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DEPARTMENT OF PLANNING AND PERMITTING
CITY AND COUNTY OF HONOLULU

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March 21, 2000

RECEIVED RANDALL K. FUJIKI, AIA
DIRECTOR

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DEPUTY DIRECTOR

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OFFICE OF ENVIRONMENTAL
QUALITY CONTROL

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

Dear Ms. Salmonson:

CHAPTER 343, HRS
Environmental Assessment (EA)/Determination
Finding of No Significant Impact

Recorded Owner: Samuel A. and Mary M. Cooke
Applicant : Kualii Foundation
Agent : Plan Pacific
Location : Oahu Avenue, Manoa Valley
Tax Map Key : 2-9-19: 37, 38 and 43
Request : Conditional Use Permit (Minor)
Proposal : Development of an Educational/Interpretive
Center
Determination : A Finding of No Significant Impact is Issued

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

We have enclosed a completed OEQC Bulletin Publication Form and four copies of the Final EA. If you have any questions, please contact Ardis Shaw-Kim of our staff at 527-5349.

Sincerely yours,

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

RKF:lg
Enclosures
DN 29918

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PLANNING DEPARTMENT
CITY & COUNTY OF HONOLULU



(MĀNOA VALLEY HERITAGE CENTER)
FINAL ENVIRONMENTAL ASSESSMENT & SUPPORT DOCUMENT
FOR A CONDITIONAL USE PERMIT (MINOR) APPLICATION

Prepared for the Mānoa Valley Cultural Heritage Foundation

Prepared by PlanPacific
March 2000

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1.0 SUMMARY OF PROPOSED ACTION

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Applicant:

Mānoa Valley Cultural Heritage Foundation
 2859 Mānoa Road, Honolulu, Hawaii 96822
 Contact: Catherine Cooke, (808) 383-7818

COMMUNITY DEVELOPMENT
 & PLANNING
 CITY & COUNTY OF HONOLULU

<u>TMK</u>	<u>Area</u>	<u>Owner(s)</u>	<u>Existing Use</u>
2-9-19: 37	.39 ac	Samuel A. and Mary M. Cooke	vacant
2-9-19: 38	.43 ac	Samuel A. and Mary M. Cooke	vacant
2-9-19: 43	.52 ac	Kuali'i Foundation	historic site, botanical garden

Proposed Action:

The proposed use will allow limited, docent-controlled school group and public visitation of the Kūka'ō'ō Heiau, a historic site, located on TMK 2-9-19: 43 for educational purposes. In support of the new use, the construction of a hale or structure for meetings, visitor presentations, and docent office space, and a pavilion or similar structure to serve as the orientation area for visitors are proposed. The project also proposes joint development of three parcels as listed above.

State Land Use District: Urban District

County Development Plan Designation: Residential

County Zoning: Residential District R-7.5

SMA: The project is not located within the Special Management Area.

Historic Site: The project involves a Historic Site.

Approving Agency: City and County of Honolulu Department of Planning and Permitting

Agencies, Organizations, & Individuals Consulted: State Historic Preservation Division
City and County of Honolulu Department of Planning and Permitting
Mālama o Mānoa
Mānoa Neighborhood Board
Immediate surrounding neighbors

Anticipated Determination Finding of No Significant Impact (FONSI)

2.0 GENERAL DESCRIPTION OF THE ACTION'S CHARACTERISTICS

2.1 TECHNICAL CHARACTERISTICS

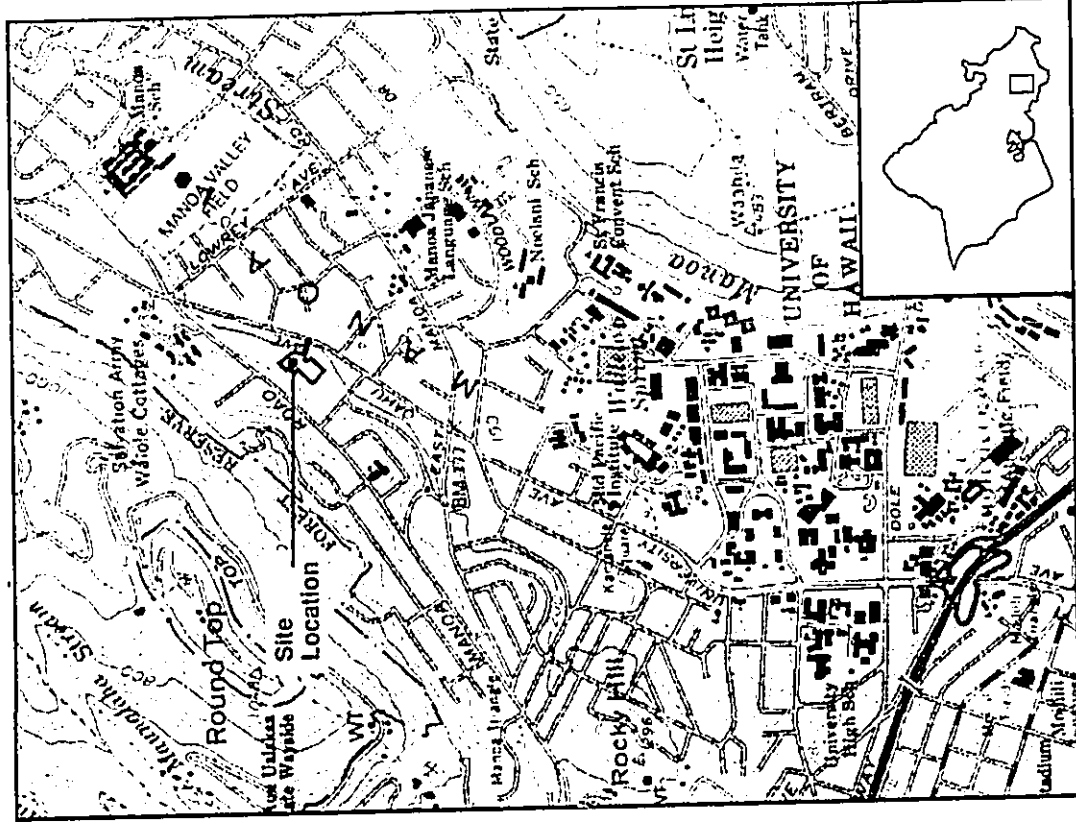
2.1.1 Background

This environmental assessment (EA) is prepared because the proposed use involves the use of a Historic Site, the Kūka'ō'ō Heiau, which is listed on the Hawaii Register of Historic Places and in the process of being listed on the National Register of Historic Places. This EA is also prepared in support of applications for two City and County of Honolulu Conditional Use Permits (Minor).

A Conditional Use Permit (CUP) - Minor would allow the "Meeting Facility" use in a Residential District and would also allow the incorporation of two recently acquired adjacent lots (TMK 2-9-19:37 and 38) into the project area.

2.1.2 Description of the Property

The subject properties are part of the Kualii Estate which is located between Mānoa Road and O'ahu Avenue on the western slopes of Mānoa Valley. It is located in a well-established single-family residential area on the edge of urban Honolulu (see Figure 1). The estate encompasses five parcels of adjacent land totaling approximately 3 acres. The Tax Map Keys (TMK) of the parcels are shown on the following table:



Base Map Source: USGS Honolulu Quadrangle, 1983

Figure 1: Location Map

TMK Number	Area (sf)	Area (ac)	Use
2-9-19: 43	22,800	0.52	Kūka'ō'ō Heiau
2-9-19: 38	18,740	0.43	vacant
2-9-19: 37	17,000	0.39	vacant
2-9-19: 35*	57,623	1.32	main residence
2-9-19: 25*	16,537	0.38	residence

*Not included as part of this proposal.

The estate is owned by the Samuel A. Cooke family. The family lives in the main residence, which is also a historic structure that is listed on both the National and State Registers of Historic Places (see Appendix C). In 1992 Samuel Cooke acquired parcel 43, which contains Kūka'ō'ō Heiau, and vacant parcels 37 and 38 in 1997 from Eugene Yoshioka Subdivision. Samuel Cooke's interest was to preserve the heiau. In 1992 he commissioned Paul Cleghorn Consulting to conduct an archaeological inventory survey of the heiau and develop a preservation plan.

In 1996, two non-profit foundations, the Kualii'i Foundation and the Mānoa Valley Cultural Heritage Foundation, were created for the purpose of historic preservation. Ownership of parcel 43 was transferred to the Kualii'i Foundation. The Kualii'i Foundation maintains the financial investments and land holdings of parcel 43, while the Mānoa Valley Cultural Heritage Foundation has a broader focus and provides the development and governance of projects affecting all parcels, including

parcel 43. Sam and Mary Cooke are currently members of the Board for both foundations. For the purpose of this EA, only parcels 37, 38, and 43 are considered (see Figure 2). The use of parcels 25 and 35 will remain unchanged.

The subject area slopes down from west to east, following the natural slope from the almost adjacent Round Top ridge in the northwest to the valley floor in the southeast. Parcel 43 is at a higher elevation and slopes down to adjacent parcel 38. Parcels 38 and 37 are adjacent and almost level, with parcel 38 sloping slightly down to parcel 37.

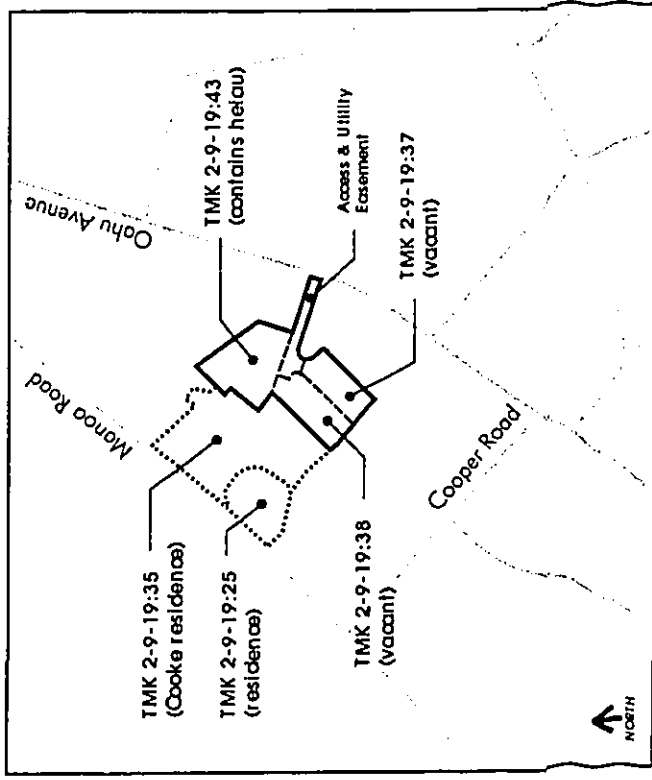


Figure 2: Tax Map Keys

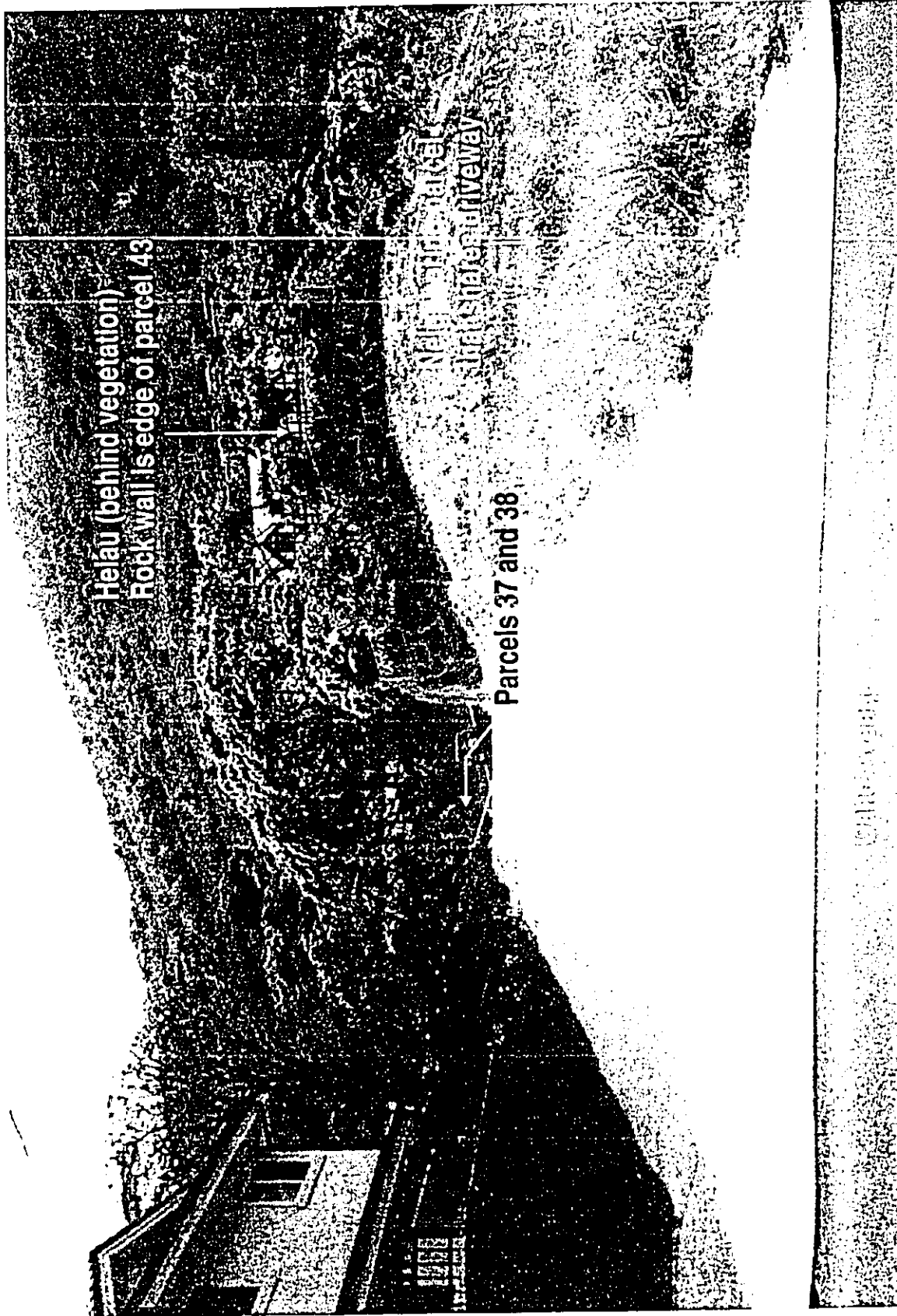


Figure 3: View of the subject properties from Oahu Avenue.

Parcel 43 contains the Kūka'ō'ō Heiau and a botanical garden. Parcels 37 and 38 are currently vacant. Access to these parcels is provided by a long concrete driveway from O'ahu Avenue. This driveway serves only one other parcel located along the driveway between parcel 43 and O'ahu Avenue (see Figure 3).

Views into the properties are limited as the properties are not located along the roadway. O'ahu Avenue, which is lower in elevation, is about 135 feet east from the edge of parcel 43. A high retaining rock wall lines the south and east boundaries of parcel 43, while the houses, walls, and trees of surrounding properties block the views into parcels 37 and 38 (see Appendix E for a visual survey). In general, while the subject area is large and is situated between two well-traveled roads, it is also quite secluded and only a very limited portion can be seen from the roads.

The existing land use designations for the subject area are as follows:

- a. State Land Use District – Urban
- b. Primary Urban Ctr Development Plan – Residential
- c. County Zoning – Residential District R-7.5
- d. Special Management Area – N/A
- e. Other Special Districts – N/A

2.1.3 Description of the Historic Site, Kūka'ō'ō Heiau

The Kūka'ō'ō Heiau measures approximately 40 by 45 feet and its walls vary from 4 to 4½ feet in height. The heiau is archaeologically and ethnically Native Hawaiian

and significant, having legendary as well as prehistoric associations with Mānoa Valley and O'ahu island. It reflects a major trend in Hawaiian history, when political power was transformed from a familial orientation to the formal stratified kapu system. It is one of the few extant traditional religious structures in the Kona District of O'ahu island.

Kūka'ō'ō is also a significant heiau in that, according to Hawaiian oral history, it was built by menehune. It is said that later in the 17th century, the menehune at Kūka'ō'ō were defeated by the great O'ahu chief Kualii, who rebuilt the heiau perhaps to restore prosperity. Kūka'ō'ō served as an agricultural heiau for Kualii. As such, it was used for rituals aimed at increasing agricultural crops and not for rituals of governance. It was primarily used by ali'i or chiefs, rather than commoners, including farmers.

Over time, the heiau fell into disuse and vegetation around the heiau took over, but in 1993 the Cookes began to clear the vegetation and restore the heiau area. In 1994, Samuel Cooke commissioned the restoration of the heiau itself by stone mason Billy Fields and his team of restoration specialists from the island of Hawai'i. The restoration was completed that same year. The heiau was placed on the Hawai'i State Register of Historic Places in 1995, under amendment to State site number 80-14-1368 (the main residence). It is currently in the process for inclusion on the National Register.

2.1.4 Description of the Planning Area

Presently, immediate surrounding uses are residential,

with Mānoa Road forming the northwestern boundary. Other nearby uses within a half-mile radius include the Waioli Tea Room, wedding chapel, and Salvation Army family treatment service to the north; the Mānoa Elementary School/Mānoa Recreation Center/Mānoa Valley District Park and Mānoa Gardens Elderly Housing to the east; and the Mānoa Market Place/Mānoa Innovation Center to the south.

Nearby religious institutions include the Koganji Buddhist Temple across O'ahu Avenue to the east, as well as the Japanese Seventh Day Adventist Church, Mānoa Valley Church, St. Pius X Catholic Church and Religious Society of Friends.

2.1.5 Description of the Proposed Action

The proposal is to introduce an interpretive program for the Kūka'ō'ō Heiau and native Hawaiian botanical gardens. It proposes to allow small-scaled docent-led public visits of the estate to promote education about the Kūka'ō'ō Heiau, including its greater Mānoa Valley context. Information on the geological, ecological, and human-altering development of Mānoa Valley also would be shared in order to foster a greater understanding of the heiau and appreciation of the area's role in history. See Appendix A.

The focus is on educating school children, with fourth graders being the target audience. Visiting groups would be limited to the size of a single school group at a time and would not exceed 30 people. The docent-led tours would be offered Monday through Friday with the

possibility of an occasional weekend day. The tours would occur in two groups; a morning group and an afternoon group. The tours would begin no earlier than 9:00 a.m. and would end no later than 3:30 p.m. Visitors would circle around the exterior of the heiau, but may also enter it. It is envisioned that the Kūka'ō'ō Heiau tour would be a part of a bigger day tour for school groups that would include visiting other nearby sites such as the Hawaii Nature Center.

Components of the tour may include the following: orientation, heiau tour, plant exhibit and garden tour, video presentation, and kupuna talk-story. The length of a tour is estimated to be 45 minutes to one hour. Visitors would not be charged a fee, but donations and volunteer services would be accepted to help with maintenance costs and program operations.

In support of the interpretive/educational program, it is proposed that a new structure or hale for work and meeting space be built at the end of the O'ahu Avenue driveway within the contiguous area of parcels 37 and 38 (see Figure 4). The hale would be an estimated 2,000 square foot, single-story structure with the exterior characteristic of a dwelling (see Figure 5). It would serve to provide covered, enclosed working space for docents, as well as a gathering/meeting area for visiting groups or for the Kualif'i Foundation Board. It would include restrooms with toilets and sinks, and a small kitchen area (see Figure 4). The exterior would include a covered lanai and a garage/yard equipment storage area. The structure would also house a small introductory exhibit.

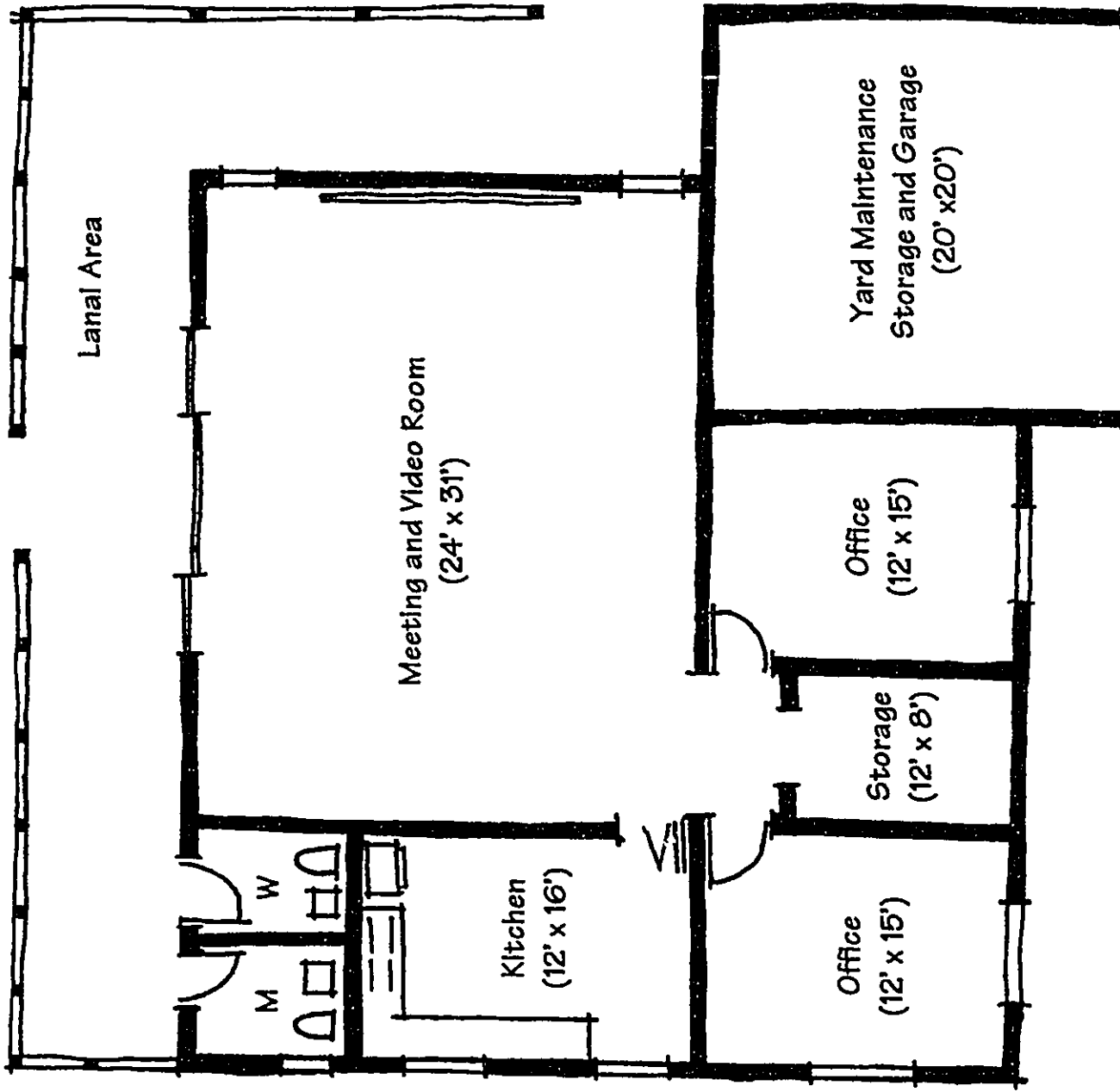


Figure 4: Draft Floor Plan of the Proposed Hale (approx scale: 1/8"=1')

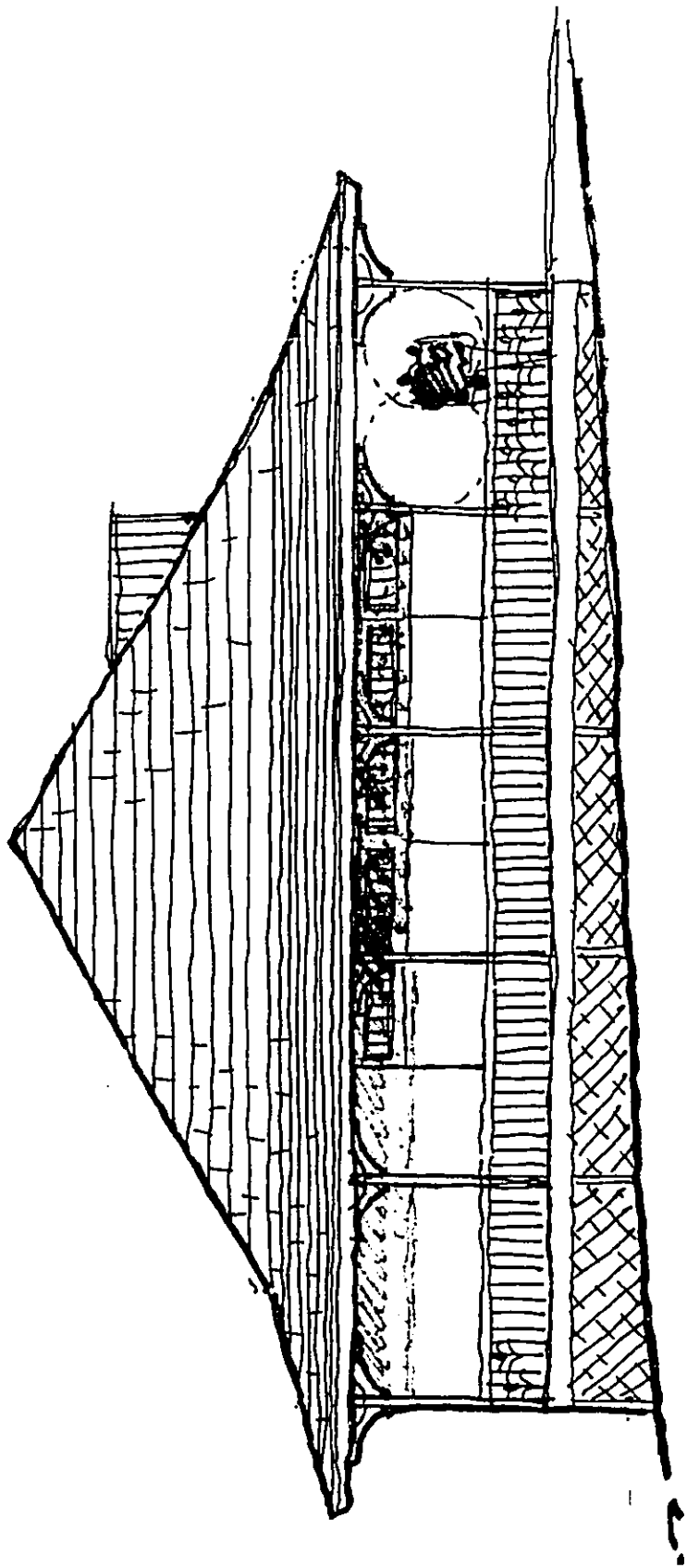


Figure 5: Draft Elevation of the Proposed Hale

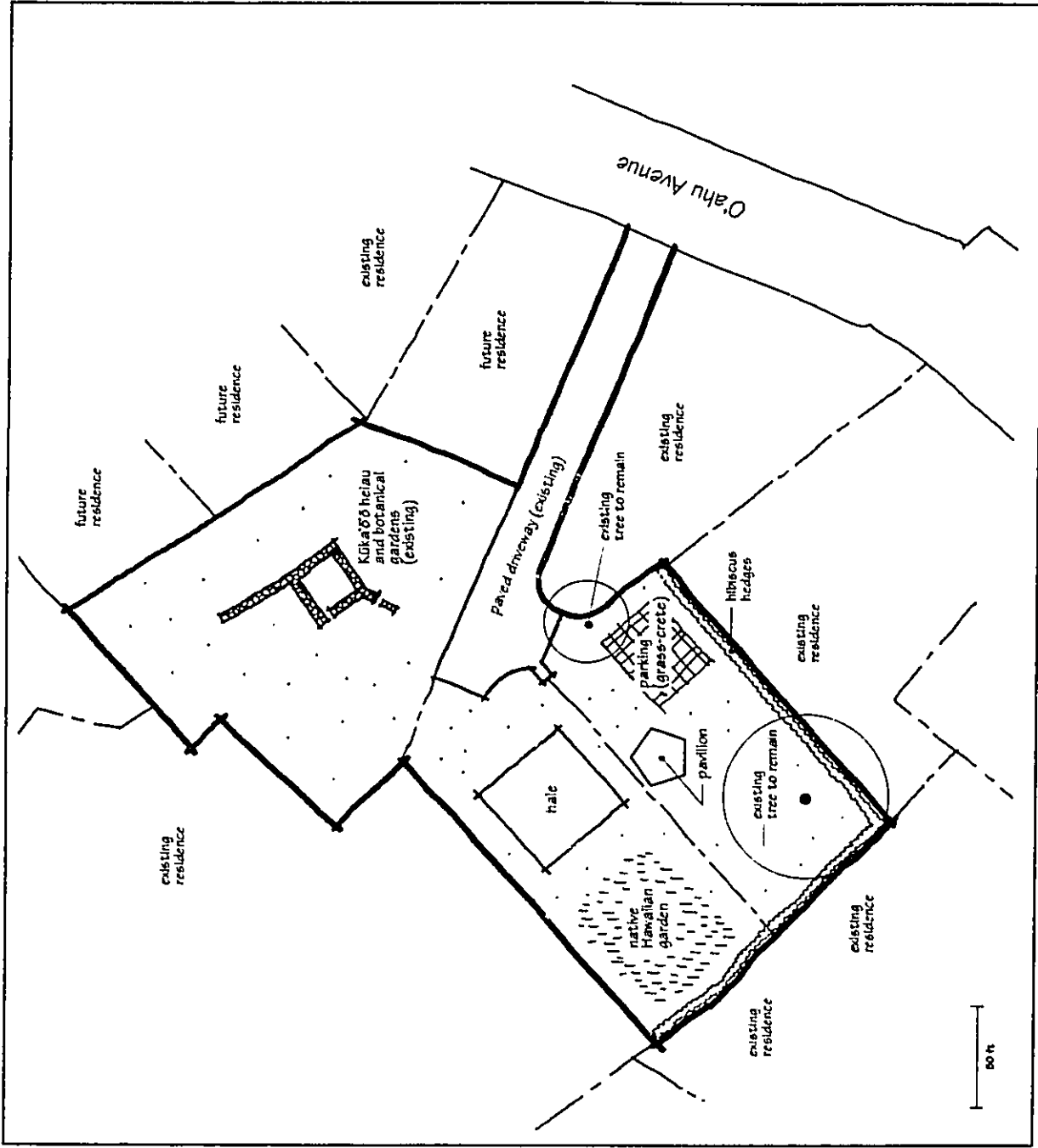


Figure 6: Conceptual Site and Landscape Plan

The actual architectural design and exact location of the hale have not been determined; however, with the development of the interpretive program, these details will be decided. Figure 6, however, shows a conceptual site plan with a possible hale location. In general, the structure will be designed to be compatible with Kūka'ō'ō Heiau and its agricultural heritage, to incorporate a style that is characteristic of older Mānoa homes (see Appendix D) including the Cooke residence, and to blend in with its Oahu Avenue surroundings. The design and location will incorporate the required setbacks and other standards of the Land Use Ordinance. It will also be designed to be ADA compliant.

