizations and individuals; and
 - (3) Located so as not to adversely affect the site visually.

- (c) Any data recovery work to improve the interpretation of the site shall meet the standards set forth in chapter 13-278. [Eff____] (Auth: HRS §§6E-1, 6E-3, 6E-7, 6E-8, 6E-42) (Imp: HRS §§6E-3, 6E-7, 6E-8, 6E-42)

§13-277-8 Penalty. Non-compliance with the provisions and procedures established by this chapter may result in a directive to the person not to proceed with construction in the project area, a denial or revocation of SHPD's written concurrence or agreement, and penalties as provided in section 6E-11, HRS, chapters 13-275, 13-278, 13-281, 13-282, 13-284, HAR, and applicable laws. [Eff____] (Auth: HRS §6E-3) (Imp: HRS §§6E-1, 6E-3, 6E8, 6E-42)

Preservation Plan Organization

The *Kalani Heiau* and vicinity preservation plan is organized in several sections, with primary topics covering —*Summary of Ethnographic Research; Overview of Oral History Interview Documentation and Recommendations; Documentation from Archaeological Field Work; and Preservation Plan – Implementation Program*. The combined sections provide readers with an overview of cultural-historical documentation for Ka'eo and the *Kalani Heiau* (from detailed study of the area as reported in Maly & Maly, 2005), archaeological findings, and describes recommendations for preservation buffers, site access, interpretation, and partnerships in stewardship.

"*Kalani Heiau*" (Site No. 196) and a small, modified *āhua* (hillock), a short distance inland of the *heiau* (Site No. 5036 AA), being the ruins of a small *kahua* or *paepae* (stone platform), will be preserved in two distinct preservation areas, with an open space preservation area between the two sites. The recommendations for site preservation and treatment were developed through discussions with elder *kama'āina* of the Makena region who participated in the oral history interview program; they are also based on standard practices of the DLNR-SHPD; and take into consideration comments from interested parties as cited in the Draft Environmental Assessment (Frampton, 2004). The components of that plan also reflect comments and suggestions offered by parties interested in the stewardship program in the period leading up to the preparation of this preservation plan.

Kalani Heiau and Vicinity: Description of the Cultural Landscape

Summary of Ethnographic Research

In 2005, at the request of Sam and Jon Garcia, *Kumu Pono Associates LLC*, undertook a detailed study of archival documentary accounts and oral history interviews with *kūpuna* and *kama'āina*, known to be familiar with the history of lands in the Ka'eo-Makena vicinity (Maly and Maly, 2005). The resulting study includes first-hand descriptions of the land of Ka'eo and the larger Makena-Honua'ula region dating from the 1820s, and oral historical accounts dating from ca. 1915. The research provides readers with a rich collection of cultural narratives for lands of the Honua'ula District—many of which had not been previously translated or cited in cultural studies. Specific emphasis in the study focused on the land of Ka'eo and cultural features documented on the Garcia family property.

The Garcia family property (TMK 2-1-07:67), is a 5.497 acre parcel, being a portion of Royal Patent Grant No. 835, issued to Mahoe in 1852. Mahoe had also been the *Konohiki* (Chiefly overseer) of Ka'eo Ahupua'a under the governorship of Hoapilikāne and Kamehameha III. Historical documentation also describes the area of the Garcia property, as containing at least two *kuleana* (original fee-simple land awards to native residents), Maaweiki (*Hehu* 3676) and Kalili (*Hehu* 2399:2). Maaweiki's original claim for his *kuleana* at Ka'eo, covered nearly the entire Garcia property, with much of the remaining section being covered by Kalili's claim. Final settlement of the two claims was

reduced to parcels totaling little more than one-half acre combined; the remaining area being retained as a part of Mahoe's Royal Patent Grant. While substantial descriptions of the land were recorded in the documents of Royal Patent Grant No. 835, and *Kuleana Helu* 2399 and 3676, no reference to features other than house sites, boundary walls, and the "*Pa Aupuni*" (Government Wall), at the *mauka* boundary of the present-day Garcia property were made in the documents (see cover – portion of Register Map No. 1202).

In between the 1850s to the early nineteen-hundreds, Mahoe, and his heirs (three daughters), conveyed portions of the Ka'eo land (originally a 514 acre parcel covered in Grant No. 835), to various parties, including other native tenants of the Makena-Honua'ula region, and business interests, with final disposition of most of the land resting with 'Ulupalakua Ranch. In 1956, the ranch entered into an exchange agreement with Marjorie Kalehua Cockett-Garcia, by which she exchanged family land in Palauea Ahupua'a (Honua'ula District), for the Ka'eo-Makena land, also of Honua'ula District.

One of the significant cultural sites identified on the Garcia family property at Ka'eo was given the name "*Kalani Heiau*" (Walker's Site No. 196), as a result of an archaeological survey of Maui in 1929-1930 (Walker, ms. 1930-1931). The survey, conducted by Winslow Walker, on behalf of the Bishop Museum, included field work in Ka'eo and neighboring lands of the Makena vicinity. While at Ka'eo, Walker visited a site which he was apparently informed was "*Kalani Heiau*." While a detailed review of Walker's field notes, sketch books, and manuscripts, and extensive research in earlier collections, was conducted as a part of the historical study, we were unable to pinpoint how Walker learned the name of the *heiau*—he did not record the name of his local informant(s), or field assistant at this particular site.

We do know that elder members of the Kukahiko family provided Walker with information on other sites between Maluaka and Kanahena, and in the Makena-Papa'anui-Keauhou vicinity, as informant names were specifically mentioned by Walker. As best as can be determined, Walker's source for the name of the *heiau* at Ka'eo, came from earlier work done by Bishop Museum archaeologist, J.F.G. Stokes, who in 1916, learned of a *heiau* by the name of "*Kalani*," at Ka'eo, but which he did not personally see or map (Stokes 1916 and 1918). The location of the site identified by Walker as "*Kalani Heiau*," coincides with the location recorded by Walker on an annotated USGS Quadrangle Map of the region (Ulupalakua Quad, 1924), but we do not know if it coincides with the site originally referenced by Stokes.

One of the common attributes in the Stokes (1916 & 1918), Thrum (1918, 1938), and Walker (Ms. 1930-1931) descriptions of a *heiau* by the name of Kalani, is that the sounds of drums (*pahu*) were reportedly heard on certain nights of the moon (a characteristic shared by several other *heiau* of Honua'ula). Such a description of drums heard on the nights of *Kāne* and *Lono*, at a *heiau* in the uplands of Ka'eo, on Pu'u Ke'eke'ehia, was reported as early as 1872, by J. Kealohapauole, a native resident of the 'Ulupalakua vicinity (see "*Na Hiohiona o Ulupalakua*" in Maly and Maly, 2005). While Kealohapauole did not name the *heiau* in his narratives, in the 1920s-1930s, E.S. Handy and M. Kawena Pukui, conducted field interviews, with natives of the 'Ulupalakua vicinity and learned that there was a *heiau* by the name of "*Po-kalani...from which drums beating, and the marching of the Hua-kai-o-ka-po...*" could be heard (Handy, Handy and Pukui, 1972:510). These "*huaka'i*" (marches or processions), were reportedly "the ghosts of ancient warriors, who make the circuit of the island in all their regalia" (ibid.).

"*Kalani Heiau*" (Walker's Site No. 196), is clearly one of significance on the landscape of Ka'eo (Figures 2 & 3). It is a prominent and substantial structure, built on, and incorporating an elevated *āhua* (hillock) in its' construction, and it commanded a view of the Keawakapu, Naupaka and Maluaka coastline—as it would have prior to the introduction of foreign *kiawe* (*Prosopis* sp.) trees. What is perhaps unclear, is its' function, as questions arise in the various sources of documentation, as to what site and location is being described.

