

Phase III Archaeological Site Preservation Plan Pualani Residential Community Mitigation Program

Lands of Puapua‘a 1st and 2nd
North Kona District, Island of Hawai‘i
(TMK:3-7-5-17:28,29)

BY

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Archaeological • Historical • Cultural Resource Management Studies & Services

INTRODUCTION

Paul H. Rosendahl, Ph.D., Inc. (PHRI) has prepared this Site Preservation Plan (SPP) at the request of Robert Bruhl of Schuler Homes. This plan has been prepared in conjunction with the proposed development of the Pualani Residential Community, in the lands of Puapua'a 1st and 2nd, North Kona District, Island of Hawai'i (TMK:3-7-5-17:28,29) (*Figure 1*).

Based on the findings of the 1988 PHRI survey (Walker and Rosendahl 1988), and on input received from the Department of Land and Natural Resources - State Historic Preservation Division (DLNR-SHPD) (letter dated January 23, 1989, from Mr. Ralston H. Nagata, DLNR, to Mr. Harold Masumoto, Office of State Planning), a detailed archaeological mitigation plan containing both preservation as well as data collection components was determined to be the most appropriate vehicle for developing site-specific mitigation commitments (Jensen 1990). As a result of the conversations and formal communications, the following four phases were determined to be appropriate for the Pualani mitigation program:

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| Phase I | Preparation of a formal Archaeological Mitigation Plan, including (a) data collection, (b) interim site preservation (including monitoring), (c) burial treatment, and (d) construction monitoring; |
| Phase II | Archaeological data recovery and data collection work, including mobilization, historical documentary research, field work (including interments), data analyses, and preparation of Interim and Final reports; also, execution of the Interim Preservation Plan; |
| Phase III | Preparation of a Site Preservation Plan, upon completion of Phase II data recovery and collection work, to provide for long-term site preservation concerns; and |
| Phase IV | Archaeological Monitoring, as appropriate, of construction activities that potentially might impact significant archaeological remains already identified or which may remain undetected within the project area. |

The present document seeks to meet conditions of Phase III of the Archaeological Mitigation Plan, addressing long-term site preservation and interpretation, and includes proposed treatment and long-term preservation concerns relating to burials within the project area. Furthermore, this plan has been formulated in compliance with (a) Chapter 6E-43 HRS, for review and approval by the Department as a means for implementing the Hawai'i Island Burial Council's formal determination to disinter the identified remains and reinter them in the formal preservation area (Site 15130) (letters dated June 2 and 29, 1992 and November 30, 1993, from Don Hibbard to Paul H. Rosendahl); (b) recommendations of the Hawai'i County Planning Department; (c) recommendations of the SHPD and those involved in the overall mitigation/burial treatment plans; and (d) guidelines for preservation plan development as set forth in Rules and Regulations for carrying out Chapter 6E HRS, Title 13, Subtitle 6, Chapters 146-8 & 10, and 148-4,5,6,7,8,9,10,11.

