Appendix B

Archaeological Literature Review and Field Inspection for Kauai Community College Rezone Campus Project Cultural Surveys Hawaii, Inc. December 2010
Archaeological Literature Review and Field Inspection for Kaua'i Community College Rezone Campus Project, Niumalu Ahupua'a, Lihu'e District, Kaua'i Island

TMK: [4] 3-4-007: 001, 002, 003 & 006

Prepared for
When Okamoto Corporation

Prepared by
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(Job Code: NIUMALU 1)

December 2010

Management Summary

Reference
Archaeological Literature Review and Field Inspection for Kaua'i Community College Rezone Campus Project, Niumalu Ahupua'a, Lihu'e District, Kaua'i Island, TMK: [4] 3-4-007: 001, 002, 003 & 006

Date
December 2010

Project Number(s)
Cultural Surveys Hawai'i (CSH) Job Code: NIUMALU 1

Investigation Permit Number
The field inspection was conducted under archaeological permit number 10-10 issued by the Hawai'i State Historic Preservation Division (SHPD), Department of Land and Natural Resources (DLNR), per Hawai'i Administrative Rules (HAR) Chapter 13-282.

Project Location
The project area consists of the 198.8-acre Kaua'i Community College campus lands as shown on the U.S. Geological Survey 7.5-Minute Series Topographic Map, Lihu'e (1996) Quadrangle.

Agency
State of Hawai'i Department of Land and Natural Resources/State Historic Preservation Division (DLNR/SHPD)

Project Description
The project consists of re-designating the approximately 199-acre KCC (Kaua'i Community College) from its current classification as Agricultural District to Urban District. A Special Permit was granted by the State Land Use Commission in 1973 for construction of the college campus within an approximately 99-acre parcel situated within TMK 3-4-07:03. Most of the additional approximately 100 acres (within TMK 3-4-07:01, 02, and 06) is undeveloped, except for two Hawaiian Language Immersion schools, Pā'ina Leo o Kaua'i Pre-School and Kawaikini New Century Public Charter School. Pā'ina Leo o Kaua'i Pre-School occupies school facilities that were built before the KCC campus. Kawaikini New Century Public Charter School occupies existing buildings and was granted a Special Permit, Use Permit and Class IV Zoning Permit in 2009 to construct additional buildings.

The proposed project consists of the construction of new buildings, additions to buildings, and new parking.

Fieldwork Effort
The fieldwork component of the archaeological literature review and field inspection study was accomplished between August 18 and August 25, 2010, by CSH archaeologists Gerald K. Ida, B.A. and Nancine "Missy" Kamai, B.A., under the general supervision of Hallett H. Hammatt, Ph.D. (principle investigator). The fieldwork required eight person-days to complete (on a couple of days only one archaeologist carried out documentation).
Recommendations

This documentation should include additional research and documentation of surface features, limited subsurface testing, and potentially consultation with former Puhi Camp residents. Archaeological inventory survey (AIS). The AIS should be undertaken after consultation with SHPD/DLNR. Additional documentation and research are recommended to formally evaluate the Hansen’s Register eligibility of the plantation features identified within the project area. This documentation should include additional research and documentation of surface features, limited subsurface testing, and potentially consultation with former Puhi Camp residents.

Research

Additional research and documentation to include a study of documents and maps held by Grove Farm Museum. L/431hu'e is recommended. While a review of Grove Farm documents and maps is generally recommended for all of the project area features, particular attention is recommended for two features, CSS 5, a reservoir that appears on the 1910 U.S. geological survey map, and CSS 6, an irrigation complex. If Grove Farm Museum backs extensive resources, additional research is recommended at the Hansen Historical Society, L/431hu'e.

Documentation of Surface Features

Additional documentation of the surface features to include mapping of the nine surface features and their sub-features is recommended.

Subsurface Testing

A program of archaeological inventory survey, subsurface testing is recommended that is based on project plans and scaled to address the specific locations of planned excavations within the former location of Puhi Camp. The Puhi Camp vicinity may contain subsurface deposits related to the occupation of the plantation camp from the 1820s to 1900s. The majority of the remainder of the project area was formerly under sugar cultivation and contains plantation infrastructure. Land clearing for agricultural cultivation and agricultural activities themselves likely impacted or destroyed subsurface deposits that may have existed within the project area.

Section 2 Methods

Consultation

Consultation with former Puhi Camp residents is recommended. Many of the former residents continue to reside in the vicinity (Chang 2007) and have knowledge of the project area. In consultation with SHPD/DLNR, CSS recommends consulting the Hawaiian Studies program at Kauai Community College with a request for students to conduct the cultural consultations, thus providing an opportunity for students to consult with and record oral histories and museum documentation of the former residents. Additionally, this study process will connect the students with the history of Kauai Community College and Puhi Camp.