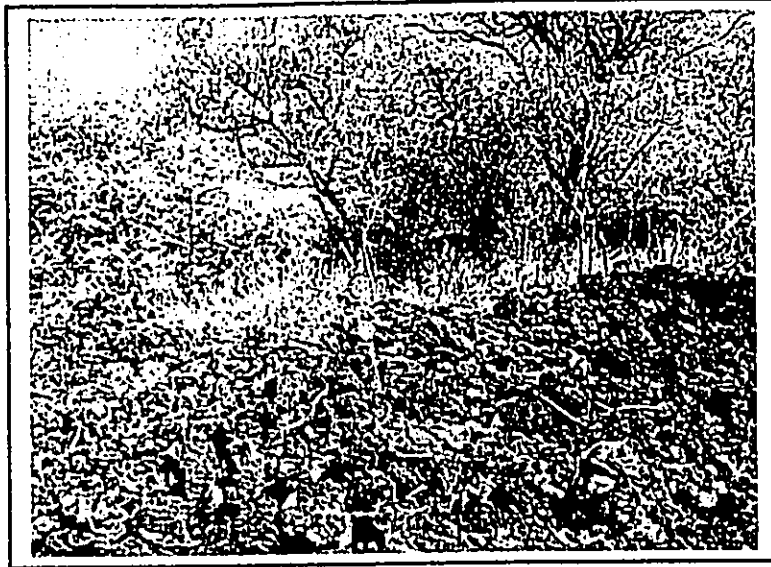


Figure 2. *View of "Kalani Heiau" (Site No. 196) Platform – mauka towards Keawala'i Church Complex through overgrowth of kiawe (historic cattle wall–Site No. 5036 A–under kiawe) (Photo KPA-N 1578)*



Figure 3. *View of "Kalani Heiau" (Site No. 196) Southern facing wall built up of 'a'a cobbles (Photo KPA-N 1579)*

In conducting the research for the ethnographic study, the only historical record found that specifically described a *heiau* or ceremonial feature—that is directly associated with the Garcia property—is that of Walker's, "Site 196–Kalani Heiau" (Walker, ms. 1930-1931). While there are references to a "Kalani Heiau," dating from 1916 to the 1930s (in Stokes and Thrum), there was no specific locational information given. There was also no reference found for the feature now identified as Site 5036 AA (Site 50-Ma-B8-99), though native land descriptions and maps dating from the 1840s and 1850s do reference the "Aupuni Wall" (Government Wall)—apparently being the same wall at the back end of the Garcia property (Site 5036 B), and being claimed as the lot of Maaweiki (*Helu Kuleana* 3676)—indicating early historical activity on the land. Native tenant land claims of 1848, registered by

residents of Ka'eo with tenancy predating 1819, also identify *kuleana* and walled features adjoining the *heiau* in what Haun described as Sites 5037, 5038 5039, and 5040 (Haun et al., 2000 & 2003) (Figure 4).

Also, there appears to be some confusion in the description and possible function of the *heiau* in the handwritten and typeset Walker manuscripts of the Bishop Museum and the Maui Historical Society. It was found that Walker added details to his later notes, from those originally recorded in the field books. The later annotations included that the *heiau* was located "not far from Church" (correct, as identified by Walker); and a question mark (?) being added to the reference "for sacrifice?" in the description of *Kalani Heiau* (see Maui Historical Society, AR-7, Winslow Walker, Collection, Folder 2-13 and Folder 2-24).

Overview of Oral History Interview Documentation

As a part of the detailed ethnographic study prepared by Maly and Maly (2005), nine oral history interviews were conducted with eight individuals ranging in age from their 50s to 90s. Also, one informal interview—in which handwritten notes were taken—was conducted with a ninth individual. Seven of the interviewees are descended from families whose residency in the Makena region, and whose ties to the Keawala'i church post date the 1840s. The eighth interviewee (also a native Hawaiian), married a native of the Honua'ula District, and moved with her husband to Makena in the early 1950s; the ninth individual, who participated in both a brief telephone interview and in a follow up discussion in person, purchased 'Ulupalakua Ranch in the early 1960s. The first eight interviewees shared intimate knowledge of the lands, families, customs and practices of residents in the Honua'ula region, with historical accounts spanning from ocean fisheries to the mountain lands of the 'Ulupalakua region.

All but one of the primary interviewees shared that as children—dating from 1911 to the 1940s—they had not heard about the site known as "*Kalani Heiau*." All but two interviewees had learned of the site later in their lives, some as a result of the archaeological work conducted on behalf of the Garcia family. One interviewee, in his 60s, a member of the Lono-Kalani family learned of the *heiau* as a child, from his *kūpuna* and an uncle, who associated the site with the family's fishing customs. The second interviewee, moved to Makena in the early 1950s, and she reported that by the time Mrs. Marjorie Kalehua Cockett-Garcia acquired the parcel from 'Ulupalakua Ranch in 1957, it was known that a *heiau* was situated on the property.

Several interviewees recalled that the land adjacent to the present-day County facility, and *mauka* of Keawala'i Church (now used as an overflow parking lot for the church) was noted as a place frequented by *huaka'i pō* (processions of night marchers). It was recalled that a *malihini* family had once tried to build a house on the parcel but gave up because of unexplained occurrences.

None of the interviewees had heard of any other ceremonial sites on the property—and when asked specifically if they had heard the term "*Hale o Papa*," none had. Most interviewees who had grown up in Makena, observed that they didn't go much above the Makena-Keone'ō'io road in the vicinity of what is now the Garcia property, because the *kiawe* was thick, and there was no reason to go. One interviewee, a 73 year old descendant of the Kukahiko line, had traveled above the *heiau* site after the 1980s, and was familiar with some of the other cultural features on the *mauka* side of the "*Aupuni Wall*" (Government Wall), which are beyond the Garcia property, but had never noticed the modified knoll (Site 5036 AA) (Figure 5).

The names and functions of *Kalani Heiau* and other sites on the Garcia property were not known to the interviewees. The interviewees attribute this in part, to the fact that their parents and *kūpuna* generation did not talk to them in detail about many traditional sites, except for those that were specifically associated with their families—some of these sites did include *heiau* at other locations. They also recalled that from the early 1900s, the area of the Garcia property, the land above the Makena-Keone'ō'io Road, except for where houses were situated, was fairly overgrown with *kiawe* and other introduced plants. Thus, travel *mauka*, off trails, was deterred.

