

#### 4.9.3 SIHP # 50-30-08-7013 Feature 3

<b>FORMAL TYPE:</b>	Poles
<b>FUNCTION:</b>	Power/Communication
<b>NUMBER OF FEATURES:</b>	2
<b>AGE:</b>	Plantation
<b>CONDITION:</b>	Intact

SIHP # 50-30-08-7013 Feature 3 consists of two concrete poles (SIHP # 50-30-08-7013 Features 3A and 3B) measuring approximately 30 ft high (Figure 38 and Figure 39). SIHP # 50-30-08-7013 Feature 3A is square-shaped and measures 0.20 m by 0.20 m. The base of the post is thicker at the bottom and tapers at the top. SIHP # 50-30-08-7013 Feature 3B is an octagon-shaped concrete pole measuring 0.25 m in radius. At the base of the pole on the west face, a date has been etched into the concrete: "1 22 1917." The "1" is at the top, then below is "22," and below is "1917," which has been etched on its side (Figure 40).

SIHP # 50-30-08-7013 Feature 3A and 3B retain integrity of location, design, setting, materials, workmanship, feeling, and association and is assessed as significant under Criterion d (refer to Section 6 ).



Figure 38. SIHP # -7013 Feature 3, two concrete posts, SIHP # 50-30-08-7013 Feature 3A shown above, view to north



Figure 39. SIHP # -7013 Feature 3, two concrete posts, SIHP # 50-30-08-7013 Feature 3B shown above, view to east



Figure 40. Date etched into SIHP # 50-30-08-7013 Feature 3B, "1 22 1917," view to west

#### 4.9.4 SIHP # 50-30-08-7013 Feature 4

<b>FORMAL TYPE:</b>	Culvert
<b>FUNCTION:</b>	Water control
<b>NUMBER OF FEATURES:</b>	2
<b>AGE:</b>	Plantation
<b>CONDITION:</b>	Remnant

SIHP # 50-30-08-7013 Feature 4 consists of two ends of a north-south oriented culvert (SIHP # 50-30-08-7013 Features 4A and 4B) beneath an east-west oriented roadway in the former camp (see Figure 33). They are constructed of basalt boulders and mortar (Figure 41 through Figure 45). SIHP # 50-30-08-7013 Feature 4A is the north end of the culvert and measures 3.5 m by 3.5 m with a depth of 0.83 m along its north face. SIHP # 50-30-08-7013 Feature 4A is in extremely poor condition. SIHP # 50-30-08-7013 4B measures 4.1 m in length (in an east/west direction) by 3.2 m in width (in a north/south direction) with walls measuring from 0.22 m to 0.37 m thick. SIHP # 50-30-08-7013 Feature 4B appears to have been at one time a four-way culvert. Sluice gate slots were observed as well as a single culvert opening on the west side (see Figure 44). The opening measures 0.43 m wide by 0.26 m high. A toppled concrete pole lies along the west side of the culvert opening, its base still buried in the ground.

SIHP # 50-30-08-7013 Features 4A and 4B retain integrity of location, design, materials, and association and are assessed as significant under Criterion d (refer to Section 6 ).

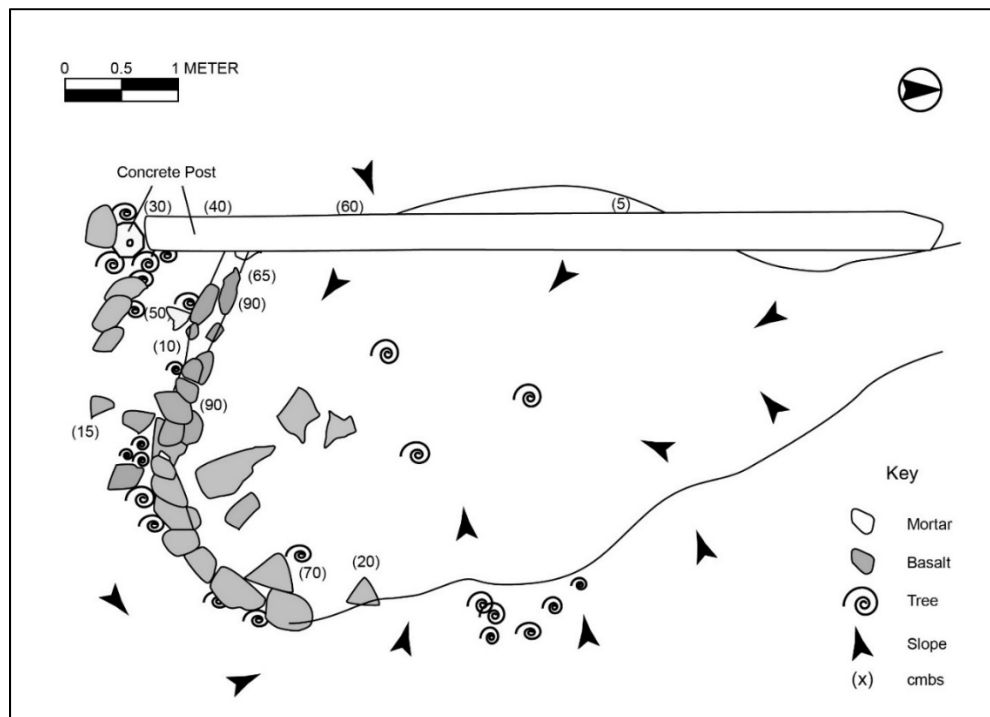


Figure 41. Plan view map of SIHP # 50-30-08-7013 Feature 4A, north end of culvert, concrete power/communication pole is toppled over on the west side of the culvert



Figure 42. Photo of north culvert end (SIHP # 50-30-08-7013 Feature 4A), view to south

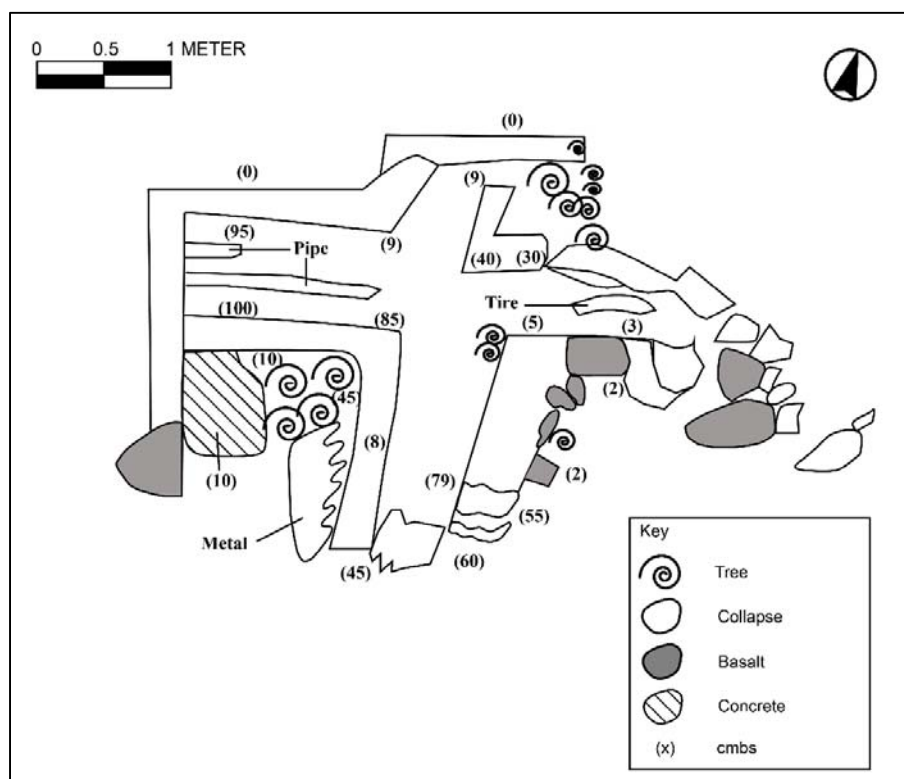


Figure 43. Plan view map of SIHP # 50-30-08-7013 Feature 4B



Figure 44. Photo of the south culvert (SIHP # 50-30-08-7013 Feature 4B), view to west



Figure 45. Photo of the south culvert (SIHP # 50-30-08-7013 Feature 4B), view to north

#### 4.9.5 SIHP # 50-30-08-7013 Feature 5

<b>FORMAL TYPE:</b>	Foundation
<b>FUNCTION:</b>	Indeterminate
<b>NUMBER OF FEATURES:</b>	0
<b>AGE:</b>	Plantation
<b>CONDITION:</b>	Intact

SIHP # 50-30-08-7013 Feature 5 consists of a large rectangular-shaped concrete slab measuring 10.0 m by 2.45 m with heights from 0.0 m at the northwest corner to 0.43 m at the central-east area (Figure 47). The thickness of the slab varies from 0.12 m to 0.20 m. On the southeast corner of SIHP # 50-30-08-7013 Feature 5, the name “GOMES” is inscribed in the concrete (Figure 46 and Figure 48). The function of the slab is indeterminate but is understood as related to plantation activities.