Puhi Camp Cemetery (SHRP 59-10-11-D006)

No further work is recommended for SHRP 59-10-11-D006. CSS 10 is the linear property is outside of the current project area. Avoidance of the cemetery is however recommended during future development of the KCV campus. Particular caution is recommended in the road that extends adjacent to the Puhi Camp Cemetery is used during planned development. Preservation, in the form of avoidance and protection, is recommended.

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Section 1 Introduction

1.1 Project Background

At the request of Wilson Okamoto Corporation, Cultural Surveys Hawai‘i, Inc. (CSH) compiled an archaeological literature review and field inspection study for the Kauai Community College Rezone Campus Project, Niumalu District, Kauai's Island, TMK: [4] 3-4-007: 001, 002, 003 & 006. The project area is shown on a U.S. Geological Survey topographic map (Figure 1), of U.S. Geological Survey aerial photograph (Figure 2), and on a Hawaii Tax Map Key (Figure 3).

This project consists of re-designating the approximately 199-acre KCC (Kauai Community College) from its current classification as Agricultural District to Urban District. A Special Permit was granted by the State Land Use Commission in 1973 for construction of the current approximately 89-acre college campus situated within TMK 5-4-007:001, 002, 003 & 004. The project area does not fulfill the requirements of an archaeological inventory survey investigation (per HAR Chapter 15-276), it serves as a document to facilitate the proposed project’s planning and supports historic preservation review compliance by assuming if there are any archaeological concerns within the study area and to develop data on the general nature, density and distribution of archaeological resources.

1.2 Scope of Work

The scope of work for this archaeological literature review and field inspection study was as follows:

1. Historical research to include study of archival sources, historic maps, Land Commission Awards and previous archaeological reports to construct a history of land use and to determine if archaeological sites have been recorded on or near this property.

2. Limited field inspection of the project area to identify any surface archaeological features and to investigate and assess the potential for impact to such sites. This assessment will

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Figure 2. Aerial photograph (source: U.S. Geological Survey Orthoimagery 2005), showing the location of the project area

Figure 3. Tax Map Key Plat map 3-4-007, showing the project area

Figure 4. KCC Long Range Development Plan (provided by Wilson Okamoto)
3.1 Environmental Setting

3.1.1 Natural Environment

The project area is located approximately 44 km southeast of Hilo Bay. It is part of the Hilo FLU (flood plain) and is surrounded by the coastal mountains. The area is characterized by low-relief topography with occasional steep areas.

3.1.2 Built Environment

Development in the project area consists of schools and school parking lots. The parcel is located immediately to the southeast of the 0 Republican School and 0 Republican Public High School, as shown in Figure 2. The parcel lies immediately to the southeast across Fernald St.

Section 2 Methods

2.1 Document Review

Historic and archaeological reports are included to determine the nature, extent, and location of historic properties within the project area. The reports are used to identify the types of properties that may require mitigation.

2.2 Field Methods

Fieldwork is conducted to inventory any sites or features that may be eligible for inclusion on the National Register of Historic Places. The fieldwork includes site visits and the collection of written descriptions, maps, and photographs.

Section 3 Background Research

3.1 Traditional and Historical Background

The name Niumalu translates as "sacred coconut trees." The name is associated with the ability to sling a rock from a stone for miles.

3.2 Mythological and Traditional Accounts

The name Niumalu is associated with "as sacred, coconut muse." It is said that it stems from a stone sling invented by Moomu's Hamilton Library, the State Historic Preservation Division Library, and the Hawaii State Library. The archaeological reports for the area have been reviewed for any significant historic resources, and any information provided is considered during the project planning phase.

3.3 Cultural Surveys Hawai'i Job Code: NIUMALU

There are no additional cultural surveys for the area. The project area is located in the ancient Hula River area.

4 Conclusion

The project area is located approximately 44 km southeast of Hilo Bay. It is part of the Hilo FLU (flood plain) and is surrounded by the coastal mountains. The area is characterized by low-relief topography with occasional steep areas.

Figure 4

Figure 4 Illustrates the location of the cultural survey sites in the project area.

5 Acknowledgments

The project team would like to acknowledge the contributions of the following individuals:...

6 References

[3] Niumalu A'upua-a is located in the ancient Hula River area.
planted in irrigation ditches and maintained by the ahupuaʻa. The site was selected for its proximity to the road and the availability of water from the Hanalei River. The site was surveyed by John A. Flett in 1851, and it was later used for the construction of a sugar mill.

1.3.5 The Military

In 1849, the United States established a military reservation in the area surrounding Kilauea Point. This reservation was later expanded to include the area around Lihue. The reservation was established to protect the Hawaiian people from potential conflict with American settlers.

1.6 Mid- to late-1800s

The military reservation was eventually sold to private individuals, who began to develop the area for agriculture and settlement. The area became known as the “Sugar Belt,” and it was used for the cultivation of sugarcane. The sugar industry was a major contributor to the economy of the area, and it continued to be important well into the 20th century.
3.1.5 1900s

At the beginning of the 20th century, Grove Farm developed agreements to secure sufficient water and also to sell any surplus. A right of way with Koloa Plantation was secured in 1906 that provided water from Kula Stream. Grove Farm’s “Upper Ditch” was constructed between 1914 and 1917 and by the 1920s “Grove Farm had 16 miles of ditches delivering 26 mgd” (Wilcox 1998:74).