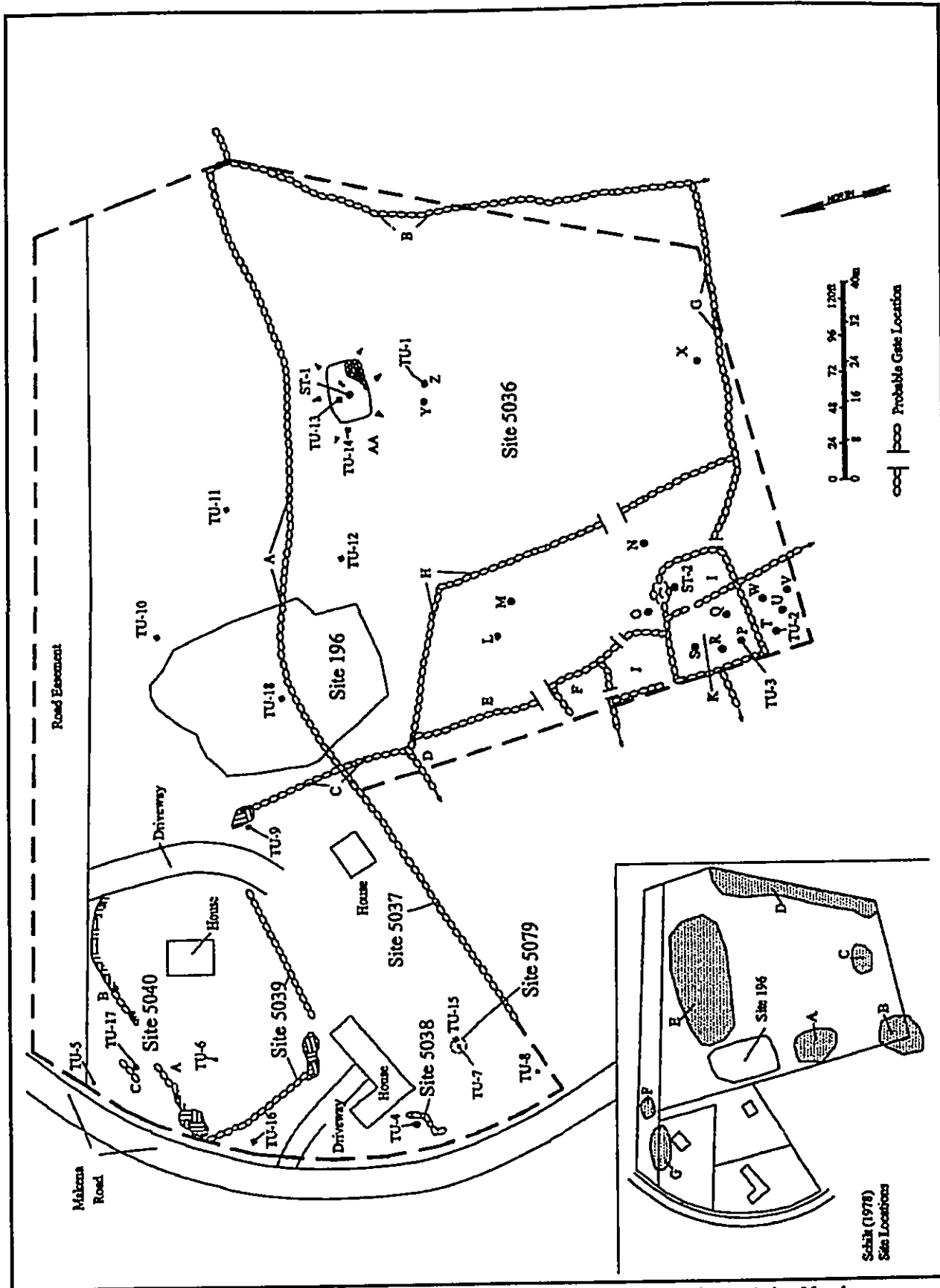


Figure 4. Site Location Map – Garcia Family Property, Ka'eo Ahupua'a, Honua'ula, Maui (Prepared by Haun and Henry, ms. 2003)

Figure 5.
View of Site 5036 AA (mauka to makai, through pānini and dry brush). Visible stones are remains of possible low platform. (Photo KPA-N 1583)



While only limited documentation about the "Kalani Heiau" and other features on the Garcia property was recorded in the interviews, detailed descriptions of other Makena region sites, families, traditional and customary practices, transitions in residency and land use, traditions, practices associated with the area fisheries, and descriptions of the ranching era were recorded. The interviewees shared rich and vivid accounts, and add significant documentation to the community history base.

Summary of Preservation Treatments (2005-2006)

We note here, that all participants in the oral historical component of the study, believe that the *Kalani Heiau* (Walker's Site No. 196) should be preserved, and information about the site should be made known to present and future generations. Kahu Kealahou Alike and members of the historic Keawala'i Church are committed to a partnership program with the Garcias, other individuals and community groups who may become homeowners on the property—the goal being to protect, interpret and steward the *heiau*, and other features which may be preserved on the land. Such sites are believed to be integral to the Hawaiian culture.

Primary recommendations, raised through interviews and discussions, regarding protection, interpretation and long-term stewardship of *Kalani Heiau* and preservation areas on the Garcia family property included the following points:

- *Kalani Heiau* (Site No. 196), and the modified *āhua* (knoll), Site No. 5036 AA, will be preserved and stabilized in a manner consistent with guidelines of the Department of Land and Natural Resources-State Historic Preservation Division (DLNR-SHPD).
- View planes *makai*, towards the shore of Naupaka (Maluaka) Beach, and towards Keawala'i Church; and *mauka*, towards Pu'u Ke'eke'ehia, Pu'u Ka'eo, and Haleakalā will be enhanced, protected and maintained.
- Ground work and excavation will be monitored by an archaeologist and cultural monitor (ideally an individual with genealogical ties to traditional families of the Ka'eo-Makena vicinity) to ensure no impacts to cultural resources occur; and also during any site stabilization and landscape work within the preservation areas.
- Inappropriate alien vegetation (e.g., *kiawe*, *lantana*, *'ēkoa* and *pānini*) will be carefully removed from *Kalani Heiau*, Site No. 5036 AA, and the dedicated preservation buffer zones.

- Planting of native species known to occur naturally in the Makena-Honua'ula region, near shore lands, will be done for interpretive and restorative qualities; and to foster a buffer between residences to be developed on adjacent lands, and the preservation sites.
- Keawala'i Church, including native Hawaiian residents of the Makena region, descended from traditional families of the area, will organize a cultural stewardship program, and become partners with the Garcias and future home/land owners in the long-term care and interpretation of the preservation sites on the property.
- Some level of interpretive programs and exhibit materials will be developed as a means to inform the local and visiting public about the history of the Ka'eo-Makena region, and about the sites preserved on the property.
- A maintenance and monitoring program will be developed by which long-term preservation, conservation and education will be fostered for the preservation sites.
- A program of controlled access—in order to ensure protection of *Kalani Heiau* and associated preservation sites—and wise use will be developed for long-term care of the cultural resources.
- The Keawala'i Church partnership in association with the home owners will serve as the point of contact for conducting educational/interpretive programs for schools and special groups who may wish to visit *Kalani Heiau* and the associated preservation areas. The level and extent of the programs will be determined by members of the partnership in consultation with DLNR-SHPD.
- A funding base for program management will be developed to ensure success in long-term preservation and interpretation of the *Kalani Heiau* and preservation areas.

Documentation Recorded Through Archaeological Field Work

This section of the preservation plan provides readers with excerpts from reports prepared as a part of the archaeological investigations that have occurred on the Garcia family property as documented by Haun and Henry (2000, 2004 & ms. 2003), Rogers-Jourdan (ms. 1979), and Schilt (1979).

Kalani Heiau – Site No. 196 and Other Features on the Garcia Family Property (from Haun & Henry, ms. 2003)

The sites on the Garcia family property (*Figure 4*) consisted of the *Kalani Heiau*, two livestock control walls (Sites 5037 and 5039), an agricultural terrace (Site 5038), a complex of 27 features (Site 5036) that consists of 14 agricultural components, 11 livestock control features one temporary habitation structure and a trash dump, and a complex of three agricultural features (Site 5040).

In the survey report, five of the six sites (Sites 5036-5040) were assessed as significant solely for information content. The mapping, written description, photography and test excavations at these sites adequately documented them and no further work was recommended (Haun and Henry 2000:50). The *Kalani Heiau* (Site 196) was assessed as significant for information content, and for its traditional cultural value. The site was recommended for preservation. DLNR-SHPD concurred with these significance assessments and recommended treatments (letter dated May 10, 2001 to Dr. Alan Haun from Don Hibbard (Log No: 27399, Doc No: 0104MK13).

In response to DLNR-SHPD letters dated November 6, 2002 to Mr. Rory Frampton of Chris Hart & Partners and to Mr. John Min of the Maui County Planning Department regarding a request for additional subsurface testing of the subject property, the landowner requested that the specific scope of the testing be approved in writing by DLNR-SHPD prior to the fieldwork. The request proposed the excavation of nine 1 m² test excavation units in the general locations indicated on *Figure 4* (TU-9 thru -17).

Test Units (TU) 9 thru 12 were proposed to define the limits of *Kalani Heiau* and test for possible buried cultural deposits. TU-15, -16, and -17 situated around the existing houses on the property were proposed to satisfy a previous requirement for additional testing recommended in the approved inventory survey report for the property. TU-13 and TU-14 were proposed for a small knoll in the eastern portion of the property to determine if the knoll has potential religious significance associated with the *heiau*. The request also proposed to refine the mapping of *Kalani Heiau* (Site 196). DLNR-SHPD approved the proposed additional work in a letter dated January 3, 2003 to Dr. Alan Haun from Dr. Holly McEldowney (Log No: 31331, Doc No: 0212MK08). During the fieldwork it was decided that an additional test unit (TU-18) would be excavated in Site 196 to assist in defining the site boundaries and obtain charcoal for radiocarbon dating.

The additional fieldwork results (Haun & Henry 2003) indicate that the tested areas around Site 196 either lack evidence of cultural activity or contain very limited evidence of habitation-related activity. The testing results do provide a basis to refine the boundaries of the site because the results indicate that the site apparently did not extend to the tested locations. The re-mapping of the site provided the best means of delineating its extent. As is illustrated in *Figure 6*, the *heiau* structure was defined by the notched rectangular outline of its exterior wall faces formed by stone alignments and the remaining wall face on the south side of the structure. In part, as a result of historic mining of building stone from the site, and in part from natural deterioration, stones and portable remains from the *heiau* now cover the slopes of the knoll surrounding the footprint of the original structure and form the physical limits of the remains of the site.