SIHP # 50-30-08-7013 Feature 5 retains integrity of location, design, setting, materials, workmanship, and association and is assessed as significant under Criterion d (refer to Section 6).

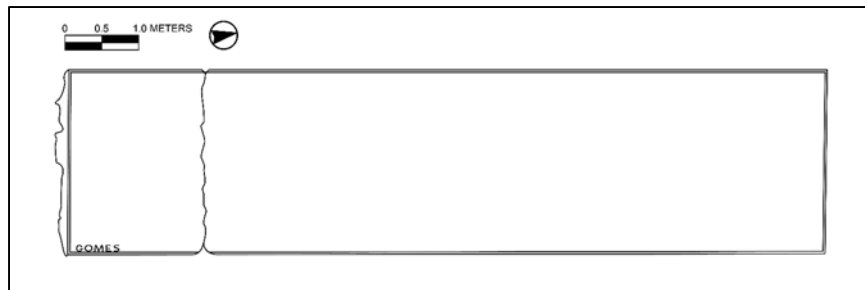


Figure 46. Plan view map of SIHP # 50-30-08-7013 Feature 5



Figure 47. Large rectangular-shaped concrete slab (SIHP # 50-30-08-7013 Feature 5), view to southeast



Figure 48. Photo of name “GOMES” written in the southeast corner of SIHP # 50-30-08-7013 Feature 5, downward view

#### 4.10 SIHP # 50-30-08-7015 a.k.a. 50-30-08-07038 a.k.a. 50-30-08-2078

<b>FORMAL TYPE:</b>	Railroad tracks – remnant aka railroad path
<b>FUNCTION:</b>	Transportation
<b>NUMBER OF FEATURES:</b>	0
<b>AGE:</b>	Plantation
<b>CONDITION:</b>	Intact

The following description for SIHP # 50-30-08-7015 was extracted from the AIS (Drennan and Dega 2007a):

Site -7015 (SCS 11-18) consists of a linear concrete slab that contains embedded railroad rail tracks, which were most likely utilized during the days of the Makee Sugar Mill operations. The single feature-site is constructed of a rectangular-shaped concrete road slab in which steel railroad rails were secured. The exterior dimensions of the feature measure 4.7 m long by 1.7 m wide; one set of linear rails measure 4.5 m long by 0.04 m wide. The site is situated on modern road [sic] which is currently in use [fork entrance to Keālia Road at the intersection of Government Road (*i.e.*, Keālia Road) and Kūhiō Highway]. The topography on which the site is situated is a flat graded surface that has been kept clear of vegetation due to vehicular traffic. The defunct Keālia School, along with the Keālia store, lies on the adjacent landscape. The long axis of the site is oriented northwest-southeast (98°/278° MN). Site -7015 is in relatively good condition in light of the constant road usage. [Drennan and Dega 2007a:52–53]

SIHP # 50-30-08-7015 is located on the northern edge of Kūhiō Highway near what is today the Keālia Road Kūhiō Highway intersection (Figure 51, see Figure 31). During the current investigation, SIHP # 50-30-08-7015 was re-identified, and its condition appears unchanged from that described by Drennan and Dega (2007a) above (Figure 49 through Figure 52; the track is most certainly one of those shown in Figure 53).

The following description for SIHP # 50-30-08-7038 was extracted from the AIS (Drennan et al. 2007):

Site -7038 is indirectly related to Phase II's railroad path and auxiliary [State Site -7015 (SCS II-18, a linear concrete slab)] .... It is also indirectly related to Site -7016 which was recorded as part of Phase II work (see Drennan and Dega 2006, *in press*), as well as State Site -2078 (Bushnell et al. 2002:93-102, Figure 49). [Drennan et al. 2007:74]

The rail alignments comprising SIHP # 50-30-08-7038 (Drennan et al. 2007), as well as SIHP # 50-30-08-2078 (Bushnell et al. 2003) and SIHP # 50-30-08-7016 (Drennan and Dega 2007a) are depicted on the 1910 Kapaa USGS topographic map (see Figure 19), plantation maps including the 1926 Field Map for Makee Sugar Company (Condé and Best 1973:181, Figure 23) and a 1939 field map for Lihue Plantation (revised in 1965) (see Figure 24). Together they show the railroad system extending to the west into the fields to the east of “Spanish Camp,” into the fields to the north and south to the wharf and the fields of Kapa‘a.

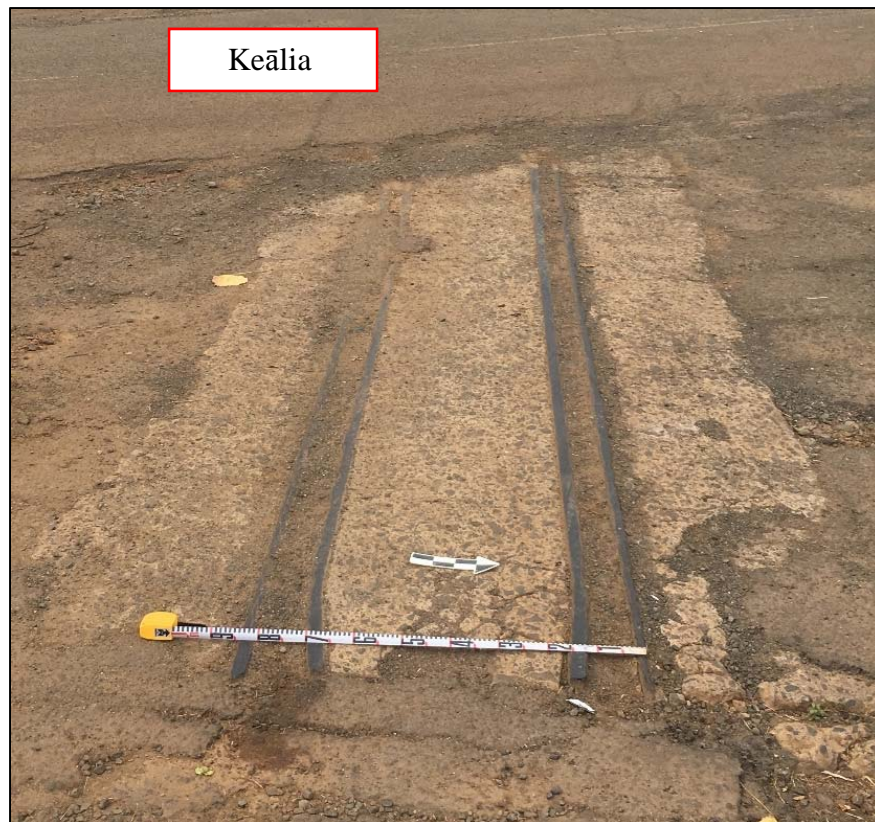


Figure 49. Photograph showing SIHP # 50-30-08-7015, view to west



Figure 50. Photo of SIHP # 50-30-08-7015, concrete slab with railroad tracks, view to east