In the 1920s, Grove Farm began a building program at Puhi, along the route of the present Kaua‘i Highway and just south of the project area. The continuing lack of development in the area prior to this is evident on the 1910 U.S. Geological Survey map (Figure 7).

About 1920 George Wilcox began construction of a completely modern camp at Puhi in the heart of the expanding plantation. Instead of building houses haphazardly as new families moved in, a complete village was laid out with streets, a playground, room for gardens, and lawns. The houses had proper kitchens equipped with running water and enough bedrooms for each family depending upon the number of children. (Krauss and Alexander 1984:310)

Puhi Camp also extended into the current project area, adjacent to Kaua‘i’s Highway. The plantation camp consisted of some 600 homes occupied by up to 1,200 workers and their families. Puhi Camp also contained a movie hall, three stores, a Chinese laundry, a slaughterhouse, and an area for social events (Chang 2007).

During the 1930s, Federal funds became available to assist the Territory of Hawai‘i’s highway construction program. Between 1933 and 1937 the “construction or reconstruction” of the Belt Road, the present Kaua‘i Highway was completed incrementally. Hi‘oomana Overpass (Hi‘oomana Road Bridge) was constructed in 1939, Waihohonu Bridge was built in 1934, the Lilu‘u’s Mill Bridge was constructed in 1936, and the Weoweopilau Bridge was built in 1937.

At the same time that the Belt Road construction program was underway, during the mid-1930s, Grove Farm was further expanding into Puhi with its new headquarters and the construction of a new office building, shop and stables. Figure 8 shows the 1941 location of Grove Farm in relation to Lihue Plantation Co. At that time, Grove Farm was still dependent on Lihue Plantation’s mill for processing its sugar.

The Grove Farm (2010) website relates that during World War II, “large acreages ... previously set aside for sugar [were dedicated] to grow food for the local population and the military.”

In 1948 Grove Farm purchased Koloa Plantation. This doubled the size of Grove Farm, gave Grove Farm its own sugar mill for the first time, and eliminated duplication in manpower, equipment and administrative costs. In 1948 a cane haul truck tunnel (the Wilcox Tunnel) was excavated under the Hoary Head Range connecting the sugar cane fields of Ho‘oulu to the Koloa Mill (Krauss and Alexander 1984:366-368). Figure 9 shows Grove Farm, identifying the plantation’s original areas and subsequent acquisitions. The graphic also shows “Mauka Ditch” extending north to south through the center of the project area.
In 1954 an airstrip was developed at Ha‘ikū for aerial spraying of fertilizer and herbicides. In the early 1960s the nearly one mile long Kane-Waita Tunnel was completed bringing Ha‘ikū water to the drier Kōloa side. Development within the project area and its vicinity can be seen on the 1963 U.S. Geological Survey map (Figure 10). The symbols for buildings adjacent to Kauaihi Highway on Figure 11 are the homes within Puhi Camp.

Wilcox (1998:76) reports that despite almost 100 years of irrigation ditch construction, “Grove Farm’s ditch system was a modest one not known for any outstanding technical or physical achievements. This may reflect the limited watershed available to Grove Farm, the small size of the plantation’s average, or G.N.’s [Wilcox] personal sense of scale.”

3.1.6 Modern Land Use

A 1965 aerial photograph (from Fought et al. 1972) (Figure 11) shows the extent of sugar cane cultivation within the project area and vicinity prior to the construction of KCC. In the mid-1960s Sam Wilcox of Grove Farm donated 200 acres of former sugar land to the state for KCC (Kamins and Potter 1998:275). Grove Farm ended its sugar business in 1974, setting aside lands for development and also for the continuation of sugar cultivation by leasing its Līhuʻe lands to Līhuʻe Plantation, and its Kōloa lands to McBryde Sugar (Wilcox 1998:76). A 1977-1978 aerial (Figure 12) shows the new college campus and development within its vicinity although the northern and western-most portions of the approximately 200-acre campus still appear to be undeveloped.

Most of the Puhi Camp housing was removed in the 1970s prior to the construction of KCC. In the 1980s, the last homes in Puhi Camp were dismantled (Chang 2007).
3.2.2 Recent Archaeological Studies

The project focused on more recent archaeological studies in the vicinity has been at the mouth of the Hālil'i River, Nīnīlilli Bay, and the associated river banks leading down to the bay. The agricultural fields within and surrounding the proposed project area have been slowly converted to other uses, particularly in the 1990s, and some archaeological work has been undertaken within the vicinity. A discussion of the previous archaeological studies in the vicinity of the project area follows, with the work summarized in Table 1 and Figure 13.