None of the data from the inventory survey, or from the additional testing, point to a ritual or ceremonial function for the small knoll (Feature AA, Site 5036). Typical indicators of such a function include non-waterworn coral used as offerings, upright stones (*hale pōhaku*), and ritual architecture (i.e., altars, *heiau*). None of these indicators were present. Comparison of the cultural remains from test excavations on the knoll with other test units and excavations in ritual architecture provides no support for a ritual function for the knoll. The original interpretation of the knoll as a temporary habitation feature was supported by the results of the additional testing.

Site Identification

Site 196

Site 196 is *Kalani Heiau*, which is located on a low knoll in the west-central portion of the project area (*Figure 6*). The *heiau* has been previously documented by Walker (1931) and by Schilt (1979). It is situated on a c. 4.0 m tall knoll in the approximate center of the project area. The knoll measures c. 47.0 m (north-south) by 48.0 m. Feature A of Site 5036 is interpreted as a livestock control wall that extends across the top surface of the *heiau* and Feature C of Site 5036 is a wall situated along the western side of the knoll.

Originally, the southern and western sides of the knoll were probably stepped with a series of narrow terrace/retaining walls. An intact portion of wall face is visible on the southern slope of the structure. The southern wall ranges in height from 1.25 to 1.8 m. There is an 'a'ā pebble and small cobble pavement with three depressions located at the

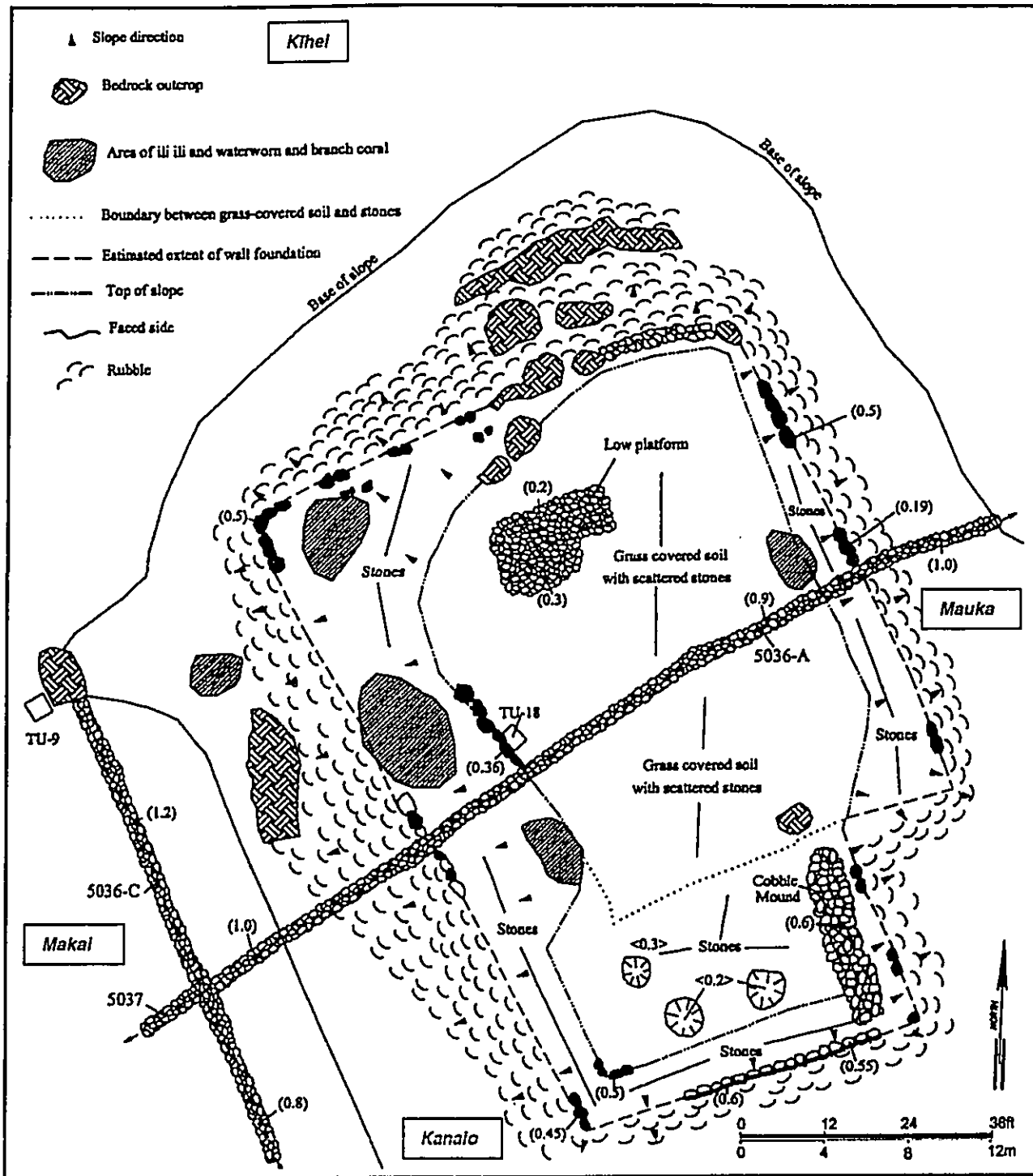


Figure 6. Site 196, Kalani Heiau Plan Map (Haun and Henry, ms. 2003)
 (with approximate directional references—mauka, makai, Kihel and Kanaio)

southern end of the knoll, measuring 9.0 m (east-west) by 6.6 m. A mound, which is probably a collapsed wall of piled 'a'ā cobbles and small boulders borders the pavement on the east side. The wall is 8.85 m long (north-south). It ranges in width from 1.5 to 1.8 m, and in height from 0.25 to 0.60 m.

A low L-shaped platform is situated on northern side of the knoll. This platform is 6.0 m long (east-west) by 5.4 m wide. The remaining upper surface of the knoll is comprised of an area of soil with scattered 'a'ā cobbles. Waterworn basalt pebbles (*'ili'ili*) and coral fragments are scattered over the surface of the site with concentrations in five locations.

The condition of Site 196 is nearly the same as that reported by Schilt in 1979. Her map of the site (1979:8, Figure 3) depicts a wall face on the seaward slope of the structure that is no longer visible; otherwise the site is unchanged. The poor condition of the structure is undoubtedly largely due to removal of stones to construct the wall on the site and walls to the south and west of the site. Walker (1931) does not mention the wall that bisects the site perhaps indicating that it was constructed after his visit. The site's location on a prominent knoll, which would have commanded a broad view of the coast, and stepped construction are attributes typically characteristic of *heiau*.

The footprint of the *heiau* structure is defined by alignments of small boulders embedded in the slopes of the knoll (see Figure 6). When mapped, the alignments outline a notched rectangular structure that is a typical Maui form well documented in nearby areas of Kula (Kolb et al. 1997). With an overall area of approximately 880 sq m, the structure falls within the upper end of the size range for large ritual structures reported for Kula and Honua'ula Districts (Kolb et al. 1997). Walker's (1931) informant(s) referred to Kalani as a sacrificial *heiau*, and the structure's large area supports this information.

The structure was originally a large notched platform with at least two stepped terraces or tiers on the seaward, west side of the structure. Portions of the upper surface, and probably the seaward stepped terraces were paved with waterworn basalt pebbles (*'ili'ili*) mixed with coral based on distribution of these materials on the seaward slope of the structure and in a test excavation (TU-18). The TU-18 excavation yielded nearly 200 grams of marine invertebrate remains, primarily marine shell, over 100 pieces of coral, charcoal, and 9.2 grams of dog, fish, and bird bone. Most of the coral came from Layer II, which consisted of an *'ili'ili* pavement that undoubtedly functioned as part of the *heiau*. Two small fire pits were present in the lower portion of Layer II, possibly indicating initial use of *heiau*, or prior use of the knoll. A piece of charcoal from one pit produced a calibrated radiocarbon age range of A.D. 1420-1490.

The exterior walls and terraces apparently retained large amounts of small to medium cobble-size stones that were used as fill between the retaining walls and the natural topography of the knoll to create level upper surfaces. This fill material now covers the slopes surrounding the structure's foundation. A linear mound of stone in the southeastern corner of the structure, adjacent to the notch may be the remnant of a wall along the inland side of this portion of structure. Three shallow pits on the stone-paved surface seaward of the mound may be post holes for a structure, such as an oracle tower, or supported wooden idols. There is a low notched rectangular platform on the northern portion of the *heiau* that is probably either a structural foundation or an altar.