A pavilion or similar structure is also proposed on the same site as the hale. The covered pavilion would serve as the visitor welcoming and orientation area. The pavilion would be an estimated 1,000 square feet. Like the hale, the architectural design and exact location of the pavilion have not been determined; however, the development of these details will incorporate the heiau and agriculture themes, the character of older Mānoa homes, the character of its surroundings, the required setbacks and buffers, and ADA regulations.

It is anticipated that the number of parking spaces that would need to be accommodated for the new use would be limited to ten spaces plus a larger space for a school van with ample area for van turn-around. This number meets the requirements of the City and County of Honolulu's Land Use Ordinance as shown in the following table.

Parking can be provided within parcels 37 and 38, and will be grass-crete or lawn. No additional hardscape paving is proposed.

No structural or aesthetic changes are proposed to the existing structures of the Kualii Estate and no major construction or renovation activities are proposed.

Planned landscaping of parcels 37 and 38 will replace existing exotic species; however, two existing mature Monkeypod trees will remain (see Figure 6).

Although exact design and locations have not yet been finalized, Figure 6 shows possible positional relationships of proposed elements on the site.

Use	Requirement	Proposed Area (sf)	Parking Spaces Required
Meeting Room	1 per 75 s.f.	750	10
Office	1 per 400 s.f.	360	1
Kitchenette	none (accessory)	192	
Restrooms	none (accessory)	108	
Storage	none (accessory)	96	
Lanai	none (accessory)	650	
Exterior Garage/Storage	none (accessory)	400	
Total:			11

A total staff of seven is anticipated to administer and operate the facility as described below:

Duties and Responsibilities

Administrator	Coordinate day-to-day operations, budget management and grant writing, develop future programs (e.g. continuing historical research, exploring visitor opportunities), coordinate with other interpretive organizations (e.g. government agencies like State Parks, private museum organizations, and neighborhood groups), and overall management of tours and site protocol.
Secretary	Assist the Administrator.
Volunteer Coordinator/Docent	Schedule visits, conduct off-site presentations, coordinate docents, help develop interpretive program and material.
Docents (3-4)	Greet visitors, lead visiting groups.
Groundskeeper	Maintain landscaping and garden(s)

The docents and groundskeeper would be on-site only part-time.

2.1.6 Proposed Interim Action

The details described above are for the ultimate desired program. In the interim, before any structures are built, it is proposed that informal small school group tours be allowed to visit the heiau. These would run no more than

three days a week.

2.1.7 Special Events

The Cooke family sometimes holds large private dinner-time gatherings at their home. These gatherings generally occur six times a year. As many as 100 people attend. Groups such as the Historic Hawai'i Foundation and the National Trust for Historic Preservation have attended in the past. The guests park in front of the main residence along Mānoa Road. As part of their visit with the Cookes, guests also visit the heiau. This activity is expected to continue without the need for a Conditional Use Permit.

2.1.8 Overall Goal

The overall goal established by the applicant is to preserve the Kūka'ō'ō Heiau and native Hawaiian botanical gardens and enhance the neighborhood quality. Limited public access in order to educate interested people and school groups would help achieve this goal. Small-scale structures are also proposed in support of this goal.

2.1.9 Construction Activities

Construction activities would only occur on parcels 37 and 38, and would be limited to the building of the hale and pavilion. Mitigative measures will be implemented as applicable during construction to assure minimal impacts from dust and noise on the surrounding residences.

2.1.10 Construction Timetable and Funding Source

Actual construction is expected to occur over a duration of three to five months. Funding for construction and improvements will be provided by the Kualii Foundation.

2.2 ECONOMIC CHARACTERISTICS

2.2.1 Employment

The proposal is likely to create one or two paid positions and 3-4 volunteer positions. It may also generate a need for short-term task-oriented volunteers.

2.3 SOCIAL CHARACTERISTICS

2.3.1 Population and Housing

The proposed action involves properties that are in the City and County of Honolulu Residential District, however, no new residential structures are being proposed. The proposed use and its staffing will not increase the resident population of the area nor will it increase the demand for housing in the area.

2.3.2 Other Community Facilities and Services

The subject area is served by the Mānoa Fire Station, Engine Company Number 22 and the Honolulu Police Department's District 7 – Honolulu Office (Mānoa Mō'ilili to Hawai'i Kai). The fire station is located approximately a half-mile away, at 2850 East Mānoa Road. The proposed use will not significantly increase

the demand for these or other community facilities and services including medical, libraries, parks, and schools.

2.4 CULTURAL AND HISTORIC CHARACTERISTICS

The subject area contains a structure of historical and cultural significance. The Kūka'ō'ō Heiau is a link to the long ago Hawaiian landscape and link to a time and culture of menehune builders and owl gods. It is also a reminder of a Hawaiian historical past of great chiefs in the centuries just before western contact. Scientific research ties the heiau to a spectrum of religious sites that reflect political and social change in Hawaiian prehistory. The heiau is also a reflection of the evolution of the Mānoa community. The proposed action seeks to preserve the Kūka'ō'ō Heiau, an uncommon feature in urban Honolulu.

2.5 ENVIRONMENTAL CHARACTERISTICS

In general, there are no environmentally unique characteristics associated with the properties. The site is not located in an environmentally sensitive zone such as a tsunami zone, erosion prone area, geologically hazardous land, estuary, potable groundwater recharge area, or area of sensitive flora and fauna habitat. The entire subject area is located in Flood Zone X, which is defined as an area outside of the 500-year flood plain. As such, the properties are not subject to floods that may impact the design and/or location of structures or improvements.

The soils in the subject area are classified as Tantalus silty clay loam¹. Runoff from this soil type is classified as medium and erosion hazard is moderate.

Parcels 37 and 38 are currently vacant, but were previously altered and graded. No major earthwork is planned and the valley's natural land forms will not be directly affected.

¹ Paul Cleghorn Consulting, *Archaeological Inventory Survey in Mānoa Valley, Oahu, TMK: 2-9-19:36, and Preservation Plan for Kūka'ō'ō Heiau*, March 1992.

3.0 SUMMARY DESCRIPTION OF THE AFFECTED ENVIRONMENT, IMPACTS, AND MITIGATION

3.1 CLIMATE

The area is characterized by warm temperatures and rains of approximately 40 to 60 inches per year². Design of the proposed structures will be typical for a tropical climate. The proposed action will have no effect on climatic conditions and no mitigative measures are necessary.

3.2 TOPOGRAPHY

The buildable subject area is generally flat. On-site elevations range from 204 to 210 feet above sea level. Implementation of the proposed action will require some clearance of alien species of vegetation. Earthwork and grading will not be necessary as the proposed structures will be of post and beam construction. No major alterations to the topography of the site will occur; thus, no mitigative measures are necessary.

3.3 SOILS AND GEOLOGY

Soil suitability studies serve mainly to describe the relative productivity of different land types for agricultural production. The subject parcels are in the middle of a residential area and will not be used for agricultural

² Juvik, Sonia P. and James O. Juvik, *Atlas of Hawaii*, Third Edition, Honolulu: University of Hawaii Press, 1998

production. Since the subject site is in a well-established residential area, and was previously developed, the proposed action will not contribute to a loss of agricultural lands. The soil is generally suited for the proposed construction, and any impact due to construction will be negligible.

3.4 HYDROLOGY AND DRAINAGE

The Kualii Estate generally slopes from west to east and surface run-off drains via existing grassed swales. There are no perennial streams and/or intermittent gulches of appreciable size on the properties.

The velocity and volume of on-site flows is not expected to increase and there will be no additional adverse effects resulting from the new structures to adjacent properties.

3.5 NATURAL HAZARDS

The subject properties are not unusually susceptible to potential natural hazards (tsunamis, floods, volcanic events and earthquakes). For example, the site is located outside the tsunami zone; there are no perennial streams and/or intermittent gulches on the properties, and no flood prone areas within the site boundaries. The site is also located outside of significant lava-flow and other volcanic event hazard areas.

The proposed action will not exacerbate any hazard conditions. Planning and design for the proposed structures will implement County building standards to mitigate any potential damages.

3.6 FLORA AND FAUNA

No unique or special habitat feature essential to native wildlife is associated with the properties. The existing flora on the vacant parcels, with the exception of the mature trees, will be removed and replaced with grass, ornamental shrubs, and native Hawaiian vegetation. The removal of the existing flora from the vacant parcels is not considered a significant adverse impact. The landscaping that will replace the existing vegetation will enhance the area and augment the cultivated native botanical garden of the parcel that contains the heiau.

3.7 ARCHAEOLOGICAL AND HISTORIC RESOURCES

The Kūka'ō'ō Heiau will remain intact. The proposed use is intended to help in the preservation of the heiau. The Kualii Foundation has been working in conjunction with the State Historic Preservation Division (SHPD) to restore and preserve the heiau. Archaeological consultant Paul Cleghorn has prepared an inventory and preservation plan approved by the SHPD, and International Archaeological Research Institute, Inc. prepared an interpretive master plan. Sam Gon III researched Hawaiian religious protocol associated with the heiau, which is included in Appendix A. The SHPD has reviewed and approved the proposed

use. A copy of the approval letter is included in Appendix B. Parcels 37 and 38 do not contain historic sites.

3.8 NOISE

Potential additional noise would likely be generated from short-term construction activity and from the visiting groups. Construction activities will comply with the Department of Health's Administrative Rules Chapter 11-46. Noise from the visiting groups is expected to be intermittent and will be minimized by keeping the groups small and by having a docent oversee the groups. Noise impacts can also be mitigated through landscaping and proper siting of visitor activities. Both construction and visitor activities will be restricted to daytime only.

3.9 AIR QUALITY

Air quality impacts attributed to the proposed action may include dust generated by short-term construction-related activities. The action is of a small-scale and the impact to local and regional ambient air quality conditions will be negligible.

3.10 VISUAL RESOURCES

Parcels 37 and 38 are surrounded by other built residences and are therefore not visible from the adjacent streets (see Appendix E). The structures proposed will not exceed the height limit and will not block existing views of the valley walls and ridgelines.

Kūka'ō Heiau on parcel 43 is somewhat visible from Oahu Avenue, but it is over 130 feet away from the street, above eye level, and is screened by mature vegetation (see Figure 3). The small group tours around the heiau will not cause any distraction for drivers or pedestrians travelling on Oahu Avenue. The tours also will not block existing views of the valley walls and ridgelines.

3.11 SOCIAL AND EMPLOYMENT CHARACTERISTICS

The proposed action and its staffing will not increase the resident population of the area nor will it increase the demand for housing in the area. The completed project will not be a significant source of employment nor will it create a significant impact on employment in the area or the island. The socio-economic impacts associated with the proposed action are positive and will not require mitigation.

3.12 CHARACTER OF THE COMMUNITY

The proposed land use has been planned to blend with and enhance the Mānoa community. The proposed action will provide additional educational opportunities to improve the overall quality of life for the community.

The proposal concept has been introduced to the grassroots community and environmental organization, Mālama o Mānoa. Mālama o Mānoa has a constituency of approximately 3,500 mostly Mānoa residents. Mālama o Mānoa helped coordinate a half-day visit involving 60-

70 Mānoa school teachers and staff to give them a brief tour of the heiau and share ideas on the educational/interpretive program concept.

The proposal concept has also been introduced to the Mānoa Neighborhood Board and the surrounding neighborhood and landowners. Thus far, all expressed comments have been positive and supportive of the project. One of the adjacent neighbors, however, while supportive of the spirit of the project, also expressed some hesitancy over some specific details. Discussions with this neighbor has begun and an amicable result is expected.

Impacts on the overall character of the community will be positive and mitigation measures are not necessary.

3.13 INFRASTRUCTURE

3.13.1 Roadways, Traffic, and Parking

Ingress and egress from the subject properties are via Oahu Avenue. Parking will be accommodated on-site. Should school bus pick up and drop off be needed, it would occur at the existing City Bus stop on Oahu Avenue and would be planned so as not to interfere with the City Bus schedule. The anticipated traffic and parking impacts associated with the proposed action will be minimal and no road widening, construction, paving, or striping will be necessary. No other mitigation measures are required.

3.13.2 Water Supply

The average daily demand for potable water for the proposed use will not be significantly more than if parcels 37 and 38 were each developed for two-family residential units, which is possible. Given the low quantity of water required for the proposed use, impact to the ground water resource will be insignificant. Special water conservation or other measures are not required.

3.13.3 Wastewater Treatment and Disposal

The proposed facilities will utilize existing sewer laterals that connect to the 6-inch sewer line along Oahu Avenue. Both parcels 37 and 38 have connections to support two (2) two-family detached dwellings. Capacity is therefore more than adequate. Anticipated impacts to wastewater treatment facility capacities will be negligible and mitigation measures are not warranted.

3.13.4 Drainage Facilities

Planned landscaping and grass or grass-crete parking and vehicle turn around areas will reduce potential run-off flows from the subject site. Run-off will be channeled through existing grassed swales to the paved driveway and down to Oahu Avenue.

The velocity and volume of on-site flows is not expected to increase and there will be no additional adverse effects resulting from the new structures to adjacent properties. Mitigation measures are not required.

3.13.5 Solid Waste Disposal

The proposed action will not create a significant impact on solid waste facilities or services. Mitigation measures to minimize potential adverse impacts are not required.

3.13.6 Electrical/Communication

Electrical service is provided by Hawaiian Electric Company and telephone service is provided by GTE Hawaiian Tel. Access and connections are available to the subject properties. No negative impacts on utility systems will result from the proposed action and thus, no mitigative measures are needed.

3.14 PUBLIC SERVICES

3.14.1 Police and Fire

The proposed use is not expected to increase the demand for police or fire protection services. It also should be noted that when the Eugene Yoshioka Subdivision was created, a new fire hydrant was built along the driveway about 40 feet from the edge of Parcel 37. No mitigation measures are required.

3.14.2 Schools

The proposed use will not impact existing school capacities or facilities; however, it will create educational opportunities. The Kualii Foundation has been and intends to continue to work with schools, particularly elementary schools, to share its educational resources.

The proposed action will not create additional need for educational facilities and therefore, mitigation measures are not required.

3.14.3 Recreational Facilities

The proposed use will not result in any loss of recreational areas, facilities, or opportunities. No mitigation measures are required.

3.14.4 Medical Facilities

The proposed use is not anticipated to create an increase in demand for medical facilities. No mitigation measures are required.

3.15 OVERALL SHORT-TERM AND LONG-TERM MITIGATION MEASURES

As indicated above, few potential adverse impacts to the area are expected to result from the proposed use. Construction activities would comply with all applicable regulations of the City and State Department of Health.

Long-term negative impacts from the proposed use are expected to be insignificant.

Recommended mitigation measures include the following:

Short term:

- Restrict construction activities to daylight hours.
- Plant new grass and shrubs as soon as possible after alien vegetation is removed.

Long term:

- Establish landscaping to maintain long-term air quality, noise quality, and aesthetically integrate the proposed use into the surrounding neighborhood.

3.16 SUMMARY OF ADVERSE ENVIRONMENTAL EFFECTS WHICH CANNOT BE AVOIDED

The proposed use will result in negligible impacts as described earlier in this section. Potential effects include noise occurring from construction activities. In addition, there may be temporary air quality impacts associated with dust generated from construction activities. The proposed action is not anticipated to create any significant, long-term adverse environmental effects.

3.17 IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF RESOURCES

No significant irreversible and irretrievable commitments of resources have been identified in connection with the proposed action.

4.0 ALTERNATIVES TO THE PROPOSED ACTION

In compliance with the provisions of Title 11, Department of Health, Chapter 200, Environmental Impact Statement Rules, Section 11-200-17(f), the "known feasible" alternatives to the proposed action are limited to those that would allow the objectives of the project to be met, while minimizing potential adverse environmental impacts. The feasible alternatives must also realistically address the project's economic limitations while also respond to the surrounding residential land uses that will be impacted by the action.

4.1 ALTERNATIVES CONSIDERED

4.1.1 The Selected Alternative

The Selected Alternative best encourages active preservation of Kūka'ō'ō Heiau and offers the most opportunity for public learning.

The existence of the heiau, availability of the subject properties, and their location near the heiau make the subject properties ideally suited for the proposed use.

The specific elements of the interpretive program will be developed in consultation with cultural experts and the State Historic Preservation Division. Generally, the dimensions and size of the structures will be determined by the anticipated interpretive program requirements.

4.1.2 The No-Action Alternative

The "no-action" alternative would leave the subject properties as vacant residential land to be developed with either single-family homes, duplexes, or two-family homes. Up to four single family homes could be built on the properties under the current Land Use Ordinance. More than four dwelling units is also possible if the units are duplex or two-family units. In any case, total occupancy would be much greater than the selected alternative. Built area and visual impacts would be much greater as well. Impacts on municipal services will also be greater. Access to the heiau would be significantly limited.

5.0 SIGNIFICANCE CRITERIA

5.1 SIGNIFICANCE CRITERIA

According to the Department of Health Rules (11-200-12), an applicant or agency must determine whether an action may have a significant impact on the environment, including all phases of the proposal, its expected consequences both primary and secondary, its cumulative impact with other projects, and its short and long-term effects. In making the determination, the Rules establish "Significance Criteria" to be used as a basis for identifying whether significant environmental impact will result from the development. According to the Rules, an action shall be determined to have a significant impact on the environment if it meets any one of the following criteria:

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

The proposed use will not result in a loss of cultural resources. On the contrary, the proposed use is in support of preserving a significant Hawaiian heiau.

The two parcels where construction is to occur (parcels 37 and 38) do not contain important natural or cultural resources or endangered flora or fauna. The proposed use will not impact scenic views of ridgelines in the area. The change in visual character of the subject area will be unnoticeable because of its location between other lots. The properties are not subject to coastal-related flooding and do not contain any wetlands or other unique habitats.

Impacts to the microclimate, hydrology, and drainage will be insignificant.

b) *Curtails the range of beneficial uses of the environment;*

The subject properties are sized and prepared for residential development. They are located in the midst of a well-established urban residential area. The beneficial use of the properties has already been significantly curtailed by both historical development of the area and land use policy.

Given the limitations of the properties for alternative uses, the proposed use for educational purposes is of greater benefit to the public than private residences.

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

The proposed use is consistent with the Environmental Policies established in Chapter 344, HRS.

d) *Substantially affects the economic or social welfare of the community or state;*

The preservation of the heiau is a contribution to the

knowledge of Hawaiian history and ancient Hawaiian beliefs. It is an educational resource and will be open to the community with an emphasis to educate school children and the interested public. The docent-led visits will help to preserve the heiau by increasing the public's awareness of its existence and significance. The proposed use will allow the public to enjoy the estate and will help preserve the open space and beauty of the neighborhood.

e) Substantially affects public health

Construction-related traffic, air quality impacts, and noise will be insignificant especially compared to the impacts of the no-action alternative, which would allow the development of four or more dwellings. The proposed use provides positive social and quality of life improvements.

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

The proposed use is not expected to involve substantial secondary impacts.

g) Involves a substantial degradation of environmental quality;

The proposed use will utilize existing vacant land, but will not result in degradation of environmental quality. No significant increases in air, noise, or water impacts are anticipated. No endangered plant or animal species or important habitat is associated with the site.

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

No commitment for larger actions or significant cumulative impacts on the environment is associated with the proposed action.

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

There are no endangered plant or animal species located on the subject properties to be developed.

j) Detrimentially affects air or water quality or ambient noise levels;

The proposal will not impact near-shore ecosystems nor significantly affect groundwater resources. The proposal does not involve a use that is a source of emissions nor constant noise. Noise attributed to the proposed use will not detrimentally affect ambient noise levels.

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

The subject properties are not located within a flood plain, tsunami zone, beach, erosion-prone area,

geologically hazardous area, estuary, freshwater, or coastal waters.

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

Due to the location and topographical characteristics of the properties, as well as the elevation of proposed structures, the view of the mountain ridges from the nearby collector streets will not be impacted. Views of the subject properties are limited and not significant. No County or State studies have identified scenic vistas and/or view planes associated with the subject area.

m) Requires substantial energy consumption.

The proposed use will not require substantial energy consumption. It will help conserve energy since the alternative use for the properties would allow 4 two-family dwellings to be developed. The dwellings would most likely be continuously occupied and would cumulatively require more public services.

6.0 LIST OF ALL APPROVALS AND PERMITS REQUIRED

During implementation, the applicant will be working with the State and County review agencies for examination and approval of proposal plans and specifications.

Permit/Approval

Environmental Assessment
Conditional Use Permits – Minor
Building Permits
Amendment to Restrictive Covenants
Use of Historic Structure

Responsible Agency

Department of Planning and Permitting
Department of Planning and Permitting
Department of Planning and Permitting
Department of Planning and Permitting
State Department of Land and Natural Resources,
Historic Preservation Division

7.0 APPLICANT'S JUSTIFICATIONS

7.1 COMPLIANCE WITH THE LAND USE ORDINANCE

a) Residential Districts

Section 21-3.70 states that: *Nondwelling uses which support and complement residential neighborhood activities shall be permitted.*

The proposed meeting area will be used by various residents of the Mānoa neighborhood including the members of the Mānoa Valley Cultural Heritage Foundation, Mālama o Mānoa, and nearby schools.

b) Use of Historic Structures

Section 21-5.330 states that the intent is to provide an incentive for owners of historic structures to retain them, by allowing uses not otherwise permitted in the underlying zoning district. In addition, this section states that:

Any structure on the State or National Register of Historic Places may be occupied by a use not otherwise permitted in the underlying zoning district, provided that any proposed alteration, repair or renovation beyond its original design and the proposed use is approved by the State Historic Preservation Officer.

The State Historic Preservation Division has been consulted in the development of the proposal. The Division's letter of approval is contained in Appendix B. One of the Division's officers has been intimately involved in the restoration of Kūka'ō'ō Heiau and is in support of the educational tours.

Site Suitability

The large size of contiguous parcels 37 and 38 and their location below the heiau make these lots a logical starting point for visits to the heiau. Their flat slope, adjacency to the entry driveway, and distance from the street further support use of these lots for parking, the staging of visitors, and location of staff members. Parcel 43 is large enough to accommodate tours around Kūkao`o Heiau while maintaining a large buffer between people and the surrounding properties. The grade change from parcel 43 to its adjoining lots also add to the buffer.

Parcels 37 and 38 already have utility connections and further infrastructure improvements will not be necessary. Access via a concrete driveway is also already available.

Alteration of the Character of the Surrounding Area

No significant change in the character of the neighborhood or the surrounding area is expected with the proposed change in use. The activities and structures

associated with visitation and education will not limit immediate surrounding neighbors from continuing their activities and enjoying the full use of their properties, nor will they disrupt the quiet character of this residential neighborhood. Landscaping improvements to the subject parcels will also benefit surrounding adjacent neighbors by increasing their privacy and beautifying their views toward the subject property.

Contribution to General Welfare

The preservation of the heiau is a contribution to the knowledge of Hawaiian history and ancient Hawaiian beliefs. It is an educational resource and will be open to the community with an emphasis to educate school children and the interested public. The docent-led visits will help to preserve the heiau by increasing the public's awareness of its existence and significance. The proposed use will allow the public to enjoy the estate and will help preserve the open space and beauty of the neighborhood.

Compliance with the Minimum Development Standards

The proposed use fully complies with the intent of Section 21-5.330, Use of Historic Structures (see previous section, Compliance with the Land Use Ordinance).

Table 21-3.2, Residential Districts, Development Standards, of the Land Use Ordinance shows requirements of a minimum lot area of 7,500 square feet (20,000 is actually required for "meeting facility"); a

minimum lot width and depth of 65 feet; a front yard of 30 feet; side and rear yards of 15 feet; a maximum building area of 50 percent of the zoning lot; a maximum height of 25-30 feet; side and rear height setbacks of one foot for each two additional feet over 15 feet; and a front setback of one foot for each two additional feet over 20 feet. These requirements will be met as shown in the table below:

	<i>Development Standards</i>	<i>Proposal Standards (Parcels 37 & 38)</i>
<i>Lot Area</i>	Min. 20,000 sf	35,740 sf
<i>Lot Width & Depth</i>	Min. 65 ft	80 ft width 85 ft depth
<i>Front Yard</i>	Min. 30 ft	30 ft
<i>Side and Rear Yards</i>	Min. 15 ft	15 ft
<i>Building Area</i>	Max. 50% (17,780 sf)	3,500 sf
<i>Height</i>	Max. 25-30 ft	15 ft
<i>Height Setbacks</i>	Side/Rear - 1 ft for every 2 ft over 15 ft. Front - 1 ft for every 2 ft over 20 ft.	N/A

8.0 SUMMARY OF FINDINGS AND ANTICIPATED DETERMINATION

The proposed use, which is approved by the State Historic Preservation Division, will help preserve the Kūka'ō'ō Heiau, a significant site of legendary and prehistoric associations with Mānoa Valley and Oahu island. It will also help to foster a greater understanding of the heiau, heighten an appreciation of the area's role in history, and preserve the existing open space and beauty of the neighborhood. The emphasis is to educate school children and the interested public.

In general, there are no environmentally unique characteristics associated with the properties. The site is not located in an environmentally sensitive zone such as a tsunami zone, erosion prone area, geologically hazardous land, flood plain, estuary, potable groundwater recharge area, or area of sensitive flora and fauna habitat.

The subject properties are sized and prepared for residential development. It is located in the midst of a well-established urban residential area. Impacts associated with the proposed use and supporting structures are negligible. The no-action alternative would create greater impacts on public services, infrastructure, the physical environment, and parks and recreation facilities. The beneficial uses of the properties have already been significantly curtailed by both historical development of the area and land use policy. The availability, location, and topography of parcels 37 and 38 offer a highly unique opportunity for the

proposed interpretive and educational use. The properties' size, contiguity, street access, connections to utilities, and zoning also make the properties highly suitable for the proposed use. Although the properties are zoned for residential use, the City and County of Honolulu allows for the proposed use.

The proposed use supports the City and County of Honolulu's General Plan, Culture and Recreation Objective B, which is to protect Oahu's cultural, historic, architectural, and archaeological resources. It also supports the following policies:

Policy 1: Encourage the restoration and preservation of early Hawaiian structures, artifacts, and landmarks.

Policy 2: Identify, and to the extent possible, preserve and restore buildings, sites, and areas of social, cultural, historic, architectural, and archaeological significance.

Policy 4: Promote the interpretive and educational use of cultural, historic, architectural, and archaeological sites, buildings, and artifacts.

Policy 6: Provide incentives for the restoration, preservation, and maintenance of social,

cultural, historic, architectural, and archaeological resources.

Historic preservation efforts are also encouraged by the City and County of Honolulu Development Plan policies. Section 24-1.6, *Identification of areas, sites and structures of historical significance*, of the Common Provisions says specifically:

The principal areas, sites and structures of historical, archaeological or architectural significance include, but are not limited to, those registered under the National and Hawaii Registers of Historic Places, as amended. The continued use, enhancement or preservation of such areas, sites and structures shall be incorporated or promoted in any applicable action by the City. Such actions shall be permitted in all areas designated for any use on the land use map....

The proposed revised Development Plan for the Primary Urban Center also includes a specific policy (section 3.2.2, policy 2) to restore or keep intact sites with sacred significance, out of respect for their inherent value.

Based on the findings of this Environmental Assessment, the applicant anticipates that no significant environmental affects will result from the proposed action and an Environmental Impact Statement (EIS) will not be required. A Finding of No Significant Impact (FONSI) is therefore expected.

9.0 REFERENCES

- City and County of Honolulu Department of General Planning, *General Plan Objectives and Policies*, Honolulu, 1992
- Gon III, Sam, *Summary of Hawaiian Religious Protocol Appropriate for Interpretive Programs at Kūka'ō'ō Heiau, Mānoa, O'ahu*, Honolulu, March 2000
- Juvik, Sonia P. and James O. Juvik, *Atlas of Hawaii*, Third Edition, Honolulu: University of Hawaii Press, 1998
- Mālama o Mānoa, *Background Report for the Mānoa Valley Special District*, Honolulu, January 1995
- Paul Cleghorn Consulting, *Archaeological Inventory Survey in Mānoa Valley, Oahu, TMK: 2-9-19:36, and Preservation Plan for Kūka'ō'ō Heiau*, Honolulu, March 1992.

APPENDIX A

SUMMARY OF HAWAIIAN RELIGIOUS PROTOCOL APPROPRIATE FOR
INTERPRETIVE PROGRAMS AT KŪKA'Ō'Ō HEIAU, MĀNOA, O'AHU

KUALI'I FOUNDATION
MANOA VALLEY CULTURAL HERITAGE FOUNDATION
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March 1, 2000

Mr. John Whalen, AICP
Ms. Lisa Imata
Plan Pacific
737 Bishop Street, Suite 1520
Honolulu, HI 96813

Dear John and Lisa,

Please find attached the final draft of Dr. Sam Gon III's research report, "Summary of Hawaiian Religious Protocol Appropriate for Interpretive Programs at Kūkā'o'o Heiau, Manoa, O'ahu". This document, in addition to Myra Tuggle's 1998 historical survey and interpretive master plan, "Kūkā'o'o Heiau: A Glimpse at Manoa's Past," will form the basis for the future interpretive and docent programs of the Manoa Heritage Center.