Table 1: Previous Archaeological Studies within the Vicinity of the Project Area

<table>
<thead>
<tr>
<th>Study</th>
<th>Location</th>
<th>Type</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bennett 1931 Island Wide Survey</td>
<td>Investigation of Major Prehistoric Sites</td>
<td>Identified major sites in the area (Site 98)</td>
<td></td>
</tr>
<tr>
<td>Palama 1973 Kaumuali'i Community College area</td>
<td>Reconnaissance Survey</td>
<td>Noted portions of ancient possible future use as a cemetery and an Historic Military Complex</td>
<td></td>
</tr>
<tr>
<td>Neller and Palama 1977 Center portion of the Hālil'i River</td>
<td>Reconnaissance Survey</td>
<td>Noted structures identified as a historic settlement area</td>
<td></td>
</tr>
<tr>
<td>Shideler and Ching 1973 Nīnīlilli River Valley</td>
<td>Reconnaissance Survey</td>
<td>Neller identified the Hālil'i Fishpond and identified and documented architectural features</td>
<td></td>
</tr>
<tr>
<td>Walker and Rosenfeld 1988 Center part of Hālil'i Valley</td>
<td>Subsurface Survey</td>
<td>Identified historic structures and cultural features</td>
<td></td>
</tr>
</tbody>
</table>

Figure 13. Portion of 1990 U.S. Geological Survey 7.5-Minute Series Topographic Map, Hālil'i Valley, showing positions of major archaeological studies in vicinity of project area.

3.2.3 Studies within or adjacent to the project area

3.2.3.1 SCC, Archaeological Reconnaissance (Palama 1973)

In 1973, the Archaeological Research Center Hawaii conducted an archaeological reconnaissance of approximately 57 acres of the Hālil'i Valley and vicinity (Palama 1973). An area north and west of the currently developed portion of KCC. During the archaeological reconnaissance an "old" aqueduct (conforming to Grove Farm's "Mauka Ditch", see Figure 8) and an old military complex, a Japanese Cemetery, old plantation camp remains, an extant plantation bridge, and stone bridge crossing the valley. The area is worth retaining in the pedestrian condition. It is an impressive site (Neller and Palama 1973-75).

Figure 14. Map C: Site 98, KCCC, showing locations of archaeological studies in the vicinity of project area.
Approximately 220 acres within and adjacent to the project area were included in the 1,570 acres of the Puhi/Nanawalu Master Plan (Walker et al. 1991). As discussed in Section 1, this area is described as:

...bounded on the north and east by the Nawiliwili Stream gulch, on the south by Kauai Community College and Koamuali‘i Highway, and on the west by the Puhi Stream gulch. This entire parcel has been modified and is presently in sugar cane (Saccharum officinarum var. castaneum L. cv. Hybrid) cultivation. (Walker et al. 1991:2).

The report states that:

areas in sugar cane were only sampled ... and were not generally surveyed ... because areas altered by sugar cane cultivation are unlikely to contain archaeological features, and because sugar cane cultivation within the present project area does not occur in low swale or alluvial flat areas that may contain buried cultural deposits. (Walker et al. 1991:7)

While Section 1 No. 1 is listed as an area subjected to "inventory-level survey" in the Conclusion section of the report, this statement is further explained that "only very limited surface survey was done in sugar cane fields ... and no subsurface testing was performed in sugar cane fields" (Walker et al. 1991:18). No additional descriptions of the project area and its vicinity are included in the report. Additionally, none of the ten historic properties (SHIP #683 through #847) identified during the Walker et al. (1991) study, including a concrete bridge, concrete wharf, cultural deposits, terrace, road, wall, retaining walls, a possible agricultural area, and a historic cemetery, was identified in or within close proximity to the project area.

3.2.5.4 Koamuali‘i Highway: Archaeological Assessment (Hammatt and Chingioji 1998)

CSHI (Hammatt and Chingioji 1998) conducted an archaeological assessment of an approximately 11.3 km-long portion of the Koamuali‘i Highway corridor, a portion of which is adjacent to the southern boundary of KCC. During the reconnaissance survey no historic properties were found in the vicinity of the school campus. No surface traditional Hawaiian archaeological sites were observed during the entire survey although four historic properties (two bridges, a cemetery and an office building) were noted. No state site numbers were assigned.

3.2.5.5 2004 KCC One-Stop Center AIS and CIA (Hammatt and Shideler 2004)

In 2004, CSH conducted an archaeological and cultural impact evaluation study for the One-Stop Center at KCC (Hammatt and Shideler 2004). The proposed project involved construction of a one-story building of approximately 35,400 net square feet (about 55,000 gross square feet) located in the southeast (Koamuali‘i Highway) side of the existing KCC campus. A field inspection of the vicinity of the proposed project was conducted and observed to be a graded, established lawn with no observed indicators of any archaeological concern. As the project area was under sugar cane cultivation for many decades and the location of the project area was observed to be a graded with an established lawn, it was concluded that there were unlikely to be any cultural impact issues associated with the "one-stop" project.