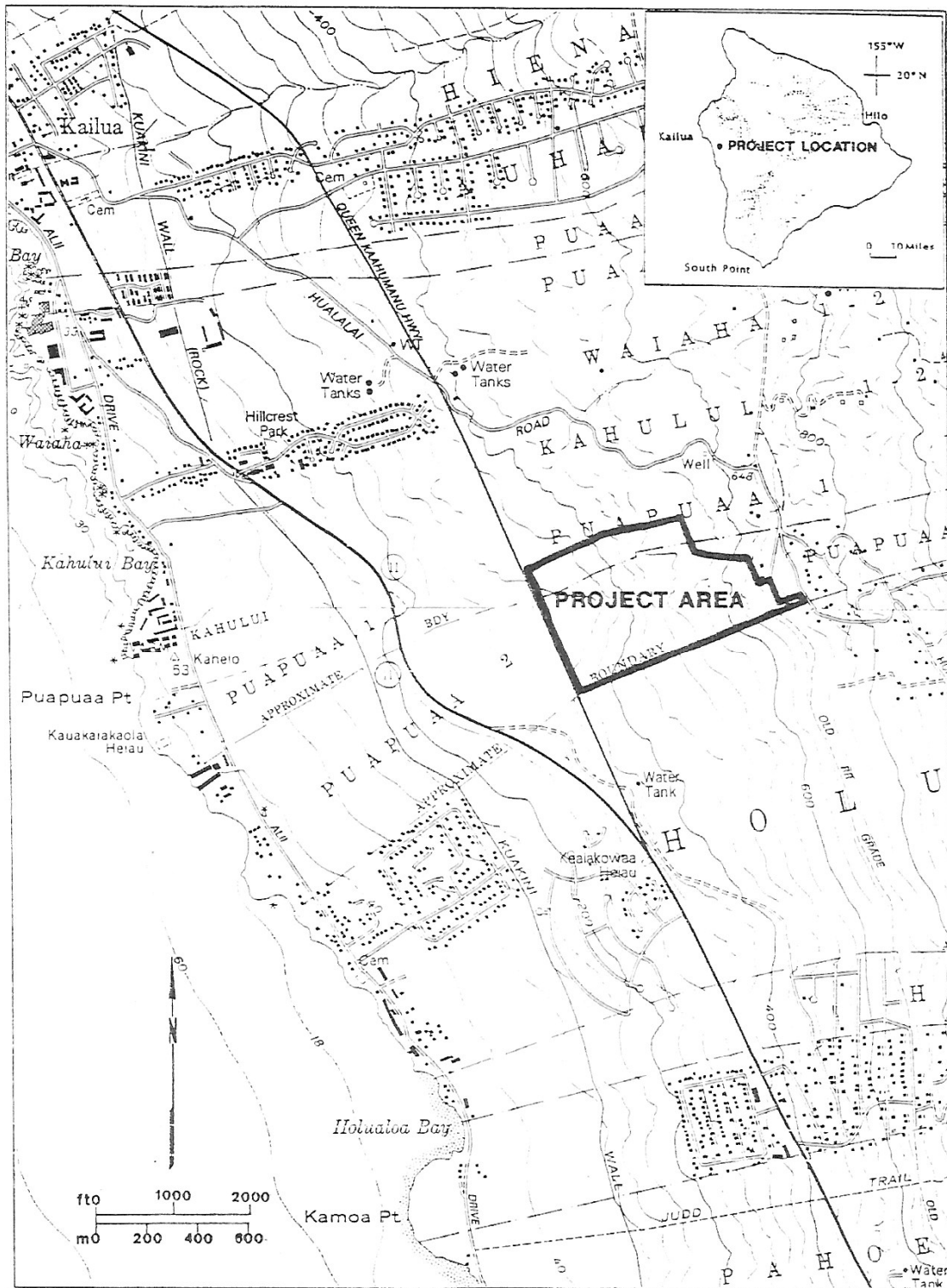


Figure 1. Project Area

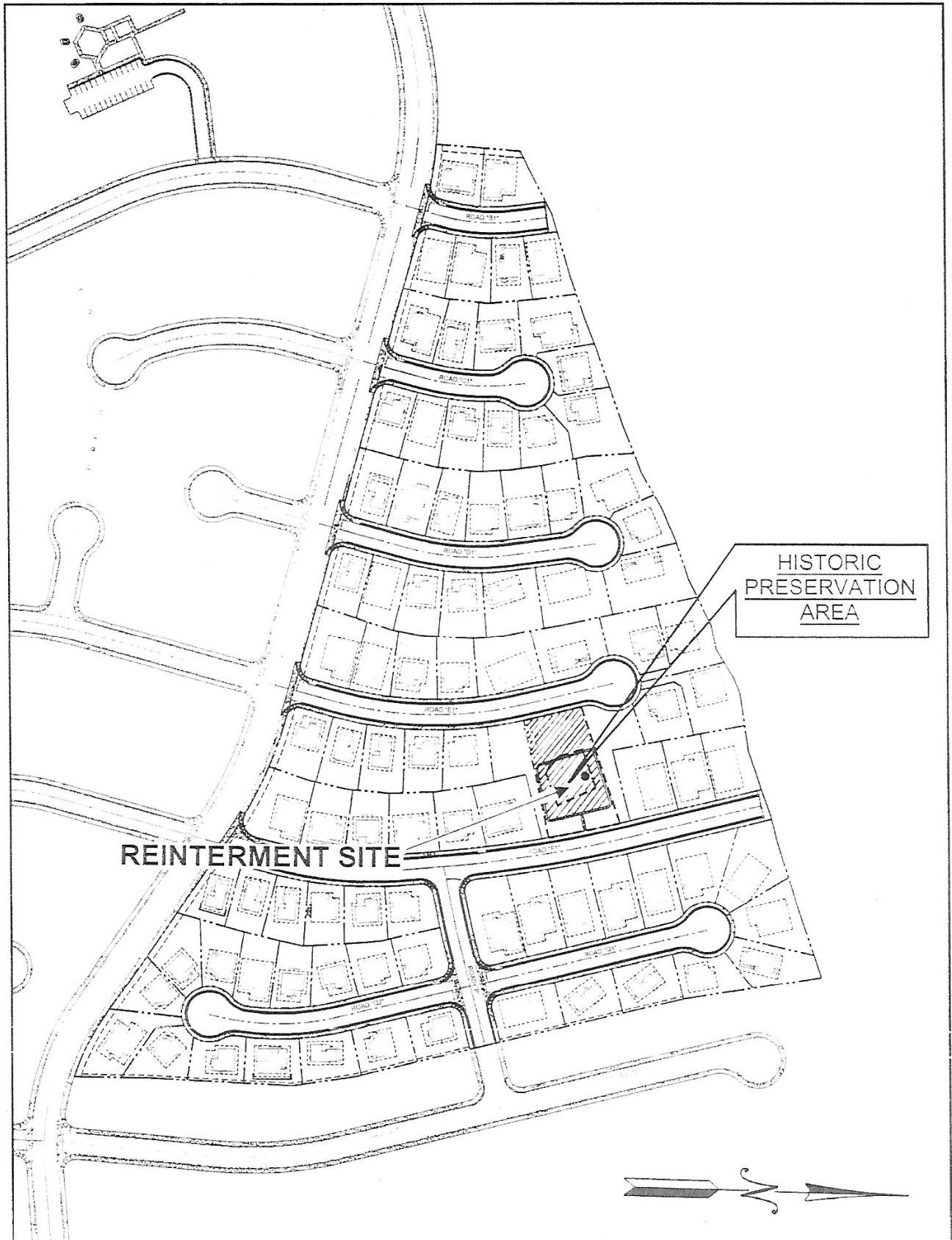


Figure 3. Site 15130, Historic Preserve Reinterment Site

PRESERVATION STRATEGIES

CONCERNS FOR INTERIM AND LONG-TERM PRESERVATION

As is the case with other "common property areas" within the Pualani Estates development, it is proposed that long-term site preservation, maintenance, interpretation, and monitoring of the historic preserve be the responsibility of the Pualani Estates Association (PEA), which will also serve as the on-site curator of the cultural resources. It is proposed that the historic preserve be turned over to the PEA as a "turn-key" project, with most of the detailed documentation of current site conditions, and site stabilization and interpretive mechanisms, etc., already established. Specific tasks and a formal agreement are to be developed, and entered into between the DLNR-SHPD, HCPD, and PEA in order to facilitate fulfillment of the curatorship goals and objectives, and to monitor site conditions and to set out guidelines for monitoring activities within the preserve. It is also proposed that members of the curatorship organization be given an opportunity to participate with qualified consultants in finalizing development of some of the interpretive wayside exhibits. Participation by the residents of Pualani in this process will foster a sense of awareness and pride in the cultural preserve, and enhance long-term preservation efforts.