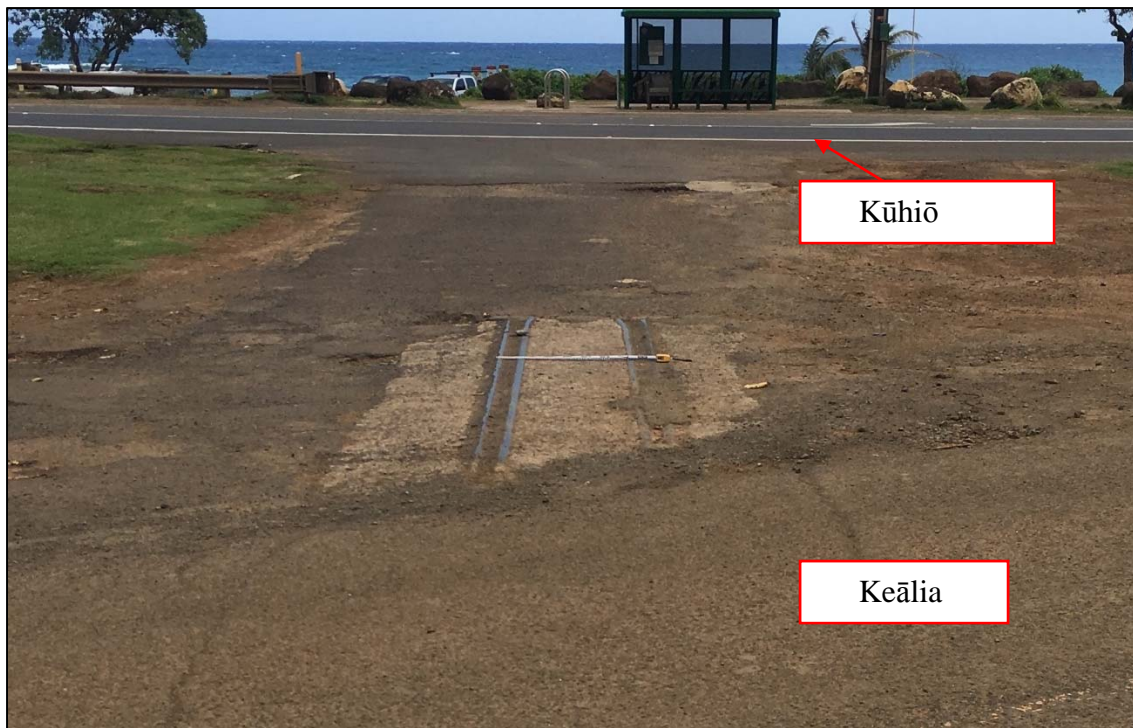


Figure 51. Photograph showing SIHP # 50-30-08-7015, view to east



Figure 52. Close up photo of SIHP # 50-30-08-7015, downward view to east

The rail system is also depicted on several historic photographs, with two dated 1919 and 1933 (see Figure 15 through Figure 17, Figure 20 and Figure 21). The tracks of SIHP #s 50-30-08-07016, 50-30-08-2078 and 50-30-08-07038 without doubt coalesced at SIHP # 50-30-08-7015 (Figure 53) as illustrated on the Makee plantation map of the Proposed Kealia Breakwater map of 1908. SIHP # 50-30-08-7015 is probably a section of SIHP # 50-30-08-07038, the east-west oriented line crossing the Government Road before turning south to join the coastal line; SIHP # 50-30-08-2078, the northeast oriented line; or SIHP # 50-30-08-07016 going north along the coast to the fields in the Kumukumu plateau area and further north. It is anticipated that upgrades to the junction of Keālia Road and Kūhiō Highway for the project will potentially present remains of the rail beds.

SIHP # 50-30-08-7015, a remnant plantation railroad track used for sugarcane transportation for Makee Sugar Company then later Lihue Plantation, was assessed as significant under Criterion D (assume Criterion d is meant) with the comment “No preservation” (Drennan and Dega 2007:34). SIHP # 50-30-08-7015 is assessed as significant for its ability to provide information about transportation during the plantation era. CSH agrees with the Drennan and Dega (2007) significance assessment and comment for no preservation.

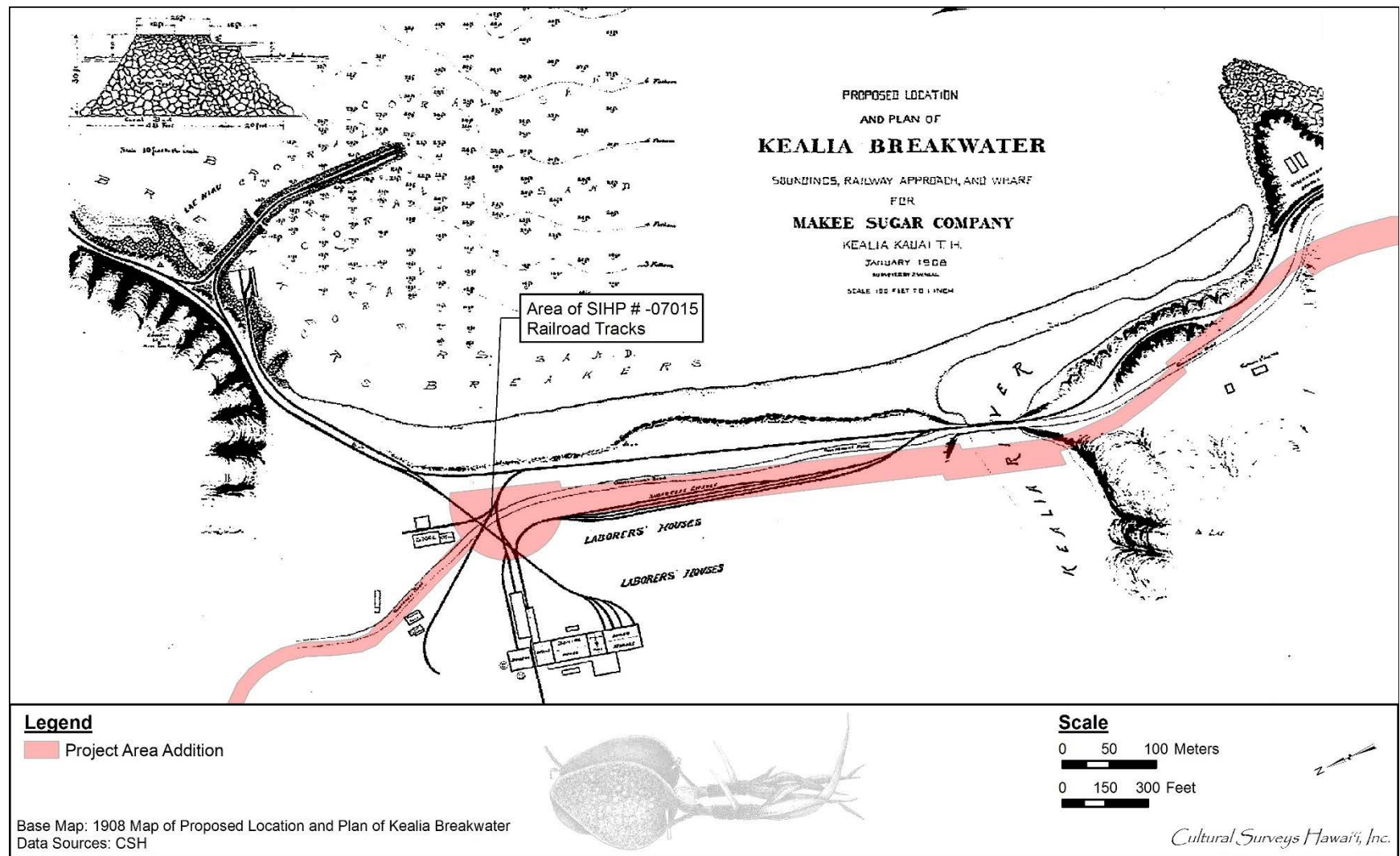


Figure 53. Makee Sugar Company map of proposed Kealia Breakwater showing location of SIHP # 50-30-08-7015

## 4.11 SIHP # 50-30-08-7021

<b>FORMAL TYPE:</b>	Box Culvert and Pipe
<b>FUNCTION:</b>	Transportation/water control
<b>NUMBER OF FEATURES:</b>	2
<b>AGE:</b>	Plantation
<b>CONDITION:</b>	Intact

SIHP # 50-30-08-7021 was previously identified by Drennan and Dega (2007:69–72) and included six features. Features 5 and 6 of SIHP # 50-30-08-7021 are Feature 5 (bridge) and Feature 6 (pipe) (Figure 54). During the current investigation a box culvert with a 12-inch diameter metal pipe with square-shaped concrete encasements on the north and south ends of the pipe was identified alongside Keālia Road with an unnamed drainage ditch (see Figure 31).