The alignments of embedded boulders apparently formed the basal, foundation course of the exterior wall faces that were faced with large cobbles and small boulders as is evident in the only remaining intact section of faced wall on the southern side of the structure. The maximum combined height of the retaining walls on the seaward side of the structure was probably as much as three meters and probably at least one meter or

more on the other sides. As mentioned previously, the poor condition of the structure was attributed to the removal of stones to build historic ranch walls bisecting the structure and on the west side of the structure; however, given the large size of the structure it was probably a source for building material for other walls and buildings in the vicinity. Very few large cobble to small boulder-size stones are present on the structure and the only reason the wall foundation alignment stones are still present is because the stones were apparently too embedded in the ground to be readily removed. [Haun & Henry, ms. 2003]

Modified Āhua (Site 5036 AA)

In addition to "Kalani Heiau," the Garcias have agreed to the preservation of one additional historical feature, Site 5036, Feature AA, a modified knoll (*āhua*), situated approximately 190 feet in land of "Kalani Heiau." Haun & Henry describe the site as being a temporary habitation feature, that had been used for a "limited period of time" (Haun et al. 2004:25). Haun's interpretation was based on the "insubstantial construction" of the site, and the results of test excavations which revealed a "limited range and quantity of cultural remains" (Haun et al., 2004:25). Site 5036 AA was previously recorded and assigned a Bishop Museum site number (50-Ma-B8-99), and was referenced by Rose Schilt (1979) in a survey of the Garcia property. Schilt, observed, and quoted from a manuscript prepared by E.H. Rogers-Jourdane (ms. 1979) that:

Site 50-Ma-B8-99

Previous Research: A small enclosure was reportedly found on the Garcia property by Rogers-Jourdane (Ms.) during a recent survey of adjacent Seibu Inc. lands:

This site appears to be the remains of a small enclosure and is situated atop a small rise c. 168 meters E of the S. Kihei Road. The enclosure measures c. 3.0 meters in diameter and is badly deteriorated. Maximum height of the alignment is 0.35 meter (1-2 courses), and width averages 0.3 meter.

Scattering of 'ili'ili, which suggest paving, cover the surface both inside and outside of this alignment. Marine midden remains were also noted on the surface.

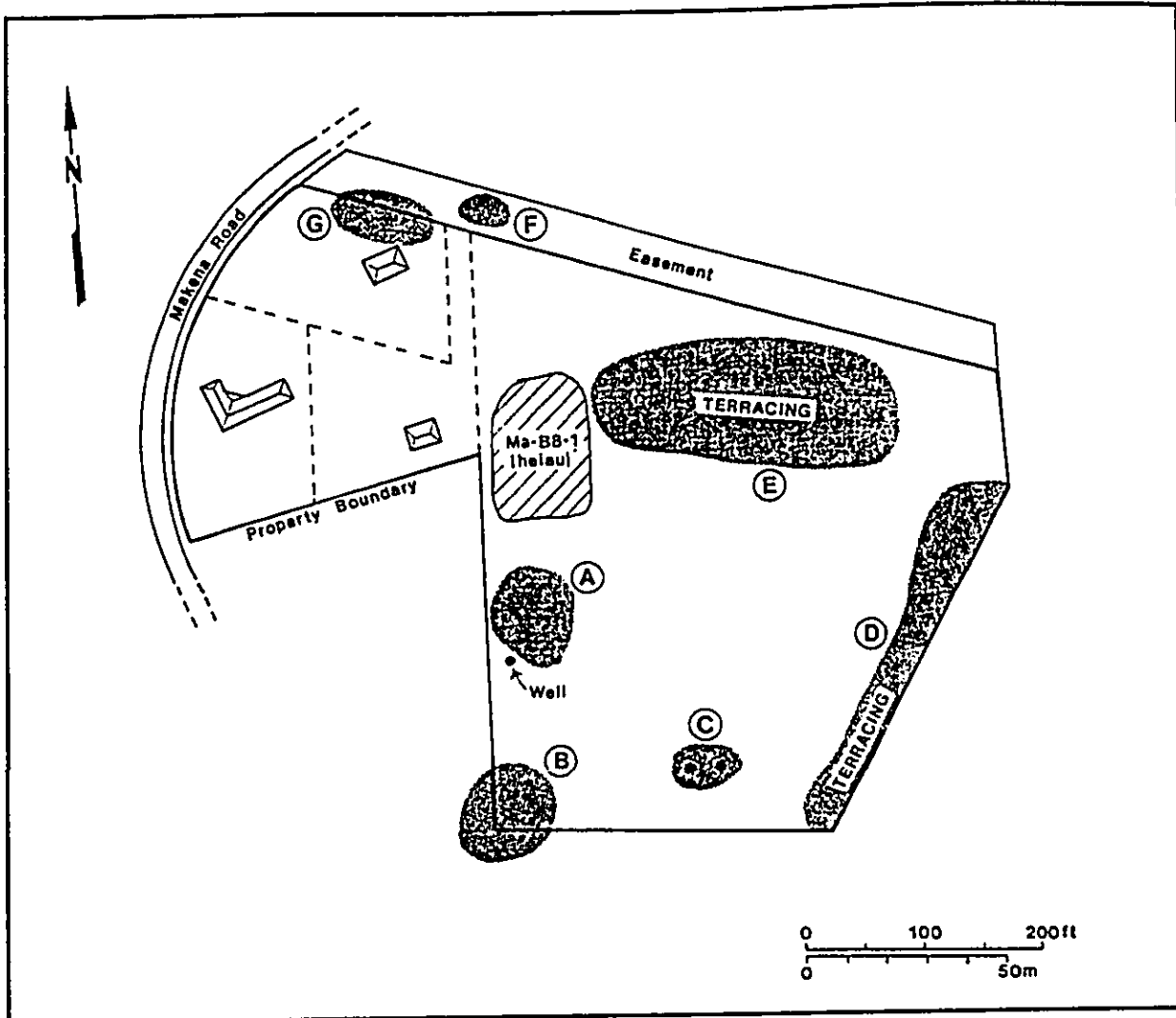
Vegetation during this survey, which was done in March 1978, was also extremely dense (Rogers-Jourdane Ms.).

Regarding this site, Schilt reported that in her own field work:

Field Findings: We were unable to relocate this enclosure, although its reported location is near Area E (Fig. 1 [Figure 7]).

Recommendations: In the next phase of work, another attempt should be made to find this feature. A test pit, not less than 1 by 1 meter, should be excavated in the interior, and one or more small tests should be placed in the exterior midden area. [Schilt, 1979:14]

In March 2002, following a site visit to the Garcia property, two members of the *Hui Alanui o Makena* suggested that rather than being a habitation feature, Site 5036 AA "could have had a 'ritual or ceremonial function, due to its setting, the spatial association of the site with *Kalani Heiau* and its location on a promontory overlooking the *heiau*'" (see Frampton, December 2004:7; and communications in Frampton, 2004). The suggestions of significance, and concerns were detailed in communications from Ms. Dana Hall and Ms. Theresa Donham, dated November 7th, 2002, July 14th & 22nd, 2003, and February 18th & 22nd, 2005. Following the initial site visit and various communications, it was suggested that the feature site might even have been a "*Hale o Papa*" (DLNR-SHPD Log No. 2003.2125. Doc No. 0309MK18, October 23, 2003), being a class of *heiau*



**Figure 7. Location of Sites Identified on Garcia Family Property
In Archaeological Survey of 1979 (Schilt, Figure 1. 1979:2)**

belonging to women of chiefly lineage, and associated with the *luakini heiau* of state worship (see Malo, 1951; Ii, 1959, and Kamakau, 1976).

It is widely recognized that prayer and ritual permeated every facet of traditional Hawaiian life, and that each cultural feature—either being a part of the natural landscape or man-made—had spiritual attributes. Because there are apparently no native traditions or historical documentation pertaining to the modified knoll identified as Site 5036 AA, it is almost impossible to state with any authenticity, whether or not the feature dates from the time, or is associated with “*Kalani Heiau*,” or if it is associated with the other features that suggest traditional and historical subsistence activities in the vicinity. In this regard, one might posit that in the traditional-cultural context, all sites on a given land area share some form of contextual relationship, and contribute to facets of the cultural landscape. It is also clearly documented in native accounts, that with the passing of time, the function, form, and value of cultural features changed, some gaining in prominence, while others diminished.