PUALANI ESTATES ASSOCIATION COMMUNITY CURATORSHIP ORGANIZATION

Section 5. of the Pualani Estates "Declaration of Covenants, Conditions and Restrictions," provides sets forth guidelines to the PEA membership for protection of the archaeological preserve:

5.02. Maintenance – Common Areas and Historic Preservation Areas. ...The Association shall also be obligated to maintain and assess the Owners as a common expense as provided herein for the preservation, monitoring, cataloging, and maintenance of the archaeological resources and sites preserved within Pualani Estates, including but not limited to Site T-37 [Site 15130], and identified as parcels on the Plan, pursuant to a historic preservation and maintenance plan approved by the State Historic Preservation of the Department of Land and Natural Resources and the County of Hawaii Planning Department. All such archaeological resources and sites preserved shall be Common Areas maintained, monitored, cataloged and preserved by the Association (October 11, 1994:9-10).

Once the PEA Curatorship Agreement is formalized, and the historic preserve is in their care, all preservation and interpretive activities, etc., and any modifications to the approved plan, will be reviewed by DLNR-SHPD for comment and approval. Regular monitoring and maintenance schedules for the historic preserve will be in effect. This will allow the curatorship group to document changes in site stability, and to take preventative actions should adverse affects from site visitation, or natural phenomena result.