### 4.11.1 SIHP # 50-30-08-7021 Feature 5

SIHP # 50-30-08-7021 Feature 5 is identified as a concrete slab bridge constructed of reinforced concrete consisting of one culvert cell with wing-wall abutments (see Figure 54). The wingwall abutments are constructed of angular and subangular basalt cobbles and boulders up to seven courses high and concrete. The wood grain pattern of the boards used to form the culvert cell are visible along the interior culvert walls (Figure 59). On the west side of the bridge, the headwall measures 2.47 m in length by 0.27 m thick with a 1.0 m facing. A 12-inch rough-cut board pattern is visible along the headwall facing. Also visible in the facing is a metal rod embedded in the concrete (Figure 55, Figure 57, and Figure 58). The north wingwall abutment measures 1.3 m in length with a maximum depth of 1.8 m. The south wingwall measures 1.6 m in length with a maximum depth of 1.8 m. On the east side of the bridge, the headwall measures 4.3 m in length by 0.25 m thick with a 0.73 m facing. The north wingwall abutment measures 0.94 m in length with a maximum depth of 1.5 m, and the south wingwall abutment measures 1.2 m in length with a maximum depth of 1.9 m (see Figure 55 and Figure 56).

### 4.11.2 SIHP # 50-30-08-7021 Feature 6

SIHP # 50-30-08-7021 Feature 6 consists of a 12-inch metal pipe 0.50 m east of the bridge. The metal pipe exposure running parallel along the east side of the box culvert/bridge's east headwall measures 4.55 m. The north and south ends of the metal pipe are encased in concrete. The concrete encasements are square-shaped and both measure approximately 1.0 m by 1.0 m (Figure 60 and Figure 62).

Although the bridge is not depicted on any historical documents, a drainage ditch labeled “drain” and a road traversing through it is shown on a 1939 field map for Lihue Plantation, later revised in 1965 (see Figure 24). As on the 1939 field map, the drainage ditch and road are also depicted on a portion of the 1963 Anahola and Kapaa USGS 7.5-minute topographic quadrangle map (see Figure 26).

SIHP # 50-30-08-7021 Features 5 and 6 are interpreted as historic (plantation) structures. Feature 5 is interpreted as a historic plantation bridge used for transportation and Feature 6 is interpreted as a historic pipe line used for water control. SIHP # 50-30-08-7021, a bridge and a pipeline, are evaluated as significant under HAR §13-275-6 Criterion d (Have yielded, or is likely

to yield, information important for research on prehistory or history) for their value to our understanding of plantation era infrastructure. Water control was essential not only for sugarcane cultivation but also for transporting water to residential houses of former plantation workers. Pedestrian and vehicular transportation was also important. The AIS has sufficiently documented the information content of SIHP # 50-30-08-7021 within the proposed project area.

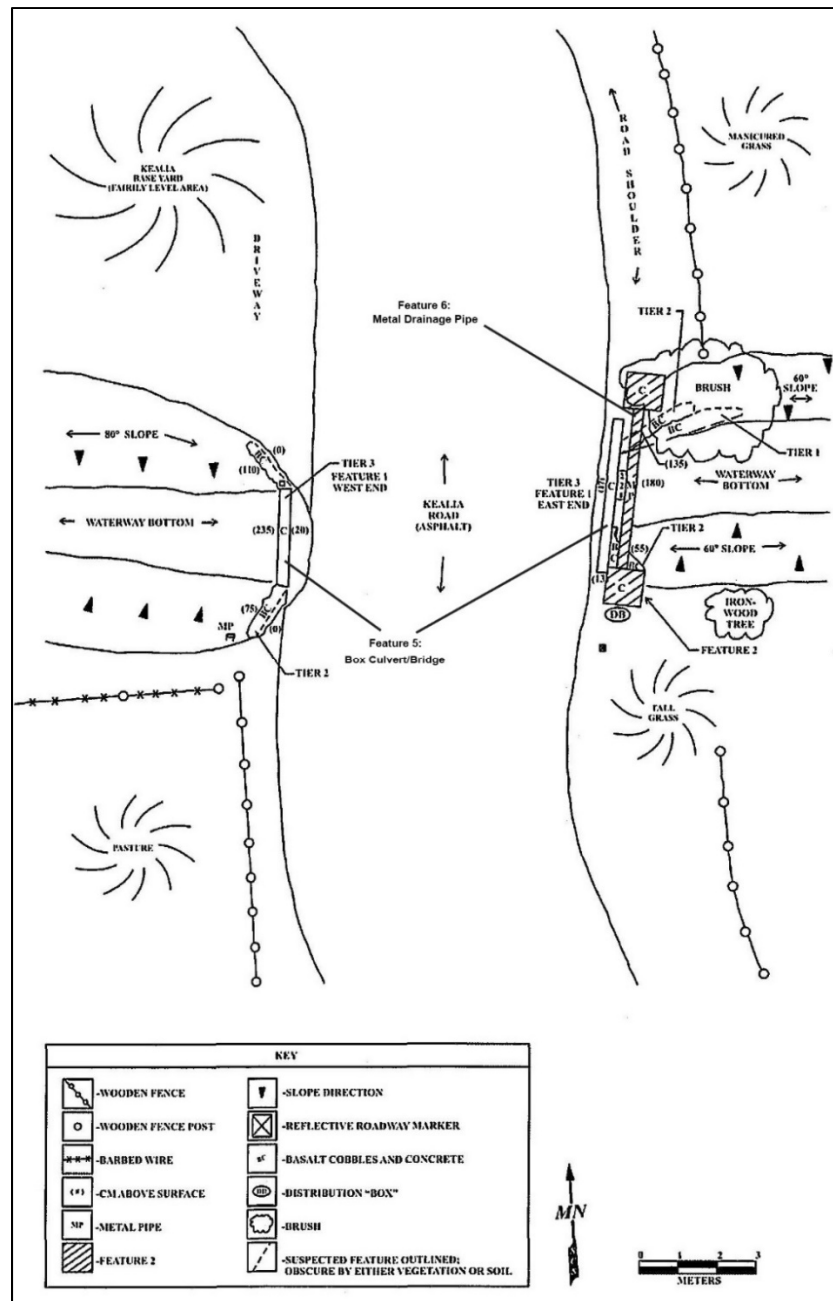


Figure 54. Plan view of SIHP # 50-30-08-7021 Features 5 and 6 (SCS II-24, from Drennan and Dega 2007:71)