A summary of the proposed project and findings was mailed to Dr. Pua Aiu (Chair) of the Office of Hawaiian Affairs and to Mr. Dennis Chan of the Hawaiian Studies program of CSH on December 23, 2003. Follow-up telephone conversations was held with Dr. Chan of February 19, 2004 and with Dr. Aiu on February 24, 2004. A brief telephone conversation on the subject was also held with Mr. LaPancho Kupaka-Arboleda of the Kauai Office of Hawaiian Affairs and the Kane‘O‘i‘i Oha Ihilani Rural Council on February 26, 2004. None of these parties expressed any concerns for adverse impacts to cultural practices by the proposed project as described.

The SHIPS concluded that: “No further archaeological work is needed for the project” (see present Appendix A).
### Feature Descriptions

#### 4.2.1 CSH 1

**Feature Type:** Irrigation Ditch  
**Function:** Agriculture, Water Control  
**Features:** 1  
**Condition:** Good  
**Age:** Plantation era

**Description:** CSH 1 is an abandoned plantation era irrigation ditch measuring 952.3 m long by 1.6 m wide and 0.8 m deep (Figure 16). The ditch begins at a concrete gate frame that lacks a gate (Figure 17) at the southwest side of a reservoir that is adjacent to and northeast of the project area. The abandoned ditch continues in a southeasterly direction forming the southeastern boundary of the proposed project area. An 82 m section of the ditch is a formed concrete flume that extends along the north side. The flume is 0.6 m wide by 0.7 m high and rests on intermittent concrete footings that are from 0.1 to 0.6 m high (Figure 18). Water was apparently diverted into the flume at one time but remnants of the ditch still exist alongside the flume. One stone and mortar culvert was also observed on the ditch that apparently diverted water to the south, into the area of what is now the main KCC campus, but there are no signs of the ditch past the culvert. The east end of the ditch is buried 4.3 m before it reaches a modern concrete culvert that apparently extended beneath the interior access road between KCC and Kilohana Plantation.

A review of historic maps included in this report indicates that CSH 1 formed the eastern boundary of Grove Farm. A 1841 map of Lihue Plantation Co. (see Figure 8) shows that the location of CSH 1 formed a partial boundary with Lihue Plantation. The southern portion of CSH 1 does not appear to correspond to the plantation boundary.
4.2.2 CSH 2
FEATURE TYPE: Irrigation ditch
FUNCTION: Agriculture, Water Control
FEATURES: 1
CONDITION: Good
AGE: Plantation era
DESCRIPTION: CSH 2 is a plantation era irrigation ditch that forms the northeast boundary of the proposed project area (Figure 19; see Figure 17). The earthen ditch is 703 m long, 0.9 m deep with a maximum width of 2.0 m. The ditch walls are sloped resulting in a bottom width of 1.0 m. The ditch is no longer used for irrigation but collects storm drainage and surface runoff from the Island School campus and its athletic fields, adjacent to and east of KCC. A 1941 map of Lihue Plantation Co. (see Figure 8) shows CSH 2 forming the western boundary of field 39B, separating Lihue Plantation and Grove Farm.

4.2.3 CSH 3
FEATURE TYPE: Reservoir
FUNCTION: Agriculture, Water Control
FEATURES: 1
CONDITION: Good
AGE: Plantation era
DESCRIPTION: CSH 3 is an abandoned plantation era reservoir that measures 196 m by 123 m and is between 5 and 6 m deep (Figure 20). The former reservoir is located in the southeast portion of the proposed project area adjacent to existing buildings. The former reservoir is currently used as a flood control basin for the KCC campus. At the time of the field inspection, the former reservoir was grass covered. It has a water control gate/valve at the southeast side, but the actual outlet has been buried (Figure 21). Most of the walls of the former reservoir have been truncated except for the area near the old gate and the north side. A ditch that enters the former reservoir from the north side may have marked the alignment of the original feeder ditch, but is now a modern flood control feature dug into the reservoir floor. Other modern modifications include several storm drain outlets that flow into the reservoir roof, and a concrete overflow drain on the southeast side.

CSH 3 is shown as an intermittent lake/pond on the 1996 U.S. Geological Survey map, Lihue’s quadrangle (see Figure 1). The reservoir is also shown on the 1910 and 1963 U.S. Geological Survey maps, Lihue’s quadrangle (see Figure 7 and Figure 10).

4.2.4 CSH 4
FEATURE TYPE: Irrigation Ditch
FUNCTION: Agriculture, Water Control
FEATURES: 1
CONDITION: Good
AGE: Plantation era
DESCRIPTION: CSH 4 is a plantation era irrigation ditch measuring approximately 480 m long that courses from a reservoir that is adjacent to the east boundary of KCC (Figure 22). The ditch flows west past the existing KCC buildings and then continues south, flowing into the northwest portion of CSH 5 (reservoir). The ditch is 85 m deep with a surface width of 2.0 m. The ditch walls are sloped resulting in a bottom width of 1.0 m. The ditch is currently active (Figure 23).