Protection of the Archaeological Preserve

The Archaeological Mitigation Program (Jensen 1990), set forth conditions required for interim preservation of the historic preserve (Site 15130). Furthermore, as outlined in the June 29, 1992 letter from DLNR-SHPD (D. Hibbard to P.H. Rosendahl), the site has been accurately plotted and appropriate

notations have been made on grading plans. Site 15130 and the proposed reinterment site are set within a preserve area that has boundaries that are 115.42 feet long on the east, 170.74 feet long on the north, 93.79 feet long on the west, and 170.19 feet long on the south (totaling c. 18,689 square feet – approximately a half-acre), within which no construction may take place. The outer perimeter of the historic preserve has been marked with brightly colored fencing, and construction and development personnel have been given instructions relating to the location, nature, and significance of the preserve.

When construction and earth moving are completed, the stakes and fencing will be removed from the interim-preservation buffers around the historic preserve area, and long-term preservation measures will be implemented. Concerns for long-term preservation include:

1. Documentation of the historic preserve site conditions and perimeters for future reference in development planning and/or land use evolution;
2. Monitoring site integrity; i.e., assigning maintenance schedules for landscaping and litter control, and for monitoring levels of pedestrian impact and/or inappropriate site uses;
3. Site landscaping and identification. Landscaping within the general vicinity of the preservation sites should be in keeping with both the native, and Hawaiian-introduced vegetation of the North Kona Region, and may be representative of activities recorded as having occurred within the Kona Field System.

No construction or land modification, other than appropriate landscaping, interpretation, and maintenance will occur within the historic preserve. In areas where inappropriate vegetation should be cleared to foster site preservation and interpretation, no plants will be pulled out by the roots; instead they will be cut to the surface level and spot-treated with a poison approved by DLNR-SHPD, so as not to impact any possible subsurface remains. Additionally, appropriate native vegetation may be planted on the perimeter and within the historic preserve (see discussion on preservation site buffers below).

Description of Site 15130

Graves and Goodfellow (1993) offer the following description of Site 15130, which has been set aside as the formal historic preserve area and reinterment site:

The *heiau* (Site 15130) is by far the largest structure in the project area and occupies a rocky knoll with a clear view of the coast and Kailua. It is set within a grove of *kukui* trees and may be the *heiau* called Keaukukui'ula (The Sacred *kukui* Grove) noted (but not seen) by Stokes (1919 [Stokes and Dye 1991]). The structure is rectangular in plan view, with three tiers at the top of the knoll and one tier descending the SW slope. It does not appear to have been walled. Considering its context within the Kona Field System, and its morphology (relatively small, terraced/tiered, and unenclosed), the *heiau* may have served as a temple of Lono, the god of fertility and abundance. It is interesting to note the pit-like depressions located near the east end of the *heiau*. These may have functioned to support wooden images, as refuse, or they may be the result of later vandalism... (Graves and Goodfellow 1993:22).

The existing features within Site 15130 will be accessible along a designated interpretive trail. The *pa ilina* (reinterment site) has also been situated within the confines of the preserve area. It is proposed that the *pa ilina* be marked in such a way as not to attract attention. Only individuals who have a familial tie to the lands of Puapua'a will be encouraged to visit the reinterment site. In general, it is proposed that interpretive signs be placed in strategic areas along the trail (*Figure 4*).

PRESERVATION SITE MONITORING: MONITORING OF NATURAL AND VISITOR IMPACTS, MAINTENANCE AND LANDSCAPING, ACCESS, AND INTERPRETATION

Upon completion of project work, site stabilization, and buffer establishment, an archival catalogue (photographs, maps, and written documentation) of the cultural resources will be compiled under the purview of the PEA, and copies will be housed with DLNR-SHPD, HCPD, the Kona Historical Society, and the Pualani Estates Association (PEA) Community Curatorship organization. This catalogue will document the condition(s), nature, and maintenance access, etc., for the historic preserve, including the reinterment site at the time of completion of work. The catalogue will also serve as the "control" for monitoring reviews that will be conducted by the community-curatorship organization and Pualani maintenance staff, and for reviews that may be conducted by DLNR-SHPD and HCPD staff. Over the years, the catalogue will provide a base record for evaluating changes in the sites, which might be caused through natural aging and weathering, or through visitation impacts.

