



April 24, 2026

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Subject: Archaeological field inspection of a roughly 2-acre portion of TMK: (3) 1-5-028:050 for the construction of new mailboxes within the Hawaiian Paradise Park Subdivision, Waikahekahe Nui, Puna, Hawai‘i.

Dear Teresa:

As requested, on behalf of the Hawaiian Paradise Park Owners’ Association (HPPOA), ASM Affiliates (ASM) conducted an archaeological field inspection of a roughly 2-acre portion of TMK: (3) 1-5-028:050, a 20-acre parcel owned by the HPPOA, located in Waikahekahe Nui Ahupua‘a, Puna District, Island of Hawai‘i (Figures 1 through 3). It is understood that the HPPOA is considering this area (the “project area”) as a potential location for the future development of new mailboxes within the Hawaiian Paradise Park (HPP) subdivision. The project area is adjacent to a roughly 1.25-acre area of existing mailboxes that were built in 2024. The purpose of this archaeological field inspection is to determine if any undocumented historic properties exist within project area prior to selecting it as a site to build additional mailboxes. This archaeological field inspection letter report is intended to provide that information and to help satisfy the Hawai‘i Revised Statutes (HRS) Chapter 6E-42 historic preservation review requirements of the Department of Land and Natural Resources-State Historic Preservation Division (DLNR-SHPD) if the HPPOA should decide to move forward with the mailbox project. This letter report presents a description of the project area and a brief culture-historical and archaeological background for the area, followed by a description of the methods and results of the current field inspection, and a recommended determination of effect for the proposed project based on those results.

Project Area Description

The project area is located at an elevation of roughly 90 feet (27.5 meters) above sea level, and approximately 0.95 miles (1.5 kilometers) inland of the coast (see Figures 1 through 3). This roughly 2-acre area measures approximately 370 feet (113 meters) northwest/southeast by 240 feet (73 meters) northeast/southwest, and is located 210 feet (64 meters) northeast of 7th Avenue. The project area is a portion of a larger, 20-acre parcel (TMK: (3) 1-5-028:050) that is situated between 6th and 7th Avenues within Hawaiian Paradise Park (HPP) residential subdivision, and is bounded to the southeast by Maku‘u Drive. The project area is at the southeastern end of that larger parcel, adjacent to Maku‘u Drive and an area of recently constructed mailboxes that are accessed from 6th Avenue (Figures 4 and 5).

Terrain within the project area is characterized by gently *makai* (northeast) sloping undulating *pāhoehoe* bedrock. The *pāhoehoe* is classified as Puna Basalt (Sherrod et al. 2007) that originated from Kīlauea Volcano between A.D 1410-1460. Soil overlying these lava flows is classified as Keaukaha highly decomposed plant material on two to ten percent slopes. These shallow well drained soils are formed from a thin layer of organic material and contain small amounts of volcanic ash (Soil Survey Staff 2022).

The project area has annual temperatures ranging between 69 and 75 degrees Fahrenheit and the area averages around 118 inches (3,000 millimeters) of rainfall a year, with the highest rainfall typically occurring during the month of November, and the least amount of rainfall occurring during the months of May and June (Giambelluca et al. 2014). Vegetation in the project area (Figures 6 through 9) is

dominated by a thick ground cover of *uluhe* fern (*Dicranopteris linearis*) and other weeds interspersed with thickets of strawberry guava (*Psidium cattleianum*), *hala* (*Pandanus tectorius*), and glory bush (*Tibouchina urvilleana*), and a few taller trees, such as albizia trees (*Albizia julibrissin*), '*ōhi'a lehua* (*Metrosideros polymorpha*), and autograph trees (*Clusia rosea*), also present. Prior mechanical disturbance noted within the project area is confined to the areas directly adjacent to the existing mailboxes and along Maku'u Drive.