The 1963 U.S. Geological Survey map (see Figure 10) shows a portion of the “Upper Lihue Ditch” that appears to include the reservoir adjacent to the east boundary of KCC. Based on the

Figure 18. Portion of flume within CSH 1, abandoned irrigation ditch, view to northeast

Figure 19. CSH 2, earthen irrigation ditch, view to west

Figure 20. CSH 3, former reservoir with KCC buildings in background, view to southeast

Figure 21. Water exit gate associated with CSH 3, former reservoir

Figure 22. CSH 4, irrigation ditch, view to west

Figure 23. Water exit gate associated with CSH 4, former reservoir

Figure 24. Portion of flume within CSH 5, abandoned irrigation ditch, view to northwest
4.2.5 CSH 5
FEATURE TYPE: Reservoir
FUNCTION: Agriculture, Water Control
FEATURES: 1
CONDITION: Excellent
AGE: Plantation era
CSH 5 is a plantation era reservoir that measures 126.26 by 56.14 m and is located just to the east of Pilinau Lao Pre-School within the KCC campus (Figure 24). The active reservoir is situated in the center of the project area. A concrete and metal water control gate is located along the south side of the reservoir (Figure 25). Water from the reservoir flows out through the gate onto the road that leads to Pilinau Lao Pre-School and exits in a concrete channel to flow down into CSH 6, ditch. The channel measures about 20 m long by 1 m wide with a height of 3.9 m. CSH 4 and CSH 9, irrigation ditches provide the water for CSH 5.

A symbol for a reservoir is shown in the location of CSH 5 on the 1910 (see Figure 7), the 1983 (see Figure 10) and the 1996 (see Figure 1) U.S. Geological Survey maps, Lihue quadrangle.

Figure 24. CSH 5, reservoir in center of project area, existing Pilinau Lao Pre-School buildings on KCC campus in background, view to southeast

CSH 5 may have been associated with the “Mauka Ditch” shown on the Grove Farm map (see Figure 9). A review of historic maps included in this report shows the general location of CSH 6 on the 1963 U.S. Geological Survey map, Lihue quadrangle, but it does not appear on others.

Figure 26. CSH 6a, irrigation ditch, view to east

4.2.6 CSH 6
FEATURE TYPE: Irrigation Complex
FUNCTION: Agriculture, Water Control
FEATURES: 6
CONDITION: Good
AGE: Plantation era
DESCRIPTION: CSH 6 is an irrigation complex consisting of six features. CSH 6a is a plantation era irrigation ditch (Figure 26) with five associated features including a concrete and metal gate, CSH 6b; three large stone pillars, CSH 6c; a cobble and concrete road, CSH 6d; a rock stacked bridge, CSH 6e; and a bridge incised with “1938”, CSH 6f. CSH 6a extends from CSH 5, reservoir to a culvert along Kaumuali‘i Highway. The length of the ditch measures 314.35 m with widths that vary from 1.0 m to 3.5 m and depths that vary from 0.7 m to 1.3 m. CSH 6a branches off just to the west of a concrete and metal gate, CSH 6b (Figure 27), then turns and flows back into the main portion of the ditch. The branch of the ditch flows between three large stone pillars, CSH 6c (Figure 28), past a cobble and concrete road, CSH 6d (Figure 29). The ditch also extends beneath two bridges, one of which is a rock stacked bridge, CSH 6e (Figure 30), and the other is incised with “1938”, CSH 6f (Figure 31 and Figure 32). The ditch then flows into a natural looking ditch and enters into a small culvert beneath Kaumuali‘i Highway.

CSH 6 may have been associated with the “Mauka Ditch” shown on the Grove Farm map (see Figure 9). A review of historic maps included in this report shows the general location of CSH 6 on the 1963 U.S. Geological Survey map, Lihue quadrangle, but it does not appear on others.

Figure 28. CSH 6c, irrigation ditch, view to east

Figure 27. CSH 6d, concrete and metal gate, view to south

Figure 29. CSH 6e, rock stacked bridge, view to north
4.2.7 CSH 7

**FEATURE TYPE:** Reservoirs

**FUNCTION:** Agriculture, Water Control

**FEATURES:** 2

**CONDITION:** Excellent

**AGE:** Plantation era

**DESCRIPTION:** CSH 7 consists of two small reservoirs. The larger of the two, CSH 7a, measures 42.6 by 20.2 m. A small PVC irrigation line was found along the north-northwest end of CSH 7a that appears to be the source of water (Figure 33). No other water source was found. Water flows out on the south side of the reservoir through a modern pipe into CSH 6, irrigation ditch.

A small modern pipe on the east side of the reservoir flows into the second smaller reservoir, CSH 7b (Figure 34). CSH 7b is located approximately 1.5 m east of CSH 7a. This smaller reservoir measures 18.7 m by 4.9 m. No apparent outlet for the water was found and the function of the smaller reservoir may be for overflow from the larger reservoir.