As a result of community consultation, the modified *āhua* (Site 5036 AA) will be preserved, with view corridors *makai* and *mauka* maintained, and some level of interpretation developed.

PRESERVATION PLAN – IMPLEMENTATION PROGRAM

This section of the preservation plan sets forth the actions to be implemented in order to ensure protection of the *Kalani Heiau* and associated preservation areas, including conservation, stabilization, stewardship, interpretation, and long-term management. *Figure 8*, a map of the Garcia family property depicting the cultural resources to be protected, buffers, access, and interpretive sites, illustrates the various facets of the plan described in the following sections of this document.

Site No. 196 and 5036 AA: Interim (Short-term) Preservation

The goal of these interim preservation measures are to physically identify Sites 196 and 5036 AA on the ground, and to provide those sites with adequate protective buffers during construction. Kalani Heiau (Site No. 196) and Site 5036 AA will have interim buffers established during construction. These buffers will be designated with brightly colored construction fencing, four to six feet in height (see *Figure 8*). Interim preservation will be ensured by adopting the following protective measures:

Overall Site Protection:

1. The interim protective buffer zones will be plotted accurately on grading plans and construction plans prior to the initiation of any grading, grubbing, and/or construction activities.
2. Construction will not be allowed to occur within the protective buffer zones. The buffer zones will be identified and mapped around all site perimeters. Installation of the protective buffer zones will be supervised by an archaeologist; and by cultural monitors, should community members so desire. DLNR-SHPD staff will be notified when buffer zones are set in place, and a site inspection conducted with DLNR-SHPD to confirm compliance prior to initiation of construction.
3. Explicit notification will be provided to construction supervisors and workers as to the nature and location of the preservation zones, the significance of the buffer zones, and the color and meaning of any site perimeter and buffer zone fencing.
4. Archaeologists and lineal descendants/cultural practitioners will provide on-site monitoring of initial construction grubbing and grading in the immediate vicinity of Sites No. 196, 5036 AA, and the associated preservation zone. Monitoring will also ensure that construction activities—use of equipment in developable portions of the parcel—does not adversely affect the cultural sites.
5. The protective buffer zone fencing will remain in place until construction and land movement activities are completed, and approval for their removal is obtained from DLNR-SHPD staff. Then the interim construction buffer will be removed and long-term preservation measures implemented (see next section of plan).
6. Stones will not be removed from within the preservation zones. Stones from late historic walls not to be preserved will be kept on site for use in development of buffers and interpretive features associated with the preservation areas.

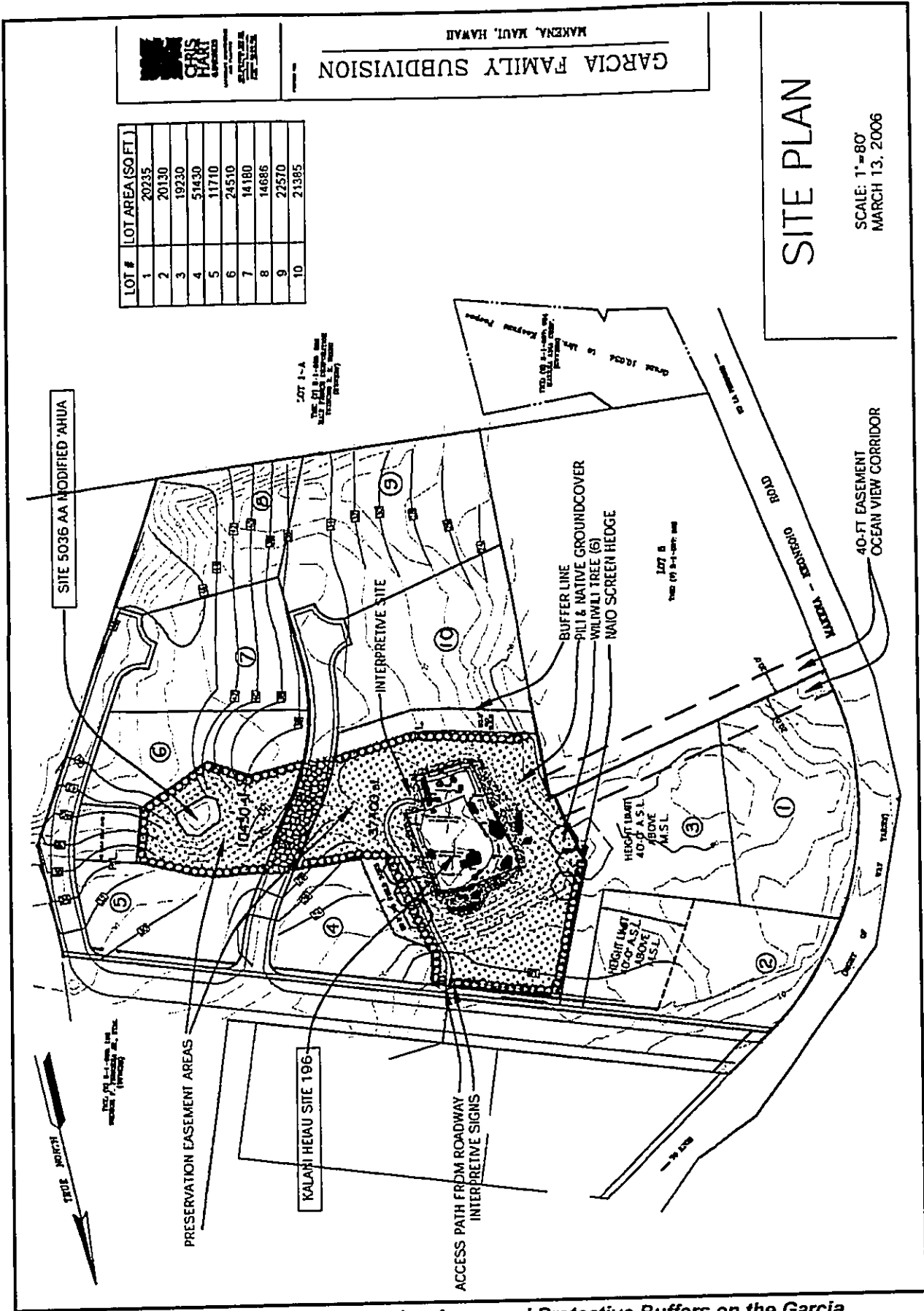


Figure 8. Reduction of Map of Preservation Areas and Protective Buffers on the Garcia Family Property (prepared by Chris Hart & Partners) (see full scale figure at end)

Protection of Burial Sites-Inadvertent Discoveries

7. In compliance with Chapter 6E-43 (as amended by Act 306), should any burial remains be inadvertently discovered as a result of work on the property, all work in the area of the remains will cease and the DLNR-SHPD will be notified within three days. Similarly, if remains should be exposed through natural processes or as a result of property maintenance activities, the DLNR-SHPD will be notified as above. Disposition of any identified remains will be determined on a case-by-case basis by the DLNR-SHPD in consultation with the designated lineal descendants and the Maui Island Burial Council.

During the period of construction on the Garcia family property, no construction or land modification activities, other than appropriate landscaping, interpretation, and maintenance will occur within the designated protective buffer. The only exception is tree removal if trees are deemed to be a threat to the cultural resources, or are damaged by natural causes. In this instance, introduced *kiawe* (*Prosopis* sp.) trees are causing damage to *Kalani Heiau* and other cultural-historical features on the property. It proposed that these trees (along with introduced 'ēkoa, lantana and the *pānini* cactus) should be cleared, and new plantings of native species known to naturally occur in the area be planted at acceptable distances away from the preservation sites (see discussion on plants and landscape management below).

Program for Long-term Preservation of Kalani Heiau and Preservation Areas on the Garcia Family Property

Following completion of development of the house lots and associated features on the Garcia family property, long-term preservation treatments, including site stabilization, landscaping, interpretation, and long-term site monitoring will begin. The long-term maintenance, curation, protection, and some level of interpretation of the cultural resources is the goal of a carefully designed preservation plan. Through such programs, local community members and island visitors can gain a better understanding and awareness of the unique and fragile nature of Hawai'i's resources. These experiences will foster an environment of protection for *Kalani Heiau* and other resources in the preservation zone on the Garcia family property.