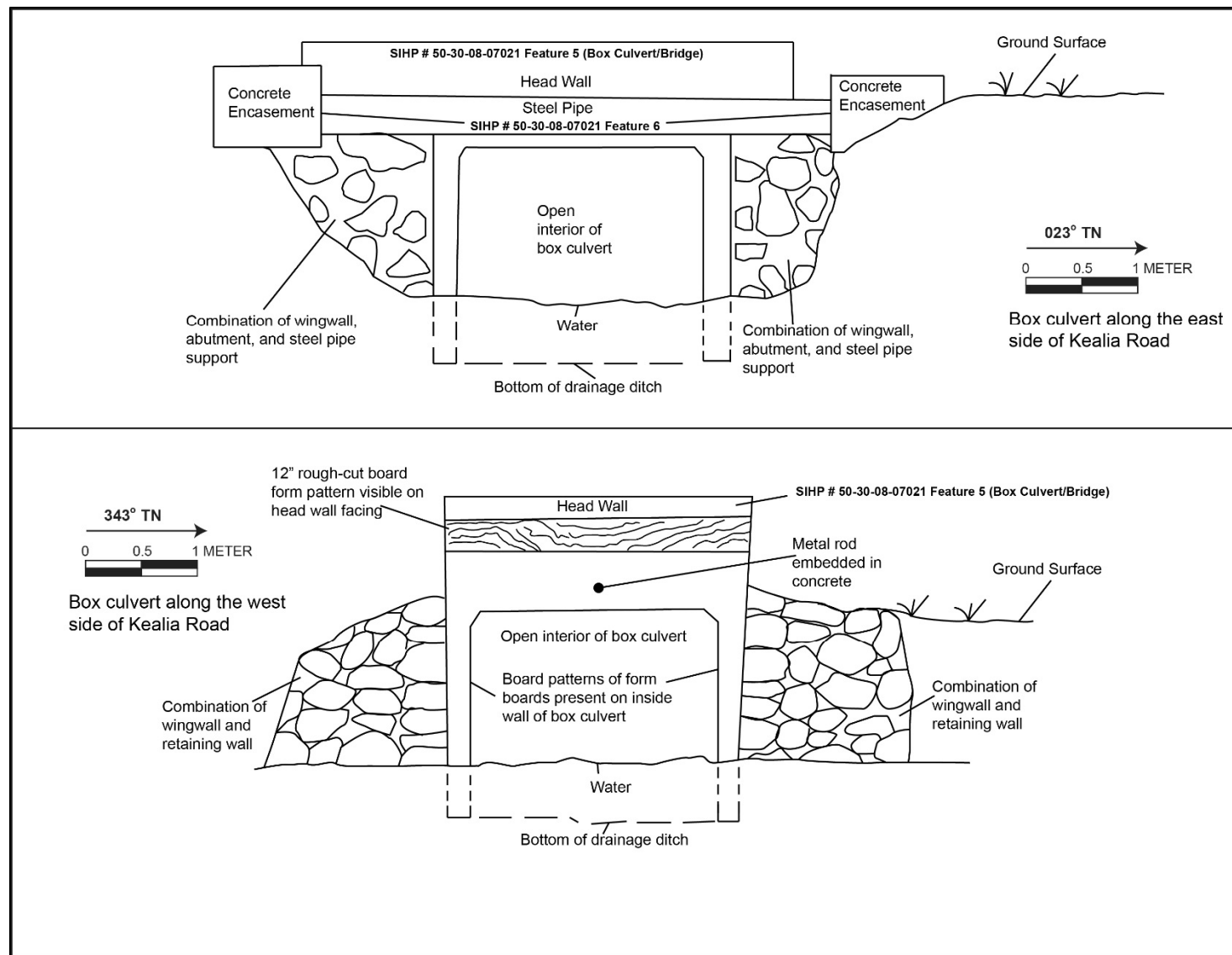


Figure 55. Profile views of the SIHP # 50-30-08-7021 Features 5 and 6 (CSH, W. Folk drafted field drawings)



Figure 56. Photo of SIHP # 50-30-08-7021 Feature 5 (east side of culvert) and Feature 6 (metal pipe), view to west/northwest



Figure 57. Photo of SIHP # 50-30-08-7021 Feature 5 (west side of culvert), view to east/southeast



Figure 58. Photo of the west headwall of SIHP # 50-30-08-7021 Feature 5 showing wood grain pattern along headwall face and metal rod embedded in the concrete, view to southeast



Figure 59. Photo of the north interior wall of culvert box of SIHP # 50-30-08-7021 Feature 5 showing wood grain pattern along the interior wall face, view to northeast



Figure 60. Photo of SIHP # 50-30-08-7021 Feature 6, view to north/northeast



Figure 61. Photo of SIHP # 50-30-08-7021 Feature 6 pipe line, view to south/southwest; Keālia Road or Government Road is at the right



Figure 62. Photo of SIHP # 50-30-08-7021 Feature 6 showing concrete encasement at the south end of the metal pipe, downward view to north

## 4.12 SIHP 50-30-08-7035

<b>FORMAL TYPE:</b>	Staircase
<b>FUNCTION:</b>	Habitation
<b>NUMBER OF FEATURES:</b>	1
<b>AGE:</b>	Historic
<b>CONDITION:</b>	Not relocated

SIHP # 50-30-08-7035 was not confirmed during the inventory survey. Identified and described by Drennan et al. (2007) as an historic plantation-era staircase, assessed as significant under Criterion d and not recommended for preservation, SIHP # 50-30-08-7035 contains one feature located at the bottom of a shallow swale on the west side of Kūhiō Highway. The feature is described as being rectangular-shaped and constructed with two tiers. The construction materials utilized were basalt cobbles (20 to 30 cm in diameter) and railroad rails covered by a thick layer (14 cm) of concrete. The feature measures 3.1 m long by 1.4 m wide; its height ranges from 0.13 m to 0.73 m high (exterior) with the long axis of the site oriented west-east (90°/270° MN).

## 4.13 SIHP 50-30-08-2390

<b>FORMAL TYPE:</b>	Road, Territorial Government
<b>FUNCTION:</b>	Thoroughfare, Kapa'a to Anahola
<b>NUMBER OF FEATURES:</b>	1
<b>AGE:</b>	Historic
<b>CONDITION:</b>	Intact, in use

SIHP # 50-30-08-2390 consists of Keālia Road, also shown as Government Road on the 1908 plantation Keālia Breakwater map, a major thoroughfare to Anahola and points north before the building of Kūhiō Highway. It first appears on the 1878 Alexander Hawaiian Government Survey map of Kauai (RM 1395) proceeding *mauka* and intersecting the older road from the Keālia valley bottom as illustrated on the 1876 Gay map of the Kealia Estate (RM 386), suggesting it was built between 1876 and 1878. Keālia Road continues to be a major plantation road shown on the 1903 Donn Hawaii Territory Survey map of Kauai (RM 2375). It appears by 1912 to have replaced the older valley road and become a part of the Hawaii Belt road system, used until the building of Kūhiō Highway in the early 1950s (Figure 63). The AIS has sufficiently documented the information content of SIHP # -2390 within the proposed project area.

SIHP # 50-30-08-2390 remains in use today. It retains integrity of location, design, setting, materials, workmanship, and association and is assessed as significant under Criterion d (refer to Section 6 ).

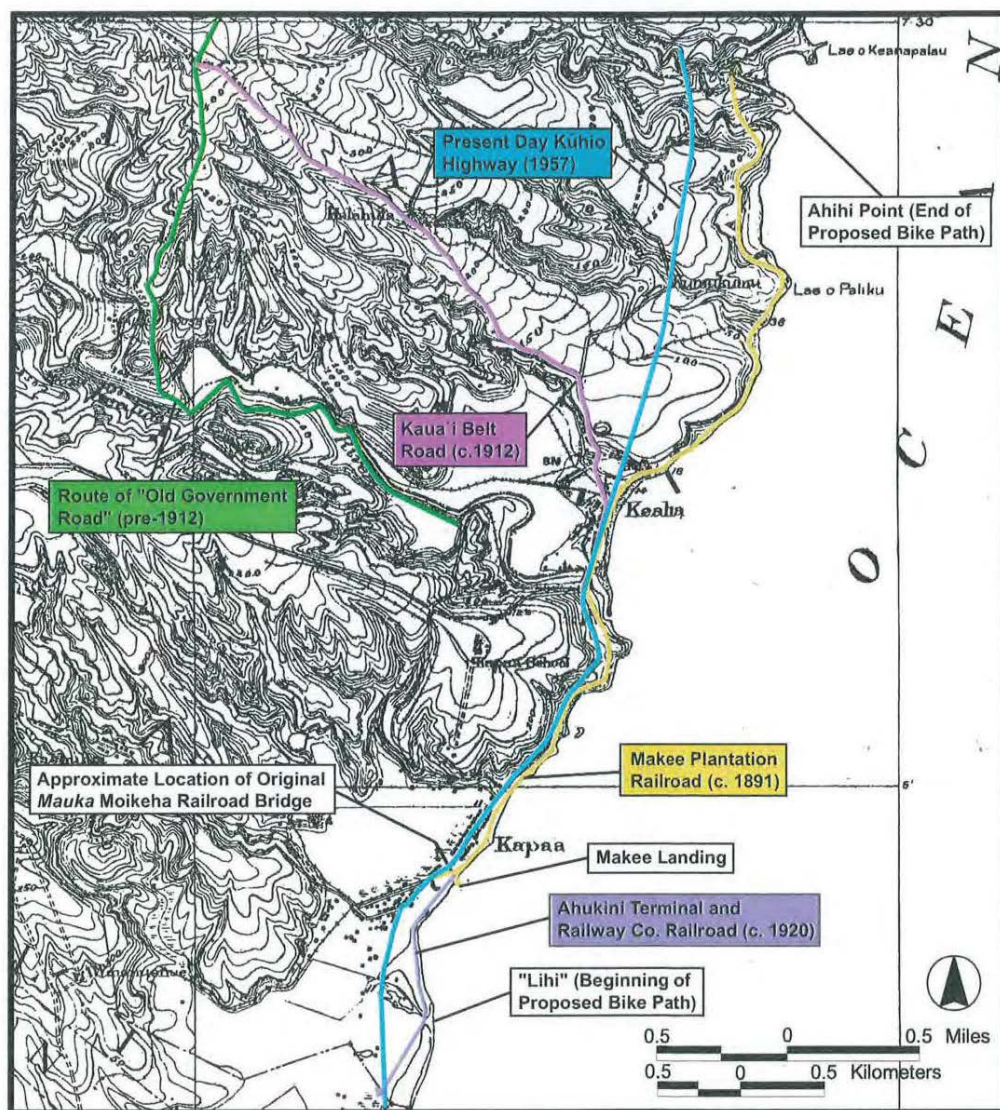


Figure 12 1910 USGS Map of Kapaa Quad, Showing Locations of Historic Road and Railroad Alignments in Kapa'a and Keālia.