The CSH 7 reservoirs do not appear on any of the historic maps reviewed for this study.
Kikuchi and Remoaldo’s (1992) study details information from individual grave markers. The study includes a list of grave markers, ages, and dates of death. Many of the unknown burials lack markers but have a “concrete base” or a cross. Graves 154 to 172 “were earthen mounds or depressed areas where a grave may exist or was exhumed” (Kikuchi and Remoaldo 1992:141); and graves 128 through 153, listed as “Unknown.” Dates of death range from 1920 to 1977 with the majority of dates in the 1960s, followed by dates in the 1920s. The majority of the names (graves 1 through 97) are Filipino, with some Japanese and Chinese names associated with graves 1 through 97. The locations of graves 154 to 172 are not noted on the Puhi Camp Cemetery map (Figure 40). These Japanese graves are situated in the southern portion of the cemetery. Graves include graves 120 through 127, identified as “unknown graves from Kaipu Camp, March 16, 1942.” Of these, 15 lack information as well as markers were later interred amongst the Japanese graves. They “are Chinese names. There does not appear to be any segregating of people into particular areas. There does not appear to be any segregating of people into particular areas. There does not appear to be any segregating of people into particular areas. There does not appear to be any segregating of people into particular areas. There does not appear to be any segregating of people into particular areas. The majority of the names associated with graves 1 through 97 are Filipinos, with some Japanese and Chinese names appearing to be the most common. Headstones material varies from marble to stone to concrete blocks (Figure 39); marble and wooden crosses (Figure 39) are also present. The cemetery is situated on a flat to gently sloping area with a short dirt road that runs in the center of the cemetery. CSH 9, ditch, flows along the north, west, and south sides of the cemetery. CSH 10 is the Japanese Cemetery that Palama (1973) found during his 1973 archaeological reconnaissance. Palama (1973) recommended no further work and a state site number was not assigned at the time. The cemetery is within a separate parcel, surrounded by the current proposed project area, and is identified as a cemetery on the 1963 U.S. Geological Survey maps, L/g431hu’e quadrangle. The flume appears to begin and end in very close proximity to the flume depicted on the maps.
At the request of Wilson Okamoto Corporation, Cultural Surveys Hawai‘i, Inc. has conducted archaeological fieldwork in the Puhi Camp Cemetery area, SIHP # 50-30-11-B006, Puhi Camp Cemetery, and an area containing possible historical features associated with Puhi Camp, Puhi Camp Cemetery, SIHP # 50-30-11-B006 / CSH 10, is outside of but surrounded by the project area. Preservation, in the form of avoidance and protection, is recommended for SIHP # 50-30-11-B006.

The nine historic features (CSH 1 to CSH 9) identified by the current study are Grove Farm Plantation infrastructure, and therefore comprise one historic property. The features of this historic property were preliminarily evaluated for significance according to the broad criteria established for the Hawai‘i Register of Historic Places (Table 5 and see discussion below). The five criteria are:

A. Associated with events that have made an important contribution to the broad patterns of our history;
B. Associated with the lives of persons important in our past;
C. Embodies the distinctive characteristics of a type, period, or method of construction, represents the work of a master, or possesses high artistic value;
D. Has yielded, or is likely to yield information important for research on prehistory or history;
E. Have an important value to the native Hawaiian people or to another ethnic group of the state due to associations with cultural practices once carried out, or still carried out, at the property, or due to associations with traditional beliefs, events, or cultural identity.

Table 5. Preliminary Evaluation of Historic Features

<table>
<thead>
<tr>
<th>Feature Code</th>
<th>Feature Type</th>
<th>Function</th>
<th>Age</th>
<th>Evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSH 1</td>
<td>Irrigation Ditch</td>
<td>Water control</td>
<td>Plantation era</td>
<td>D</td>
</tr>
<tr>
<td>CSH 2</td>
<td>Reservoir</td>
<td>Water control</td>
<td>Plantation era</td>
<td>D</td>
</tr>
<tr>
<td>CSH 3</td>
<td>Reservoir</td>
<td>Water control</td>
<td>Plantation era</td>
<td>D</td>
</tr>
<tr>
<td>CSH 4</td>
<td>Irrigation Ditch</td>
<td>Water control</td>
<td>Plantation era</td>
<td>D</td>
</tr>
<tr>
<td>CSH 5</td>
<td>Irrigation Ditch</td>
<td>Water control</td>
<td>Plantation era</td>
<td>D</td>
</tr>
<tr>
<td>CSH 6</td>
<td>Irrigation Complex</td>
<td>Water control</td>
<td>Plantation era</td>
<td>D</td>
</tr>
<tr>
<td>CSH 7</td>
<td>Irrigation Ditch</td>
<td>Water control</td>
<td>Plantation era</td>
<td>D</td>
</tr>
<tr>
<td>CSH 8</td>
<td>Irrigation Ditch</td>
<td>Water control</td>
<td>Plantation era</td>
<td>D</td>
</tr>
</tbody>
</table>

The proposed project may have an adverse effect on these historic features. While no additional work may be necessary for the majority of features, the level of documentation is not consistent with an archaeological inventory survey. Therefore, CSH recommends an archaeological inventory survey program to include additional research as specified under Recommendations, section 6.2.