Site Protection and Monitoring

Site 15130 is protected within the preservation site boundaries as described above. The *pa ilina* or reinterment site is also within the Site 15130 historic preserve (*Figure 3*). As a result of discussions with members of the Hawai'i Island Burial Council and staff of the DLNR-SHPD, the historic preserve was selected as the most appropriate location for reinterment and protection of the *iwi*. Prior to completion of project work, the landowner and SHPD will enter into a "Reinterred Burial Agreement," as is the standard practice of SHPD in such cases. The landowner believes this is an appropriate step, and is committed to the protection, maintenance, and where appropriate, interpretation of the cultural resource in this area.

Because the environment is always changing, maintenance crews and the preserve curators will address appropriate methods of landscaping (using appropriate native species), restoration of native ecosystems, maintenance of both the cultural and natural resources, and monitoring of site stability. DLNR-SHPD and other agencies or individuals with specialized skills in curatorial management, will be consulted for advice on treatment alternatives as needed. It is also recommended the DLNR-SHPD conduct annual site inspections in order to monitor site conditions, and that this arrangement be formalized as a part of a DLNR-SHPD/HCPD - PEA Curatorship Agreement.

It is recommended that the PEA-Curatorship conduct a check of the preserve area quarterly to determine if there have been any changes in the physical condition of the *heiau* and *pa ilina*. Should changes be noted, the PEA-Curatorship shall call the SHPD Hawai'i Island Archaeologist as soon as possible to request a site inspection, and make recommendations for additional stabilization and protection.

General site maintenance, collecting of refuse from the waste receptacle situated near the entrance to the preserve-trail (*Figure 4*), and general grounds maintenance within the preserve will be monitored closely. In order to minimize the level of modification to the existing terrain, it is proposed that the surface