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Figure 63. Portion of the USGS 1910 7.5-minute series topographic map, Kapaa quadrangle showing road alignments in Kapa'a and Kealia (source is Figure 31, Bushnell et al. 2003).

#### 4.14 SIHP 50-30-08-2391

<b>FORMAL TYPE:</b>	Back Slope Retaining wall for Keālia Road
<b>FUNCTION:</b>	Slope erosion control
<b>NUMBER OF FEATURES:</b>	0
<b>AGE:</b>	Historic
<b>CONDITION:</b>	Intact, in use

SIHP 50-30-08-2391 consists of a backslope retaining wall measuring 104.0 m on the eastern shoulder of Keālia Road that runs in a slight northwest/southeast direction (Figure 64 and Figure 65). The retaining wall, at the bottom of the road cut at the east side of the road, helps support the bluff above which the residential houses along Kaa Road in the Keālia Town Tract are situated. The retaining wall is constructed of 1.0 m-sized blue rock basalt with mortar fill up to two courses high with a maximum height of 2.0 m. Small blue rock chinking was also observed within the retaining wall's construction (Figure 66 and Figure 67). The mortar contains fine coralline sand with fine shell fragments (see Figure 67).

SIHP # -2391 is interpreted as a historic backslope retaining wall functioning as a support of the road cut bank on the east side of Keālia Road and is evaluated as significant under HAR §13-275-6 Criterion d (Having yielded information important for research on history) for its ability to provide information about transportation during the plantation era. The AIS has sufficiently documented the information content of SIHP # -2391 within the proposed project area.

SIHP # 50-30-08-2391 is still in use today. It retains integrity of location, design, setting, materials, workmanship, and association and is assessed as significant under Criterion d (refer to Section 6 ).



Figure 64. Overview photo of SIHP # 2390, Keālia Road and SIHP # 2391, backslope retaining wall, view to northwest (uphill)



Figure 65. Overview photo of SIHP # 2390, Keālia Road and SIHP # 2391, retaining wall, view to southeast (downhill)



Figure 66. Photo of the northern portion of SIHP # 2391, view to north; note structures at the top of the backslope, scale is 2 m long



Figure 67. Photo of the central portion of SIHP # 2391, view to north; scale is 2 m long

## Section 5 Summary and Interpretation

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Mr. Scott Ezer of HHF Planners requested that CSH complete this AIS for the proposed Keālia Mauka Homesites project, Keālia and Kapa'a Ahupua'a, Kawaihau District, Kaua'i, TMKs: [4] 4-6-014 por. Kūhiō Highway and Mailihuna Road ROW, 4-7-003:002 por. Keālia Road and Kūhiō Highway ROW, and 4-7-004:001 por.

Background research included various mythological and traditional accounts as well as early historic information from the Kawaihau (formerly Puna) District of Kaua'i. Historic accounts suggest a fairly sparse population in Kapa'a with Hawaiians living in a series of small settlements, probably along the *alanui aupuni* (the Kūhiō Highway) that traversed a narrow sand berm. This sand berm created the *makai* boundary of an inland swamp. Most of the *lo'i* claimed were situated on the *mauka* side of the Kapa'a swamp in shallow gulches or valleys. The more ample river valley of Keālia hosted a larger population with *kuleana* claims mostly dispersed along the Keālia River (the current Kapa'a Stream). There is one Land Commission Award on the northern end of Keālia Beach, approximately 100 m (328.1 ft) north of the project area. Subsurface testing in this locale has yielded evidence of human occupation ranging from pre-Contact times to the plantation era. According to historic documents, the plateau areas north of Keālia Valley were sparsely inhabited with areas bordering Kumukumu and Homaikawa'a streams hosting the largest settlements.

The earliest successful economic enterprise by a westerner in these *ahupua'a* was the Krull Ranch and Dairy, which operated in the Kumukumu area in the 1860s. The Krull Dairy was situated near Waipahe'e, north of the project area. In 1877, the Makee Sugar Plantation was established in conjunction with members of the Hui Kawaihau, several of whom were retainers in Kalākaua's court. The Makee Plantation built a mill and landing at Kapa'a as part of the plantation infrastructure. Makee Landing, also known as the Kapa'a Wharf, once extended out from what is now a breakwater for the Moikeha Canal, near the present Coral Reef Motel. Following the move of the Kapa'a mill to Keālia in 1885, a railroad was built from Makee Landing to Keālia with another railroad arm leading across the Moikeha drainage up Lehua Street and into the *mauka* regions of Kapa'a. The *mauka* Moikeha Railroad Bridge (SIHP # 50-30-08-2078, Feature D) and the Old Kealia Railroad Bridge/Cane Haul Road (SIHP # 50-30-08-789A, Sub-Feature I) represent a part of the first railroad system constructed ca. 1891 to transport sugarcane.

The Makee Sugar Plantation, operating out of Keālia, attracted hundreds of immigrant workers, first the Portuguese and Japanese and later, Filipinos. Kapa'a and Keālia towns sprung up around these immigrant groups. In addition, there were several plantation camps in Keālia as well as homesteads in Kapa'a. Many of the residential lots in the Kapa'a area were auctioned off as Kapa'a Town Lots in the first part of the twentieth century.

The pineapple industry made its debut in Kapa'a in 1913, with the opening of Hawaiian Cannery Companies, Ltd. A cannery was constructed on land north of Waika'ea Canal. This cannery was in business for almost 50 years and made use of the railroad track that fronted it to transport pineapple to Ahukini Landing for shipment and also to send pineapple waste to the "pineapple dump" north of Keālia. In 1920, Ahukini Terminal & Railway Company extended the railroad from the Moikeha Canal area in Kapa'a to the Ahukini Landing in Hanamā'ulu which became the new central terminal for shipping agricultural goods. Lihue Plantation took over the Ahukini Terminal & Railway Company and the Makee Plantation in 1934.

By the late 1950s, the railroad gave way to truck roads. The local newspaper reports dredging coral from the Kapa'a reef to build plantation roads. A good portion of the railroad alignment in Kapa'a was abandoned, however, a cane haul road was constructed near the intersection of Haua'ala Road and Kūhiō Highway. The Lihue Plantation finally went out of business at the end of the twentieth century and the cane haul road was abandoned. Tourism has taken the place of agriculture as an economic force in the last several decades. The old railroad alignment in the Kapa'a Town area was converted into a bike path in the 1980s, extending from the Waika'ea Canal to the Smokey Louie Swimming Pool.

The demise of sugar was concurrent with an increase in tourism and a service-oriented economy. Plantation-era transportation routes went into disuse or were incorporated into present transportation infrastructure. Modern construction activities in coastal Keālia, however, continue to unearth evidence of pre-Contact, early historic, and plantation-era activities.

In general, a 100%-coverage pedestrian inspection of the project area was undertaken for the purpose of historic property identification and documentation. At the time of the fieldwork, the Homesites portion of the proposed project included former cane lands and New Kumukumu Camp, all of which have been leased for cattle raising. The proposed sewer line parallels the Old Government Road and part of Kūhiō Highway.

In 2017, CSH conducted a literature review and field inspection and identified seven newly identified features associated with SIHP # 50-30-08-7013, New Kumukumu Camp. The results were reported in an *Archaeological Literature Review and Field Inspection Report for the Keālia Mauka Homesites Project, Keālia Ahupua'a, Kawaihau District, Kaua'i, TMKs: [4] 4-7-004:001* (Kamai and Hammatt 2017).

Consultation was conducted with SHPD on 2 October 2018; a supplemental AIS was requested, which included further recording of associated features of SHIP # -7013 (New Kumukumu Camp) and evaluation of integrity and significance and recommendations for the entirety of the project area including the sewer line project corridor.