The Board of Directors of the Manoa Valley Cultural Heritage Foundation have approved this final draft subject to the addition of an executive summary to be added at the beginning of the report. Due to employment circumstances, Dr. Gon will not be able to complete the executive summary until this coming Summer, 2000.

Please do not hesitate to contact me at the above number(s) if I can answer any further questions.

Very truly yours,



Cathy Cooke
Director, Kualii and Manoa Valley Cultural Heritage Foundations

Summary of Hawaiian Religious Protocol Appropriate for Interpretive Programs at Kūkā'o'o Heiau, Mānoa, O'āhu

by Sam Gon III

*Iho mai ana ka ua i lalo nei
E ka 'u kīno akua i ka lani
E ka haka lei o Paao
E mahete ana e ka ua, e ka lā
E ka 'ālewalewa, e ka pūnahu nui ākea
I hā'ule ai ka lani i ka honua
I ho'oka'aka'ā ai ka lani e ua
Hānau Kiouli, Kiomea
Hānau Kauakahiki 'ipo'owaiāi
'O Kahaka'akelu, e!
'O Kepolohaina
'O Kūitaitekaua
'O Lonomakaihe
'O Lonoikiaweaealoa
'O Lono 'ōpuakau
'O Apanapo 'o, e Pō'ōitole 'a
E Kanikavi, e Kanikawā
E Kūmahumahuolo
E Koloka 'aka
E nā akua ho'ohau o Kama la, e!
Hōmai ana he ua!
'Āmama, ua noa*

The above from Gumiama 1917, Ni Pu'e Kahiko, Ancient Hawaiian Prayers

This *pu'e ho'ouluu ua* (prayer for increased rain) is symbolic of the ancient richness of Hawaiian agricultural ritual and protocol that is largely lost to us today. It is in the spirit of relearning about a rich cultural past that this work is dedicated.

Summary of Hawaiian Religious Protocol Appropriate for Interpretive Programs at Kūkaō'ō Heiau, Mānoa, O'ahu

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Summary of Hawaiian Religious Protocol Appropriate for Interpretive Programs at Kūkaō'ō Heiau, Mānoa, O'ahu

by Sam Goa III
November 1999

STATEMENT OF SCOPE

Present as complete a summary picture as possible of the function and protocol at agricultural *heiau** so that an interpretation can be made regarding its role and significance in Hawaii culture, the prayers, along with the rituals and protocol associated with this type of *heiau*.

*We recognize that it will be impossible to present a full protocol and description of rituals, since most of the information has been lost.

INTRODUCTION

This report is designed to provide the necessary background material regarding agricultural protocol at a *heiau* such as Kūkaō'ō, to serve eventually as the basis for an interpretive program highlighting one aspect of the rich history and cultural significance of Mānoa Valley. Such information is not available in any single source, but scattered in loosely organized fashion among many general sources. The gathering of this information and compilation into this summary report parallels that of building a traditional structure:

1. A foundation is constructed in the form of an introduction to Hawaiian religious practice, and the general attributes of the *akua* (gods) of ancient Hawaii¹.
2. The main posts are erected via descriptions of the roles of the four major *akua* and their connections to agriculture: examples of the names of major agricultural *akua* (among the myriad epithets of the four major *akua*), a summary of the spiritual aspects of major crops such as *kalo* (taro, *Colocasia esculenta*) and *'uala* (sweet potato, *Ipomoea batatas*), description of the cycle of typical religious and agricultural practice of *māhū'ūi* (farmers) and *kāhuna* (priests) as patterned by

natural cycles in the course of a lunar month, and a discourse on the name and nature of *Kulka 'ō'ō* among the described types of *heiau* (Hawaiian temples or religious structures).

3. Finally, the structure is thatched with the protocols and chants gleaned from the literature, related to agricultural practice in ancient Hawai'i. Part of this thatching is in Appendix I illustrating the Hawaiian lunar calendar and the main cycles of religious and agricultural significance in the course of a month, and in Appendix II compiling some agricultural chants.

It is hoped that the end result is a glimpse of the patterns and complexities of Hawaiian religious practice, as well as the role of *heiau* and ritual in the everyday life of the *mahi 'ai* of Mānoa Valley in ancient times.

THE ANCIENT VIEW OF AGRICULTURE

The importance afforded farming in ancient Hawai'i is clearly demonstrated by examining who engaged in this practice. Farm work was largely a male responsibility (as was worship to the major gods), and farming activities (planting, harvesting, etc.) were not seen as menial, but could be undertaken by both *maka 'āinana* (commoners) and *ali'i* (chiefs). It is mentioned in several places (e.g., see Gutmanis 1983, Handy et al 1972) that Kamehameha I would join farmers in working the agricultural fields. The Hawaiian lexicon (vocabulary) of farming also points to the activities of *ali'i* in agriculture. For example, Malo (1951 p 205) indicated the different terms for the farms of the *ali'i* (for example, *kō'eie* and *hakuone*) to be distinguished from generic farmlands of the *maka 'āinana* (which were called *māhina 'āi*). We start, therefore, with the idea that farming was considered sacred, and was counted among the activities of the highest ranking *ali'i* of the land.

HAWAIIAN GODS AND THEIR RELATION TO AGRICULTURE

Akua

Background on religious protocol and ritual related to agriculture requires an introduction to the Hawaiian gods in general, then those important to agriculture. In general, ancient Hawaiians viewed the universe as occupied by countless thousands of conscious deities (*akua*) that can be communicated with directly and who have a direct role to play in affecting human life and activities. All of the major elements of the natural world (wind, rain, light, life, etc.) are the result of or manifestations of these *akua*.

Kinolau

Physical manifestations of *akua*, especially forms that are classically assumed by particular *akua*, are called *kinolau* (literally: many bodies), indicating that an *akua* may take many forms (see discussion in Handy et al 1972 p 23). The concept of *kinolau* is extremely important, since the objects and offerings used in religious ritual, and the names of natural objects or events mentioned in *pu'le* (prayers) are often specifically chosen on the basis of the classical *kinolau* of specific *akua*. This will be seen in examples to follow.

Four major akua

Multiply the *kini akua* (uncountable gods) with their many potential manifestations and you get a very crowded and active, conscious universe. That being said, the majority of the *kini akua* are organized under the manifestations of four major *akua*: Lono, Kū, Kāne and Kanaloa. Each presides over particular aspects of life and nature. In overly simplified accounts, Lono is the god of peace and agriculture, Kū is the god of warfare and chiefly governance, Kāne is the god of light, healing, and creation, and Kanaloa the god of the sea. As seen in the more expanded descriptions below (mostly from Handy et al 1972, and Malo 1961) the manifestations and realms of influence overlap, and all include agricultural aspects.

Lono

Lono is the principal god of growth, horticulture, and rain (clouds). Lono is clearly associated with both *kalo* (taro) and *'uala* (sweet potato) culture, which together comprised the majority of starch and carbohydrate sustenance in ancient Hawai'i. Therefore Lono is often afforded the primary role as god of farmers. To Lono are offered the first harvest of the land each year, particularly *kalo* (taro, *Colocasia esculenta*), during the *Makahiki* (the start of the Hawaiian year, coinciding with the coming of the wet season, roughly in October-November). *'Awa* (kava, *Piper methysticum*) is also sacrificed, presented in a gourd (a *kinolau* of Lono), hung around the neck of the *abua la'au nui o Lono* (great wooden image of Lono). The gourd's roundness connotes fullness, abundance, pregnancy, clouds about to unleash rain, etc. Both water and poi, two of the mainstays of life, are stored in ipu. Each male child, upon weaning, entered the *kale mua* (men's house) via the rite called *Pule Ipu*, which was a Lono rite. The agricultural *kinolau* of Lono include *'uala* (sweet potato), *ipu* (gourd), and *pua'a* (hogs)

Kāne

In Valeri's summary of the general features of the major Hawaiian gods, Kāne is described as the god of light (e.g., the sun), creation, freshwater, and life. The association of Kāne (and his brother Kanaloa) to freshwater (see story in Kanaloa discussion below) means that Kāne is also of major significance to agriculture, especially *kalo* agriculture. Agricultural *kinolau* of Kāne include *kalo*, *'awa*, *'ohi* (bamboo), *kō* (sugar cane), and *'ālena* (turmeric). Similarly, Handy et al (p 82) point out that Kāne's association with both freshwater and sunlight provide the fundamental combination for agriculture, embodied in a single god.

Kanaloa

Kanaloa is generally considered the god of the sea, but is indirectly associated to agriculture via his relationship to his brother Kāne, and by a tradition linking the origins of many famous freshwater springs to the actions of Kanaloa and Kāne. Wi'amaun (Kū'oko'a 1865) relates that the two brother-gods are *'awa* drinkers.

They are said to have traveled from island to island, stopping occasionally to eat and prepare their *'awa*. If they were in a waterless place, they would need to open a spring. Kāne would plunge his spear into the ground at the behest of Kanaloa, and at each such spot, a spring would appear. In general, although Kāne was the one who thrust the spear, it was usually at Kanaloa's bidding (it was always Kanaloa that mentioned that he was hungry and wanted to stop, eat, and drink *'awa*). Handy et al (p 156) point out that Kanaloa is also associated with agriculture via one of his terrestrial *kinolau*: *mai'a* (bananas).

Kū

Kū is typically associated with warfare, male aggression, steadfastness, and governance. Trees are *kinolau* of Kū via their erect, steadfast nature, and therefore forested areas are considered the realm of Kū. Objects derived from trees, especially weapons, but in the case of agriculture *'ō'ō* (digging sticks, the primary tool of the *mahi'ai*), are also directly related to Kū. Two tree crops, *ulu* (breadfruit, *Artocarpus altilis*) and *niu* (coconut, *Cocos nucifera*), are considered *kinolau* of Kū, and therefore the farming of *niu* and *ulu* requires religious rituals dedicated to Kū. Handy et al (p 170) note that both *ulu* and *niu* are considered the body of Kū upside-down, with head in the earth, and with penis (leaf or flower spike) and testicles (nuts or fruit) in the air. One certain declaration of war is the felling of an enemy's *niu* trees: an attack on the *kinolau* of the god of war, Kū.

SACRED NATURE OF WAI, KALO, AND 'UALA

Handy et al (1972) point out that *mahi'ai* (farmers) as a class of people were sectarian, there being *mahi'ai* who worshiped any one of Lono, Kū, Kāne, and Kanaloa deities. Beyond the deities chosen for worship, natural features and even the crops of the *mahi'ai* were considered sacred. Three of these are discussed below because of their importance in agricultural protocols of the Mānoa region: *wai* (fresh water), *kalo*, and *'uala*.

Wai

All Hawaiians revered wai (water) as sacred, as a life-giving element. Although freshwater was generally considered the manifestation of Kāne, water falling as rain from the cloud forms of Lono in the sky, and especially from the winter storms of Lono would be associated with that god, perhaps with a specific epithet, as Lonowaimakua (Lono [of] parental water). Indeed, there are *pule* that ask for the water of life from Kanaloa, Lono, Kāne, Kū, and even Hi'iaka (the younger sister of Pele). But the connecting feature to agriculture is the reverence of water as sacred. As none could own water, it being a manifestation of gods, conflicts over water or water systems were rare (Handy et al p 59). Decisions over water distribution were made by the *ali'i*, the *konohiki* (*ali'i*-assigned manager) of the *ahupua'a*, and the water *kahuna* (himself typically a priest of Lono).

Kalo

In Hawaiian tradition *kalo* originated as the first offspring of Wakea (Sky-father) and Ho'ohokukalani, the daughter of Papa (Earth-mother). The product of their union was born as a premature, malformed thing, which was buried, and became the first *kalo* plant, named Hāloa-naka, an elder sibling to the first human being, who was also named Hāloa. This intimate relationship between human and plant (with the plant taking the role of respected elder), means that plants, and *kalo* in particular, are considered genealogically superior and *kapu* above humanity. The sacredness of *kalo* meant that its cultivation was restricted to men. Kalo is associated to the worship of Kāne, which carries one of the more rigorous religious protocols.

Because of the dualism of terrestrial with marine elements (in which forms in the ocean were considered spiritually matched with forms on the land) and the concept of *kinolau*, *kalo* of certain forms could be substituted for fish or animal offerings in major rituals (Handy et al p 116). For example, the *kumu* variety of *kalo* could be used instead of *kumu* the fish, or the *hiwa* variety of *kalo* replaced for *pua'a hiwa* (black pig). These were not considered substitutions to compensate for the lack of a more desired offering, but spiritually equivalent. Thus, *kalo*, primarily a *kinolau* of Kāne, could via dualisms, be

offered as forms of other of the major gods. One good example is the *kalo* variety called *ipu o Lono*, which could be offered to Lono under certain circumstances.

That being said, the relationship between man and *kalo* is also a familial one, and similar terms are used to refer to *kalo* plants as human families, for example, large parent plants are called *mākua*, the word for human parents, and the budding side growths stemming from the *mākua* are called *'ohia*, the same root as *'ohana* (family). Thus the *mahi'ai* (farmer) standing hidden among tall clean *kalo* plants feels sacredly surrounded by individuals regarded as supporting elder siblings, rather than a mass of subordinate foodstuffs.

The sacred status of *kalo* is perhaps associated with its connection to freshwater. *Kalo* was the only staple crop that was afforded irrigation (*auwai*). Other crops received irrigation only under conditions of surfeit. The protocol associated with consecration of a new *auwai* has been documented by Handy et al (1972), as part of the ritual and chants associated with agriculture they reviewed.

'Uala

In contrast to *kalo*, *'uala* was cultivated by both men and women, was not the choice staple of the *ali'i*, flourished in drier, less favored localities, was quicker to mature, and considered common food (Handy et al). *'Uala*, however is also the *kinolau* of Lono, the major Hawaiian god of agriculture and rain. Handy et al (p 137) suggest that the majority of rain-making lore and protocols come from the *'uala* traditions, since rain is extremely important for *'uala* cultivation (vs. irrigation for *kalo*). Both *kahuna* and *mahi'ai* engaged in these rituals, addressing chiefly Lono as rain-maker, or Kānepua'a (or Kāmapua'a, another rain-making *kinolau* of Lono). Kū and Kāne were also mentioned in these rituals, as gods of growing things and living waters, respectively.

COMPILATION OF *INOA AKUA* ASSOCIATED WITH AGRICULTURE

The many gods of agriculture

It was mentioned earlier that all of the major gods in the Hawaiian theology (Lono, Kū, Kāne, and Kamaloa) are associated with various general aspects of agriculture, with Lono perhaps primary. A footnote in Malo (1951 p 208) indicates that while Lono was a major god of agriculture, Kū was also a frequent object of worship, and finally he states, "there were also many other gods worshipped by farmers." Rarely does one come across a concerted effort to compile the *inoa akua*, (the names of these gods). It is instructive to provide detail of this sort to convey the richness of ancient Hawaiian religion, and to show, through the names of the gods, how the various aspects of the natural world are woven into agricultural protocol.

The association of the various deities to agriculture goes far beyond associations of crops with certain gods. The properties of the universe that are associated with each god and important to farming were also evoked directly and indirectly. For example, rain and growth involve invocations to both Lono and Kāne, as seen in numerous chants, such as the example provided (see chant in Appendix II entitled: "E Kāneaulōkahanoua..."). Similarly, the main tool of the farmer, the 'ō'ō (the digging stick) is made from forest hardwoods, and therefore the jurisdiction of Kū (Appendix II chant "E Kūmōkūhāli'i...").

List of deities

The following list of agricultural deities (and suggested translations and annotations) is compiled from a few major sources, including Fukui and Elbert (Hawaiian Dictionary, 1971 Edition, which included a glossary of names of major Hawaiian gods), Gutmanis (1983), Beckwith (1970), Kamakau (1964 & 1976), and Malo (1951), the purpose of this compilation of names is not to provide an exhaustive and complete listing, but to indicate the numerous and vital ties to Hawaiian religion, worship, and protocol inherent in agriculture. The names of the gods provide insight on the nature of their involvement in agriculture, as alluded to in the brief translations/annotations given below for each. Following the names that fall under the category of epithets for the major gods are names

that do not include the name prefix of any of the four *akua*. It is likely that each of these is connected in some way to one of the four, but I chose not to delve into the aspects of research that would uncover those links.

While there are relatively long lists of epithets for three of the four gods, one of them, Kamaloa, for reasons not well explained in any source, lacks recorded epithets in agricultural prayers. This is despite being closely tied to Kāne originating freshwater springs, being afforded *kapu* during certain nights of the lunar cycle (moreover, nights that are considered auspicious for planting), and having an agricultural crop (*mai'a*) as a *kinolau*. Even in his role as god of the sea, I found only one epithet, *Kanaloaikahe'e* (Kamaloa of the squid). Squid and octopus are among the oceanic *kinolau* of Kamaloa.

Lono deities:

- Lono - the direct request to Lono is often seen in *pule mahi'ai*.
- Lonoikaewaeweaoloha - a Lono form called in *ho'oulu ua*
- Lonokawai - Lono [of] the water
- Lonomakaihe - a Lono form called in *ho'oulu ua*
- Lonomakua - parent (providing care for descendants)
- Lono'ōpuakau - a Lono form called in *ho'oulu ua*

Kāne deities:

- Kāne - the direct request to Kāne is occasionally seen in *pule mahi'ai*.
- Kāneaulōkahanoua - Kāne transformer of the world (e.g. ending drought)
- Kāneikaēnue - Kāne in the rainbow
- Kāneikānoe - Kāne in the fog
- Kāneika'ōhu - Kāne in the mist
- Kāneikapahu'unui - Kāne in the strong thrust (of the spear creating springs)
- Kāneikapahuwai - Kāne at the water source
- Kāneikapōhū'ūa - Kāne in the red rainbow
- Kāneikaua - Kāne in the rain
- Kāneikawaiaola - Kāne at the water of life

Kānekeolani - Kāne in the heavenly cloud
Kānepua'a - Kāne in pig form

Kanaloa deities:

Kanaloa (I could not find a *pule mahi'ai* in which Kanaloa was invoked)

Kū deities:

Kū - the direct request to Kū is occasionally seen in *pule mahi'ai*.
Kūalanawao - a forest Kū form prayed to by farmers preparing the 'ō'ō.
Kūkeolo'ewa - a Kū deity with a cloud form, prayed to for rain
Kūhailimoku - a Kū form that bedecks the land with greenery
Kūho'oulumeakanu - Kū that causes plants to grow
Kūkeolowalu - Kū of joint effort; a god of *kalo* farmers.
Kūkalani'ehuiki - Kū of heaven-sent spray
Kūka'ō'ō - Kū the digging stick; a farmer's god
Kūkeolo'ewa - a war god, but also associated with rain
Kūkulia - a god of dryland planting
Kūmahuhukolo - a Kū form, prayed to for rain
Kūmauna - a rain god
Kūmokuhāli'i - a forest Kū form prayed to by farmers preparing the 'ō'ō.
Kūoianākia'i - prayed to by planters
Kūpā'ūke'e - a forest Kū form prayed to by farmers preparing the 'ō'ō.
Kūpūlupulu - a forest Kū form prayed to by farmers preparing the 'ō'ō.

Other deities:

Āpapapo'o - a god called in *ho'oulu ua*.
'Awaiku - Kāne's messenger spirits warding off evil
Hina - wife of Kū, invoked with Kū (E Kū, e Hina) in *ho'oulu'ai*
Hīnapuku'ai - goddess of food plants
Hōkeo - assistant to Lono, bringing winds; a gourd form (*hōkeo*)

Kahaka'akelu - a god called in *ho'oulu ua*
Kāmapua'ākāne - a god called in *ho'oulu ua*
Kāmapua'awahine - a god called in *ho'oulu ua*
Kēpolohāina - a god called in *ho'oulu ua*
Koloka'āka - a god called in *ho'oulu ua*
Mehaikāna - a goddess of 'ulu (breadfruit) trees
Po'oiiolea - a god called in *ho'oulu ua*

THE NAME KUKA'OO IN THE CONTEXT OF AGRICULTURAL GODS

In the Tomonani-Tuggle report, there is a brief set of discussions and speculations on the interpretation of the name of the *heiau* Kūkāoo. Given the previous discussion of some of the names of major Hawaiian gods of agriculture, we might provide additional insights. The major interpretations in Tomonani-Tuggle 1998 were listed as:

1. Kūka'ō'ō - Kū (deity) of the digging stick (*ka'ō'ō*); Pukui and Elbert 1971 use this spelling of Kū-ka-ō'ō and describe the name as that of "a god of farmers."
2. Kūkāo'o - Kū (deity) of [the] mature growth (*ka'o'o*)
3. Kūkāo'o - Achievement of maturity (*kā* as stative verb "to reach, attain," rather than the name of the deity Kū)
4. Kūkāoo (no diacritical marks) - given by Malo (1951) as "God of husbandmen"

It is very likely that the "god of husbandmen" that Malo mentions is the same "god of farmers" that Pukui and Elbert refer to. In that case, the lack of diacritical markings in Malo's name is merely the trend of the time to exclude such markings as unnecessary for a literate Hawaiian audience still familiar with the names of the major deities. However, it requires that we have some evidence that Pukui and Elbert were not merely speculating on the name and rationalizing that the digging stick interpretation was the most logical. On what did they base their choice of "Kū, deity of the digging stick" versus the other interpretation (e.g., *o'o* = maturity)?

I was not able to find other sources that specifically advocated either choice, but there may at first blush be some temptation to lend the digging stick interpretation additional weight since the 'ō'ō is unambiguously mentioned in several *pule mahi'ai* (for example, see Appendix II chant entitled: "E Kūmukuhāli'i..."). However, there are also *pule mahi'ai* in which the word *o'o* (maturity) is evoked as a goal of the farmer (i.e., that his crop should mature), which is consistent with the interpretation of the name as Kūka'o'o (Kū of maturity).

Rather than choose, the answer for the purposes of interpretation can be to keep and evoke both: the digging stick ('ō'ō) as tool of the farmer, and maturity (*o'o*) as a similar word wielded in *pule mahi'ai* in typical Hawaiian poetical wordplay. Both might legitimately appear in a *pule* to Kūka'ō'ō (or Kūka'o'o).

Until there is unambiguous interpretation from a sufficiently old and respected source, all of the reasonable interpretations should be presented together.

Kūka'ō'ō is described by Pukui and Elbert (1973:389) as an alternate or associated name with another Kū deity, Kūkeolowalu (Kū of prolific growth, or, in alternate translation, Kū of joint effort). Once again, the beauty of Hawaiian language is that the name of the deity can stand for both concepts simultaneously!

Beckwith adds a third name, Kūkulia in the same category, and all three are referred to as gods of husbandry. Solis (1998) questions whether Kūkulia is an actual deity name, or a reduplicated evocation for the deity to lend assistance (*ki'ia* = exertion of strength), and concludes ~~that~~ *later*. However, since more than one source mentions Kūkulia as a deity name, it seems prudent not to lightly discard the name for an evocation. It may very well be that the name of the deity is designed to provide the evocation via the naming.

How much can we ascribe meaning to the name of a deity? It is tempting to suggest that the deity Kūka'ō'ō would preside over the working of the land, using the traditional implement, the digging stick ('ō'ō). The precedence exists in the Pele traditions, in which

various brothers of Pele, themselves Kane deities, are named for the elements that they have particular power over. For example, Kanehekehi has power over thunder (*hekehi*). In other sources, such as Kamakau, similar patterns exist for Kane deities, such as Kaneikawaiola (Kane of the life-giving water).

In the case of Kū deities, it is clear that in some *pule*, the particular Kū deities that logically prevail over the situation are evoked. For instance, when carving a digging stick, harvested from the forest, the *mahi'ai* prays to the Kū deities of the forest, such as Kūpūpūpū (god of the forest undergrowth), Kūlonowao (Kū of the deep forest) and Kūmukuhāli'i (Kū spreading over the land), so "that his 'ō'ō might not be broken. (Handy et al 117). The logical application of this to Kūka'ō'ō lends credence to the thesis of agricultural significance to the *heiau* of the same name. I have chosen, at the end of this line of thought, to use the spelling variant Kūka'ō'ō for the name of the *heiau*.

One can even suggest that Kūka'ō'ō may have been a *heiau* dedicated to wet *kalo* agriculture, even though the rich 'uala fields of Pu'u 'Ualaka'a (now Roundtop) were nearby. This is because the deity Kūka'ō'ō is described as an alternate name for Kūkeolowalu, which is not only a god of agriculture, but one of the most consistently evoked gods of wet *kalo* agriculture (see discussion in Solis 1998). One can scarcely think of a better location for a wet *kalo* agriculture *heiau* than on Pu'u Pueo, overlooking the vast *lo'i* of Mānoa in the *wā kahiko* (ancient times).

There is also precedent for attributing the name of a *heiau* with the name of a major *akua*. Numerous examples can be found, for example, Kanekaula *heiau* at Kīpahulu, Maui; Kaneaki *heiau* in Mākaaha, O'ahu, or Lonosea *heiau* at Kaupō, Maui. Moreover, Stokes (compiled and printed in 1991) from his 1906-1907 tour of *heiau* of the island of Hawaii, found that his informants would at times refer to regional *heiau* according to the *ali'i* that built or dedicated it (if the *heiau* was of *luakini* class), the priest presiding there, or the major god worshipped there. The result being that there might be several names attributable to a single structure.

AGRICULTURAL HEIAU TYPES

Stokes (1991) provides the review of heiau presented here, augmented by notes from Valeri, Malo, Kamakau and others as cited. *Heiau* were temple structures of various size and shape that were sites of worship for the ancient Hawaiian religious system. Not all *heiau* were the same, and there are several classes of *heiau* types, based on size, structure, and manner of worship. Some were small and temporary, built and used to deal with a particular situation (e.g., purification ritual, or impromptu ritual to increase rain or food). Others were more permanent (although even large, permanent *heiau* were subject to expansions, modifications, and rededication of purpose).

Unu

It is unclear whether the *unu* is consistently defined by its structure, as some informants describe the *unu* as an oval of rocks in the shape "of an open mouth" (see McAllister 1933). The term *unu* is used in a variety of contexts, ranging from simple piles of stone and small shrines, to portions of major *heiau* sites. Kamakau mentions the *unuuuu* *ho'oulu 'ai* as a *heiau* to increase food crops, and where the first harvest offerings are taken (see also *heiau ma'ō* below). It is a controversial idea that the *ho'oulu 'ai* was also used for human sacrifice. Kamakau mentions it, but Buerere (in Tomonari-Tuggle) proposes that this statement is erroneous. However, it is also made by Pogue in Mo'ō'ōlelo Hawai'i. Kamakau mentions the *unu o Lono* as a *heiau* consecrated to Lono (a major god of agriculture).

Waihau

The term *waihau* refers to larger structures, including agricultural *heiau*, *heiau* of *Iuakini* type, and *hale o Papa* (*heiau* usually associated with a *Iuakini*, typically adjacent, and a site of female chiefly rituals). Moreover, the term *waihau* seems limited to the islands of O'ahu and Kauai. There is an overlap in terms with the *hale o Lono*, which Kamakau also refers to as the *waihau ipu o Lono*. The *hale o Lono* is a *heiau* that secures abundance in crops (*ho'oulu 'ai*) and/or rain (*ho'oulu ua*). By way of explanation, the verb *ho'oulu* means "cause to grow or increase," *'ai* = vegetable food, and *ua* = rain.

Handy et al (p 136) indicate that Makuku *heiau* in Nu'uauu is a *heiau ipu o Lono* (presumably equivalent to the *waihau ipu o Lono*), built to restore prosperity and rain. They indicate "nothing is known about the worship at these shrines except that it must have been the priesthood of Lono [*mo'ō Lono*] who performed the rites." [Kūka'ō'ō is a *hale o Lono*, it fits with a speculation in Tuggle 1998 that the rebuilding and rededication of Kūka'ō'ō by Kūali'i might have been to restore prosperity after his takeover of O'ahu.

'I'i (1963) and Malo (1951) mention that the wood used for the structures of the *hale o Lono* was *lama* (an endemic ebony, *Diospyros sandwicensis*), and thatched with *lā'i* (ti leaf, *Cordyline fruticosa*). The rites conducted at this *heiau* are held monthly from the evening of the 27th to the dawn of the 29th day (that is, on the nights of Kāne and Lono, ending on Maui, the night before the new moon). These need not have agricultural purpose, according to the sources. However, note that the agricultural offerings of first harvest described by Malo are also timed according to the nights of the appropriate deities (see table and discussion of the Hawaiian lunar month in Appendix I).

In addition to the *hale o Lono*, there is the *māpele*, which is also dedicated to the cult of Lono, and described (Malo 1951) as thatched with *pili* (the indigenous grass *Heteropogon contortus*), and used for rituals aimed at increasing agricultural crops. Handy et al (1972: p 136) indicate that the *māpele* was the place where *uaia* planters worshipped, and contend that only pigs were offered, never human sacrifice. The *heiau ma'ō* is a small temporary *heiau* covered with *kapa* stained green (*ma'ō* refers to both the cotton plant, and a bright green dye that is derived from the plant). According to Malo it was also used in *ho'oulu 'ai* ceremonies. A final kind of temporary *heiau* is the *kākoā'e*, which was built at the end of the Makahiki festival, and was the place where the high chief was cleaned of impurity. For an *anahulu* (10 day period) the chief was restricted from entering any other *heiau* (Handy et al p 137). Malo indicated that the *kākoā'e* was used to propitiate the heavens for food.