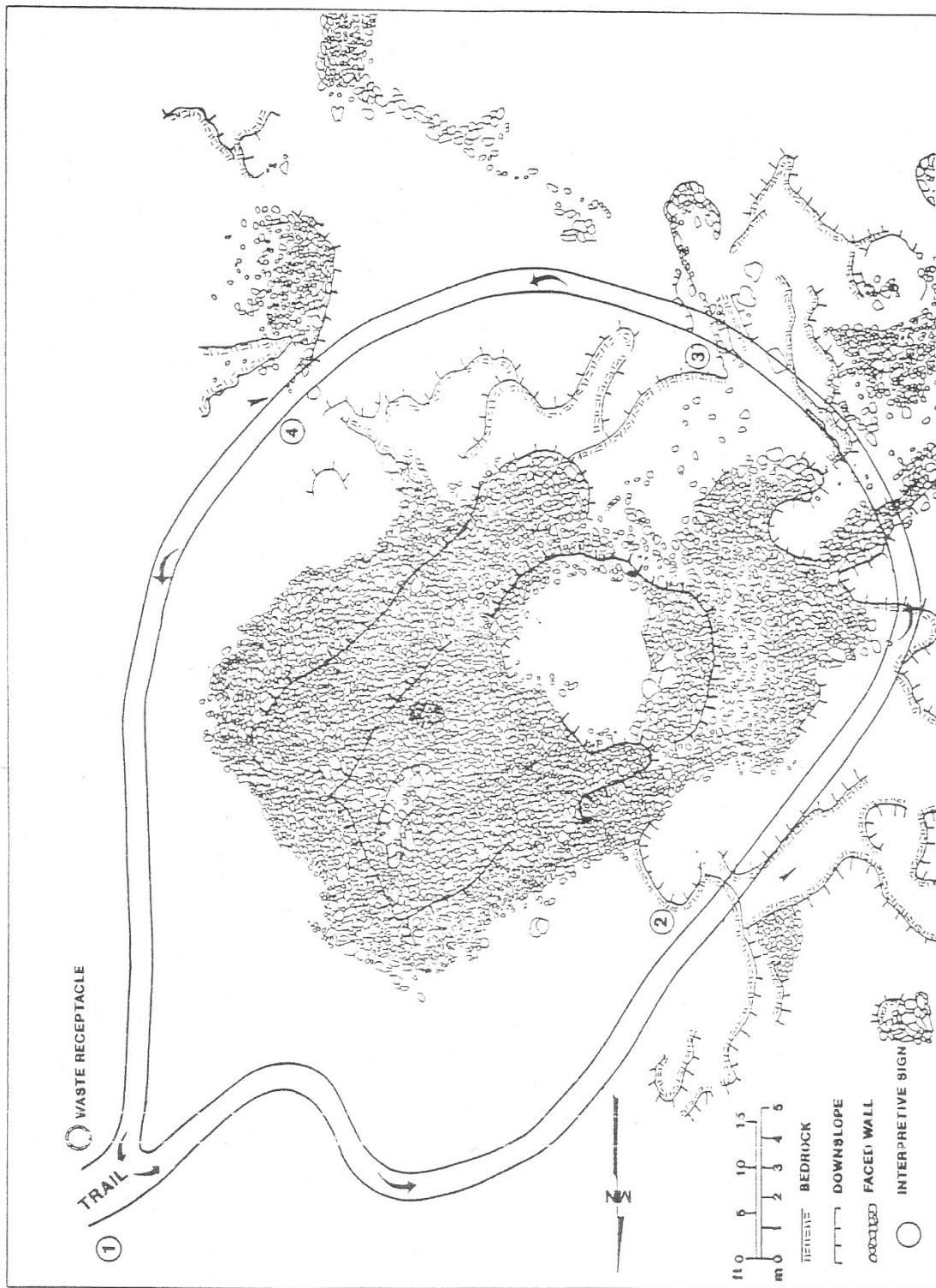


Figure 4. Site 15130 - Historic Preserve Trail and Wayside Exhibits

of the trail within the preserve be kept as natural as possible. In order to adequately delineate the trail borders, a curb-stone siding may be laid out, and where appropriate, #3 fine gravel or a cinder material may be used as fill in order to even out the terrain. Access off of the trail will be limited to those individuals who have either a cultural affiliation to the site, or are in the process of maintaining the preserve.

Maintenance and Landscaping

Regular maintenance and monitoring will be conducted by the PEA-Community Curatorship organization. All maintenance personnel will participate in orientation workshops in which they will learn about site locations, site sensitivity, and be given guidelines for curatorial maintenance of all cultural resources. Appropriate (curatorial) maintenance treatments will include, but not be limited to: hand clearing of undesirable vegetation; no vegetation will be uprooted; instead, it will be cut to the surface and treated with a DLNR-SHPD approved poison; appropriate native- or introduced-vegetation will be maintained in the immediate area of the sites in order to minimize growth-impacts and so as not to obscure the sites from view; trail accesses will be maintained and monitored for erosion impacts, and a waste receptacle, in a shade of *kukui* leaf green will be placed near the entry-exit way of the preserve trail.

It is recommended that landscaping within the preserve should be in keeping with the natural vegetation of the area. A variety of plants may be used for site preservation-stabilization tasks; among them are the following, often found in this area of North Kona:

| | |
|--------------------------|-------------------------------|
| <i>Pili</i> | (<i>Hetropogon</i>) |
| <i>Noni</i> | (<i>Morinda citrifolia</i>) |
| <i>'Ilima</i> | (<i>Sida fallax</i>) |
| <i>Nehe</i> | (<i>Lipochaeta lavarum</i>) |
| <i>Kō</i> | (Native sugar canes) |
| <i>'Uala</i> | Native sweet potatoes; and |
| <i>Ipu</i> or <i>Hue</i> | (Gourds) |

Additionally, the following plants are important for their symbolism and/or their regional uses.

La'i (the ti leaf [*Cordyline terminalis*]) is often suggested because of its important cultural symbolism, and, if properly cared for in a traditional mulched mound or hole-type planting environment, would be an important addition.

Kukui (the candle nut tree [*Aleurites moluccana*]) symbolizes light and knowledge, and had many religious and domestic uses. For Kona, the *kukui* is particularly important, because it is a body-form of the god Lono, provider of the rain clouds of *Kona kai 'ōpua* (Kona of the billowing horizon clouds) and successful growth of crops that nurtured the *po'e kahiko* (ancient people). The *kukui* is already present within the preservation area.

Future planting of any larger trees must be done carefully in consultation with DLNR-SHPD, and at the outer periphery of the preservation site, so as not to impact the cultural resources. It is suggested that the existing *kukui* trees are an appropriate cover, and that no other trees are needed. If in the future, the *kukui* ages and wanes, replacement planting will be needed; it is recommended that replacement plants do not establish a deep root base or develop strong destructive root systems. It may also be desirable to thin and eventually remove the introduced Manila tamarind (*'opiuma*), monkey pod, and alien grasses and weeds once native vegetation becomes established.