During the current investigation, two previously identified historic properties and one newly identified historic property were identified along the proposed sewer line corridor. SIHP # 50-30-08-7015 (train track remnant) and SIHP # 50-30-08-7021 (bridge and pipe) were first identified by Drennan and Dega in 2007. The bridge and the pipe of SIHP # 50-30-08-7021 were identified as Features 5 and 6. The newly identified historic property, SIHP # 2391, is a basalt and mortar retaining wall along the east shoulder of Keālia Road. The findings of the supplemental AIS are consistent with the historical background research, which predicted the likely presence of historic plantation properties.

The proposed Keālia Mauka Homesites and sewer line project comprises approximately 74.7 acres bounded generally by Kumukumu Ahupua'a to the north, Kūhiō Highway to the east, Kaiakea Fire Station to the south, and Keālia Farms, Kapa'a Homesteads, and St. Catherine's Cemetery to the west. The project area includes a portion of the former New Kumukumu Camp sugarcane fields and the intersections of Keālia Road, Mailihuna Road, and Kapa'a Stream Bridge.

Most of the ground disturbance anticipated for the Keālia Mauka Homesites and sewer line project would be associated with construction of the residential community, including the construction of 235 single-family house lots, a park, and the installation of the sewer line.

## Section 6 Significance Assessments

Historic property significance is evaluated and assessed based on the five State of Hawai'i historic property significance criteria. To be considered significant, a historic property must possess integrity of location, design, setting, materials, workmanship, feeling, and/or association and meet one or more of the following broad cultural/historic significance criteria (in accordance with HAR §13-284-6:

- a. Be associated with events that have made an important contribution to the broad patterns of our history;
- b. Be associated with the lives of persons important in our past;
- c. Embody the distinctive characteristics of a type, period, or method of construction, represent the work of a master, or possess high artistic value;
- d. Have yielded, or is likely to yield, information important for research on prehistory or history; or
- 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 oral accounts—these associations being important to the group's history and cultural identity.

All 14 historic properties and their features are assessed as significant under Criterion d while SIHP #s 50-30-08-884, SIHP # 50-30-08-2161, and SIHP # 50-30-08-2162 are also significant under Criterion e due to the identification of human remains. Table 6 lists the historic properties along with their significance assessments and mitigation recommendations. The significance recommendations for the subsurface historic properties are derived from the previous archaeological studies in which they were identified.

Surface historic properties included SIHP # 50-30-08-7013, the former New Kumukumu Camp that was a sugar plantation residential housing complex located at the northwest corner of the Keālia Mauka Homesites project area. The camp area was recorded and assessed a significance of Criterion d in Drennan and Dega (2007a:34, Table 4, 110–111). During a field check of the Keālia Mauka Homesites project area seven remnant surface features of the former camp were identified within the bounds of the previously identified SIHP # 50-30-08-7013, designated Features 1 through 5 with Feature 3 and Feature 4 having subparts 3A and 3B, and 4A and 4B. (Kamai and Hammatt 2018). Documentation of these seven features was completed as part of this inventory survey and these remnants of the former plantation camp are assessed significant under Criterion d (have yielded information important for research on prehistory or history) for their contribution to our understanding of plantation-era camp infrastructure. The culvert features were for surface water control essential for sugarcane cultivation and the camp inhabitants. Water was transferred from as far away as Hanalei (Wilcox 1996:70) to the fields of the Lihue Plantation. The concrete telecommunication or power poles attest to the importance of communication and/or the changing utility availability over time within the plantation camps. The seven newly identified features of SIHP # 50-30-08-7013 are assessed significant Criterion d, this for the review and concurrence of the SHPD.

Table 6. Archaeological historic property integrity, significance, and mitigation recommendations

SIHP # 50-30-08-	Feature	Site Type	Function	Age	Integrity							Significance Assessment	Recommendations
					Location	Design	Setting	Materials	Workmanship	Feeling	Association		
884		Burial site	Pre-Contact human remains	Pre-Contact	Y	N	N	N	N	Y	N	d, e	Preservation (Bushnell et al. 2003); consultation
884		Cultural layer	Habitation	Pre-Contact	Y	N	Y	Y	N	Y	Y	d	Full-time monitoring (Dega and Powell 2003; Sholin et al. 2012)
2161		Human skeletal remains	Secondary deposition of human bone fragments	Unknown	Y	N	N	N	N	Y	N	d, e	Monitoring (Sholin et al. 2012)
2162		Burial site and cultural midden	Human burial and habitation	Pre- or post-Contact	Y	N	Y	Y	N	Y	Y	d, e	Monitoring (Sholin et al. 2012); consultation
2163		Fire pit	Habitation	Pre-Contact	Y	N	Y	Y	N	Y	Y	d	Monitoring (Sholin et al. 2012)
2165		Cultural deposit	Habitation	Pre-Contact	Y	N	Y	Y	N	Y	Y	d	Monitoring (Sholin et al. 2012)
2278		Bridge (Kapa‘a Stream Bridge)	Transportation, stream crossing	Historic	Y	Y	Y	Y	Y	Y	Y	d	No further work (Belluomini et al. 2016); sufficiently documented; bridge is being replaced
2279 Fea. A and Fea. B		Complex	Water control	Historic	Y	Y	Y	Y	N	N	Y	d	Monitoring (Belluomini et al. 2016)

SIHP # 50-30-08-	Feature	Site Type	Function	Age	Integrity							Significance Assessment	Recommendations
					Location	Design	Setting	Materials	Workmanship	Feeling	Association		
7013	1	Alignment	Transportation	Plantation era	Y	Y	N	Y	Y	N	N	d	No further work (Kamai and Hammatt 2017); sufficiently documented
7013	2	Concrete block	Indeterminate	Plantation era	Y	N	N	Y	N	N	N	d	No further work (Kamai and Hammatt 2017); sufficiently documented
7013	3A and 3B	Concrete utility posts	Communication	Plantation era	Y	Y	N	Y	Y	N	N	d	No further work (Kamai and Hammatt 2017); sufficiently documented
7013	4A and 4B	Basalt and mortar culverts	Water Control	Plantation era	Y	Y	N	Y	Y	N	N	d	No further work (Kamai and Hammatt 2017); sufficiently documented
7013	5	Concrete	Indeterminate	Plantation era	Y	Y	N	Y	N	N		d	No further work (Kamai and Hammatt 2017); sufficiently documented
7015		Train track remnant	Transportation	Plantation era	Y	N	N	N	N	Y	N	d	No further work (Kamai and Hammatt 2017); sufficiently documented
7021	5	Bridge, or box culvert	Transportation	Plantation era	Y	Y	Y	Y	Y	N	N	d	No further work (Kamai and Hammatt 2017); sufficiently documented

SIHP # 50-30-08-	Feature	Site Type	Function	Age	Integrity							Significance Assessment	Recommendations
					Location	Design	Setting	Materials	Workmanship	Feeling	Association		
7021	6	Pipe	Water control	Historic	Y	Y	Y	Y	Y	N	N	d	No further work (Kamai and Hammatt 2017); sufficiently documented
7035		Staircase	Habitation	Plantation era	Y	Y	N	Y	Y	N	N	d	No preservation (Drennen et al. 2007); sufficiently documented
2390		Keālia Road	Transportation	Historic	Y	Y	Y	Y	Y	Y	Y	d	No further work (Kamai and Hammatt 2017); sufficiently documented
SIHP # 2391		Retaining wall	Backslope retention	Historic	Y	Y	Y	Y	Y	Y	Y	d	No further work (Kamai and Hammatt 2017); sufficiently documented

SIHP # 50-30-08-7015, train track remnant, was assessed significant under Criterion d (has yielded information important for research on prehistory or history) (Drennan and Dega 2007a) as supporting information about transportation during the plantation era. SIHP # 50-30-08-7015 provides evidence of Makee Sugar Company's 1910 and 1926 railroad that conveyed sugarcane from the fields in Kapa'a and Keālia across the Keālia railroad bridge to the mill and was later utilized by Lihue Plantation in the late 1930s. SIHP # 50-30-08-7015 is a portion of these tracks.

SIHP # 50-30-08-7021 Features 5 and 6 are assessed as significant under Criterion d (have yielded information important for research on prehistory or history) (Drennan and Dega 2007a) as part of the plantation mill infrastructure. Feature 5, a box culvert to carry Keālia Road over a ditch for water control related to the mill area. Feature 6, a large water or sewer pipe may be more recent than the early plantation but utilizes Feature 5 as support to cross the ditch.