Valeri (1985) summarized the nature of *heiau* dedication to the great gods by pointing out that the *Iuakini* and fishing *ko'ā* are dedicated to Kū, while the *ho'oulu 'ai* and *ho'oulu*

ua are dedicated to both Lono and Kāne. While fishing to'a (small shrines) and the men's shrine in the hale mua (household structure dedicated to male religious practice) may be constructed and used by commoners, the greater heiau (temples) were for the use of the ali'i in hierarchical fashion, up to the ali'i nui. As Kūka'ō'ō is associated with Kūali'i, one of the ali'i nui of the island of O'ahu, it suggests that its use, even if related to agriculture, was probably associated with and primarily used by the ali'i, rather than of general access to the maka'āinana (common folks), including the mahi'ai (farmers).

PROTOCOL FOR AGRICULTURE

In Tomonani-Tuggle's research and master plan document for Kūka'ō'ō (1998), the protocol for first fruit (first seasonal harvest) agricultural offerings given by Malo (1951:206) was presented verbatim. This is a valuable account, since it represents one of very few agricultural rituals detailed in any source. Below, we summarize the protocol and add some additional interpretations and notes that provide insight based on other related protocol sources:

Protocol Summary

When a crop achieves maturity and is ready for harvest, a religious service is conducted involving the major deity of the particular farmer(s). The purpose of the ritual is to lift the kapu on the farmer's fields. No harvesting can occur until the field is made noa (free of kapu). Fires are built under kapu of silence, and used to cook an offering of food (presumably in the traditional imu, or earth oven). Both vegetable (ʻai) and meat (i'a) are cooked, enough to divide out among all participating farmers, who sit in a circle, their portion of food laid in front of each. A ki'i abua (god image) is brought into the center, with the ipu o Lono (gourd of Lono) hanging around its neck. A kahuna offers a portion of food to the god, after which the participating farmers may eat until sated. Whatever remains goes back to the farmer whose fields provided the food. Thereafter his field is noa, and he may harvest without additional ritual, but on preparation of food for eating, a small portion is offered to the god.

What follows are a few points of additional interpretation that help expand and explain the summary above, using the context of Hawaiian cultural practice to point out similarities to other, better-recorded protocols.

1. *Building of fire* - The fires that are indicated are not ones in which offerings are consumed entirely; their essence given thus to the gods (as in early Judeo-Christian or Classical Greek-Latin sacrifice). Instead, these are fires of

preparation for the traditional *imu* into which the offerings will be cooked as food items to the gods. The *imu* is never mentioned, and is here presumed.

2. *The day of the god* - This reference to specific days of first harvest ritual dedicated to particular gods refers to the religious divisions of the Hawaiian lunar month, and is discussed more fully below. Briefly, different phases of the moon were associated with short (typically 2-3 day) periods of *kapu* dedicated to Kū, Lono, Kāne and Kanaloa. The main consequence of interest here is that the rites of first harvest were probably not conducted all at once for the *ahupua'a* of Waikūi (fed by the *lo'i kalo* and *'uaia* fields of Mānoa Valley), but on several days in the course of a month.

3. *The ipu o Lono* - This symbol of Lono (*ipu* is one of Lono's *kinolau*) is mentioned in several other sources (reviewed in Valeri and in Handy *et al*), some of which describe offerings which are placed directly into the small gourd (*ipu*) hanging around the image's neck. This is inconsistent with the description given in Malo, in which the offering is specifically not placed in the *ipu o Lono* (the offering being directed to the heavens instead, where the god truly dwells).

In descriptions of protocols related to the *māpēle* class of *hiciau* (reviewed in Valeri), *'awa* (*Piper methysticum*) is also sacrificed, similarly presented in a gourd (a *kinolau* of Lono), hung around the neck of the *akua* *ā'au nui o Lono* (great wooden image of Lono). Valeri suggests that the gourd's roundness connotes fullness, abundance, pregnancy, clouds about to unleash rain, etc. It is perhaps worthwhile to recall that both water and *poi*, two of the mainstays of life, are typically stored in *ipu*. The *ipu o Lono* also plays a central role in the rite of passage of the male child into the *hūle niu* at weaning.

3. *Role of the kahuna* - The proceedings described by Malo were considered "more formal" than the simple rituals followed by the individual farmer, and there is direct mention made of a *kahuna* in the protocol, in addition to the majority of

"the company" of active participants, who are presumably farmers. These farmers, according to the particular deity they worship, would build their fires on the days (Hawaiian lunar days) dedicated to those individual deities (Kū, Lono, Kāne, Kanaloa). Apparently they conducted this as a group under the direction of a *kahuna*, who would preside over several key activities. These are:

- the distribution of food to all participants (it was not specified who these participants would be, but perhaps the family and cooperative neighbors of the farmer upon whose *kuleana* the rituals were taking place),
- the presentation of the god image with the *ipu o Lono* hanging around its neck, and
- the offering of the food to the *akua* in the heavens (*i ka lani*).

4. *Site of the ritual* - Presumably, these harvest rituals took place either at a central site (such as a *hiciau*) or at the family shrines of the farmers. Kamakau directly mentions the *ununu* *ho'oulu 'ai* as the kind of *hiciau* where the first harvest offerings are taken. If the assembly of participating farmers was large (as might be expected in a valley such as Mānoa), and if the *kahuna* presiding was the same for each of the farmers participating in what must have been numerous first harvest rituals, then it may be reasonable to suggest that instead of the *kahuna* wandering through the large *ahupua'a*, servicing the many offerings that had to be conducted on specific days, a *hiciau* such as Kūka'ō'ō might have served as the focal site for first harvest rituals. There is no corroborative record at all for this kind of activity at the *hiciau*, but this is not surprising (attributable to the general dearth of knowledge on specific rituals at any of the major *hiciau* on O'ahu).

5. *Pūle (Prayers) used during the ritual* - Handy *et al* (1972) suggest that the *mahi 'ai* would offer the first harvest item on the "platform" (presumably the *ku'āhu*), with a prayer for increase of the crop (*ho'oulu 'ai*). Several such prayers from Hawaiian language newspaper sources were recently compiled by Kekeha Solis (Master's thesis 1998) and samples of these are provided with some

interpretation, in Appendix II, and referred to in a later section dealing with prayers related to agriculture.

Handy et al (1972 p 137) also describe an *'uala* planting ritual, in which a *kahuna ho'ouluulu 'ai* (the redoubled "ulu" in *ho'ouluulu* is an often-seen variant of the single form *ho'oulu* used elsewhere in this summary) leads a procession of planting farmers who follow, digging holes. The *kahuna* plants *'uala* slips into two holes, uttering a planting prayer (see chant in Appendix II entitled "E Kamapua'a-kāne..."). Following this, everyone else in the procession plants, moving forward in the patch. It was *kapu* to look back on what was planted behind. After the planting was completed, the *kahuna* uttered a prayer for shade (see chant in Appendix II entitled "E kēlā ao nui...").

PRACTICAL PURPOSE OF HAWAIIAN AGRICULTURAL RITUALS

Given the discussion above, the purpose of rituals at agricultural heiau (or at least rituals associated with agriculture, be they conducted at heiau or not) include a number of practical ends, such as: successful planting, call for increased rain, call for increased growth, thanks for abundant harvest, averting disease or pests, maintenance and protection of 'auwai (irrigation systems), ameliorating famine or drought, etc. Examples of *pule mahi 'ai* for some of these major agricultural aspects are given in Appendix II.

One *mo'olelo* (traditional story) points to the power of the *kahuna ho'oulu'ua* in affecting drought and famine on the land. In the story of the great chief Hua (Formander 5:660 and 2:41) a conflict between Hua and his *kahuna* Luaho'omoe causes Hua to conspire to kill his priest. Luaho'omoe, prophesizing his death, sends his sons to escape, but he is trapped in his house, which is put to flames by Hua and Luaho'omoe dies. Immediately the streams of the land dry up entirely, and for three and a half years no rains fall. All the people of the district, including Hua, perish in the drought and famine, and the result is "na'akeke nā iwi a Hua i ka lā" ("the bones of Hua rattle in the sun" -- there was no one left alive to hide his bones, and they were left exposed where he died, the ultimate disgrace). Were the story to end there it would be instructive enough, but the drought spread to the

other islands, and a *kahuna* on O'ahu, Nāula-a-Ma'i'ihena, who lived in Waimalu, became concerned for the fate of the entire Hawaiian people. He saw the lack of clouds on Ka'ala, and no sign of rain on Kaua'i or Moloka'i, so looked out to Maui and saw one dark spot above Hana'ula (in the West Maui Mountains). He traveled there with offerings, and discovered the hiding place of the sons of Luaho'omoe, who accepted his offerings and prayers, which healed the great wrong of the chief Hua, and ended the drought. See Appendix II chant entitled "E ke akua..." for an example of a chant to end misfortunes on the land.

In his thesis for a Master's degree in Hawaiian Religion, Solis (1998) pointed out some of the basic patterns of structure in a typical *pule mahi 'ai*. These are instructive because the contents of the *pule* allude to the purpose of the prayers and rituals via the requests made, direct or indirect, to the *akua mahi 'ai*. Although there is variation, Solis contends that the majority of *pule* are composed of four major parts that play vital roles in establishing the audience, purpose and effectiveness of the prayer. These are:

ke kahea - the call

ka 'alana - the offering

ke noi - the request

ke pani - the closing

To elaborate, each *pule* typically starts with a *kahea* (call) that addresses the deities evoked in the prayer. Here is where we might find specific mention of the *inoa akua* that were listed earlier. Sometimes features of the natural environment are addressed instead (the sun, clouds, rain, etc.), but recall that each of these is considered *kinohala* of *akua*, and therefore legitimate addresses.

This is followed by the *'alana* (offering) that describes the sacrifice being presented to the *akua* (typically food objects vegetable and animal). Recall that *'ai* (vegetable food) may include *tu 'ai*, *kalo*, *'uala*, *'ava*, etc., while *i 'u* (animal food) is typically *pua 'u* (pig) or fish. The *'alana* is not always spoken, and is missing from some *pule mahi 'ai*.

However, the few descriptions of religious protocol for agriculture invariably include a physical presentation of an offering. It must be a vital part of the protocol.

This is immediately followed by the *noi* (request) that describes the ultimate purpose of the *pule*, whether to bring rain and growth, or protect crops from disease, or offer thanks for an abundant harvest. Solis notes that this is often indirectly stated, rather than directly requested, which is an important part of ancient Hawaiian etiquette. Unless you were intimate (e.g., close kin) with someone you never asked a direct favor. Instead, you would state the desired result as a potential state of being, and allow the person(s) addressed to agree and help make it so, (or not). Thus, in the *pule* "E ke akua..." (Appendix II) the purpose of the prayer is to avert diseases, but there is no line that specifically asks the addressed akua to remove disease from the land, instead of "E holo i 'oukou i ka pō'ino o ka 'āina" (Remove thou the misfortunes of the land), it is stated much more indirectly: "He pule ia e holo ana i ka pō'ino o ka 'āina" (This is a prayer that will clean the misfortunes of the land). It is up to the akua to make it so, but it is not directly asked of them.

Finally, the prayer closes (*pāni*) typically with ritual closing phrases indicating that the prayer is completed, the *kapu* ended, and the prayer free to fly to its intended audience. The typical *pāni* is: 'Āmama, ua noa (Completed, it is free from *kapu*).

At Kūka'ō'ō it is likely that there was a combining of the practical and directly agricultural purposes of *pule mahi'ai* with economic and political purposes associated with *ali'i* such as Kūali'i (suggested in Tomonani-Tuggle 1998). This would have resulted in a complex set of rituals according to the season or situation. In this review, however, I have purposefully avoided retelling of the better-documented rituals associated with *heiau* of governance (*luakini*) that was the subject of Valeri's extensive review of chiefly rituals. We operate under the premise that Kūka'ō'ō served as the agricultural *māpéle* for Kūali'i and his retinue, rather than as the *luakini* at which he offered the rituals of governance.

THE HAWAIIAN LUNAR CALENDAR AND RELIGIOUS PRACTICE

The timing of rituals at a *heiau* such as Kūka'ō'ō would certainly have been measured by the lunar calendar (provided in table and narrative form in Appendix I). These are the named 30 days (and nights) that structure Hawaiian religious practice, and therefore set the appropriateness of all other activities, such as agricultural milestones of planting, care, weeding, harvesting, etc. While the lunar calendar is not held to today by the vast majority of people, it is one of those natural cycles that can be pointed out at any time, underscoring the importance of natural cycles and attention to the surrounding environment that was so important in ancient Hawaiian life.

In Appendix I, two aspects of the Hawaiian lunar calendar have been highlighted: agricultural recommendations gleaned from three main sources (Malo, Kamakau and Handy et al), and religious cycles (the *kapu* periods associated with the four major Hawaiian gods Kū, Kāne, Lono, and Kanaloa). Many of the recommendations for planting may have had roots in empirical patterns linking lunar phases with tides, winds, and monthly rhythms of living things, including plants. The religious observances for the major gods is not described in detail, since their rituals are not strictly tied to agriculture, *per se*, but to all aspects of life under their influence. One common pattern pointed out by Handy et al (p 40) is that on the *kapu* nights, those who worshipped neither worked nor played, but offered ritual and prayed to their gods; *maka 'āinana* at the *ku'ahu* of the *heiau*, and *ali'i* at the appropriate *heiau* (such as Kūka'ō'ō).

CONCLUDING STATEMENTS:

It is hoped that this compilation of information on religious practices associated with agriculture and agricultural heiau provides a readily available body of information that can be worked into the interpretive program developed for the Kūka'ō'ō site in Mānoa. By linking the ancient Hawaiian gods to agriculture, affirming the power of the names of the gods to places and processes they governed in ancient Hawaiian thought, and providing examples of the rituals associated with *kalo* and *hala*, in the context of the repeating cycle of life in ancient Hawai'i, and noting the richness of the language in expressing protocol, we hope to build something to share with the future of Hawai'i. What we share is a past of surprising elegance and sophistication, where human activities and spiritual practice was intimately connected to the cycles of the natural world. It is a connection that we largely lack today, to our detriment. Perhaps the seeds planted by the lessons here will lead eventually to a future where the people of a place move in tune with their surroundings, caring for and being cared for in turn by the land upon which they live.

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APPENDIX I: THE HAWAIIAN LUNAR CALENDAR

The Hawaiian Lunar Calendar

moon phase	name of day	presiding akua	kapu periods
☉	Hilo	Kū	Kapu Kū begins Hilo night
☽	Hōaka	Kū	Kapu Kū period
☾	Kūkahi	Kū	Kapu Kū period
☾	Kūlua		Kapu Kū lifted dawn of Kūlua
☽	Kūkolu		
☽	Kūpau		
☽	'Olekūkahi		
☽	'Olekūlua		
☽	'Olepau		
☽	Huna		
☽	Mohalu	Kāne	Kapu Huna starts night of Mohalu.
☽	Hua	Lono	Kapu Huna period
☽	Akua		Kapu Huna lifted dawn of Akua.
☽	Hoku		
☽	Mahealani		
☽	Kulu		Makahiki offering made by ali'i
☽	Lā'aukūkahi		
☽	Lā'aukūlua		
☽	Lā'aupau		
☽	'Olekūkahi		
☽	'Olekūlua		
☽	'Olepau	Kanaloa	Kapu Kaloa starts night of 'Olepau
☽	Kāloakūkahi	Kanaloa	Kapu Kaloa period
☽	Kāloakūlua		Kapu Kaloa lifted dawn of Kāloakūlua
☽	Kāloapau		
☽	Kāne	Kāne	Kapu Kāne starts night of Kāne
☽	Lono	Kāne & Lono	Kapu Kāne period
☽	Mauli		Kapu Kāne lifted dawn of Mauli
☽	Muku		

The Hawaiian Lunar Calendar

(Sources: Kamakau, Malo, Handy et al)

The thirty days of the Hawaiian lunar month set the tempo for religious activities of ancient Hawai'i. The notes below describe agricultural and religious patterns associated with the lunar month in ancient Hawai'i.

HILO

First night

The appearance of the moon in the evening in the western horizon marks this first night of the month. This new moon appears as a "slender" or "twisted" sliver (*hilo*). Foods manuring underground will "hide". Some feel crops planted under this moon will be small like the moon they started under. The *kapu* period dedicated to Kū begins on this night.

HOAKA

Second night

Hoaka means "faint light" or "cast a shadow." On this night the *uhane* (ghosts) are about and cast shadows. It is not a good time for activities. This is the second *kapu* night of Kū.

KŪKAHI - KŪPAU

Third to sixth night

These are the first, second, third, and fourth nights of Kū. The *kapu* period of Kū ends with Kūkaʻahi (First Kū). Many farmers believed that on this night *uʻala* and *kalo* should be planted so they will grow "upright" (*kū*) in the soil. *Kalo* planted will have a single main stalk if planted on Kūkaʻahi, or two on Kūlua, and three on Kūkolu. *Mai* 'a planted during the Kū period will be tall.

'OLEKŪKAHI - 'OLEPAU

Seventh to tenth nights

This is an unproductive time for *'ole* means "nothing," "without," or "unproductive." Some recommend that planting be avoided until *'ole pau* which ends the nonproductive period. Breadfruit, for example, may be planted on *'olepau*.

HUNA

Eleventh night

It is on this night that the sharp points of the moon's horns are finally hidden as *huna* (hidden) implies. Farmers favor root plants (*ʻē*, *ʻuʻala*), that will flourish, hidden under dense foliage, or *ipu* that hides under a thick growth of leaves.

MOHALU

Twelfth night

Flowers planted on this night will mature with full form, as will *kalo*, *uʻala*, and *ipu*. Fruits, fish and *limu* were *kapu* for this night was sacred to Kāne, the life-giver. This night begins the *kapu* period called *Hua*.

APPENDIX II: SOME EXAMPLES OF PŪLE MAHI 'AI

This appendix is a compilation of some example *pule mahi 'ai* (agricultural prayers) that would have been used at appropriate times in the course of agricultural practice in ancient Hawai'i. Line for line translations are provided. Endnotes for each *pule* typically indicate the source, and provide interpretation on the meanings of and appropriate usage of the *pule*.

**E Kāne-au-loli-ka-honua...
Pule hōluulu 'ai**

<p>E Kāne-au-loli-ka-honua Honu ne'e pū ka 'āina Ulu nakaka kāwahawaha ka honua Ulu ka 'ai hāpu'u, e Lono 'Ohi malo'o kupukupu 'Ohi a'ā nā 'uala o nā pali Pali kū kāwahawaha ka ua Ka ua hā'ule mai Hā'ule lani ka 'uala He 'āweu ke kalo He laulou pili ka nāwao 'O wao akua ka 'ai, e Kāne</p> <p>E Kāne! E Lono! Nā akua mahi'ai Hō'ola i ka 'āina A pohō ka 'ai A ulu kupukupu A ulu lau po'o'ole A 'o ka nui ia o ka 'ai Āu, e Kāne a me Lono 'Āmama, ua noa</p>	<p>O Kāne-changer-of-the-earth (Like a) creeping turtle, the land! Spreading shaking fissures (in) the land Growing (is) the edible tree-fern Gather dried kupukupu fern Gather roots (of) sweet potatoes of the cliffs Steep cliff, furrowed (is) the rain The rain (that) falls hither Falling (from) heaven the sweet potato 'Āweu (a wildland-form) (is) the taro Laulou (taro variety) mixed with the nāwao Of (the) upland zones (is) the food, O Kāne</p> <p>O Kāne! O Lono! Gods of the farmer Vivify the land Until surfet (is) the vegetable-food Until growth sprouts-exceedingly Until growth (of) leaves (is) endless Until there is plenty of vegetable-food Yours (to grant), O Kāne and Lono Completed, (the prayer is) freed</p>
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NOTES: In Malo (Hawaiian Antiquities, p. 133), Emerson calls this pule a *hōluulu ai*, asking for plentiful food, performed in the open and in public. Emerson sources Polikapa of 'Auwaiolunu (Honolulu), via Rev. Kapōhaku of Kula, Maui. Emerson's translation is less than literal, and I've tried to adjust it here. Kumu John K. Lake provided this oli with notes that this is a chant to bring life (ho'ola), offered to Kāne, god of creation, and Lono, god of peace, agriculture, fertility. One of the forms of Lono is Mauiola, who brings life and casts out sickness. The prayer asks for life to come to earth-mother Pāpāhanamoku. Additional footnotes below:

1. Honu ne'e pū ka 'āina - the Hawaiian Dictionary specifically lists the phrase literally as "the land moves as a turtle creeps," figuratively, the responsibility for the land eventually passes to the heirs of the land. Perhaps it suggests that while we acknowledge the help of the akua to vivify the land, we kānaka are responsible for stewardship of the land.
2. He 'āweu ke kalo, He laulon pili ka nāwao - 'āweu is a taro variety often found growing wild. The laulou, (growing wild). The term pili ka nāwao can mean "growing mixed with (pili) the taro gone wild (nāwao). Alternately, the endemic kanawao (*Cyrtandra* spp.) plants grow in wet forest gulches (wao akua). Thus the two lines describe what people do in famine times: turn to wild sources of food - food from the upland forest realm of the gods (hence, the line: O wao akua ka 'ai).
3. A ulu lau po'o'ole - The Hawaiian Dictionary lists po'o'ole as literally "without head" implying illegitimacy. However under the word po'o is the definition "end of a leaf," so perhaps lau po'o'ole suggests continual proliferation of leaves without end. Of course, lau can mean "leaf," "to leaf out," or "very many," all appropriate for a pule hōluulu'ai.

Finally, note that the words 'ohi (gather) and ohī (slips from shoots or roots) might both be applicable in the line: 'Ohi a'ā nā 'uala o nā pali. Either one gathers ('ohi) wild sweet potatoes from the cliffs, or the prayer asks that such potatoes sprout (ohī), providing food during famine... S. M. Gon III

**E ke akua...
Pule hō'ōla 'āina**

**E ke akua...
Prayer to heal the land**

<p>E ke akua: He pule ia e holo'i ana i ka pō'ino o ka 'āina a me ka pale a'e i pau ko ka 'āina haumia He pule ia e ho'opau ana i nā hewa o ka 'āina a pau I pau ke a'e, me ka kawaū I pau ke kulopia, a me ka pō luluka I pau ka huliaiana. A laila, nihopeku, hō'emu, huikala, malāpakai Kāmauli hou i ke akua, e!</p>	<p>O god: This is a prayer to cause cleansing of the misfortunes of the land and to ward off all of the land's desecration This is a prayer to cause ending of all wrongs of the land that the blight ends, and moistness returns that the decay ends, and the peace returns that the bitterness ends. And therefore, buds-shooting, weeding, complete cleansing, vines overgrowing Renew offerings thanking the akua!</p>
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NOTES: This pule can be found in Malo (p. 190), and was shared by Kumu John K. Lake. No particular akua is specified in this prayer to remove blights and other problems from the land. It is presented here as an example of the kind of prayer that might be used to ward off diseases and other crop problems as part of the cycle of agriculture in Hawaii. It is interesting to note that disease and other misfortune is linked to desecration (*haumia*) and requires spiritual cleansing (*huikala*) in order to right the wrongs and bring healing and renewed growth. Similarly, it is instructive to see that a single word (*kāmauli*) has the specialized meaning of "offering presented in thanks for abundant crops." The morphemes of this word being *ka* (an unusual word that can mean "strike, swing, knit, curse, bail, thrust, fling, be, remove, or spare" and implying action undertaken with great intensity) and *mauli* (seat of life, spirit)... S. M. Gon III

**E kēlā ao nui...
Pule ho'omahu**

<p>E kēlā ao nui 'ele'ele: i ka maka o ka 'ōpua la o lalo iho E malu, malu kia'i Kia'i 'oe i ko kāua waena nei la E ke ao nui: Malu 'oe i ko kāua waena nei la E ke ao nui: Malu 'oe mai kēlā kīhi ā keia kīhi E malu 'oe mai kēlā iwi ā keia iwi Mai malu 'oe i ko hā'i waena o huhū ia 'oe i ka pani o ka lā Ko'eko'e auane'i i ka mea nona ia waena E ke ao nui ei E malu nō 'oe i ko kāua waena nei Malu 'oe i ka makalua Malu 'oe i ka lau o ka kāua 'ai i ulu i paha ka makalua i ka 'uala [ke kalo] E ke ao nui: E malu i ko kāua waena mai uka ā kai Māi na'e ā lalo</p>	<p>Say! that large black cloud in the face of the rain cloud below Cast a shadow, a watchful shadow Watch thou over this, our field Say, large cloud: Cast a shadow from that corner to this corner Say, large cloud: Cast your shadow from that side to this Cast your shadow from that border to this Do not cast your shadow on the field of others or you'll be censured for obscuring the sun The owner of that field might be chilled Say large cloud! Cast your shadow indeed on this, our field Shade thou the holes Shade the leaves o' our growing food that the hole be filled with 'uala [kalo] Say large cloud: Shade our field from mountainward to seaward From the windward to the lowland</p>
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NOTES: From Formander V:683 comes this *pule* that asks for shady protection of newly planted 'uala (sweet potatoes) [or dryland kalo]. Clouds of this sort are the *hinalani* of Lono, so although no deity is mentioned, this may be considered a *pule* to Lono. By its nature, this *pule* is intended for presentation in the field, rather than at a *heiau ho'oulu 'ai*... S. M. Gon III

**E Kūkulia...
Pule Kāmauli**

<p>E ke akua: E Kūkulia, E Kūkaeoia E Kūkaopoko, E Kūkaolewa E Kūkaoho'omihamaikaikani E Kūpūlupulu, E Kūmōkūhāli'i E Kūka'ohi'alaka Ou mau kino e Kamaikalani, e Kānepua'a Eia ka 'ai, eia ka i'a Eia ka 'ai e ke akua e Kāhela e ka wahine e moe ana i luna ke alo Moe-a-hānua, 'o Miiliko'o, a Kale'ahulu, 'o Pahukini, 'o Pahulau, 'o Kulana-a-ka-pahu 'o 'Olekahua, 'o Kapapa'ialaka, 'o Kapapaenuialeimoku e E ala, e ala e ka ua, e ka lā, e ka pō 'Ohu kolo mai i uka, 'ohu kolo mai i kai Kai kāne, kai wahine, kai ulala, kai hehena, kai pūi'āku e! Ua puni nā moku i ke kai 'o hu'ahu'a nui kai, a ka 'ale ihi, a ka 'ale moe, a ka 'ale hāko'iko'i i kalana a Kāhiki e! E ola, e ola i ka mō'i, e ola i nā ali'i, e ola i ka hū, i ka maka'ānana E ola ia'u, i ka mahi'ai nui, e ola i ko'u 'ohana, e ola i ko'u 'ohua, e ola i ka 'ai'āi'ā'u, a ka mahi'ai nui 'Eli'eli i'o la honua 'Ānana, ua noa, lele wale aku la E 'ai, e 'ai!</p>	<p>O God O Kū [of] striving, O Kū the long cloud O Kū the short cloud, O Kū the floating cloud O Kū the dark cloud of heaven O Kū undergrowth, O Kū spreading greenery O Kū the 'ōhi'a [tree of] Laka Your many forms, o Kama in the heavens, O Kāne [he] bog Here is the food, here is the meat Here is the food, o god, o Kāhela, the woman who lies face upward Moe-a-hānua, 'o Miiliko'o, a Kale'ahulu, 'o Pahukini, 'o Pahulau, 'o Kulana-a-ka-pahu 'o 'Olekahua, 'o Kapapa'ialaka, 'o Kapapaenuialeimoku e Awake, arise o rain, o sun, o night Mists crawling upland, mists crawling seaward Rough sea, mild sea, mad sea, delirious sea, numbing sea The islands are surrounded by sea, great foaming sea small billows, low billows, turbulent billows floating from Kāhiki Grant life, life to the king, life to the chiefs life to the masses, to the commoners Grant life to me, the great farmer, to my family life to my household, life to my dependents, [those] of the great farmer Profoundly upon the earth Completed, it is freed, it has flown off Eat, eat!</p>
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NOTES: This *pule*, from Kamakau (1976 p 30-1) accompanies offerings of thanks to the *akua* of the *mahi'ai* at successful harvest. It is notable for its mentioning of many *inoa akua* of importance to the gods). Perhaps 20 *akua* are named, including many Kā forms. There is a clear *kaheka* (address to the gods), followed by *ānana* (offering), *noi* (request), and *pari* (closing). The *ānana* is augmented by poetry and includes another *kaheka* phrase in which several forms of the goddess Kāhela (an earth goddess?) are named (perhaps because the offerings are of the earth). Kamakau noted that this *pule* was uttered by the farmer if the fields were his own, but was presented by the *tahuna pule* of the *mō'i* if this *pule* was for the royal fields.

**E Kūkulia...
Prayer for harvest thanks**

**E Kūmukuhāli'i...
Pule kālai 'ō'ō**

E Kūmukuhāli'i
E Kūpūlupulu
E Kū'ālanawao
E Kūpā'aikē'e
E Kūho'oholopali
Ke kua nei au i ke kumu o ka lā'au
I ka ʻēlu, i ka 'ālā
E 'ike mai ia'u i kālai 'ō'ō
He kauila ka 'ō'ō
mahī'ai au i ka 'āina kula
He 'uala ka 'ai
He kalo malo'o ka 'ai
He uhi ka 'ai
He mai'a ka 'ai
He wauke ka 'ai
He kō ka 'ai
E 'ike mai ia'u, i ka mahī'ai nui
Hō'i i ka pulapula i ke ao
'Āmama, ua noa

**O Kūmukuhāli'i...
Digging stick carving prayer**

O Kū spread over the island
O Kū forest litter
O Kū upland offering
O Kū removing imperfection
O Kū running on the cliff
I am hewing the base of the tree
[And] at the treetop, with the hard stone [adze]
Look upon me who carved the digging stick
A digging stick of kauila wood
with which to farm the kula lands
Sweet potato is raised
Dryland taro is raised
Yam is raised
Banana is raised
Paper mulberry is raised
Sugarcane is raised
Look upon me, the great planter
Return to your descendants of this world
Completed, it is freed.