Long-term preservation treatments are as follows (see *Figure 8* for locations of preservation and interpretation locations):

1. Documentation of Site Conditions

Garcia project managers (in consultation with a certified archaeologist) will develop an archival catalogue of the site conditions and treatments, and their perimeters. This documentation will serve as a baseline reference for long-term monitoring of site stability and evolution, to be used by the stewardship partners and reviews that may be conducted by the DLNR-SHPD. Copies of the catalogue—with periodical updates and amendments—will be housed with the stewardship partners, DLNR-SHPD, the Maui Historical Society, and the property owner/developers.

2. Preservation Areas

Two permanent preservation areas will be established as shown on *Figure 8*. The preservation area for *Kalani Heiau* (site 196) will be located within Lot 4 and is approximately 37,400 sq. ft. in size (.86 acre) and will include the entire knoll upon which *Kalani Heiau* is situated. The preservation area for Site 5036

AA will be located within Lot 6 and is approximately 10,430 sq. ft. in size. The two preservation areas are situated such that they form one larger contiguous area free of residential related structures. (A right of way for vehicular access and underground utilities separates the two preservation areas. The surface of the vehicular access will be color molded concrete or asphalt where it abuts the two preservation areas.) The two preservation areas will total approximately 47, 830 sq. ft., or about 1.1 acre, roughly 20% of the Garcia Family property.

The boundary of the *Kalani Heiau* preservation area follows historic stone walls along the west and southwestern sides. A historic stone wall also establishes the northeast boundary, running in a *mauka* direction towards site 5036 AA. The width of the *Kalani Heiau* preservation area ranges from a minimum of 27 feet from the southwest corner foundation to a maximum of 120 feet from the northwestern foundation corner.

In addition to the preservation areas, additional building setbacks or no build zones will be placed on lots 4, 6 and 10. The no build zones on lots 4 and 10 will establish minimum building setbacks of 50 feet from *Kalani Heiau* (except for the southwest corner of *Kalani Heiau*, where the minimal building setback will be 47 feet.)

The combination of preservation areas and no build zones will result in an area free of structures measuring 460 feet in a *mauka-makai* direction. The maximum width of the structure free area running north and south through *Kalani Heiau* is approximately 250 feet.

It should be noted that the proposed subdivision plan has been amended by reducing the number of lots *makai* of the *heiau* from four to three. This has resulted in a larger area free of structures abutting the project access road as well as a greater building setback to the northwest of the *heiau*.

Maximum building heights of 40 ft. above mean sea level will be established on Lot 3 and a portion of Lot 2. This will reduce the potential visual impact from future residential structures.

Mauka portions of the preservation area on Lot 6 will be filled, this will establish level building pads for abutting areas to be used for future residential structures. The *makai* portion of the modified *'āhua* will remain unmodified in order to preserve the natural topography as viewed from *Kalani Heiau*.

3. **View Planes**

Currently, trees obscure the coastline view plane from the *heiau*. Haleakalā and the Prince Hotel are visible to the east and south, respectively. The proposed preservation measures for the site include creation of a view corridor to the ocean on the west side of the *heiau*. The adjacent property owner has already agreed to a 20 feet wide view corridor along the northern property boundary that generally follows a historic wall (Site 5037). The Garcia Family proposes a corridor of similar width on their property that will form a combined 40 ft wide view corridor to the ocean within which no vertical structures will be constructed (see *Figure 8*).

Proposed residences adjacent to the preservation sites will be screened using native plants. The trees and plantings on the south side of the site will also partially screen the hotel from view. A no build zone will also be created on Lot 6 in order to preserve *mauka* views from the *heiau* across Site 5036 AA towards Pu'u Ke'eke'ehia, Pu'u Ka'eo and other features near the summit of Haleakalā.

4. **Long-Term Preservation**

No future construction or land modification activities, other than landscaping and maintenance will occur within the preservation zones. The *Kalani Heiau* preservation zone boundary will follow existing stone walls along the west and southwestern sides of the site, and a driveway to the northwest. The perimeter of the two areas will be planted with *naio* (*Myoporum sandwicense*) to identify the edge of zones.

Metes and bounds descriptions of Site 196 and the preservation zones will be recorded in the property deed(s) and the location of the sites will be plotted on subdivision plat maps. The metes and bounds description will be incorporated into the property deed(s) as a restrictive covenant that will include preservation treatments described in this plan. The covenant will be recorded with the Bureau of Conveyances.

The long-term maintenance and interpretation of the sites will be a community-based effort. Kahu Kealahou Alike, descendants of traditional Hawaiian families of the area, and members of the Keawala'i Church have come forward as participants of such a community-based group.

A non-profit umbrella organization—either an existing group or a new one, as determined by the Garcia family property owners and community members—would coordinate any interpretive programs, and potentially organize programs of site stabilization or restoration with the prior approval of DLNR-SHPD. A funding mechanism for this organization will be established by the future Homeowner's Association.

The homeowners association will be responsible for vegetation control and maintenance.

An initial task could be the removal of the portion of Site 5036 A, a wall that currently bisects *Kalani heiau*, because this historic ranching-related feature artificially divides the site and detracts from its original appearance. The stones from the wall could be used to restore portions of the original *heiau* walls that were undoubtedly the source for the historic wall's construction.

5. **Monitoring Site Integrity and Access**

Because of the sensitive nature of the *Kalani Heiau*, access to the preserve (within the buffer zone including the *heiau* and other preserved features) will be controlled. Designated areas for viewing the *heiau* and preserve sites will be established so as to minimize impacts on the sites. Individuals who share genealogical affiliation with traditional residents of lands in the Ka'eo-Makena vicinity will be able to visit the *heiau* proper, while general visitors will be encouraged through signage, to visit the site from designated interpretive

viewing areas. The cultural stewardship partnership organization will act as a primary point of contact for visitation, and as the source of interpretive materials for the *heiau* and preservation sites.

The primary interpretive programs will be in the form of off-site interpretive exhibits.

Samples of Wording to be Considered for Public Notification of Access Restrictions and Public Law:

A Standard State Notice:

Please do not walk within the preservation area (refrain from walking on these sites or removing rocks). Damage to this preserve is punishable under State Law, Chapter 6E-11, Hawai'i Revised Statutes.

Adapted from a Standard National Park Service Notice:

Help Preserve the Past for the Future.

It is against the law to loot or destroy archaeological sites, or remove any material remains of past human activities from this archaeological preserve. Report acts of archaeological theft or vandalism to... [designation of contact to be determined through consultation between land owner, family members and DLNR-SHPD]. Even a single clue can matter. Cultural and historic sites give us information about Hawai'i's past. If disturbed or destroyed, a part of Hawai'i's unique heritage is forever lost.

Damage to this preserve is punishable under State Law, Chapter 6E-11, Hawai'i Revised Statutes.

6. *Site Interpretation and Visitation*

Interpretive signs will be used to identify the preservation sites. General site information signs will be located along the project access road, near the beginning of the access path to the *heiau*. A gate, marked by *kiawe* posts will serve as the access point to the interpretive site for the *heiau*. The interpretive site will be located at the southeast corner of the *heiau* and will include more specific site information signage (see *Figure 8*).

For general viewing, the *heiau* will be visible from the view plane corridor area rising from Makena-Keone'ō'io Road. The *heiau* will also be visible from the project access road.

An access path from the project road will run to the interpretive site at the southeastern corner of the *heiau*.

Signage identifying the cultural resources will include the feature type; SIHP number; a cultural overview-site history; and a statement about the sensitive nature of archaeological sites (see specific recommendations below). Visitation to the cultural sites will be limited to appropriate uses; i.e., cultural observances as practiced by native practitioners, and Hawaiian cultural interpretive programs (see suggested interpretive texts later in this plan).

7. Plant Buffer

Plant buffers consisting of a hedge of *naio* (*Myoporum sandwicense*), with scattered *wiliwili* (*Erythrina sandwicensis*), *kou* (*Cordia subcordata*) and other native plants will be established along the outside edge of the preservation area as indicated in *Figure 8*. Measures, such as establishment of temporary fencing, will be taken to deter access until the plant buffer is established.