SIHP # 50-30-08-2278 is the existing Kapa'a Stream Bridge, assessed significant under Criterion d (has yielded information important for research on prehistory or history) by Belluomini et al. (2016) in concurrence with the SHPD. It is a major element of intra-island transportation since the 1950s for Kūhiō Highway crossing Kapa'a stream. However, in consultation with the SHPD architecture branch, it was determined that the Kapa'a Stream Bridge (SIHP # 50-30-08-2278) is not eligible for listing on the National Register or the Hawai'i Register pursuant to 36 CFR 60.4 and HAR §13-198-8. The bridge is scheduled for replacement in 2019 or 2020.

SIHP # 50-30-08-2279 is identified in Belluomini et al. (2016) and assessed significance Criterion d (has yielded information important for research on prehistory or history) in concurrence with the SHPD. A water control complex consisting of an earthen ditch remnant and a concrete culvert remnant at the intersection of Mailihuna Road and Kūhiō Highway.

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## Section 7 Project Effect and Mitigation Recommendations

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### 7.1 Project Effect

The AIS results support a project effect determination of “effect, with agreed upon mitigation commitments” pursuant to Hawai'i State historic preservation review legislation, HRS 6E-42 and HAR §13-284-7.

### 7.2 Mitigation

Pursuant to HAR §13-284-8 the project proponent agrees with the recommendation that mitigation for the effect of the project on historic properties will consist of archaeological monitoring in accordance with an archaeological monitoring plan to be compiled in consultation with SHPD for review and acceptance by the SHPD. Full-time monitoring would be implemented and conducted by qualified personnel. Archaeological monitoring will be carried out in accordance with the archaeological monitoring plan (AMP) prepared in accordance with HAR §13-279-4. The AMP shall be reviewed and accepted by the SHPD prior to the start of ground-disturbing activities.

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# Appendix A Log No. 2018.00602, Doc No. 1805GC09

DAVID Y. IGE  
GOVERNOR OF HAWAII



STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES

STATE HISTORIC PRESERVATION DIVISION  
KAKUHIHEWA BUILDING  
601 KAMOKILA BLVD, STE 555  
KAPOLEI, HAWAII 96707

SUZANNE D. CASE  
CHAIRPERSON  
BOARD OF LAND AND NATURAL RESOURCES  
COMMISSION ON WATER RESOURCE MANAGEMENT

ROBERT K. MASUDA  
FIRST DEPUTY

JEFFREY T. PEARSON, P.E.  
DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES  
BOATING AND OCEAN RECREATION  
BUREAU OF CONVEYANCES  
COMMISSION ON WATER RESOURCE MANAGEMENT  
CONSERVATION AND COASTAL LANDS  
CONSERVATION AND RESOURCES ENFORCEMENT  
DIVERSIFIED  
FORESTRY AND WILDLIFE  
HISTORIC PRESERVATION  
KAROLANE ISLAND RESERVE COMMISSION  
LAND  
STATE PARKS

May 29, 2018

Daniel E. Orodener, Executive Officer  
Land Use Commission, State of Hawaii  
Department of Business, Economic Development & Tourism  
P.O. Box 2359  
Honolulu, HI 96813  
[Daniel.E.Orodener@hawaii.gov](mailto:Daniel.E.Orodener@hawaii.gov)

IN REPLY REFER TO:  
Log No. 2018.00602  
Doc No. 1805GC09  
Archaeology

SUBJECT: **Chapter 6E-8 Historic Preservation Review-  
Docket No. A17-803/Kealia Properties, LLC  
Keālia Mauka Homesites Project  
Keālia Ahupua'a, Kawaihau District, Island of Kaua'i  
TMK: (4) 4-7-004:001**

This letter provides the State Historic Preservation Division's (SHPD's) comments regarding (1) a *Petition for Land Use District Boundary amendment to reclassify approximately 53.361 acres of land from agricultural district to urban district to support development of the Kealia Mauka Homesites*, and (2) *confirmation that the proposed 53.361-acre Petition Area has been reasonably addressed in the prior AIS (Drennan et al. 2006), and that the requirements of Hawai'i Revised Statutes Section 6E have been met.*

The submittal included an *Archaeological Literature Review and Field Inspection Report (LRFI)* (Kamai and Hammatt, June 2017). The Kamai and Hammatt (2017) report summarizes the historical background of the area and previous archaeological studies. It indicates that portions of the current project area are within the boundaries of three previous archaeological inventory surveys conducted in Keālia: Phase I (Drennan et al. 2006), Phase II (Drennan and Dega (2007a), and Phase IV (Drennan and Dega (2007b).

The Drennan et al. (2006) report included a 450-acre portion of a 2,008-acre property and documented 19 historic properties, of which 15 occur within the current project area and 4 occur outside. The 15 inside the current project area (Site 50-30-08-3943 through 3957) consist of 21 features, of which nine date to the plantation era, one is a traditional agricultural/habitation site, and the remaining 5 are interpreted as traditional Hawaiian agricultural sites that continued to be used into the 19<sup>th</sup> century. Each of the 15 documented historic sites were evaluated as significant under Criterion d (information potential) pursuant to Hawaii Administrative Rule (HAR) §13-284-6.

The Drennan and Dega (2007a) report included a 386-acre portion of a 2,008-acre property. The AIS documented 30 historic properties with 82 features, including a traditional habitation complex (Site 50-30-08-3959) with a buried human skeletal fragment, a burial (Site 3960) and several plantation-era associated artifacts. Of the 28 plantation-era sites, the New Kumukumu Camp (Site 7013) and a railroad complex (Site 7016) are located within the current 53.361-acre project area. Both were assessed as significant under Criterion d.

The Drennan and Dega (2007b) report included a 562-acre portion of a 2008-acre property; a portion of the current 53.61-acre parcel was included in the northwest portion of the survey. The AIS newly documented 37 historic properties with 66 features including water control features, a petroglyph, a bridge, several rock mounds, culverts, animal husbandry artifacts, agricultural terraces, and historic trash deposits (Sites 50-30-08-1100 through 50-30-08-1130). Each was assessed as significant under Criterion d.

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During the Kamai and Hammatt (2017) field inspection, five features were newly documented. These features were identified as being associated with the New Kumukumu Camp (Site 50-30-08-7013), including a transportation alignment (CSH-1), a concrete slab (CSH-2), concrete posts (CSH-3A and 3B), basalt and mortar water culverts (CSH-4A and 4B), and a large rectangular concrete foundation (CSH-5). The report recommends further consultation with SHPD regarding appropriate documentation of historic properties within the current project area.

Based on the information provided, **SHPD's comments are as follows:**

- (1) **SHPD has no objection** to the *Petition for Land Use District Boundary Amendment* to reclassify approximately 53.361-acres of land from agricultural district to urban district.
- (2) **SHPD requests** an AIS with a subsurface testing component be completed for the current 53.61-acre project area prior to permit issuance.

SHPD's request for a new AIS is based on the results of the Kamai and Hammatt (2017) field inspection, which indicates that the prior AIS studies did not adequately document all surface historic properties. Subsurface testing was not conducted within the footprint of the proposed residential development. Additionally, it remains unclear whether all historic roads have been adequately identified and inventoried.

The AIS shall be conducted by a qualified archaeologist in order to adequately identify and document any archaeological historic properties that may be present, to assess their significance, to determine the potential impacts of this project on any identified archaeological historic properties, and to identify and ensure appropriate mitigation is implemented, if needed. A list of permitted archaeological firms is provided on the SHPD website at: <http://dlnr.hawaii.gov/shpd/about/branches/archaeology/>.

**SHPD requests** the project proponent and archaeological firm consult with our office regarding an appropriate testing strategy prior to initiation of the AIS.

**SHPD shall notify the LUC** when the required reports and/or plans have been reviewed and accepted and project work may proceed.

Please contact Dr. Susan A. Lebo, Archaeology Branch Chief at [Susan.A.Lebo@hawaii.gov](mailto:Susan.A.Lebo@hawaii.gov) or at (808) 692-8019 for any questions regarding this letter.

Aloha,  
*Alan Downer*

Alan S. Downer, PhD  
Administrator, State Historic Preservation Division  
Deputy, State Historic Preservation Officer

cc: Chance Bukoski, [cbukoski@kauai.gov](mailto:cbukoski@kauai.gov)  
Kaaina Hull, [khull@kauai.gov](mailto:khull@kauai.gov)