NOTES: A cultivating prayer to Kū in his many forest forms. The forest connection is made by the source of the 'ō'ō, a kauila tree taken from the realm of Kū: native forest. The majority of the Kū deities mentioned are forest deities, with the exception perhaps of Kūpā'aikē'e: a deity credited with the invention of the adze. The literal translation of pā'ai kē'e is "strokes consuming faults," which is precisely what the fine adze blows of a craftsman does when turning a rough branch of kauila into a fine agricultural tool. This pule is a good example of how one of the major gods, Kū, not normally thought of as a god of agriculture, may be placed within the religious protocol of the mahī'ai... S. M. Gon III

**E ku'u akua i ke o'o
Pule o'o kalo**

E ku'u akua i ke o'o ana o ke kalo
E Kūkeolowalu
a kakahaka e uhuiki ka 'ai a kākou
e hūhūi ka 'ai, e auamo ka 'ai
E hō'ā ka umu o ka 'ai
e kalua ka umu o ka 'ai
e hua'i ka umu o ka 'ai
e 'ihi ka 'iji o ka 'ai
e kua'i ka 'ai a kākou
e hūhao ka 'ai i ka 'umēke
e hō'owāli ka 'ai a kākou
e Kūkeolowalu la
E kākā ka wahie, e hō'ā ka umu
e 'u'umi ka puā'a,
e unuuu ka hulu o ka puā'a,
e kua'i ka puā'a
E kalua ka imu o ka puā'a a kākou
e Kūkeolowalu
Ua mo'a ka puā'a, e 'oki'oki ka puā'a
E 'ai kāne, e 'ai wahine, e 'ai kamali'i
i ka puā'a i ke poi, i ke kalo a kāua,
a ka mahī'ai nui
E Kūkeolowalu
a papaiki, a papanui
'eli'eli kapu, 'eli'eli noa
i ola honua
'Āmama, ua noa, lele wale aku la

**E ku'u akua i ke o'o
Prayer for maturing taro**

O my god that matures the taro
O Kū of joint effort
At dawn, harvest the food of ours
bunch the food, load the food on carrying stick
ignite the oven for the food
bake in the oven for the food
uncover the oven for the food
peel the skin of the food
pound the food of ours
put the food into the bowl
mix [with water] our food
O Kū of joint effort
Strike the firewood, light the oven
strangle the pig
singe the bristles of the pig
disembowel the pig
bake in the oven for the pig of ours
O Kū of joint effort
The pig is cooked, cut up the pig
Let men, women and children eat
of the pig, with poi, of our taro
of the great farmer
O Kū of joint effort
of the lesser ranks, of the greater ranks
profound kapu, profound fricing of kapu
that the earth lives
Completed, freed, [the prayer] flies off!

NOTES: From Karmakau (25 November 1869) comes this pule kāmāhū (prayer of harvest thanks) that is clearly designed to accompany first harvest offerings to Kūkeolowalu. It is instructive that Kūka'ō'ō is listed by Pukui and Elbert as an alternate name for Kūkeolowalu, and therefore, perhaps that this pule is one of the more appropriate to choose as an example of one that may have been part of the protocol at the Heiau Kūka'ō'ō in Mānoa. O'ahu. It also provides considerable detail regarding the nature of the offerings presented, and their preparation, which matches well the protocol for first harvest offerings described by Malo (p. 206).

**Ou kino e Lono...
Pule ho'onoa**

**Your bodies, O Lono...
Prayer of kapu lifting**

<p>[Kahuna:] Ou kino e Lono i ka lani He ao loa, he ao poko He ao kici, he ao halo He ao ho'opua i ka lani Mai Uluhi, mai Melemele Mai Polapola, mai Ha'eha'e Mai 'Oma'oku'ululu Mai ka 'Alua o Lono I hānau mai ai. 'O ho'oku'i aku o Lono Ka hōkū e miha i ka lani Anoamo ke akua iā au nui o Lono Ku'iku'i papa ka lua mai Kahiki Hāpaina, kuka'a i ka hau miki no Lono E kū i ka malo 'ihū!</p>	<p>[Kahuna:] Your bodies O Lono in the heavens A long cloud, a short cloud A watchful cloud, a peering cloud An overlooking cloud in the heavens From Uluhi, from Melemele From Polapola, from Ha'eha'e From 'oma'oku'ululu From the land of Lono That which gave [him] birth. Ah! Lono places on high The star that sails in the heavens. Resplendent is the great wooden image of Lono. Linking the two [dynasties] from Kahiki. Lifted, purified in the essence of Lono Stand up, malo girded for wildness!</p>
<p>[People:] Hū!</p>	<p>[People:] Fling! [the pola in girding (?)]</p>
<p>[Kahuna:] 'O Lono</p>	<p>[Kahuna:] Oh Lono!</p>
<p>[Kahuna:] Aulu!</p>	<p>[Kahuna:] Hail!</p>
<p>[People:] Ke akua iā'au</p>	<p>[People:] The wooden god-image</p>
<p>[People:] Aulu e Lono!</p>	<p>[People:] Hail! to Lono</p>

NOTES: From Malo 1951 p 146-7 and Guzman p 107. This *pule* was offered to the god Lono during the Makahiki, typically after first harvest offerings were collected. It was used to declare the land free from *kapu* at the conclusion of the rites of the Makahiki. Translation given by Kumu John Lake January 1996. Style of *oli* is *kepatepa*, but with certain slow-starting lines: Ou kino, 'O ho'oku'i, Anoamo, Ku'iku'i, and Hāpaina are the lines.

APPENDIX B
APPROVAL LETTER FROM THE
STATE HISTORIC PRESERVATION DIVISION

BENJAMIN J. CATYANO
GOVERNOR OF HAWAII



STATE OF HAWAII

DEPARTMENT OF LAND AND NATURAL RESOURCES

HISTORIC PRESERVATION DIVISION
Kalahele Building, Room 555
901 Kalia Street
Honolulu, Hawaii 96813

THOMAS E. JOHNS, CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES

DEPUTY
JAMES E. LANGELO

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

June 14, 1999

Ms. Lisa Leonillo Imata, Planner
Plan Pacific
737 Bishop Street, Suite 1520
Honolulu, Hawaii 96813

LOG NO: 23605
DOC NO: 9906rm09
Architecture

Dear Ms. Imata:

SUBJECT: Kukao`o Heiau Interpretive Program
TMK: 2-9-19:43, Manoa, Honolulu, Oahu

Thank you for your transmittal on the above proposal. We support the efforts of the Kuai'i Foundation for the educational opportunities they will be giving to the people of Hawaii through this interpretive program. Since the land has been heavily developed for homes and recently graded for the subdivision, we do not believe there will be any impact to archaeological sites. We believe the Major and Minor Permit to conduct these educational tours will have "no effect" on the historic character of the *heiau* or the adjoining historic residence.

We look forward to reviewing the schematic site plan and building plans as they develop. Should you have further questions regarding the architectural plans, please feel free to call Tonia Moy at 692-8030. Thank you for the opportunity to comment.

Aloha,

A handwritten signature in black ink, appearing to read "Don Hibbard".

DON HIBBARD, Administrator
State Historic Preservation Division

TMI:im

APPENDIX C
SITE REGISTRATION FORM FOR LISTING ON
THE HAWAII REGISTER OF HISTORIC PLACES

Note: Registration of the heiau as a historic place on the Hawaii Register was done in 1995 as an amendment to the 1984 registration of the Cooke residence. The following form is the 1995 amended registration to include the heiau. The heiau is not highlighted on the form, but it is mentioned on the last paragraph of Section 7, Page 2 of the registration form. Registration of the heiau with the National Register of Historic Places has been submitted, but approval is still pending.



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
STATE HISTORIC PRESERVATION DIVISION
31 SOUTH KING STREET, 8TH FLOOR
HONOLULU, HAWAII 96813

REGULATORY SERVICES
SUBJECTS: ENVIRONMENTAL IMPACT STATEMENTS, HISTORIC PRESERVATION, LAND USE, PLANNING, AND DEVELOPMENT

United States Department of the Interior
National Park Service

NATIONAL REGISTER OF HISTORIC PLACES
REGISTRATION FORM

This form is for use in nominating or requesting determinations for individual properties and districts. See instructions in How to Complete the National Register of Historic Places Registration Form (National Register Bulletin 16A). Complete each item by marking "x" in the appropriate box or by entering the information requested. If any form does not apply to the property being documented, enter "N/A" for "not applicable." For functions, architectural classifications, materials, and areas of significance, enter only descriptive and subordinate terms from the instructions. Place additional entries and narrative items on continuation sheets (NPS Form 10-900a). Use a typewriter, word processor, or computer, to complete all items.

1. Name of Property
 Historic name CHARLES MONTAGUE COOKE, JR. RESIDENCE
 other names/site number KUALU'I

2. Location
 street & number 2859 Manoa Road not for publication
 city or town Honolulu vicinity Manoa Valley
 state HAWAII code HI county HONOLULU code 003 zip code 96822

3. State/Federal Agency Certification
 As the designated authority under the National Historic Preservation Act of 1966, as amended, I hereby certify that this nomination request for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60. In my opinion, this property meets the National Register Criteria. I recommend that this property be considered significant nationally. See continuation sheet for additional comments.

Signature of certifying official _____ Date _____
 State or Federal agency and bureau _____

In my opinion, this property meets _____ does not meet the National Register criteria. (See continuation sheet for additional comments.)
 Signature of commenting or other official _____ Date _____
 State or Federal agency and bureau _____

4. National Park Service Certification
 I hereby certify that this property is: _____
 entered in the National Register _____
 determined eligible for the _____
 National Register _____
 determined not eligible for the _____
 National Register _____
 removed from the National _____
 Register _____
 other (specify) _____

Signature of Keeper _____ Date of Action _____

September 12, 1995
Mr. Sam Cooke
2859 Manoa Road
Honolulu, Hawaii 96822
Dear Mr. Cooke:

Site: Charles Montague Cooke, Jr. Residence

The Hawaii Historic Places Review Board is pleased to inform you that at its hearing on September 9, 1995, a decision was made to place the property described above on the Hawaii Register of Historic Places and to recommend to the State Historic Preservation Officer that he nominate the property for placement on the National Register of Historic Places.

If you have any questions, please do not hesitate to call 587-0047.

Sincerely yours,
Richard K. Paglinawan
RICHARD K. PAGLINAWAN
Chairperson

RP:jen
c: County of Honolulu Planning Department

5. Classification

Ownership of Property
(Check as many boxes as apply)
 private
 public-local
 public-State
 public-federal

Category of Property
(Check only one box)
 building(s)
 district
 site
 structure
 object

6. Function or Use

Historic Functions (Enter categories from instructions)
Cat: Domestic

Current Functions (Enter categories from instructions)
Cat: Domestic

7. Description

Architectural Classification
(Enter categories from instructions) Name: Late 19th & 20th Century Revival; Tudor Revival

Materials
(Enter categories from instructions)
Foundation: Situated
roof: Composition
walls: Blockwork 1st floor
other: Stucco with half timber 2nd floor

Narrative Description
(Describe the historic and current condition of the property on one or more continuation sheets.)

United States Department of the Interior
National Park Service

NATIONAL REGISTER OF HISTORIC PLACES
CONTINUATION SHEET

Section 7 Page 1 CHARLES MONTAGUE COOKE, JR. RESIDENCE HAWAII
name of property county and State

The Charles Montague Cooke Jr. Residence is a two-story Tudor revival style house. The house is situated at the top of a hill in Maunaloa Valley and has a large front lawn gracefully landscaped with several mature monkey pod and shower trees. The front of the house is separated from Maunaloa Road by a stone wall, and a circular drive provides vehicular access to the property. The house is characterized by its steep gable roof, prominent porte-cochere, and a facade featuring blue stone on the first story and half-timber and stucco on the second.

The main body of the house is three bays wide, with a kitchen wing extending off the right (makai, ocean) side. The center bay is dominated by a porte-cochere which has blue stone piers supporting a second floor sitting-room that is capped by a gabled roof. The porte-cochere's sitting room was added in 1937 and contains double hung sash windows on the left side and front sides. Openings on the right (makai, ocean) side are only screened. A massive wood door with wrought iron fixtures leads from the porte-cochere into the house. Above the porte-cochere a gabled dormer, treated in a half-timber and stucco manner, breaks the roofline of the house.

Both the left and right bays of the main house terminate with high pitched auxiliary gables with finials. The left bay has on the first story a pair of sliding doors, each of which has a window of twenty-five panes. The twenty-one light transoms extend over this doorway, which leads into the living room. Cousoles support the outset second story which contains four casement windows. The gable has a pair of casement windows that provide light and ventilation for the attic. The right bay repeats the left, only instead of sliding doors on the first story, there are three casement windows with twelve light transoms.

The kitchen wing has three 16 X 1 double hung sash windows, and a gabled entry. A bell next to the doorway was originally used to call the dairy workers in from the fields for lunch. A blue stone chimney is at the end of this wing. It originally was used in conjunction with the kitchen's wood stove. Another blue stone chimney is at the other end of the house and services the living room fireplace.

The second floor of the kitchen wing originally contained a sleeping porch, but in recent years this was converted to a den. A gabled entry at the end of the kitchen wing provides access to a basement kitchen and maid's quarters.

The interior of the house also retains its original character. The central entry hall features a paneled wainscot, coffered ceiling and large stairway leading to the second floor. The living room has a similar wainscot, an open beam ceiling, two alabaster chandeliers, and brass light fixtures mounted on the wall to flank each opening. A brick fireplace dominates the end wall. The dining room has a coffered ceiling, a delicate brass chandelier, wall light fixtures, and a mirrored double door of twenty lights that opens to a built-in china/closet storage area. A pair of sliding doors each of twenty-five lights leads from the dining room to a rear porch.

NATIONAL REGISTER OF HISTORIC PLACES
 CONTINUATION SHEET

Section 7 Page 2 CHARLES MONTAQUE COOKE, JR. RESIDENCE HAWAII
 name of property county and State

Speculars there are five bedrooms, each with their own bath. These contain original lights, fixtures, and call bell buttons (no longer functional). An open, second story lanai is off the master bedroom. The kitchen has been remodeled; however, several original light fixtures remain intact.

A walkway goes around the house and in the rear is a modest sized terraced lawn. On the north side of the house is a rock garden with waterfall and small pool. The back yard juts out to a gazbo lookout situated on a knoll that commands a view of the entire valley. Also found on the northern side of this outcrop is Kuka'o'o Heiau. A large ancient unmortared stone religious temple.

9. Statement of Significance
 Applicable National Register Criteria
 (Check "x" in box or more boxes for the criteria qualifying the property for National Register listing)

A Property is associated with events that have made a significant contribution to the broad patterns of our history.

B Property is associated with the lives of persons significant in our past.

C Property embodies the distinctive characteristics of a type, period, or method of construction or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components lack individual distinction.

D Property has yielded, or is likely to yield information important in prehistory or history.

Criteria Considerations
 Check "X" in all the boxes that apply:

Property is:

A owned by a religious institution or used for religious purposes.

B removed from its original location.

C a birthplace or a grave.

D a cemetery.

E a reconstructed building, object, or structure.

F a commemorative property.

G less than 50 years of age or achieved significance within the past 50 years.

Narrative Statement of Significance
 (Explain the significance of the property on one or more continuation sheets.)

9. Major Bibliographical References
 Bibliography (Cite the books, articles, and other sources used in preparing this form on one or more continuation sheets.)

Previous documentation on file (NPS preliminary determination of individual listing (38 CFR 67) has been requested.

previously listed in the National Register

previously determined eligible by the National Register

Primary Location of Additional Data

State Historic Preservation Office

Other State agency

Federal agency

Area of Significance
 (Explain categories from instructions)

Architecture

Period of Significance

1912

Significant Dates

1912

Significant Person
 (Complete if Criterion B is marked above)

NA

Cultural Affiliation

N/A

Architect/Builder

Emory A. Webb

designated a National Historic Landmark recorded by Historic American Buildings Survey

recorded by Historic American Engineering Record

Local government

University

Other

Name of repository: _____

NATIONAL REGISTER OF HISTORIC PLACES
CONTINUATION SHEET

Section 8 Page 1 CHARLES MONTAGUE COOKE, JR. RESIDENCE HAWAII
name of property county and State

The Charles Montague Cooke Jr. Residence is architecturally significant as an outstanding example of a Tudor revival residence in Hawaii. Its massive bluestone and half-timber and stucco facade lords over its large front lawn and neighborhood in a baronial fashion, making it one of the best known examples of the style in the state. It, along with several other houses in Manoa and Nu'uunu Valleys, stands as a prime example of this residential form in Hawaii.

The Residence shares its premises with an ancient Hawaiian agricultural temple, Kula's o Heiau. The Heiau is archeologically and ethnically (Pacific Islander) significant, having legendary as well as prohibitive associations with Manoa Valley and O'ahu island. When the Residence was originally being conceived, demolition of this temple was considered. Instead the temple was spared and the Residence was sited to peacefully coexist with the heiau. The house takes its name Kuali'i, from one of the early chiefs of O'ahu known to have worshipped at this site. During the summer of 1994 the heiau was painstakingly reerected by Billy Fields from Kailua Keo, Hawaii. During the restoration of this site the surrounding land was landscaped with pathways and native Hawaiian plants.

Charles Montague Cooke Sr. gave the land on which this house sits and its surrounding acreage to his son in 1902. On it his son established Kaimi dairy. In 1911, Emory & Webb, a major architectural firm in Honolulu, designed this house, and it stands as one of their major works from this period. Other works of theirs from this time include the Y.M.C.A. (greatly altered) and the First Methodist Church (no longer extant).

The house is also significant for its associations with Dr. Charles Montague Cooke Jr., and the Cooke family in general. Amos Starr Cooke came to Hawaii in 1837 as a missionary. He founded the firm of Castle & Cooke in 1851, which became one of the "Big Five" sugar companies, which dominated so much of Hawaii's economic, social and political history up through World War II. Charles Montague Cooke Jr. was the grandson of Amos Starr Cooke and the son of Charles Montague Cooke. His father was the President of both C. Brewer, another of the "Big Five" firms, and the Bank of Hawaii.

Dr. Charles Montague Cooke Jr. was born in Honolulu in 1874, and attended Punahou and Yale. In 1901 he received his Ph.D. and went to Europe to do scientific work in London and Paris. In 1902 he returned to Hawaii to work at the Bishop Museum, where he made valuable contributions to the field of malacology, the branch of zoology that deals with mollusks, especially with regards to the study of Hawaiian land snails. He headed a number of scientific expeditions throughout Polynesia and was the author of 45 scientific works.

The present owner is the grandson of Dr. Charles Montague Cooke Jr.

10. Geographical Data

Acres of Property 80,423 sq. feet

UTM Reference

(Please add four UTM reference on a continuation sheet)

Zone Easting Northing Zone Easting Northing
1 _____ 3 _____
2 _____ 4 _____
See continuation sheet.

Verbal Boundary Description

(Describe the boundaries of the property on a continuation sheet.)

Boundary Justification

(Explain why the boundaries were selected on a continuation sheet.)

11. Form Prepared By

name/side Mr. Sam Cooke
organization _____ date Revised July 1986
street & number 2858 Manoa Road telephone _____
city or town Honolulu state HAWAII zip code 96822

Additional Documentation

(Submit the following items with the completed form:

Continuation Sheets

Maps

A USGS map 17.5 or 15 minute series indicating the property's location.
A sketch map for historic districts and properties having large acreage or numerous resources.

Photographs

Representative black and white photographs of the property.

Additional Items

(Check with the SHPO or FPO for any additional items)

Property Owner

(Compare this item at the request of the SHPO or FPO.)

name Mr. Sam Cooke
street & number 2858 Manoa Road telephone _____
city or town Honolulu state Hawaii zip code 96822

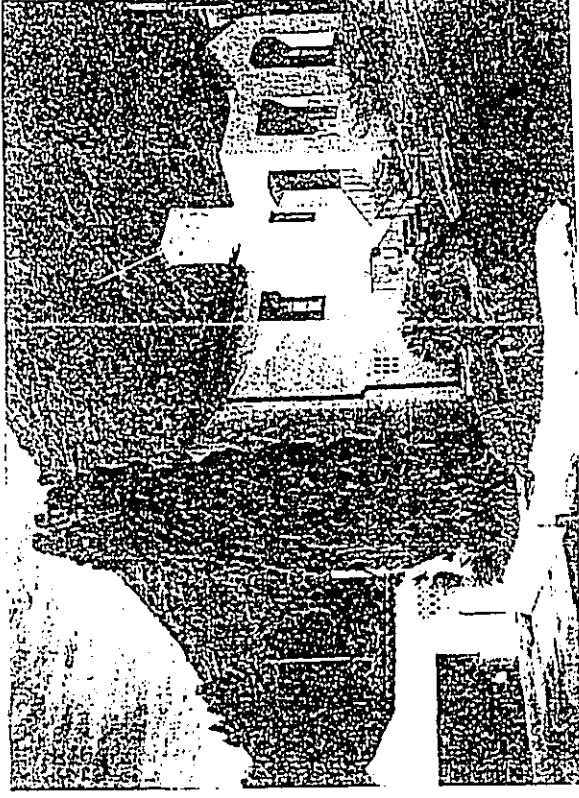
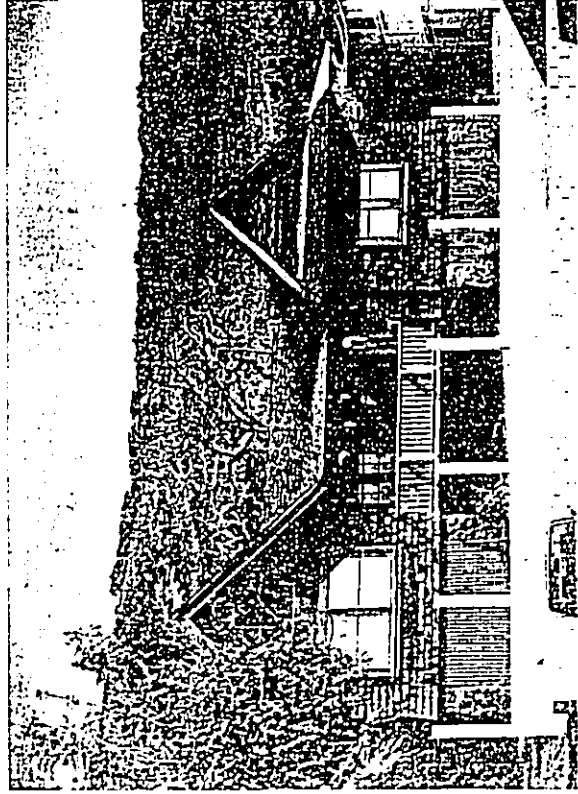
Paperwork Reduction Act Statement: This information is being collected for applications to the National Register of Historic Places to nominate properties for listing or determine eligibility for listing, to list properties, and to amend existing listings. Response to this request is required to obtain a benefit in accordance with the National Historic Preservation Act, as amended (16 U.S.C. 470 et seq.).

Briefed Burden Statement: Public reporting burden for this form is estimated to average 18.1 hours per response including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Do not estimate the burden of collecting this information if it does not apply to you. Send comments regarding this burden estimate or any aspect of this form to the Chief, Administrative Services Division, National Park Service, P.O. Box 37122, Washington, DC 20013-7122; and the Office of Management and Budget, Paperwork Reduction Project (1024-0018), Washington, DC 20503.

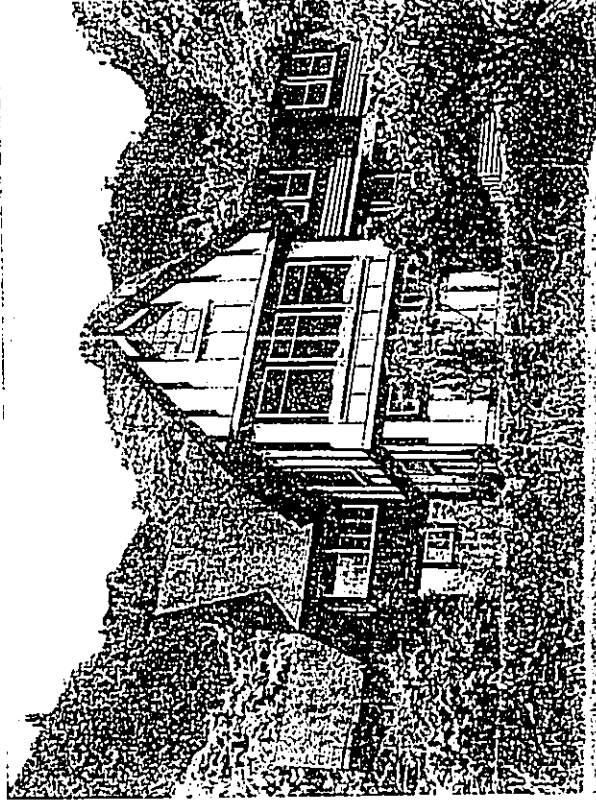
APPENDIX D
EXCERPT FROM THE MĀNOA VALLEY SPECIAL DISTRICT
BACKGROUND REPORT

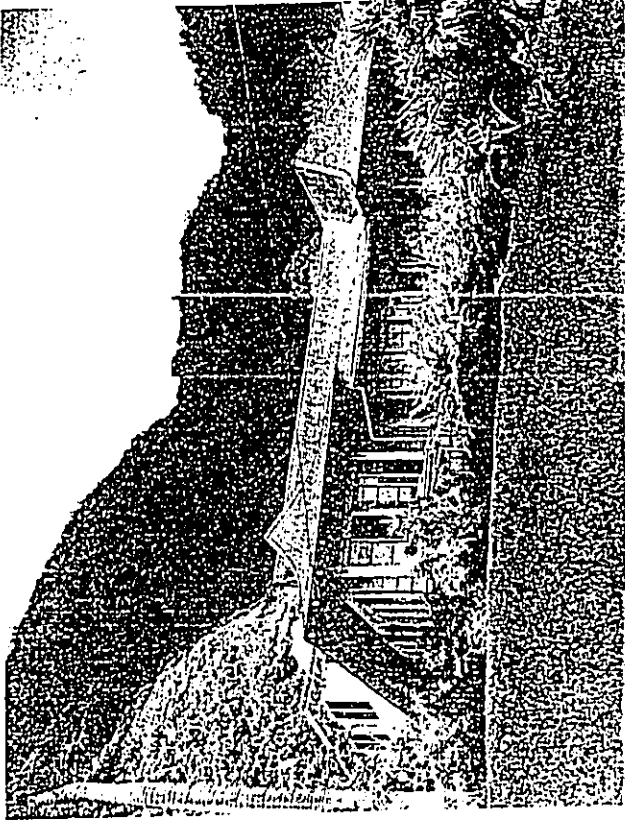


There are many fine examples of the "Craftsman" and "Shingle" house designs that were popular in the early part of this century.

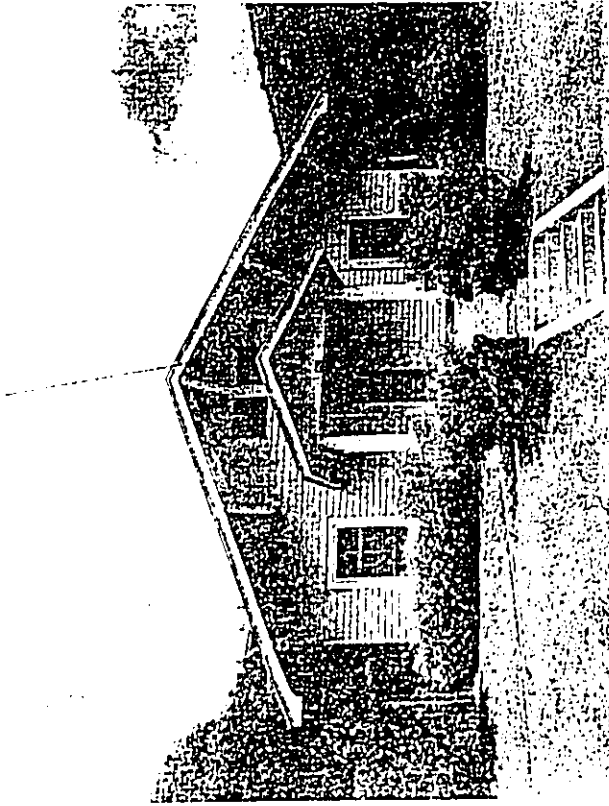
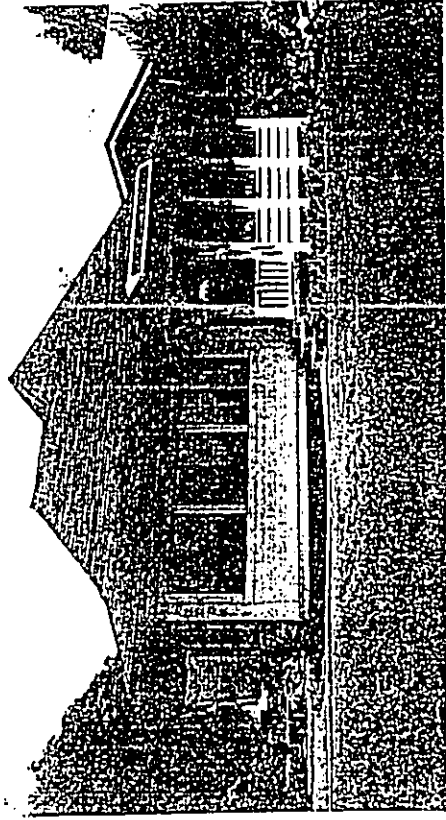


Supported styles, often with local adaptations, include the "Mission" style, above, and the "Tudor" style, below.