Access and Interpretation

Among the activities considered to be appropriate within the historic preserve are those which are associated with native Hawaiian practices, and activities which may occur with appropriate cultural sensitivity—e.g., religious observances, honoring the remains of the past generations, or the gathering of certain natural resources for traditional practices. It is the goal of the interpretive program to create an awareness of the cultural history and value of the site, and foster an appreciation and preservation ethic for the cultural and natural resources.

It is proposed that interpretive information be incorporated into a series of unobtrusive wayside exhibits along the preserve trail (see *Figure 4*). Proposed interpretive texts are presented in the section *Interpretation Plan for the Puapua'a (Pualani) Historic Preserve*.

At the reinterment site, a short distance beyond the interpretive trail, it is proposed that a minimal sign be set in place (because it is not appropriate to draw casual visitor attention to burial sites, wording should be kept to a minimum). The goal is to provide enough information so that it is understood that the modified feature is culturally sensitive. The sign might read:

PA ILINA

This is a culturally sensitive site; please respect those
who came before us and refrain from entering this area.

Your respect will be greatly appreciated.

People who are familiar with, or are descended from families of Puapua'a will be able to visit the site as they desire. Assistance will be offered to those who request help, and the curators will also be able to coordinate site visits as well.

It is proposed that general public access – visitation to the historic preserve – be open between sunrise to sunset, year-round. If native practitioners, or individuals claiming a familial relationship to traditional residents of Puapua'a wish to exercise traditional rights and practices at other times, it is recommended that access be open with no restrictions for those individuals. Because the PEA Community Curatorship organization and its affiliates will be responsible for monitoring site activities and visitation, those wishing to visit the site after hours can simply coordinate the visit with the association office. In general, monitoring site activities (ensuring that visitors refrain from any inappropriate activities) will be the responsibility of the curatorship association. This will include documenting names or vehicle license numbers and contacting DLNR-SHPD authorities regarding those individuals who persist in unacceptable activities.

Over the years, it may be found that the impact conditions, either natural or those related to human activities, may have changed to the point where conservation (preservation and unsupervised access) is no longer the best management alternative. Should site conditions change, the community-curatorship organization will consult with appropriate specialists (e.g., DLNR-SHPD, etc.) to assist in determining appropriate treatments. Implementation of protective measures will be reviewed and approved by the Hawai'i State Historic Preservation Division and the Hawai'i County Planning Department, and execution of these plans will be verified by these offices.

INTERPRETIVE STRATEGIES AT THE PUAPUA'A (PUALANI) HISTORIC PRESERVE

In the context of planning for preservation and cultural resources management, the interpretive program is meant to translate the history of the individuals who once lived in this area into a language that fosters awareness, pride, and preservation. The interpretive scope includes culture, behavior, biological and physical characteristics, and adaptations to the natural environment over time. It seeks to describe the human situation in the terms of the complex interrelationships of culture, natural environment, and biological realities. An interpretive program ideally should be responsible to the culture, should be educational and entertaining, should contain information about the past.

The primary interpretive theme of the Pualani project area will be the Hawaiian culture, including:

1. Natural history (geology, and leeward slope environments);
2. Legendary events in and around Puapua'a;
3. The relationship of people to the land and ocean and practices associated with use of those resources;
4. The unique adaptations of ancient Hawaiians to dryland agricultural systems (e.g., Kona Field System);
5. Family systems; and
6. The integral role of religion in these practices.

A secondary interpretive theme will be to relate the evolution of the Puapua'a area from a native Hawaiian community to ranching and coffee cultivation, and the present day.

THE PUAPUA'A (PUALANI) SITE PRESERVATION INTERPRETIVE PROGRAM

It is proposed that only off-site interpretive activities be incorporated into the site preservation - interpretive program of Pualani Estates:

Off-site Interpretive Activities - Except for native practitioners or lineal descendants, direct access to the *heiau* and reinterment site will not be encouraged. Indeed, access should be restricted to the most sensitive classes of sites: those associated with human remains, ceremonial sites, and sites that are unstable. Off-site visitation would be encouraged. Off-site interpretive activities take place away from, but in view of the sites, thus serving as static exhibits. Signs and printed material will provide the interpretation. A self-guided program, along an established trail, guided by signs or a brochure/guidebook will enhance site appreciation, and foster an atmosphere of awareness and responsible site visitation (see *Figure 4*).