A Brief Culture-Historical Background for Hawaiian Paradise Park

The project areas are located within the HPP subdivision and the ahupua'a of Waikahekahe Nui, within the district of Puna, one of six major districts on the island of Hawai'i. The *ahupua'a* of Waikahekahe Nui is one of some fifty traditional land divisions found in the *moku* (district) of Puna on the eastern shores of Hawai'i Island. The Hawaiian proverb "Puna, mai 'Okī'okīaho a Māwae" describes the extent of the district spanning from 'Okī'okīaho the southern boundary, to Māwae, the northern boundary. In the book, *Native Planters in Old Hawaii*, Handy and Handy (1991) describe Puna as an agriculturally fertile land that has repeatedly been devastated by lava flows. Writing during the 1930s, they relate that:

The land division named Puna—one of the six chiefdoms of the island of Hawaii said to have been cut ('*okī*) by the son and successor of the island's first unifier, Umi-a-Liloa—lies between Hilo to the north and Ka'u to the south, and it projects sharply to the east as a great promontory into the Pacific. Kapoho is its most easterly point, at Cape Kumukahi. The uplands of Puna extend back toward the great central heights of Mauna Loa, and in the past its lands have been built, and devastated, and built again by that mountain's fires. In the long intervals, vegetation took hold, beginning with miniscule mosses and lichens, then ferns and hardier shrubs, until the uplands became green and forested and good earth and humus covered much of the lava-strewn terrain, making interior Puna a place of great beauty. . .

...One of the most interesting things about Puna is that Hawaiians believe, and their traditions imply that this was once Hawaii's richest agricultural region and that it is only in relatively recent time that volcanic eruption has destroyed much of its best land. Unquestionably lava flows in historic times have covered more good gardening land here than in any other district. But the present desolation was largely brought about by the gradual abandonment of their country by Hawaiians after sugar and ranching came in... (Handy et al. 1991:539-542)

As suggested in the above passage, Puna was a region famed in legendary history for its associations with the goddess Pele and god Kāne (Maly 1998). Because of the relatively young geological history and persistent volcanic activity, the region's association with Pele has been a strong one. However, the association with Kāne is perhaps more ancient. Kāne, ancestor to both chiefs and commoners, is the god of sunlight, fresh water, verdant growth, and forests (Pukui 1983). It is said that before Pele migrated to Hawai'i from Kahiki, there was "no place in the islands . . . more beautiful than Puna" (Pukui 1983:11). Contributing to that beauty were the groves of fragrant *hala* and forests of '*ōhi'a lehua* for which Puna was famous, and the inhabitants of Puna were likewise famous for their expertise and skill in *lauhala* weaving.

During Precontact and early Historic times the people of Puna lived primarily in small settlements along the coast with access to fresh water, where they subsisted on marine resources and agricultural products. According to McEldowney (1979), six coastal villages were traditionally present between Hilo and Cape Kumakahi (Kea'au or Hā'ena, Maku'u, Waiakahiula, Honolulu, Kahuwai, and Kula or Koa'e). The current project areas are located at an inland location between Hā'ena and Maku'u Villages. As described by McEldowney, each of the villages:

...seems to have comprised the same complex of huts, gardens, windbreaking shrubs, and utilized groves, although the form and overall size of each appear to differ. The major differences between this portion of the coast and Hilo occurred in the type of agriculture

practiced and structural forms reflecting the uneven nature of the young terrain. Platforms and walls were built to include and abut outcrops, crevices were filled and paved for burials, and the large numbers of loose surface stones were arranged into terraces. To supplement the limited and often spotty deposits of soil, mounds were built of gathered soil, mulch, sorted sizes of stones, and in many circumstances, from burnt brush and surrounding the gardens. Although all major cultigens appear to have been present in these gardens, sweet potatoes, ti (*Cordyline terminalis*), noni (*Morinda citrifolia*), and gourds (*Lagenaria siceraria*) seem to have been more conspicuous. Breadfruit, pandanus, and mountain apple (*Eugenia malaccensis*) were the more significant components of the groves that grew in more disjunct patterns than those in Hilo Bay. (McEldowney 1979:17)