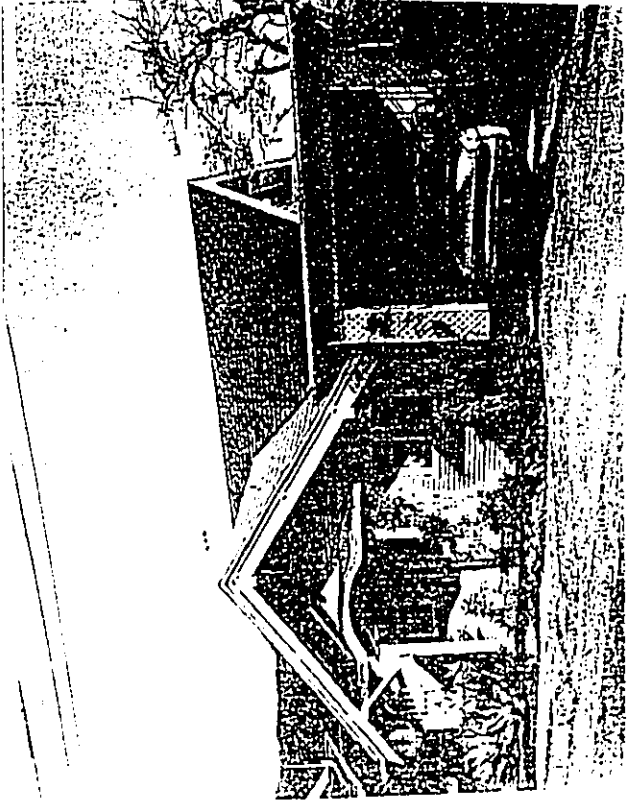


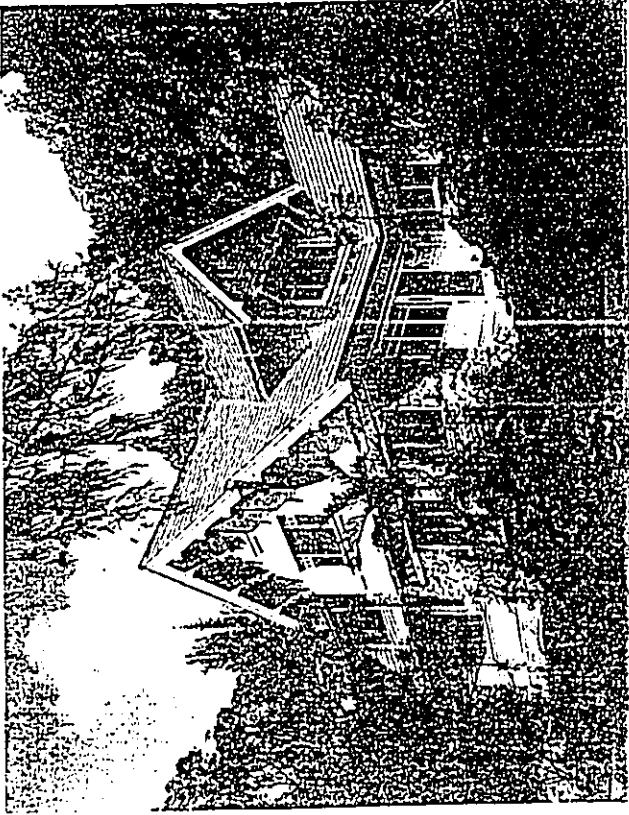


The double-pitched hip roof, wide eaves and generous windows typify what might be called the "Hawaiian Regional" style.

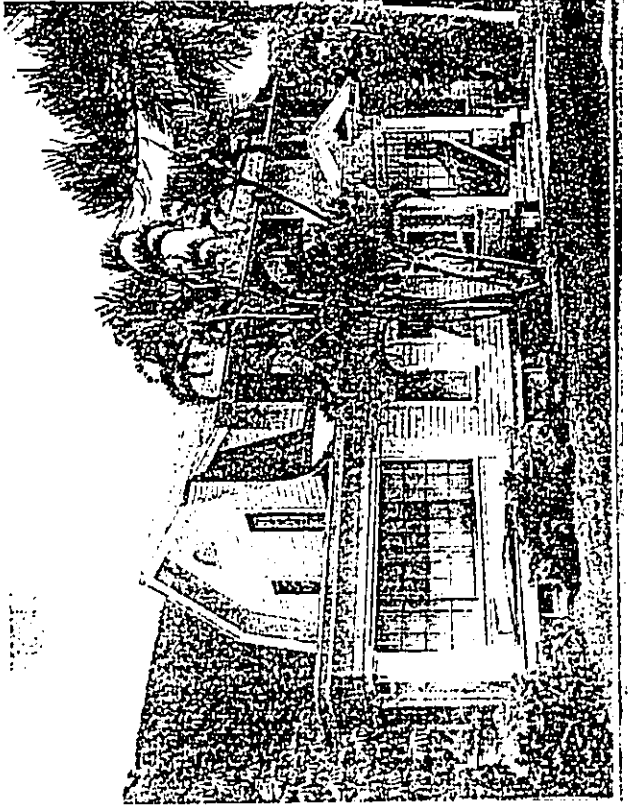
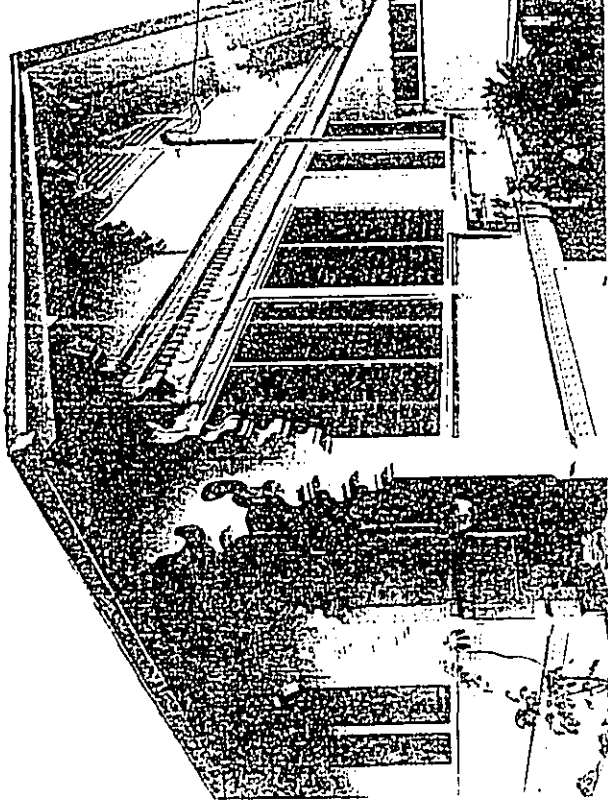


The front porch and gable roof are characteristic of the "Bungalow" style, which is typical of most of the smaller homes.

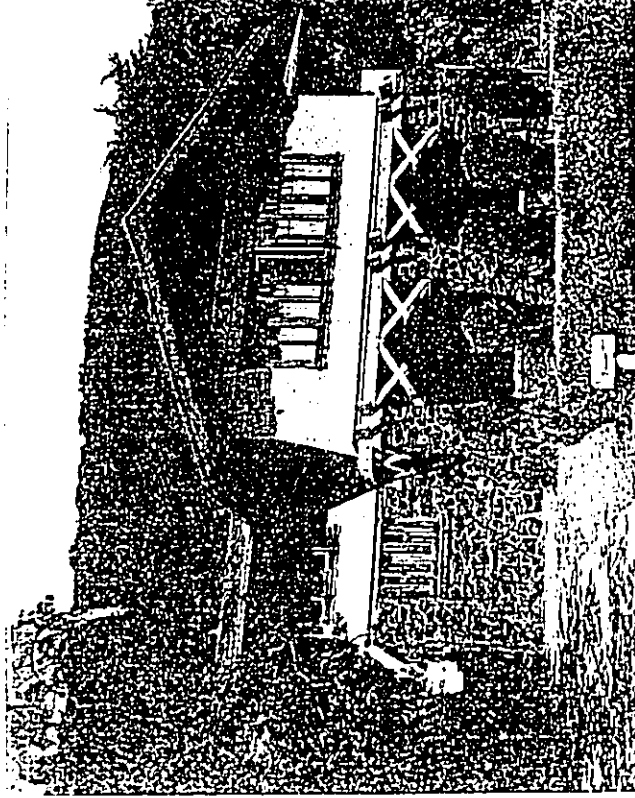


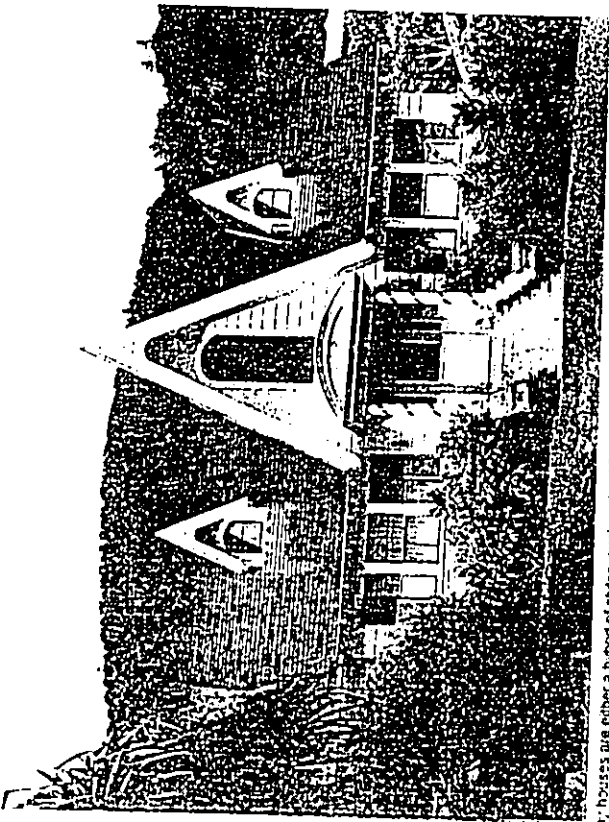


Many frames are elaborately detailed displaying fine craftsmanship, particularly in woodwork and stone masonry



The "Colonial Revival" style (above) or an eclectic blend of styles (below) are frequently found in mid-size to larger homes





Many houses are either a hybrid of styles, such as the "Colbie Bungalow" above, or a vernacular design, as below.



APPENDIX E
VISUAL SURVEY

Views of parcels 37 and 38.

Photo Key

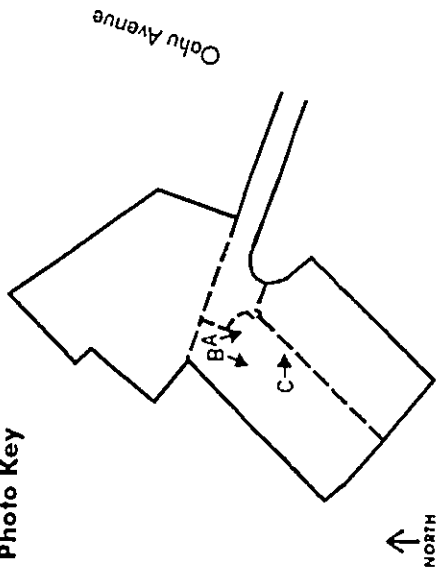


Photo A: View from the end of the driveway. The visible houses front Oahu Avenue.



Photo B: View across the length of the parcels. The fence and hedging form the southwest edge of the property.

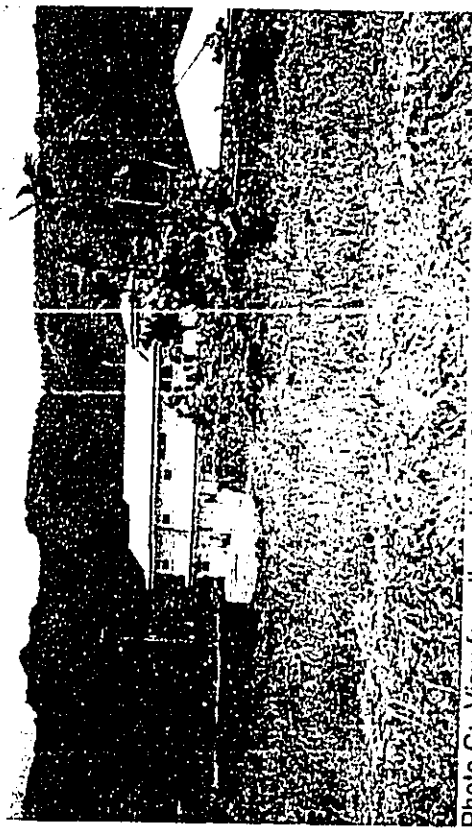


Photo C: View from the middle of the parcels.

Views from the end of the Oahu Avenue driveway.

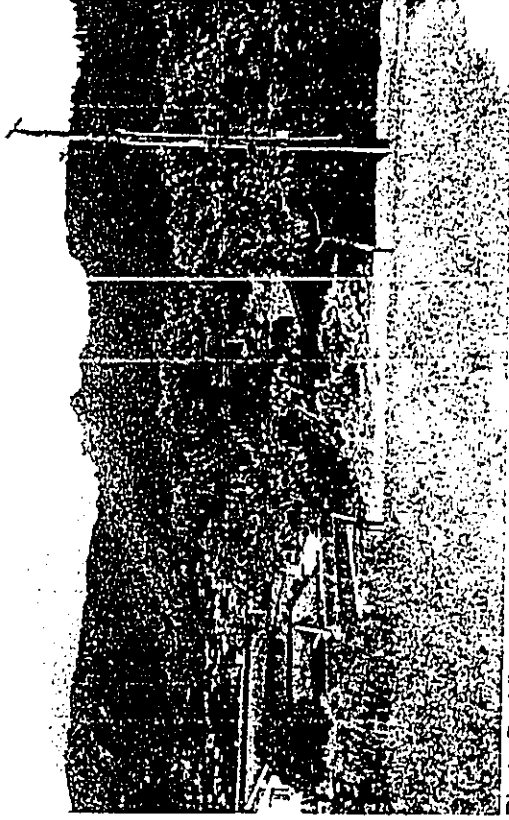
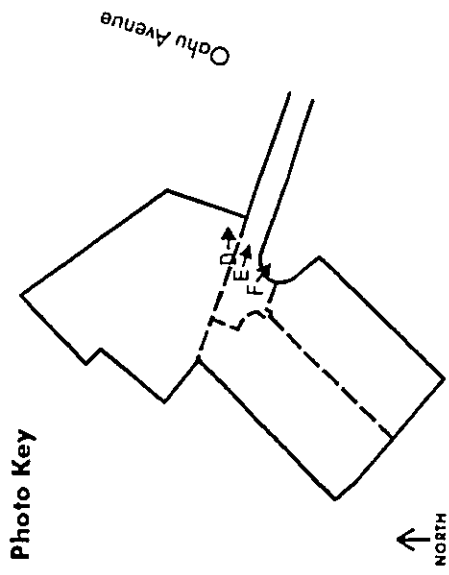


Photo D: View over the empty lot toward Oahu Avenue. The edge of the driveway is at bottom right.

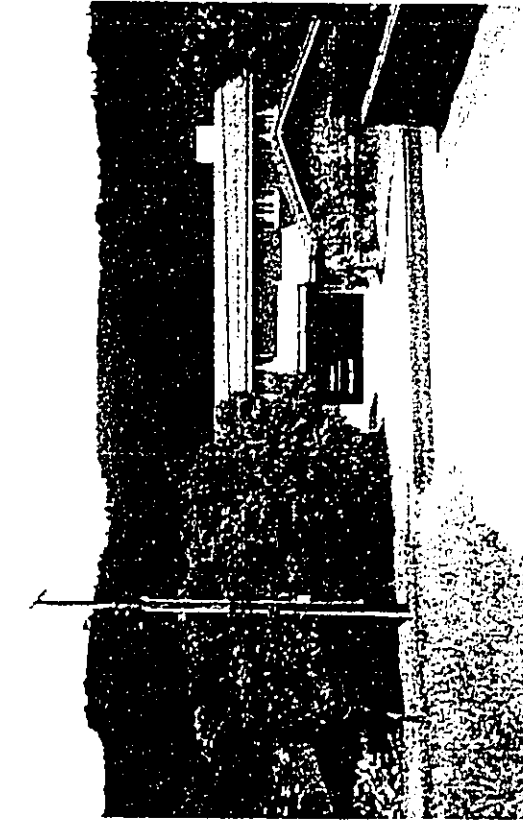


Photo E: View of neighbor across the street.

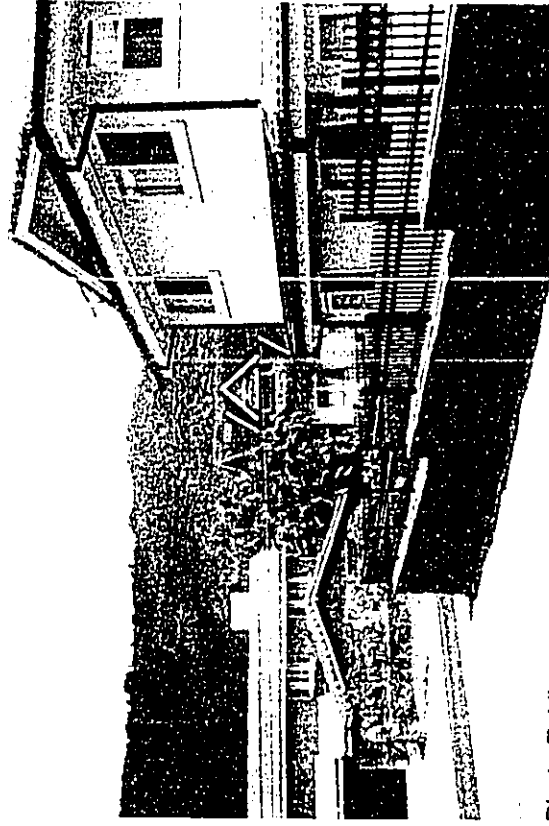


Photo F: View of neighbors across the street and along the south side of the driveway.

Views of neighbors from Kukao`o Heiau

Photo Key

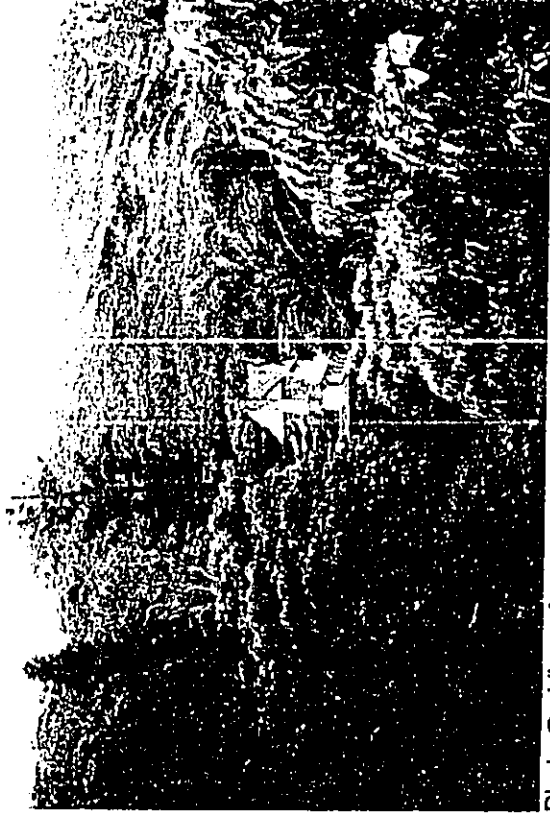
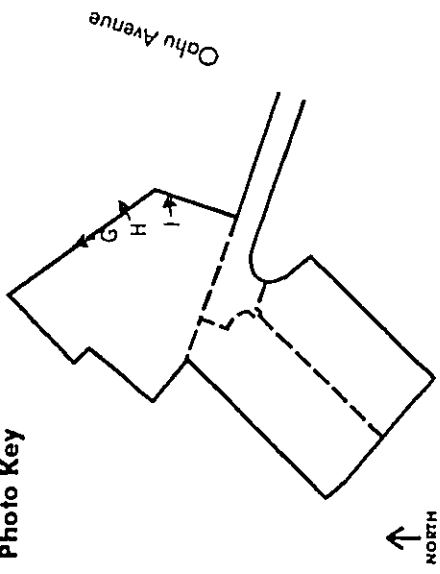


Photo G: View of nearest visible neighbor to the north. Base of heiau at bottom left.

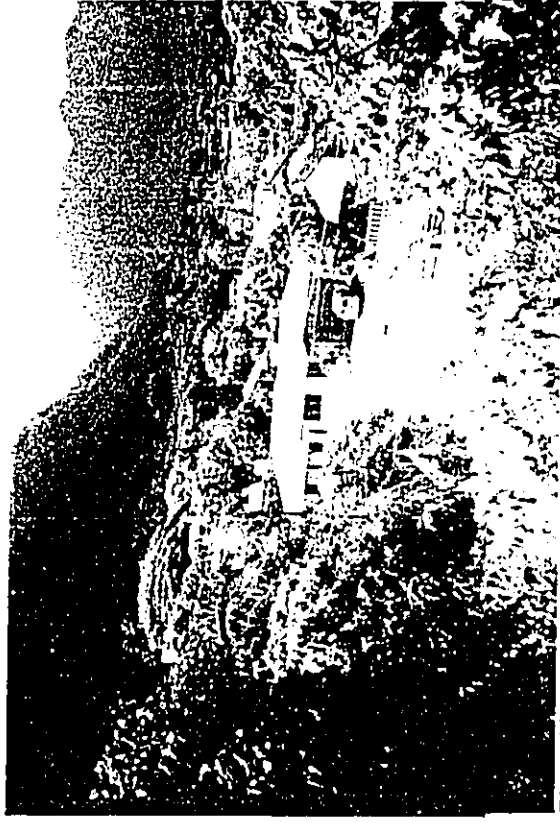


Photo H: View of nearest visible neighbor to the northeast. The home is at a much lower elevation.



Photo I: View of nearest visible neighbor to the east.

APPENDIX F
AGENCIES & INDIVIDUALS CONTACTED OR WHO PROVIDED COMMENTS
TO THE DRAFT ENVIRONMENTAL ASSESSMENT

Written Comments Received on the Draft Environmental Assessment

AGENCY/ORGANIZATION	DATE OF LETTER/FAX	DATE OF RESPONSE LETTER
City and County of Honolulu		
Board of Water Supply	1/25/00	2/2/00
Planning Department	2/9/00	2/10/00
Planning Department, Policy Branch	1/13/00	2/1/00
Wastewater Branch	1/7/00	2/1/00
State of Hawai'i		
Department of Education	12/30/00	1/31/00
Department of Health	1/25/00	1/31/00
Historic Preservation Division	1/7/00	2/1/00
Office of Environmental Quality Control	1/12/00	1/31/00

BOARD OF WATER SUPPLY
CITY AND COUNTY OF HONOLULU
830 SOUTH BERETANIA STREET
HONOLULU, HAWAII 96843



January 25, 2000

ERIC HAYES, Mayor
EDGE FLORES, JR., Chairman
CHARLES A. STEED, Vice Chairman
JAN M. LYNN
MERRITT S. K. LAOPHA, Sr.
BANGARA EMM STANTON
KAZUHIYASHIRO, Ex-Officio
ROSS S. SASAKAWA, Ex-Officio
CLIFFORD S. JAMILE
Manager and Chief Engineer



February 2, 2000

Clifford S. Jamile
Manager and Chief Engineer
Board of Water Supply
630 South Beretania Street
Honolulu, Hawaii 96843

Dear Mr. Jamile:

Subject: Draft Environmental Assessment for Mānoa Valley
Heritage Center

Thank you for your comments on the above. The Mānoa Valley Cultural Heritage Foundation or its construction consultant will be coordinating the establishment of water service with your agency in the future.

Sincerely,
Lisa Leonillo Imata
Lisa Leonillo Imata
Planner

00 JAN 28 AM 8:14

CITY & COUNTY OF HONOLULU

TO: MR. RANDALL K. FUJIKI, DIRECTOR
DEPARTMENT OF PLANNING AND PERMITTING

FROM: *Clifford S. Jamile*
CLIFFORD S. JAMILE

SUBJECT: YOUR TRANSMITTAL OF THE DRAFT ENVIRONMENTAL ASSESSMENT FOR THE CONDITIONAL USE PERMIT FOR THE MANOIA VALLEY HERITAGE CENTER, MANOIA, OAHU, I.M.K. 2-9-19: 37, 38, 43

Thank you for the opportunity to review the document for the proposed cultural facility.

We have the following comments to offer:

1. The existing off-site water system is presently adequate to accommodate the proposed development.
2. The availability of water will be determined when the Building Permit Applications are submitted for our review and approval. If water is made available, the applicant will be required to pay the applicable non-residential Water System Facilities Charges for resource development, transmission and daily storage.
3. There are two (2) existing water laterals with empty meter boxes for Parcels 37 and 38 for which water service has not been established. The applicant will have to apply to establish water service and pay the appropriate water meter installation charges.
4. If a three-inch or larger water meter is required, the construction drawings showing the installation of the meter should be submitted for our review and approval.

717 Bishop Street
Suite 1510
Honolulu
Hawaii 96813
PH: (808) 521-9418
FAX: (808) 521-9438

DEPARTMENT OF PLANNING AND PERMITTING
CITY AND COUNTY OF HONOLULU

633 SOUTH KING STREET - HONOLULU HAWAII 96813
TELEPHONE: (808) 525-7414 • FAX: (808) 527-6753



RECEIVED
MAIL

Lisa Leonillo Imata
Page 2
February 9, 2000

Historic Documentation

The final EA should include the heiau's 1995 registration as a historic place. Appendix C of the Draft EA currently consists of the historic registration for the Cooke residence.

Ownership

The final EA should discuss the relationship of the applicant, Manoa Valley Cultural Heritage Foundation and the owners Samuel and Mary Cooke.

Perimeter Treatments

The final EA should disclose whether fencing, hedges or perimeter treatments be provided along the property boundaries. If so, a description should be provided.

Traffic

Adequate on-site parking should be provided. An area for on-site pick-up and drop off should also be provided.

Residents in the area should be appraised of the project's proposed use. The Center should also notify affected residents prior to any additional major activity which will impact traffic and parking in the surrounding area.

You should be aware of Section 15-15.5, of the City Traffic Code, enclosed, governing the use of City bus stops for loading and unloading.

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

Sincerely yours,

For RANDALL K. FUJIKI, AIA
Acting Director of Planning
and Permitting

RKF:ig
Enclosures

DN 25274

RANDALL K. FUJIKI, AIA
ACTING DIRECTOR
PLANNING AND PERMITTING

LORETTA K. C. CHEE
DEPUTY DIRECTOR

1999/CUP-30(ASK)

February 9, 2000

Ms. Lisa Leonillo Imata, Planner
Plan Pacific
737 Bishop Street, Suite 1520
Honolulu, Hawaii 96813

Dear Ms. Imata:

Draft Environmental Assessment (DEA) for the
Manoa Valley Heritage Center
Tax Map Keys 2-9, 19, 37, 38, and 43

We are forwarding our comments and copies of comments received relating to the Draft Environmental Assessment (EA) for the above-referenced project.

In accordance with the procedural provisions of Chapter 343, Hawaii Revised Statutes, you must respond in writing to these and any other comments which were received during the 30-day public comment period which began with the publication of a notice of availability of the Draft EA in The Environmental Notice on December 23, 1999. The final EA must include these comments and response, as well as revised text if appropriate.

Our comments are as follows:

General and Development Plans

The project is supported by specific Development Plan policies. Section B.O of the Draft EA correctly lists the relevant General Plan policies. The final EA should clarify that these policies are found under "Culture and Recreation Objective B" rather than "Objective B" as is indicated in the Draft EA.

Existing and proposed Development Plan policies for the Primary Urban Center (PUC) also promote historic preservation efforts. Section 24-1.6 of the OP Common Provisions says specifically: "The continued use, enhancement or preservation of historic sites shall be permitted in all areas designated for any use on the land use map." The proposed revised Primary Urban Center Development Plan also includes a specific policy (section 3.2.2, policy 2) to restore or keep intact sites with sacred significance, out of respect for their inherent value.

bus stop in the Waikiki district, as defined in Section 21-7.80-1 of the land use ordinance. (Sec. 15-15.3, R.O. 1978 (1987 Supp. to 1983 Ed.); Am. Ord. 91-27, 97-02)

Sec. 15-15.4 Other vehicles not to be parked, stopped or permitted to stand in bus stops.

No person shall stop, stand or park a vehicle, other than a bus authorized under Section 15-15.3, in a bus stop which has been officially designated and appropriately signed as such. (Sec. 15-15.4, R.O. 1978 (1983 Ed.); Am. Ord. 91-27)

Sec. 15-15.5 Permits to park in loading zones and official bus stops.

- (a) The licensing division of the department of finance is authorized to issue, upon application therefor on forms furnished by the department and upon the payment of annual fees as hereinafter provided, permits for the parking of trucks as described in HRS Section 249-1, as amended, in freight curb loading zones when freight is being loaded upon or is being unloaded from such vehicles, and permits for the parking of tour buses, as defined in HRS Section 286-2, as amended, in officially designated bus stops when passengers are being loaded upon or being unloaded from such vehicles. A permit, deemed granted upon approval of the application, shall expire on December 31st of the year in which it is issued. However, an application for renewal of such permit for the following year may be made on and after the first day of December and approval thereof may be granted upon the payment of the permit fee. The permit shall be evidenced by an appropriate decal which shall be placed on the front right bumper, or on a place to be designated by the licensing division in the case of vehicles not required to have front bumpers.
- (b) The licensing division of the department of finance shall charge and collect an annual fee of \$24.00 for each permit, and a fee of one dollar for each decal, for a total charge of \$25.00; provided, that where the application for such permit is made in any month other than January, the permit fee of \$24.00 shall be reduced by two dollars for each full month of the then calendar year which has elapsed at time of the application; and provided further, that where a decal is mutilated, defaced or lost, a replacement decal shall be issued upon payment of one dollar. The sums collected shall be deposited in the highway fund.
- (c) Permits issued pursuant to this section shall not allow the permittee to park in officially designated city bus stops in the Waikiki district, as defined in Section 21-7.80-1 of the land use ordinance, as amended. Such bus stops shall be restricted to use by city transit buses only. (Sec. 15-15.5, R.O. 1978 (1987 Supp. to 1983 Ed.))
- (d) Permits issued pursuant to this section shall not allow the permittee to park in officially designated city bus stops in the Waikiki district, as defined in Section 21-7.80-1 of the land use ordinance, as amended. Such bus stops shall be restricted to use by city transit buses only. (Sec. 15-15.5, R.O. 1978 (1987 Supp. to 1983 Ed.))