The Literature Review and Field Inspection for Kaua‘i Community College, Niumalu Ahupua‘a, Kaua‘i, Palman’s (1977) archaeological reconnaissance also identified old plantation camp remains associated with Puhi Camp, Puhi Camp, and an area containing possible historic features were not present during the current field inspection.

6.1 Summary

At the request of Wilson Okamoto Corporation, Cultural Surveys Hawai‘i, Inc. has conducted the Literature and Field Inspection for the proposed Kaua‘i Community College, Niumalu Campus Project and proposed campus expansion that includes construction of new buildings, additions to buildings, and new parking lots within its existing 198.8-acre campus.

Additional research and documentation to include a study of documents and maps held by Grove Farm Museum, L/g431hu'e, and L/g431hu'e. While a review of Grove Farm documents and maps is generally recommended for all of the project area features, particular attention is recommended for two features, CSH 5, a reservoir that appears on the 1910 U.S. Geological Survey map, and CSH 6, an irrigation complex. If Grove Farm Museum lacks extensive resources, additional research is recommended at the Kauai Historical Society, L/g431hu'e.

6.2 Recommendations

Based on the findings during the field inspection, CSH recommends an archaeological inventory survey (AIS). The AIS should be undertaken after consultation with SHPD/DLNR. Therefore, CSH recommends an archaeological inventory survey program to include additional research as specified under Recommendations, section 6.2.

Additional research and documentation to include a study of documents and maps held by Grove Farm Museum, L/g431hu'e. While a review of Grove Farm documents and maps is generally recommended for all of the project area features, particular attention is recommended for two features, CSH 5, a reservoir that appears on the 1910 U.S. Geological Survey map, and CSH 6, an irrigation complex. If Grove Farm Museum lacks extensive resources, additional research is recommended at the Kauai Historical Society, L/g431hu'e.
6.2.2 Documentation of Surface Features

Additional documentation of the surface features to include mapping of the nine surface features and their sub-features is recommended.

6.2.3 Subsurface Testing

A program of archaeological survey subsurface testing is recommended that is based on project plans and scaled to address the specific locations of plotted concentrations within the former location of Puhi Camp. The Puhi Camp vicinity may contain subsurface deposits related to the occupation of the plantation camp from the 1920s to 1980s. The majority of the remainder of the project area was formerly under sugar cultivation and contains plantation infrastructure. Land clearing for agricultural cultivation and agricultural activities themselves likely impacted or destroyed subsurface deposits that may have existed within the project area.

6.2.4 Consultation

Consultation with former Puhi Camp residents is recommended. Many of the former residents continue to reside in the vicinity (Ching 2007) and have knowledge of the project area. In consultation with the Kauai Historical Society, the Kauai Historical Society Community College with a request for students to conduct oral consultations, thus providing an opportunity for students to conduct with and record and literature and access to the (knowledge) of the former residents. Additionally, this study process will connect the students with the history of Kauai Community College and Puhi Camp.

6.2.5 Puhi Camp Cemetery

No further work is recommended for SHP # 79-30-11-B006 / CM 10 as the historic property is outside of the current project area. Availabilty of the cemetery is however recommended during future development of the Puhi campus. Particular caution is recommended if the road that extends adjacent to the Puhi Camp Cemetery (see Figure 10) is used during planned development. Preservation, in the form of avoidance and protection, is recommended.

### Section 7 References Cited

- Bennett, Wannid C. 1931. The archaeology of Kauai’s Bishop Museum Bulletin 90, Honolulu.
Appendix A  SHPD Correspondence

January 11, 2004
Mr. Bernard H. Ide
Community Services Director
1-19-21
Kauai, Hawaii

Dear Mr. Ide:

We are writing to inform you of the latest status of the project. As you know, we are working on the HEA Project, which involves the evaluation of the cultural impact of the proposed development. We have been conducting field research and have been collecting data on the cultural resources in the area.

We are currently in the process of analyzing the data collected during our fieldwork. We have identified several cultural resources that are at risk of being affected by the development. These resources include archaeological sites, historic structures, and cultural landscapes.

We would like to request your assistance in obtaining any additional information or data that may be relevant to our study. This information will help us to better understand the cultural impact of the proposed development.

We are preparing a report that will summarize our findings and recommend actions to minimize the cultural impact of the development. We would be happy to share a draft of the report with you for your review.

Please let us know if you have any questions or concerns. We can be reached at (808) 586-9351.

Sincerely,

Cultural Surveys Hawaii

Appendix C

Cultural Impact Assessment for the Cultural Survey Hawaii

Kauai Community College Redesignation to Urban District

April 2012