8. Landscaping and Grounds Maintenance

It is recommended here, that most *kiawe* be carefully cleared from *Kalani Heiau* and other preservation areas, as it is causing significant damage to the sites. Removal of inappropriate vegetation will foster site stabilization and enhance view planes.

Plants will not be pulled out by the roots. They will be cut at the surface level and spot treated with herbicide to avoid impacting any possible sub-surface remains. Appropriate native vegetation may be planted around the preservation site buffers and at locations within the buffers.

Landscaping that is to be done within the general vicinity of *Kalani Heiau* (Site No. 196) and Site No. 5036 AA, will be in keeping with the native vegetation of the area. A variety of native Hawaiian coastal zone and near shore plants—as described in historic literature and seen in similar coastal environmental zones—may be used for this task.

Table 1. is a list of native plants that are among those referenced in historical accounts, and that were often found along the near shore lands of Ka'eo and the larger Honua'ula region:

Table 1. List of Native Plants Known to have Occurred in the Coastal Region of the Ka'eo-Makena Region

Low shrubs:	Trees:
<i>'Ilima</i> (<i>Sida fallax</i>)	<i>Hala</i> (<i>Pandanus odoratissimus</i>)
<i>Kī</i> (<i>Cordyline terminalis</i>)	<i>Hau</i> (<i>Hibiscus tiliaceus</i>)
<i>Ko'oloa'ula</i> (<i>Abutilon menziesii</i>)	<i>Kou</i> (<i>Cordia subcordata</i>)
<i>Maiapilo</i> (<i>Capparis sandwichiana</i>)	<i>Lehua</i> (<i>Metrosideros polymorpha</i>)
<i>Ma'o</i> (<i>Gossypium sandwicense</i>)	<i>Loulu</i> (<i>Pritchardia</i> ; fan palms)
<i>Ma'o-hau-hele</i> (<i>Hibiscus brackenridgei</i>)	<i>Milo</i> (<i>Thespesia populnea</i>)
<i>Nehe</i> (<i>Lipochaeta lavarum</i>)	<i>Naio</i> (<i>Myoporum sandwicense</i>)
<i>Pili</i> (<i>Heteropogon contortus</i>)	<i>Niu</i> (<i>Cocus nucifera</i>)
<i>Pōhinahina</i> (<i>Vitex trifolia</i> var. <i>simplicifolia</i>)	<i>Wiliwili</i> (<i>Erythrina sandwicensis</i>)
<i>Puakala</i> (<i>Agremone alba</i> var. <i>glauca</i>)	

9. General Site Maintenance

To ensure culturally sensitive, long-term site maintenance and site protection, partners in the cultural stewardship program and grounds maintenance staff will be informed of the requirements for site preservation as follows:

- a. Training of maintenance personnel in appropriate maintenance techniques and appropriate uses/visitation at the sites (No picnicking, camping, playing, removing of dirt or stones, etc., on/or from sites). Employees will be informed of who to call when inappropriate activities are observed.
- b. Landscaping maintenance (no planting, irrigation, or use of herbicides, etc., without DLNR-SHPD approval).
- c. Waste receptacle maintenance and collection. A waste receptacle will be situated at the entrance/egress point of the designated access along the project access road. The waste receptacle will be placed in such a way so as not to detract from the view plane to the sites, yet still be identifiable as a waste receptacle.
- d. Maintenance of interpretive exhibits.
- e. Site condition monitoring and notifying DLNR-SHPD of changes in site conditions.

Sample of Interpretive Texts

As a result of the detailed historical documentary research and oral history interviews conducted on behalf of the Garcia family — for lands of the Ka'eo-Makena vicinity and the "Kalani Heiau" — a wide range of interpretive and educational resource materials for program development has been made available. The texts below, which could be illustrated with a site plan and artist's renderings of what the original structure may have looked like, are samples of the interpretive narratives that may be developed for "Kalani Heiau" and the preservation zones. Final narratives, sign form and locations, and the level of interpretive/educational opportunities shall be determined in consultation with the Keawala'i Church stewardship organization and other interested families of the Ka'eo-Makena vicinity, the Garcia family property owners, and DLNR-SHPD.

The narratives may be designed as a single sign or separated into a few signs, set at strategic locations in a thematic approach, along the path to the final viewing area. Additionally, graphics might include:

- (1) an *ahupua'a* plan, extending from mountain to shore, with the fishpond at 'Āpuakēhau Point, and depicting the historical features of the middle 1800s;
- (2) a plan of the "Kalani Heiau" and Site 5036 AA, with details of the existing conditions and native plantings; and
- (3) a rendering of the stone platform of "Kalani Heiau" as it may have looked prior to impacts from collection of feature stones, construction of the stone wall across the *heiau*, and damage from ungulates and alien plant growth. Such a plan might also depict the *mauka-makai* view planes.

Kalani Heiau and Environs

At one time, the land of Ka'eo was home to Hawaiian families who possessed intimate knowledge of the landscape, and who's residency and sustainable use of resources spanned the land from mountains to shore. Knowledge and use of the resources also extended out to the sea, where a fishpond on 'Āpuakēhau Point, and near-shore and deep-sea fisheries were managed.

The sheltered coves of Ka'eo, with fresh water resources, made the near-shore lands an important and valued area along the often arid coastline of the larger Honua'ula District, in which this land is found. While today, the mid-land *kula* (plains) present an arid view—upon which subsistence efforts would seem difficult—in earlier times, native dryland forests spread across the land, and the *kēhau* (early morning dew), provided moisture to limited cultivation of staple crops. The water-bearing *kēhau* and cultivation of low land crops are still spoken of by elder Hawaiian residents of the land. Further in the uplands, above the 2,000 foot elevation, a diverse native forest canopy, provided specialists in agriculture with shelter for the cultivation of extensive fields of subsistence crops. Together, resources from the uplands, the *kula*, and ocean fisheries, provided Hawaiian residents with all that was necessary to sustain life on the land over successive generations.

The natural attributes of Ka'eo, led the land to being one of importance in ancient times. With this importance, came chiefly attention, and several historical accounts describe Ka'eo as being—at least intermittently—a chiefly residence. While all facets of traditional Hawaiian life were intertwined with spiritual beliefs and practices, the chiefly associations led to the development of ceremonial sites, and formal *heiau* (temples), which served as places of more prominent religious observances.

Indeed, historical texts recorded between 1916 to 1930, describe at least three *heiau* in the *ahupua'a* of Ka'eo, which were identified as of a "sacrificial" class—thus, of chiefly association by their nature. This cultural feature was documented through field work in 1929-1930, as being "*Kalani Heiau*" (Site No. 196). While little other documentation about the site has been recorded in native Hawaiian writings and other historical narratives, "*Kalani Heiau*" is clearly one of significance on the landscape of Ka'eo. It is a prominent and substantial structure, built on, and incorporating an elevated *āhua* (hillock) in its' construction, and it commanded a view of the Keawakapu, Naupaka and Maluaka coastline—as it would have prior to the introduction of foreign *kiawe* trees, and a view to prominent and storied *pu'u* (hills) on the slopes to Haleakalā.

In 1918, Bishop Museum Archaeologist, J.F.G. Stokes reported:

"Heiau of Kalani, land of Kaeo, inland. Not seen. Said to have been a heiau for human sacrifices, and that the drums are heard at night."

Later, in 1930, another Bishop Museum Archaeologist observed:

"Heiau Kalani. At Kaeo, not far from the shore. A large heiau said to be of sacrificial class but reduced largely to a shapeless pile of rock. Rough Aa construction; some pebble and coral. No walls apparently, and 98' x 126' x 55', 8' high."

Archaeological work conducted recently for this site, produced radio-carbon dates between 1420 to 1490, for use of the area in which "*Kalani Heiau*" is situated. This period in time coincides with occurrences described in traditional accounts of chiefly events in the larger Honua'ula District.

Kalani Heiau – Help Preserve the Past for the Future.

It is against the law to loot or destroy archaeological sites, or remove any material remains of past human activities from this archaeological preserve. Report acts of archaeological theft or vandalism to... [designation of contact to be determined through consultation between land owner, family members and DLNR-SHPD]. Even a single clue can matter. Cultural and historic sites give us information about Hawai'i's past. If disturbed or destroyed, a part of Hawai'i's unique heritage is forever lost.

Damage to this preserve is punishable under State Law, Chapter 6E-11, Hawai'i Revised Statutes.

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