February 10, 2000

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

Dear Mr. Fujiki:

Subject: Draft Environmental Assessment for Mānoa Valley
Heritage Center

Thank you for your comments on the above. Our responses follow the order in which your comments appeared in your letter.

1. General and Development Plans. Thank you for the information. Section 8.0 will be modified to include your information on General and Development Plan Policies.
2. Historic Documentation. Appendix C does contain the 1995 Hawaii registration of the heiau. Registration of the heiau as a historic place was done as an amendment to the 1984 registration of the Cooke residence. The first form in Appendix C is the 1984 nomination of the residence for the Hawaii Register. The second form is the 1995 amendment to include the heiau. The heiau is not highlighted on the form, but it is mentioned on the last paragraph of Section 7, Page 2 of the registration form.
To provide clarification, the 1984 nomination form for the residence will be removed from the final environmental assessment and a note will be inserted into Appendix C explaining the heiau nomination.
3. Ownership. The Mānoa Valley Cultural Heritage Foundation, along with the Kualā Foundation, was created as a nonprofit

737 S. Uluoa Street
Suite 1520
Honolulu
Hawaii 96813

Tel: 808/521-9418
FAX: 808/521-9488

charitable foundation in 1996. Both Foundations were established for historic preservation purposes. Sam and Mary Cooke are currently members of the Board for both foundations.

The Kualii Foundation maintains the financial investments and land holdings of parcel 43, the parcel that contains the heiau and botanical gardens. The Mānoa Valley Cultural Heritage Foundation has a broader focus and provides the development and governance of projects affecting all parcels, including parcel 43.

The above information will be included in the final environmental assessment under section 2.1.2.

4.

Perimeter Treatments. A combination of moss rock walls, chain link fencing, and vegetation exist along the perimeter of parcels 37 and 38 (see Appendix E: Visual Survey). There are no planned changes to the walls and fencing, but there are plans to replace the existing vegetation around the perimeter with hibiscus hedges. The conceptual site and landscape plan will be modified to show the hedges.

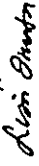
5.

Traffic. As stated in Section 2.1.5., it is anticipated that ten parking spaces would be needed with an additional larger space for a small school van. Parking and van turn-around space will be accommodated on site. Pick-up and drop-off by the van can also be accommodated on site.

It is anticipated that travel to and from the site would occur at times of low traffic volume, and that activity would be very low-scale. However, should the Center plan any major activity that might impact traffic and parking in the surrounding area, advanced notice will be sent to surrounding residents. The Mānoa Valley Cultural Heritage Foundation has sent individual letters to surrounding neighbors informing them of the proposed project. A copy of the letter and a list of the addressees will be included in Appendix F of the final environmental assessment.

Thank you for the copy of City Traffic Code, Section 15-15.5 and for your review.

Sincerely,



Lisa Leonillo Imata
Planner

January 13, 2000



PLANPACIFIC

MEMORANDUM

TO: ARDIS SHAW-KIM, LAND USE PERMITS DIVISION

VIA: RANDY HARA, CHIEF, POLICY PLANNING BRANCH *RA 1/12*
 GARY OKINO, CHIEF, LONG RANGE PLANNING DIVISION *PO 1/11*

FROM: MIKE WATKINS, POLICY PLANNING BRANCH

SUBJECT: 1999/CUP-30, DRAFT EA FOR MANOA VALLEY HERITAGE CENTER

Regarding the Draft Environmental Assessment and application for a minor Conditional Use Permit for the Manoa Valley Heritage Center, the Long Range Planning Division has only three new comments.

First, the project does not appear to have any impacts severe enough to trigger a full EIS, and the draft EA appears fully adequate.

Second, the project is supported by specific Development Plan policies. Section 8.0 of the DEA correctly lists the relevant General Plan policies, except that they are quoting from "Culture and Recreation Objective B", not "Objective B". Development Plan policies for the PUC—both existing and proposed—also promote historic preservation efforts. Section 24-1.6 of the DP Common Provisions says specifically: "The continued use, enhancement or preservation of [historic sites] shall be permitted in all areas designated for any use on the land use map." The proposed revised Primary Urban Center Development Plan also includes a specific policy (section 3.2.2, policy 2) to restore or keep intact sites with sacred significance, out of respect for their inherent value.

Third, we suggest that Appendix C include the heiau's 1995 registration as a historic place. What is in Appendix C now is just two versions of the registration of the Cooke residence as a historic place.

Fourth, the DEA should discuss the relationship of the applicant, Manoa Valley Cultural Heritage Foundation, and the property owners, Samuel and Mary Cooke.

Should you have any questions, please call me at extension 4406.

February 1, 2000

Mike Watkins
City and County of Honolulu
Policy Planning Branch
650 South King Street, 7th Floor
Honolulu, Hawaii 96813

Dear Mr. Watkins:

Subject: Draft Environmental Assessment for Mānoa Valley Heritage Center

Thank you for your comments on the above. Our responses follow the order in which your comments appeared in your letter.

1. Thank you for the information. Section 8.0 will be modified to include your information on General and Development Plan Policies.
2. Appendix C does contain the 1995 Hawaii registration of the heiau. Registration of the heiau as a historic place was done as an amendment to the 1984 registration of the Cooke residence. The first form in Appendix C is the 1984 nomination of the residence for the Hawaii Register. The second form is the 1995 amendment to include the heiau. The heiau is not highlighted on the form, but it is mentioned on the last paragraph of Section 7, Page 2 of the registration form.
To provide clarification, the 1984 nomination form for the residence will be removed from the final environmental assessment and a note will be inserted into Appendix C explaining the heiau nomination.
3. The Mānoa Valley Cultural Heritage Foundation, along with the Kualiti Foundation, was created as a nonprofit charitable foundation in 1996. Both Foundations were established for historic preservation purposes. Sam and Mary Cooke are currently members of the Board for both foundations.

737 Biliroo Street
Suite 1520
Honolulu
Hawaii 96813

TEL: (808) 521-9618
FAX: (808) 521-9618

January 7, 2000

The Kualii Foundation maintains the financial investments and land holdings of parcel 43; the parcel that contains the heiau and botanical gardens. The Mānoa Valley Cultural Heritage Foundation has a broader focus and provides the development and governance of projects affecting all parcels, including parcel 43.

The above information will be included in the final environmental assessment under section 2.1.2.

Thank you for your review.

Sincerely,

Lisa Leonillo Imata

Lisa Leonillo Imata
Planner

MEMORANDUM

TO: ARDIS SHAW-KIM
LAND USE PERMITS DIVISION

FROM: *Dennis M. Nishimura*
DENNIS M. NISHIMURA
WASTEWATER BRANCH

SUBJECT: REQUEST FOR A CONDITIONAL USE PERMIT FOR A MEETING FACILITY AND JOINT DEVELOPMENT - MANOA VALLEY HERITAGE CENTER, OAHU AVENUE, MANOA VALLEY
FILE NUMBER: 1999/CUP-30
TMK: 2-9-019: 37, 38, & 43

We have no objection to the proposed project. The applicant proposes to construct a new two thousand square foot (SF) structure for meetings, visitor presentations, and docent office space. In addition, a one thousand SF pavilion or similar structure will serve as an orientation area for visitors. These facilities will support limited, docent-controlled school group and public visitation of the Kuka'o Heiau, a historic site, located on TMK 2-9-19: 43 for educational purposes.

This statement shall not be construed as confirmation of sewage capacity reservation. Sewage capacity reservation is contingent on submittal and approval of a Sewer Connection Application form. This project may be liable for payment of the Wastewater System Facility Charge.

If you have any questions, please contact Mr. Scott Gustaf of the Wastewater Branch at 523-4886.

DMN:dl
(2/17/00)



PLAN PACIFIC

February 1, 2000

Dennis M. Nishimura,
City and County of Honolulu
Wastewater Branch
650 South King Street, First Floor
Honolulu, Hawaii 96813

Dear Mr. Nishimura:

Subject: **Draft Environmental Assessment for Mānoa Valley
Heritage Center**

Thank you for your comments on the above and for participating in the
environmental review process.

Sincerely,
Lisa Leonillo Imata
Lisa Leonillo Imata
Planner

211 Bishop Street
Suite 1510
Honolulu
Hawaii 96813
Tel: (808) 521-9418
Fax: (808) 521-9418

BENJAMIN A. CALESTANO
COMMISSIONER



STATE OF HAWAII
DEPARTMENT OF EDUCATION
150 BOKING
HONOLULU HAWAII 96813

RECEIVED

3 20 1 99

150 BOKING
HONOLULU HAWAII 96813

OFFICE OF THE SUPERINTENDENT

December 30, 1999

Ms. Jan Naoe Sullivan, Director
Department of Planning and Permitting
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

Dear Ms. Sullivan:

Subject: Manoa Valley Heritage Center - 1999/CUP-30(ask)

The Department of Education has no comment on the subject project.

Thank you for the opportunity to respond.

Very truly yours,

Paul G. LeMahieu
Paul G. LeMahieu, Ph.D.
Superintendent of Education

PLeM:ty

cc: C. Ito, OBS
P. Dang, HDO

AN AFFIRMATIVE ACTION AND EQUAL OPPORTUNITY EMPLOYER



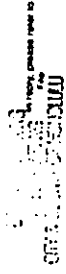
BENJAMIN J. CAYetano
GOVERNOR OF HAWAII



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

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

09 JAN 23 PM 1:19



January 31, 2000

Paul G. LeMahieu, Ph.D.
Superintendent of Education
Department of Education
P.O. Box 23360
Honolulu, Hawaii 96804

January 25, 2000

99-258/epo

Dear Mr. LeMahieu:

Subject: Draft Environmental Assessment for Mānoa Valley
Heritage Center

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

Thank you for participating in the environmental review process.

Dear Mr. Fujiki:

Sincerely,

Lisa Leonillo Imata
Lisa Leonillo Imata
Planner

Subject: Draft Environmental Assessment (DEA)
Manoa Valley Heritage Center
Oahu Avenue
Manoa Valley, Oahu
TMK: 2-9-19: 37, 38, 43

Thank you for allowing us to review and comment on the subject project. We have the following comments to offer:

Noise

Activities associated with the construction phase of the project must comply with the Department of Health's Administrative Rules, Chapter 11-46, "Community Noise Control."

The contractor must obtain a noise permit if the noise levels from the construction activities are expected to exceed the allowable levels of the rules as stated in Section 11-46-6(a).

737 Bishop Street
Suite 1320
Honolulu
Hawaii 96813

Tel: (808) 521-9118
Fax: (808) 521-9168

Mr. Randall Fujiki
January 25, 2000
Page 2

99-258/epo

Should there be any questions on this matter, please call Mr. Jerry Haruno,
Environmental Health Program Manager of the Noise, Radiation and Indoor Air
Quality Branch at 586-4701.

Sincerely,



GARY GILL
Deputy Director for
Environmental Health

c: NR&IAQB
OEQC



February 1, 2000

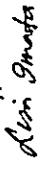
Gary Gill
Deputy Director
Environmental Health Division
State Department of Health
P.O. Box 3378
Honolulu, Hawaii 96801

Dear Mr. Gill:

Subject: Draft Environmental Assessment for Mānoa Valley
Heritage Center

Thank you for your comments on the above. Construction activities
will comply with all applicable regulations of the City and State
Department of Health, including the Department of Health's
Administrative Rules, Chapter 11-46.

Sincerely,



Lisa Leonillo Imata
Planner

737 Bishop Street
Suite 1520
Honolulu
Hawaii 96813

Tel: (808) 521-9418
Fax: (808) 521-9448

REVENUE, COSTS AND
DISBURSEMENTS

1000 / 1000 - 6 - 2



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
HISTORIC PRESERVATION DIVISION
Lyon's Building, Room 555
501 South King Street
Honolulu, Hawaii 96813



January 7, 2000

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

Dear Mr. Fujiki:

SUBJECT: Draft Environmental Assessment
Mānoa Valley Heritage Center
TMK: 2-9-19-37, 38 and 43, Mānoa, Honolulu, Oahu

Thank you for the transmittal on the above project. Since the groups visiting the Kuka'o'o Heiau will be docent-controlled and the proposed new construction will have little impact on an already developed area, we concur with the Finding of No Significant Impact to the historic house or heiau. If, however, in the course of routine construction, historic remains, including human burials are encountered, all work shall stop immediately in the vicinity of the find and the contractor shall notify our office at 692-8015.

We would appreciate receiving the interpretive master plan that was prepared by International Archaeological Research Institute, Inc. Thank you for the opportunity to comment. Should you have further questions, please call Tonia Mey at 692-8030.

Aloha,

DON HIBBARD, Administrator
State Historic Preservation Division

TM:jk

January 31, 2000

Don Hibbard
Admin Inistrator
State Historic Preservation Division
601 Kamokila Boulevard, Room 555
Kapolei, Hawaii 96707

Dear Mr. Hibbard:

Subject: Draft Environmental Assessment for Mānoa Valley
Heritage Center

Thank you for your comments on the above and for participating in the environmental review process. A copy of the interpretive master plan that was prepared by International Archaeological Research Institute, Inc. has recently been sent to your office.

Sincerely,

Lisa Leonillo Imata
Planner

00 JAN 14 AM 8:43
CITY & COUNTY OF HONOLULU

717 Bishop Street
Suite 1520
Honolulu
Hawaii 96813
Tel: (808) 521-9618
Fax: (808) 521-9648

BEJAMIN J. CAVETANO
DIRECTOR



00 JAN 18 PM 1:34

DEPARTMENT OF PLANNING AND PERMITTING
ENVIRONMENTAL QUALITY CONTROL
CITY & COUNTY OF HONOLULU

100 SOUTH KING STREET
HONOLULU, HAWAII 96813
TELEPHONE: (808) 534-1188
FACSIMILE: (808) 534-1189

January 12, 2000

Jan Sullivan, Director
Department of Planning and Permitting
650 South King Street, 7th Floor
Honolulu, Hawaii 96813

Attn: Ardis Shaw-Kim

Dear Ms. Sullivan:

Subject: Draft Environmental Assessment (EA) for Manoa Valley Heritage Center

We have the following comments to offer:

1. Two-sided pages: In order to reduce bulk and conserve paper, we recommend printing on both sides of the pages in the final document.
2. Determination: A determination stating that an environmental impact statement will not be required is listed in the draft EA at the end of section 8. The EIS law prohibits a determination of significant impact or lack of significant impact before the end of the 30-day public review period and prior to receipt, response and analysis of all written comments. For a draft EA the proper determination is *anticipated FONSI* (Finding of No Significant Impact). Please also note that the approving agency makes the determination, not the applicant.
3. Visual impacts: The draft EA does not include a drawing of the proposed pavilion. Include a drawing or rendering of this along with the proposed hale and landscaping that will show the final appearance of the project. We recommend the use of native Hawaiian trees and plants for the landscaping. In the site plan, indicate the possible sites under consideration for the hale.

Jan Sullivan
January 12, 2000
Page 2

GENEVIEVE SALMONSON
DIRECTOR

4. Visitor capacity: The draft EA states that "Visiting groups would be limited to the size of a single school group at a time." What is the anticipated maximum number of individuals per visit? Will there be a charge for visits?

5. Bus parking:
Section 2.1.5, *Description of the Proposed Action*, notes that in addition to 10 parking spaces there will be "a larger space for a school van with ample area for van turn-around," while section 3.13.1, *Roadways, Traffic, and Parking*, states that school bus pick up and drop off "would occur at the existing City Bus stop on Oahu Avenue" Given the narrowness of Oahu Avenue and the speed of through traffic, this drop-off location seems hazardous. Why cannot busses be accommodated on-site?

Has the Department of Transportation Services concurred with the arrangement of using the city bus stop? If so, document your contact in the final EA, including copies of letters of consultation. If not, consult with DTS regarding this use.

6. Contacts with neighbors: This Office has received a number of phone calls from concerned Manoa residents who were unaware of the details of this project. In the final EA document all consultations with the neighbors, including contacts with Malama O Manoa and the Manoa Neighborhood Board. Your documentation should include the dates and types of contacts, copies of any letters sent or received, and the outcomes of meetings and telephone consultations.

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

Sincerely,

GENEVIEVE SALMONSON
Director

c: Cathy Cooke, Manoa Valley Heritage Center
Lisa Imata, Plan Pacific



January 31, 2000

Genevieve Salmonson
Director
State Office of Environmental Quality Control
235 South Beretania Street, Suite 702
Honolulu, Hawai'i 96813

Dear Ms. Salmonson:

Subject: **Draft Environmental Assessment for Mānoa Valley
Heritage Center**

Thank you for your comments on the above. Our responses follow the order in which your comments appeared in your letter.

1. We intend to print the final report double-sided where possible.
2. Thank you for the correction.
3. As stated on pages 7 and 11, the actual architectural design of the pavilion and the hale have not yet been determined. The project is still in the conceptual stage and will move ahead to the design stage only after the proposed use is approved and an interpretive plan is completed. The actual structures will be of a scale, color, quality, and character consistent with the surrounding Mānoa neighborhood.
The use of native Hawaiian plants is of high priority and would serve to enhance the interpretive program as well as blend the project parcels with adjacent parcel 43, which contains the heiau. Parcel 43 already contains a noteworthy native Hawaiian botanical garden that contains excellent examples of dry land taro and sweet potato (the traditional agricultural crops of Mānoa Valley), *Ohia Lehua*, *Naupaka*, and a variety of other endemic, indigenous, or Polynesian introduced plants.
4. It is anticipated that the number of individuals per visit would not exceed 30. Visitors would not be charged a fee, but

111 E. JUNG STREET
SUITE 1520
HONOLULU
HAWAII 96813

TEL: 808/521-9448
FAX: 808/521-9168

donations would be accepted. The final EA will be revised to include the above statements.

5. Since actual details have not yet been worked out with the schools, it is uncertain as to the mode of transportation in which students would arrive. It is anticipated that small school vans would be most widely used; however, we have also allowed for the possibility of school buses to be used. Typical school bus dimensions are 8 feet wide by 40 feet long. In consideration of immediate neighbors whose houses are alongside the driveway, keeping the bus on Oahu Avenue where City buses also run, would minimize noise impacts. Use of the nearby bus stop would minimize potential hazards posed by the bus having to maneuver into and out of the driveway. Students would be dropped off and picked up near the driveway entrance and would not have to cross the street. Also, it is anticipated that pick up and drop off would occur at times of low traffic volume.

An informal check via phone call to Mr. Alvin Morimoto of the Department of Transportation Services on June 28, 1999 showed that the sharing of City bus stops is possible, but actual approval would be subject to a review of final details and a permit from the City would be required.

6. The final EA will contain a listing of all direct consultations with neighbors and Mānoa residents.

Thank you for your review.

Sincerely,

Lisa Leonillo Imata
Planner

Outside Contacts and Meetings to Discuss the Mānoa Valley Heritage Center

ITEM	FROM/INITIATOR	TO/PARTICIPANT(S)	DATE	COMMENTS/OUTCOME
Letter	Mānoa Valley Cultural Heritage Foundation	Neighbors along Mānoa Road (2817-2872) and O'ahu Avenue (2802-2885): Mr./Mrs. Ronald Rex Mr./Mrs. Milton Beamer Mr./Mrs. Francis Denis The A.H.K. Yee Family Mr./Mrs. John Lambert Ms. Peggy Murphy-Hazard Mr./Mrs. Charles Sakamoto Mr./Mrs. Gary Eastwood The T. Farnsworth Family Mr. George Barsky Ms. Leona Haladay Mr. Mark Anderson Mr./Mrs. C.M. Cooke IV Mr. William Obana Mr./Mrs. Daniel Han Mr./Mrs. Richard Yanagihara Maryknoll Sisters St. Domini The Y. Otaguro Family Mr. Richard Matsuura Mr. W.M. Carl Matsuura Mr./Mrs. Maxwell Yasukawa	11/5/99	<p>The Mānoa Valley Cultural Heritage Foundation sent out a letter to surrounding neighbors to introduce the project, invite them to visit the heiau and gardens, invite them to learn more about the plan, and invite them to the next month's Neighborhood Board Meeting where the project would be formally presented.</p> <p>A sample copy of the letter is attached.</p> <p>Only two responses resulted: 1) Dr. Angel Yanagihara contacted Catherine Cooke and follow-up meetings resulted (see below) and 2) Representatives of the Maryknoll Sisters requested a tour of the heiau. The Mānoa Valley Cultural Heritage Foundation gave the small group a tour.</p>

ITEM	FROM/INITIATOR	TO/PARTICIPANT(S)	DATE	COMMENTS/OUTCOME
		Mr. Thomas Nomura Reverend Jikyu and Mr. Lester Rose Mr./Mrs. Sidney Gonhata Mr. Lorrin King Dr./Mrs. Harrison Ishida		
Neighborhood Board Meeting			12/1/00	Most comments were in strong support of the project. One resident voiced concerns over setting a precedent for non-residential uses -- see Minutes (attached).
Phone Call	Jeff Kato	John Whalen	1/5/00	J. Kato requested a copy of the Draft Environmental Assessment on behalf of the Koganji Temple. A copy was delivered to him 1/5/00.
Phone Call	Jeffrey Itomari	John Whalen	1/13/00	J. Itoman expressed concern regarding traffic impacts. J. Whalen mailed a response letter dated 1/14/00 (see attached)
Meeting	Called by Dr. Angel Yanagihara (immediate neighbor)	Attended by Dr. Angel Yanagihara, Dr. Richard Yanagihara, John Whalen, Catherine Cooke	11/24/99	Dr. Yanagihara asked about restrictive covenants prohibiting any use except residential. She supports the project in general, but is concerned it will set a precedent for non-residential uses in the area. Discussions between Dr. Yanagihara and the Cooke family are on-going. Both parties would like an amicable solution.
Meeting (on-going from above)	Called by Dr. Angel Yanagihara	Attended by Dr. Angel Yanagihara, John Whalen, Mark Mukai, Catherine Cooke, Sam Cooke, Mary Cooke	2/11/00	M. Mukai (real estate attorney) stated that he was available to draft any agreements or amendments to the Declaration of Restrictive Covenants (DRC) as needed to allow the proposed project. J. Whalen explained that he requested the City to review and respond to the "residential purposes" provision of the DRC, since it originated with the City's review of the subdivision application.

ITEM	FROM/INITIATOR	TO/PARTICIPANT(S)	DATE	COMMENTS/OUTCOME
				<p>Until the City responds, it is not known what, if any, amendments may be required.</p> <p>M. Mukai is to determine with the Yanagihara's whether the issues could be addressed by a legal document or whether the City's application review procedures were a more appropriate way to address any concerns they may have about the project's and other potential non-residential uses within the subdivision.</p>

KUALI'I FOUNDATION
MANOA VALLEY CULTURAL HERITAGE FOUNDATION

2859 Manoa Road
Honolulu, Hawaii 96822
Tel/Fax: (808) 537-9182, Pgr. 599-7789, Ctl. 551-3582
cooke@akua.net

November 5, 1999
Mr. and Mrs.
2862 Oahu Ave.
Honolulu, HI 96822

sample
letter

Dear :


We are writing to inform you of a plan we have been engaged in for several years, the establishment of two public, charitable foundations dedicated to the conservation of historic Manoa Valley and preservation of Kukao'o Heiau and surrounding native Hawaiian botanical gardens on our property at Kualii, 2859 Manoa Road. The long-term objective of the foundations is the creation of an educational interpretive center and program in conjunction with the heiau and gardens, with the purpose of furthering community knowledge of the history, environment and rich cultural heritage of Manoa. Presently, we hope to share the Hawaiian site with the community on a very limited basis in the near future.

In its initial stage, the project involves application to the City and County of Honolulu for a Conditional Use Permit, required for public visits to the property. We plan to submit this application after a period of public input, and therefore are most interested in receiving your questions, concerns and suggestions.

We are especially sensitive to issues of our own and our neighbors privacy, and plan to limit visits to small groups and low frequency to ensure that traffic and noise will not be a neighborhood problem. Visits would be offered Monday through Friday, with the possibility of an occasional weekend day. Two groups, limited to the maximum size of a school class each, would be allowed per day during daytime business hours, between 9:00 am and 4:00 pm. School groups could be dropped off by bus off-site, while others would arrive by small van or automobile. In order to accommodate the minimal amount of parking anticipated, we have acquired two lots adjacent to our back yard with access from O'ahu Avenue. No paving, road widening or construction is necessary to accommodate parking, and landscaping, including existing mature Monkeypod trees as well as additional trees and shrubs, would create visual and noise buffers.

We welcome you to visit the heiau and gardens at Kualii and to learn more about the proposed plan. We will also make a formal presentation to the Manoa Neighborhood Board at the December 1, 1999 meeting and encourage you to attend. Please do not hesitate to call me at 537-9182 to set up an appointment to see the property or to address specific questions or concerns. Thank you for your interest and thoughtful consideration of our work, which we hope will provide an enduring cultural resource for future generations.

Sincerely,


Catherine Cooke, Director
Manoa Valley Cultural Heritage Foundation



MANOA NEIGHBORHOOD BOARD NO. 7

VA MANOA LIBRARY • THE WOODLAWN DRIVE • HONOLULU, HAWAII 96813
MINUTES OF DECEMBER 1, 1999 REGULAR MEETING
 KOELANI ELEMENTARY SCHOOL CAFETERIUM
 2655 WOODLAWN DRIVE

CALL TO ORDER: The meeting was called to order by Chair Heinrich at 7:12 p.m. A quorum was present.

MEMBERS PRESENT: George Nakano, Gary Andersen, Joseph Ezaki, Clare Malecha, Michael Kiks, Slater Davilyn Ah Chick, Jeremy Lam, Peter Shoji, Teri Durland, Richard Fassler, Tom Heinrich, Salvatore Lanzilotti, Milton Ragadale.

MEMBERS ABSENT: Alex Achimore, Brian Baron, David Mower, Franciaco Figueiredo.

GUESTS: Grace Furukawa (Lower Manoa Valley Security Watch/League of Women Voters), Sharon Miyashiro (UH), Kelly McArthur (Aloha E-Bike), Mandy Bowers, Ray Kamikawa (Director, State Department of Taxation/Governor's Representative), Steve Hirano (Pacific Management), Poni Dalnes and Heidi Jung (Senator Brian Taniguchi's Office staff), Representative EG Case, Lou Crompton (Senator Carol Fukunaga's Office staff), Marie Rosso, Adam Kam, Sgt. Ray Quon and Officer Jonathan Yee (FPD), Fred Lee, Cindy McMillen (Councilmember Andy Mirklatani's Office staff), Steven Min (Department of Parks and Recreation), Peter Radulovic (Executive Director, Mayor's Office of Culture and the Arts/Mayor's Representative), Captain Simeon Alo (HFD, Manoa Station), Kozen Kaneshiro (Malama o Manoa), Angi Vanagahara, Mark Levin, Jim Harwood, Burt Goldenberg (Marco Polo), John Whalen, Beryl Blaich, Cathy Cooke, Sam Cooke, Nathan Napoka, Scott Power, Deborah Pope, Sam Gon III, Corrine Ching, Jason Iwai, Jamal Siddiqui (Neighborhood Commission Office staff).

APPROVAL OF THE REGULAR MEETING MINUTES OF NOVEMBER 3, 1999: In response to an inquiry by Andersen, Chair Heinrich explained the production process for the Board's minutes as follows: the Neighborhood Assistant (NA) present at the meeting prepares the first draft of the minutes based on the NA's personal notes, back-up audiotape, and any other materials received at the meeting; a review of the first draft and any initial corrections is done by Dean Chu, Neighborhood Assistant Supervisor; the NA then corrects the first draft and transmits it to the Chair; the Chair proofreads the minutes and may further amend the draft for accuracy, completeness, and style; the draft minutes are then returned to the NA, any final corrections made, and the minutes prepared in final form for printing and distribution to the members and all persons and agencies on the Board's mailing list. The minutes are not intended to serve as a transcript of a meeting, but a full and fair summary of the business conducted by the Board in keeping with the requirements of the Revised Neighborhood Plan 1986 (1998 edition) and Hawaii Revised Statutes Chapter 92 (the "Sunshine Law").

It was discovered that at least 3 members had not yet received copies of the November 3, 1999 minutes and December 1, 1999 agenda, therefore without objection the consideration of the minutes was deferred to the January 5, 2000 regular meeting.

ANNOUNCEMENTS: Chair Heinrich advised that after the first portion of community input the Board would take the agenda out of order to accommodate two presentations and consideration of a proposed resolution on Hawaiian Electric's Kamoku-Pukele 138 kV transmission line project. There were no objections.



Oahu's Neighborhood Board System - Established 1973

MANOA NEIGHBORHOOD BOARD NO. 7
 DECEMBER 1, 1999 REGULAR MEETING MINUTES

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1. Fassler was thanked for posting signage alerting motorists as to when Olelo would be broadcasting the Board's most recent meeting.

2. The next regular meeting of the Board is on Wednesday, January 5, 2000 at 7:00 p.m. at the Noelani Elementary School Cafeterium, 2655 Woodlawn Drive.

3. Hawaiian Electric Company, Inc.'s Kamoku-Pukele 138,000 Volt Transmission Line Project Revised Draft Environmental Impact Statement was filed with the State Department of Land and Natural Resources, Land Division (DLNR) and the State Office of Environmental Quality Control (OEQC), and mailed to persons and agencies on the distribution list on October 22, 1999. Comments must be received or postmarked by December 7, 1999. Please send original comments to Chair Timothy Johns, DLNR, 1151 Punchbowl Street, Honolulu 96813. Please send copies of comments to OEQC, 235 S. Beretania St., Room 702, Honolulu 96813; Mr. Kerstan Wong, Project Manager, Hawaiian Electric Co., Inc., P. O. Box 2750, Honolulu 96840-0001; and CH2M HILL, Inc., 1585 Kapiolani Boulevard, Suite 1420, Honolulu 96814.