INTERPRETATION ALONG THE PUAPUA'A (PUALANI) HISTORICAL TRAIL

It is proposed the interpretive trail be configured as outlined in *Figure 4*. The design will minimize impacts to the terrain, and will maximize viewing the *heiau*. Signs will be placed at selected areas along the trail.

Brochures

Because only limited information can be effectively included in sign texts, it is proposed that a brochure with more detailed information following the interpretive themes be available to visitors. Brochures could be obtained from a trail-guide box at the entrance of the preserve and from the curatorship group. It is recommended that the brochure also include text that outlines visitor responsibilities, safety, and site access concerns. Creation of the brochure will be under the purview of the PEA in consultation with the SHPD.

Interpretive Themes for On-site Signs

- Wayside Exhibit 1: Overview of the of the historic preserve (includes a site and trail map); and briefly address responsibilities and access concerns;
- Wayside Exhibit 2: Narratives to discuss Site 15130; history and religious beliefs;
- Wayside Exhibit 3: Remnant of Site 14075 (trail); use and the general network of traditional trails;
- Wayside Exhibit 4: Symbolism of *kukui* in ritual, and importance in culture.

Additional signs may could describe planting areas and particular plants. Possible interpretive signs are presented below. The SHPD will approve all sign texts.

(Wayside Exhibit 1) Puapua'a Historic Preserve

This archaeological preserve sits within the *ahupua'a* (land division) of Puapua'a, one of the many community lands of Kona. In ancient Hawai'i, permanent housing in Puapua'a extended from the coast up to about this point, and agriculture took place primarily from this area up to the edge of the upland forest.

This trail will take you alongside a traditional site believed to be a *heiau* (ceremonial site). *Heiau* are various and were built to various purposes. This *heiau*, proximate to agricultural areas, may have been built to honor the god, Lono, an important deity of the ancient Hawaiian agriculturalists. Offerings were made to Lono in order to ensure adequate rains and sunshine, and successful harvests.

Please remain on the designated trails and do not remove anything from this area.

*Damage to this preserve is punishable under
Chapter 6E-11, Hawai'i Revised Statutes.*

(Wayside Exhibit 2)
SITE 15130 - FEATURE A
Heiau (Ceremonial Site)

The structural form and prominent location of this platform indicate it is a *heiau*. Its proximity to large agricultural areas indicates it may be a *heiau* associated with the agricultural deity Lono. The ancient Hawaiians honored Lono, who could bestow upon them abundant rainfall and successful crops. It is possible that this is the *heiau* of Keaukukui'ula, noted (but not visited) by archaeologist J. F. G. Stokes in the early 1900s.

Please remain on the designated trails and do not remove anything from this area.

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(Wayside Exhibit 3)
SITE 14075 (Trail)

This trail originates at the Site 15130 (*heiau*) and extends for about 240 meters to the southwest. The trail also extends to other sites in the vicinity. Some portions of the trail are scarcely visible; others portions are constructed of parallel walls of boulders and cobbles, with a cobble interior fill. Still other portions incorporate bedrock in its construction. Ancient Hawaiian trails are present throughout the Hawaiian Islands connecting coastal communities, inland communities, or connecting inland communities with coastal areas.

Please remain on the designated trails and do not remove anything from this area.

*Damage to this preserve is punishable under
Chapter 6E-11, Hawai'i Revised Statutes.*

(Wayside Exhibit 4)
The Candlenut (Kukui) Tree and the Significance of the Platform

The *kukui* has many domestic and ceremonial uses. In ancient Hawai'i, *kukui* nuts were burnt and used for lighting. The maple-shaped leaves are reminiscent of a pig's head; the points of the leaves represent the ears, eyes, and snout of a pig; indeed the *kukui* was used in place of pigs for offerings in the ceremonies of the Hawaiian god Lono.

In the early 1900s, archaeologist J. F. G. Stokes surveyed religious sites around the island of Hawai'i. During the survey, Stokes identified a site called Keaukukui'ula (red, or sacred grove of *kukui* trees) in Puapua'a; it is possible that the platform and this general area constitute that site.

Please remain on the designated trails and do not remove anything from this area.

*Damage to this preserve is punishable under
Chapter 6E-11, Hawai'i Revised Statutes.*