4. Suggestions for Capital Improvement Projects in the Manoa Neighborhood Board district are welcome at any time in preparation for the Fiscal Year 2001 budgets. Please contact the Board or any elected official for our area to convey your suggestions.

5. Copies of the Primary Urban Center Development Plan Public Review Draft are available at the Department of Planning and Permitting (DPP), 650 S. King Street, 7th Floor, and on the department web site: cchnl.oceanic.com/planning. Written comments on the PUC DP Public Review Draft, which covers the area from Pearl City to Waialae-Kahala, may be submitted to DPP. For more information, contact Mr. Jamie Pearson at 527-5754.

On Wednesday, November 23, 1999, there was a public forum on the PUC DP at Washington Middle School; these community discussions are planned to continue during the Spring of 2000.

6. The next Neighborhood Plan Committee meeting is scheduled for Tuesday, January 11, 2000 at 5:00 p.m. at City Council Chambers. The Neighborhood Commission meeting follows at 6:30 p.m.

7. The Board of Water Supply (BWS) released a document for its six year Capital Improvement Projects (CIP) program from fiscal year 1999 to 2005. One of the projects includes fixing the water mains and appurtenances connecting to the Wa'ahila Ridge reservoirs above the UH faculty housing on Dole Street.

8. Ray Kamikawa, representing the Governor's office, distributed Tax Facts booklets for interested persons to review.

COMMUNITY INPUT:

HONOLULU FIRE DEPARTMENT: Captain Simeon Alo reported the following: (1) Statistics for the past month were 19 calls, including 1 structure fire, 1 vehicle fire, 8 medical emergencies, 2 search and rescue, and 5 miscellaneous. There was one major incident, HFD rescued three injured hikers at Manoa Falls Trail. (2) In cooperation with the Make a Wish Foundation of Hawaii, Honorary Junior Fire Captain T. J. Colby will join HFD in the Honolulu City Lights Electric Parade

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taking place on Saturday, December 4, 1999. Captain Alo added that there will be a series of Christmas parades throughout the island including the McCully Christmas Parade on Saturday, December 11, 1999. (3) HFD along with other City Departments has decorated the outdoor trees in downtown Honolulu and Kailua, and Christmas trees will be displayed at Honolulu Hale. (4) Christmas Tree Safety Tip: A 6-foot tree will use 1 gallon of water every two days; check the water daily; secure the tree from tipping. Always unplug a light string of electrical decorations before replacing light bulbs or fuses. Practice this rule of thumb -- do not connect more than three light-string sets together. Turn off the Christmas lights and decorations before leaving home or going to bed. Dispose of the tree properly and consider recycling your tree. (5) Home Safety Tip: This is a good time to change the batteries in your smoke detectors. Plan your escape routes from your home, in case of fire. Once you're out, stay out. After holiday parties, check around and under the sofa and chair cushions for smoldering cigarettes.

(6) Y2K Fire Safety Facts: Generator Safety -- Always read and follow the manufacturer's instructions and guidelines. Only use a generator or other fuel-powered machines outside the home by using the appropriate size and type of power cords carrying the electric load. Lighting Safety -- Have plenty of flashlights and batteries on hand, not candles, for emergencies. Cooking disruptions in essential services as well as other problems which may occur. Each fire station will become an emergency communication center for its respective community in the event that telephone and electrical systems fail.

(8) HFD's New Year's Eve Fireworks Information: and Safety Tips: Non-aerial common fireworks may be set off on New Year's Eve from 9:00 p.m. until January 1, 2000 at 1:00 a.m. It is unlawful to sell fireworks more than seven calendar days prior to the designated period. Purchase fireworks from a licensed dealer. Always read and follow label directions, never experiment with fireworks on your own, ignite outdoors, have water handy. Never reignite malfunctioning fireworks, throw at another person, or place in metal or glass containers. Captain Alo wished everyone a happy holiday season.

Discussion followed. (1) Andersen observed two weeks ago that a helicopter crew was flying over Manoa Falls Trail and inquired who they were. Captain Alo replied that it was a commercial crew from The Learning Channel (TLC) filming at Manoa Falls Trail to highlight what had happened earlier this year at Sacred Falls Park, where hikers died in a rockfall. HFD was asked to assist and did so, using the activity as a training exercise. That proved fortuitous, as within two weeks an actual rescue of an injured hiker from Manoa Falls Trail was performed by HFD ground and air personnel. Andersen inquired whether the costs of rescuing hikers were recoverable by the City & County of Honolulu. (2) Kliks inquired whether these hikers were on their own or part of a commercial tour group. Captain Alo did not know. Kliks also asked if there could be some tightening of the rules and regulations along with compiling statistics on injured hikers and HFD rescues. (3) Sioji acknowledged both HFD and HPD for saving lives, but expressed the concern as to why our tax dollars are being spent on rescuing noncompliant hikers. He did note that whoever needs help should receive it. (4) Area resident Jason Iwai suggested that Manoa Falls Trail should have specific hours of allowed access. Chair Heinrich suggested the concerns raised at this meeting with reference to Manoa Falls Trail public safety should be discussed with Axson Lowe of the Department of Land and Natural Resources, HFD, HPD, Lyon Arboretum, Paradise Park, and our elected officials. He asked Representative Ed Case to assist in convening a meeting to discuss the Manoa Falls issues with appropriate officials. (5) Chair Heinrich raised the concern of pipe

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bomb explosions, especially taking place between 9:00 to 10:30 p.m. in the area of Noelani and Manoa Elementary Schools and Manoa Valley District Park. Captain Alo will follow up on these concerns. Captain Alo was thanked for attending the meeting.

HONOLULU POLICE DEPARTMENT: Sgt. Quon reported statistics for the area included 7 burglaries, 20 thefts, and 5 auto thefts. The thefts include a number of mopeds in the University of Hawaii area and that there has been no increase in property crimes in Manoa Valley. Discussion followed. Kliks expressed concern over a damaged cinder block wall at the intersection of Lowrey Avenue and Woodlawn Drive (right side, mauka direction). Sgt. Quon will follow up and was thanked for attending the meeting.

RESIDENTS AND OTHERS:

EXPANSION OF NO PARKING DISTANCES AT THE INTERSECTION OF WOODLAWN DRIVE AND LOWREY AVENUE: Resident Mark Levin submitted a written report to the Board expressing concern about the intersection of Lowrey Avenue and Woodlawn Drive. Apparently contrary to earlier information from the Department of Transportation Services, the new No Parking signage to be installed marked the No Parking areas but did not expand the areas to improve line of sight safety distances. Levin suggests that there be an expansion of the no-parking distances until traffic calming measures can be installed. Levin was thanked for submitting his written report to the Board.

MANOA VALLEY DISTRICT PARK AND MULTI-PURPOSE FACILITY: Andersen suggested that there be a future presentation to the Board on the Manoa Valley District Park and Multi-Purpose Facility. Chair Heinrich replied that he spoke with Senator Taniguchi and others and was informed that the consultants (Ernest Hirata and Associates) are presently working hard to complete the necessary scope of work and preliminary planning in order to gain the contract with the City for this project. The contract must be completed and funds encumbered by December 31, 1999. Chair Heinrich stated that if everything is in order, a presentation could be arranged for January or February 2000.

Without objection, at this time Chair Heinrich deferred the agenda to take up New Business Items.

NEW BUSINESS:

PRESENTATION CONCERNING ELECTRIC BICYCLES: Kelly McArthur, representing Aloha Electric Vehicles, explained that the "E-Bike" was developed by Lee Iacocca (former Chair and CEO of the Chrysler Corporation), Chairman of EV Global Motors Company. The Electric Bicycle is a blend of both pedaling a bicycle and riding a scooter. These E-bikes could help alleviate parking congestion faced by residents and students attending the University of Hawaii at Manoa (UH). She stated that secure bike lockers should be installed at the UH campus, similar to the University of Washington at Seattle, which would save parking spaces for commuter students and dormitory residents. She noted that these bike lockers have a low maintenance cost, can be protected from graffiti and the weather, and are cheaper than mass transit. Discussion followed. (1) Ragsdale commented that these bike lockers are long overdue in helping to make Honolulu a bicycle friendly city. (2) Kliks asked how much time does it take to charge the electric bike's batteries -- McArthur answered four hours. (3) Fassler commented that renting a bike locker would be a great source of

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income to UH, but raised a question of where to install them. McArthur was thanked for her presentation.

PRESENTATION BY THE MANOA VALLEY CULTURAL HERITAGE FOUNDATION CONCERNING THE PROPOSED MANOA VALLEY HERITAGE CENTER -- PRESERVATION OF THE KUKAO'O HEIAU AND GARDENS (2800 BLOCK OF OAHU AVENUE): John Whalen of PlanPacific introduced members of the Manoa Valley Cultural Heritage Foundation Board of Directors: Kozen Kaneshiro, Beryl Blach, Nathan Napoka, Scott Power, Deborah Pope, Sam Gon III, Sam Cooke, and the Foundation's Executive Director Cathy Cooke. This was the first public presentation concerning the proposal and was being made prior to the completion of the Environmental Assessment. Whalen stated that immediate area neighbors and the Manoa Neighborhood Board were the first to be directly contacted about the proposal. He stated that the foundation's main purpose is the preservation of the Kukao'o Heiau and Gardens which by legend were built by menchune in the 1600s and later rebuilt in the 1800s. The 1.4 acres of land were purchased by Samuel Cooke, who then donated it to the foundation. Whalen then displayed a series of photos showing the heiau and its location.

Neighbor Dr. Angel Yanagihara reported that the conveyance documents for the lots state that the land is to be used for residential purposes only. Her lot is part of the same subdivision made about 1992. Whalen stated that the City Department of Planning & Permitting (DPP) requested that that language be included in the conveyance documents at the time of the subdivision. The foundation will be applying for a "Conditional Use Permit" from DPP which will require an administrative review and public hearing. Dr. Yanagihara stated that she and other area property owners are interested and supportive of the plans to preserve the heiau. Whalen noted that one of the existing lots is planned to house a small educational center for students taking weekday morning and afternoon field trips to learn about Manoa Valley and how it has evolved by its historical, cultural, and geological influences. He noted that Kukao'o Heiau was listed on the Hawaii Register of Historic Places in 1996, and completion of the National Register of Historic Places application is still pending.

Discussion followed. (1) A number of Board members applauded the efforts of the Foundation to preserve the heiau as a focal center of Manoa's history, but inquired on how it will be maintained. Whalen replied that the Foundation will accept voluntary monetary and in-kind services donations (no charge in visiting the heiau) and has worked with Melama o Manoa on this endeavor. Area resident Jim Harwood inquired if the UH Center for Hawaiian Studies has been consulted on the heiau's preservation. Sam Gon III replied that he has not heard a formal response from the Center, but that the Center is aware of it. Whalen and the Foundation Board members were thanked for their presentation, and Dr. Yanagihara was thanked for her comments, concerns, and willingness to assist in the resolution of those concerns.

PROPOSED RESOLUTION CONCERNING THE HOME ORGANIC PRODUCE COOPERATIVE INITIATIVE: Chair Heinrich noted that he had received a fax of the Senate Concurrent Resolution adopted by the Legislature during the Regular Session of 1999 supporting the Home Organic Produce Cooperative Initiative from David Bourgoin, who had made a presentation at the Board's November 3, 1999 regular meeting. Mr. Bourgoin requested the Board's support by resolution (the Makiki Neighborhood Board No. 10 had adopted a supportive statement), and Chair Heinrich had prepared and distributed a draft resolution for the Board's consideration. As Mr. Bourgoin had not present, Ragsdale proposed that action on this item be deferred until Mr. Bourgoin was

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present to address questions of Board members in relation to the proposed resolution. Without objection the matter was deferred.

Lanzlotti left at 9:00 p.m.

PROPOSED RESOLUTION CONCERNING HAWAIIAN ELECTRIC COMPANY, INC.'s (HECO's) REVISED DRAFT ENVIRONMENTAL IMPACT STATEMENT (RDEIS) AND CONSERVATION DISTRICT USE APPLICATION (CDUA) (WA'AHILA RIDGE) FOR ITS PROPOSED KAMOKU-PUKULE 138 KV TRANSMISSION LINE PROJECT: Chair Heinrich handed the gavel to First Vice Chair Ah Chick to preside over the discussion on this issue. Heinrich moved and Ragsdale seconded a motion that the Manoa Neighborhood Board No. 7 adopt a resolution to reiterate the Board's long standing position in opposition to this project and stating several comments on the RDEIS to be submitted to the State of Hawaii Department of Land & Natural Resources by December 7, 1999. Heinrich apologized that a written draft of the proposed resolution was not available for distribution, but asked the Board members' indulgence in order to outline the resolution, gain consensus on the position and points to be stated, and allow the final language of the resolution to be prepared in time to meet the December 7, 1999 public comment deadline on the RDEIS. Discussion followed.

(1) Heinrich stated these main points: first, HECO's reliance on a 1995 alternatives technology study is out of date; second, the Community Advisory Committee's comments and questions concerning the 1995 study and the project as a whole remain unanswered today, and the CAC has not been reconvened since 1996; third, there is no definition or measurement methodology of "reliability" offered by HECO and therefore DLNR should find that the RDEIS remains inadequate and should not be accepted; and fourth, HECO must fully and substantively respond to all questions and comments submitted on the RDEIS. (2) Heinrich reminded everyone that public comments on the RDEIS are due (by delivery or postmark) on Tuesday, December 7, 1999 and that those who do not respond by this date will be denied standing to possibly legally challenge the adequacy of the RDEIS. (3) Representative Case stated that he has exchanged correspondence with Robert Clarke, CEO of HEI (Hawaiian Electric Industries, Inc.), the parent company of HECO, asking whether HEI would participate in a "mutual gains approach" evaluation of the proposed Kamoku-Pukule project or influence HECO to participate. Mr. Clarke has responded that HEI would not participate, and that HEI otherwise leaves HECO to decide for itself on these issues. Representative Case described HEI's distancing from HECO as not responsible and added that the proposed resolution should also be addressed to CEO Clarke as well as the Board of Directors of HEI and its subsidiaries including HECO. (4) Ezaki stated that he would vote to abstain because he believed in a contingency plan in case there is power failure, and cited a research doctor from the Lawrence Livermore Laboratory at the University of California at Berkeley who studied the effects of electromagnetic fields but was found to have fabricated evidence used in the study, therefore such research was untrustworthy. (5) Kilks suggested that people buy HEI stock as a way to attract the attention of HEI's board of directors -- corporate democracy. (6) Representative Case noted his protest to this project by closing his account with American Savings Bank, an HEI subsidiary.

After further discussion, the substance of the motion and comments on the RDEIS to be included by consensus were restated by Heinrich and accepted by Ragsdale who had seconded the motion. The motion was adopted by a vote of 11 in favor, 0 opposed, and

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1 abatement (11-0-1): Yess: Nakano, Andersen, Malecha, Kilks, Ah Chick, Lam, Shoji, Durland, Fassier, Heinrich, Ragsdale. Nays: None. Abstain: Ezaki. (See attached Resolution.)
Heinrich moved and Nakano seconded that \$33,000 be appropriated from the Board's operating account to mail out this resolution to each member of the various Board of Directors for HEI and its subsidiaries. The motion was unanimously adopted by a vote of 12-0-0.

Heinrich announced that Malama o Manoa was coordinating a rally to take place on Thursday, December 2, 1999 at 11:00 a.m. at the Iolani Palace Bandstand (conveniently located across South King Street from the HEI and HECO corporate headquarters building) to protest against the Kamoku-Pukele project. First Vice Chair Ah Chick returned the gavel to Chair Heinrich.

The order of the agenda was resumed.

COMMUNITY INPUT:

DEPARTMENT OF PARKS AND RECREATION - Steven Min, Manoa Valley District Park Pool Supervisor, reported the following: (1) The Manoa Basketball League's season ends on Tuesday, December 14, 1999. (2) The park will be closed on Christmas and New Year's Day, but will be open from 1:00 to 5:00 p.m. on Christmas Eve and New Year's Eve. (3) The People's Open Market continues every Monday, 6:45 - 7:45 a.m. at the Ka'alu Avenue parking lot. Discussion followed. Grace Furukawa asked about the heater not working in the park's swimming pool. Min replied that an electronic part was on order and was expected soon. Min was thanked for his report.

UH ADMINISTRATION - Sharon Miyashiro reported the following: (1) Progress on Mid-Pacific Institute's plans to create a driveway access to Maile Way as necessary drawings and planning documents have been delivered to UH for review and agreement. (2) Next week will be the last week of classes; the following week will be final exams. (3) Winter Commencement takes place Sunday, December 19, 1999, undergraduate ceremony at 9:00 a.m., graduate school ceremonies at 12:00 p.m., at the Stan Sheriff Center. (4) December 16th and 18th, the Stan Sheriff Center will host the NCAA Women's Volleyball Championship. (5) Christmas Day doubleheader at Aloha Stadium for the Aloha Bowl (Wake Forest vs. Arizona State) and Oahu Bowl (Hawaii vs. Oregon State). Discussion followed. (6) Andersen inquired about the \$94,000 contract the UH administration announced for retention of a public relations firm. Miyashiro replied that it is part of the UH's capital campaign to obtain funds for the University. (8) Kilks expressed alarm about cats which have been spayed and neutered being re-released in public, specifically on Maile Way where their fecal wastes are transmitting disease, and that the cat owners, not taxpayers, should be made to pay for the clean-up. Miyashiro would inquire about the feral cat situation on campus, and she was thanked for her report.

MALAMA O MANOA - Kozen Kaneshiro, President of Malama o Manoa, reported the following: (1) Officers for the coming year 2000 are the present incumbents: President - Kozen Kaneshiro, Vice President - Barbara Lowe, Treasurer - Mike Durland, and Secretary - Thalya DeMott. (2) Board members Lowell S. Angell, Beryl B. Blaich, Cappy Fasi, Violet T. Hiranaka, and Bertha S. Ueoka will be leaving the board after serving two consecutive three-year terms. Their dedicated service to the Manoa community will be sorely missed. (3) Malama o Manoa will have its meetings on the second Wednesday of each month at 6:00 p.m. at the Manoa Gardens community room,

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2790 Kaha'olua Drive. (4) Malama o Manoa's volunteers will this weekend be at Safeway and Longs Drugs to have people sign postcards to be sent to DLNR and HECO in opposition to the Kamoku-Pukele 138 kV Transmission Line Project. There will be a rally tomorrow, Thursday, December 2, 1999 at the Iolani Palace Bandstand from 11:00 a.m. to 1:00 p.m. Bus transportation from the Manoa Road parking lot at the District Park will be provided at 10:30 a.m. (5) There will be an annual volunteer appreciation party on Sunday, December 5, 1999 beginning at 5:00 p.m. at the St. Francis School Student Center. Thanks to Sister Davilyn Ah Chick, they were able to reserve the facility at no charge. At the most recent Malama Board meeting, members voted unanimously to support the Manoa Valley Cultural Heritage Foundation's proposed plan to preserve the Kukao o Heiau. Kaneshiro was thanked for his report.

Kilks left at 9:40 p.m.

GOVERNOR'S REPRESENTATIVE - Ray Kamikawa, representing Governor Cayetano, distributed a variety of State Tax Office informational materials and was available for questions.

MAYOR'S REPRESENTATIVE - Peter Radulovic, representing Mayor Harris, distributed the Mayor's Neighbor to Neighbor newsletter and reported the following: (1) Trash collection for residents of Mohala Way and a part of East Manoa Road will be reverting back to the manual system. (2) The next Vision Team No. 10 meeting will take place on Saturday, December 11, 1999 at 9:00 a.m. at the Ala Wai Elementary School cafeteria. Radulovic was thanked for his report.

ELECTED OFFICIALS:

COUNCILMEMBER ANDY MIRIKITANI - In the spirit of expedience, Cindy McMillen, representing Councilmember Mirikitani, stated that he was speedily recovering from open heart surgery and that each Board member had been provided a written report. McMillen was thanked for her brief report.

SENATOR BRIAN TANIGUCHI - Poni Dainca and Heidi Junge distributed Senator Taniguchi's written report earlier in the evening with the following: (1) He has visited each of the public schools in the district. (2) There is a possibility of Senate reorganization that may result in new Senate leadership. (3) He welcomes public input on issues the 2000 Legislature should address.

SENATOR CAROL FUKUNAGA: Lou Crompton, representing Senator Fukunaga's office, reported the following: There are three attachments to Senator Fukunaga's written report which related to HECO's proposed Kamoku-Pukele 138 kV Transmission Line Project - (1) She and Representative Schatz mailed out a joint letter urging Manoa residents along Punahou Street and Manoa Road up to the Salvation Army's Waioli Tea Room to submit comments due by Tuesday, December 7, 1999. (2) Area legislators received from the Legislative Reference Bureau information on the statutory requirements for the project. (3) She, Senator Les Ihara, and Representative Saliki sent comments on this project to the DLNR. Crompton was thanked for his report.

REPRESENTATIVE ED CASE - Representative Case reported the following: (1) Expressed strong opposition to the Kamoku-Pukele 138 kV Transmission Line Project, and closed his account with American Savings Bank, a subsidiary of HEI which owns HECO. (2) The three big issues that will be on the 2000 Legislature's agenda: the State's fiscal health; civil service and collective

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bergaining reform; and education reform proposals by School Superintendent Dr. Paul LaMehieu. Representative Case was thanked for his report.

REPRESENTATIVE BRIAN SCHATZ - Representative Schatz was unable to attend the meeting. Shoji and Lam left at 10:10 p.m.

UNFINISHED BUSINESS:

PROPOSAL TO CHANGE THE MANOA NEIGHBORHOOD DISTRICT AND SUBDISTRICT BOUNDARIES AND TO AMEND THE ORIGINAL MANOA NEIGHBORHOOD BOARD PETITION - Ezaki moved and Ragsdale seconded that the Manoa Neighborhood Board amend its boundaries to transfer the area including Varsity Circle, Kolo Place, and Kalo Place to the McCully-Mo'ili'ili Neighborhood Board No. 8, and to submit that proposal to the Neighborhood Commission for action. Discussion followed. (1) Chair Heinrich asked the Board to consider amending the Board's petition in order to change its makai/south boundary by transferring the area including Varsity Circle, Kolo Place, and Kalo Place to the McCully-Mo'ili'ili Neighborhood Board No. 8 district. (2) Fessler and Durland stated opposition to the motion noting that many of the area's residents attend UH-Manoa. (3) Andersen inquired if there has been any input from the area's registered voters. (4) Chair Heinrich responded to those concerns by stating that the only access to the Varsity Circle/Kolo Place/Kalo Place area is in Mo'ili'ili and added that members of the McCully-Mo'ili'ili Neighborhood Board No. 8 have expressed strong interest in adding this area to their district, especially after all of the effort in 1999 to create the Kalo Place Park adjacent to the Hawaiian Humane Society (makai of H-1 Freeway, former site of the two gas ball tanks). The motion failed, 6-2-1. **Yeas:** Ah Chick, Nakano, Ezaki, Malccha, Heinrich, Ragsdale. **Nays:** Durland, Fessler. **Abstain:** Andersen. It was noted that quorum had been lost at some point during the discussion.

In considering whether to transfer the Kalei Road and Kaleia Road areas to possibly become part of the Diamond Head/Kapuhulu/St. Louis Heights Neighborhood Board No. 5, Chair Heinrich stated that both areas are ewa of Manoa Stream, are adjacent to the UH campus, and have multiple access routes within the Manoa Neighborhood Board No. 7 district, therefore it is preferred that the area remain a part of the Manoa Neighborhood Board No. 7 district.

Further discussion on this matter was deferred to the January 5, 2000 regular meeting. Absent a quorum and due to the lateness of the evening, at this time Chair Heinrich deferred the remainder of the agenda.

ADJOURNMENT: Without objection, the meeting was adjourned at 10:17 p.m.

Submitted by,

Jamal Siddiqui
Neighborhood Assistant



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PLAN PACIFIC LETTER OF TRANSMITTAL

DATE: January 14, 2000 ENCLOSED: For approval
 TO: Mr. Jeffrey Itoman For your use
 2845 Oahu Avenue As requested
 FROM: John P. Whalen, AICP For comment
 PROJECT: Manoa Valley Cultural Heritage Center

COPIES	DESCRIPTION
1	Draft Environmental Assessment and Support Document, without appendices

The attached report will give you more detailed information about what is being proposed by the Manoa Valley Cultural Heritage Foundation.

Related to your specific concern about traffic impacts, please note that current zoning allows the construction of up to four dwellings on the proposed site for the Center. The standard reference used by traffic engineers estimates that, on an average weekday, a single-family dwelling generates 9.55 automobile trips. On Saturdays, the average number of trips is 10.19. Therefore, one should expect a total about 40 additional cars per day on Oahu Avenue if the four houses were built on this site. Most of these added trips would occur when other nearby residents in the area are also leaving or arriving at their homes - i.e., in the mornings, evenings and weekends - adding to peak period congestion on Oahu Avenue.

By comparison, the proposed Center is expected to generate less than half this number of trips, even on its busiest days. Moreover, the most of the trips would occur during off-peak periods on weekdays when other most neighboring residents are not at home and the traffic on Oahu Avenue is relatively light.

¹ Institute of Transportation Engineers, *Trip Generation*, 3rd Edition, Washington DC, 1991; pp 255-308

END

CERTIFICATION

I HEREBY CERTIFY THAT THE MICROPHOTOGRAPH APPEARING IN THIS REEL OF
FILM ARE TRUE COPIES OF THE ORIGINAL DOCUMENTS.

2004

DATE

Sammy Yoshimura

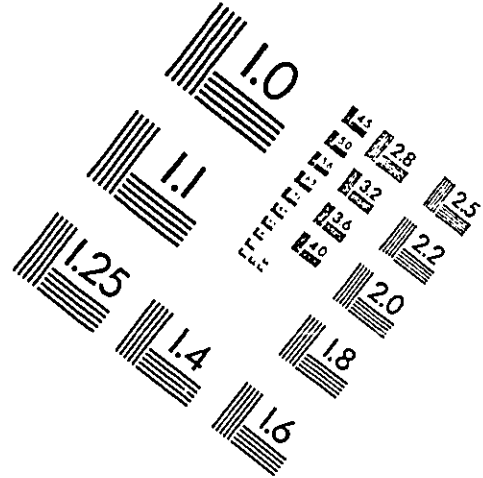
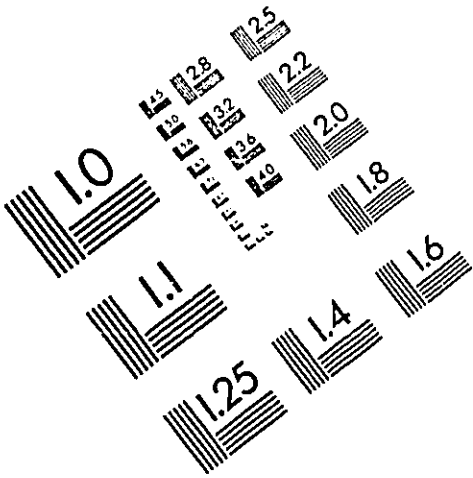
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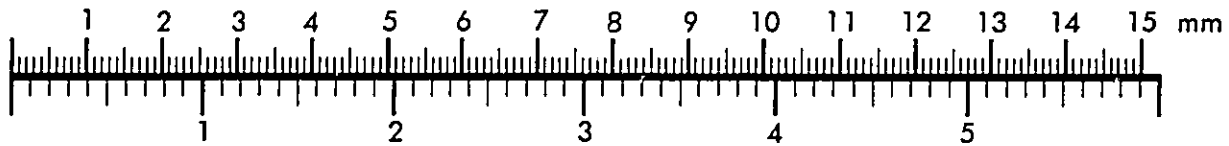
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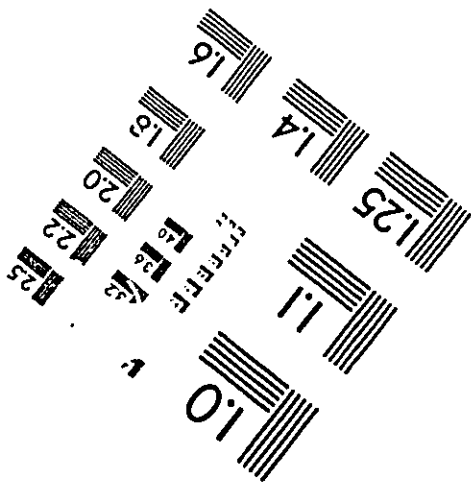
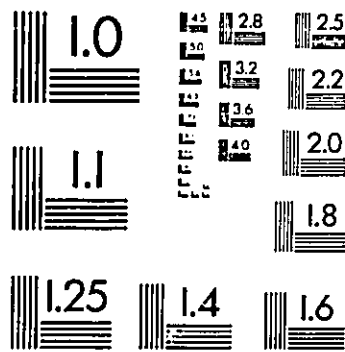
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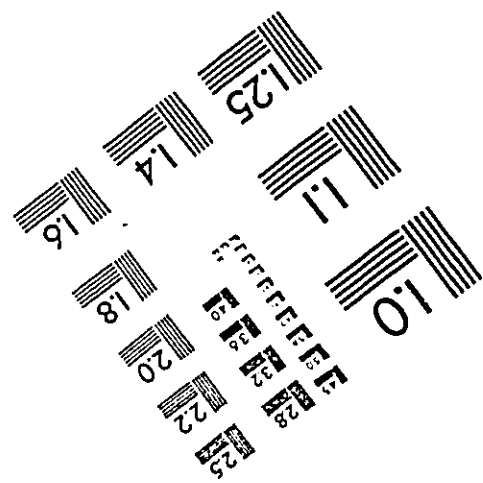
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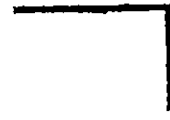
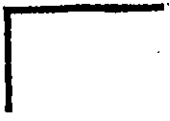
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