In 1823, British missionary William Ellis and members of the American Board of Commissioners for Foreign Missions (ABCFM) toured the island of Hawai'i seeking out communities in which to establish church centers for the growing Calvinist mission. Ellis recorded observations made during this tour in a journal (Ellis 2004). Walking southwest to northeast along the southeastern shore of the District of Puna with his missionary companions Asa Thurston and Artemas Bishop, Ellis' writings present descriptions of residences and practices in the district, and provide the first written description of Kea'au and Waikahekahe and their environs:

...The country was populous, but the houses stood singly, or in small clusters, generally on the plantations, which were scattered over the whole country. Grass and herbage were abundant, vegetation in many places luxuriant, and the soil, though shallow, was light and fertile.

Soon after 5 P.M., we reached Kaau [Kea'au], the last village in the division of Puna. It was extensive and populous, abounding well with cultivated plantations of taro, sweet potatoes, and sugar-cane, and probably owes its fertility to a fine rapid stream, which, descending from the mountains, runs through it into the sea. (Ellis 2004:296)

When Ellis visited Puna, less than fifty years after the arrival of the first Europeans, the population of Hawai'i was already beginning to decline (Maly 1998). By the mid-nineteenth century, the ever-growing population of Westerners in the Hawaiian Islands forced socioeconomic and demographic changes that promoted the establishment of a Euro-American style of land ownership, and the *Māhele* 'Āina (Land Division) of 1848 became the vehicle for determining the ownership of native lands within the island kingdom. During the *Māhele*, native tenants of the lands could also claim, and acquire title to, *kuleana* parcels that they actively lived on or farmed. In Puna, very few claims for *kuleana* were submitted. Maly (1998:37) notes that, with the exception of the islands of Kaho'olawe and Ni'ihau, no other land division of comparable size, had fewer claims for *kuleana* from native tenants than the district of Puna. Only two *kuleana* (LCAw. 2327 to Barenaba and LCAw. 8081 to Hewahewa) were awarded within Kea'au Ahupua'a, neither of which was in close proximity to the current project area (Maly 1999); no *kuleana* awards were made for lands in Waikahekahe.

According to the *Buke Māhele*, two *Konohiki* claims for the lands of Waikahekahe were registered on February 12, 1848, and agreed to by King Kamehameha III (Buke Māhele 1848). The *ahupua'a* of "Wakahekahe I" was claimed as inherited land by Gini (Jean) Lahilahi (Buke Māhele 1848:164), and the *ahupua'a* of "Wakahekahe" was claimed as inherited land by Kale (Sarah) Kanī'aulono Davis (Buke Māhele 1848:169). Both Gini Lahilahi and Kale Davis are significant figures in Hawaiian history, being the daughters of Kamehameha I's trusted advisors, John Young and Isaac Davis. On June 19, 1852, Wakahekahe I (i.e., Waikahekahe Iki) was awarded to the Gini (Jean) Lahilahi by the Land Commission as LCAw. 8520B and Waikahekahe (i.e. Waikahekahe Nui), which includes the current project area was awarded to Kale (Sarah) Kanī'aulono Davis by the Land Commission as part of LCAw 8522. Waikahekahe Nui was one of three lands awarded to Davis at the time of the *Māhele*, and three years later (on November 22, 1855) she received title to these lands as part of Royal Patent Grant No. 2236 (Office of Hawaiian Affairs 2018).

By the end of the nineteenth century, spurred by the booming sugar and lumber industries in the islands, Puna was on the verge of major economic growth. Increasing urbanization of Puna, and particularly Kea‘au, were initially propelled by the sale of the *ahupua‘a* to William Herbert (W.H.) Shipman, J. Eldarts, and Samuel Damon by the King Lunalilo Estate in 1882. Campbell and Ogburn (1988) relate that with land leased from Shipman, a small group of investors (B.F. Dillingham, Lorrin A. Thurston, Alfred W. Carter, Samuel M. Damon) created and developed the ‘Ōla‘a Sugar Company, which operated on lands *mauka* of the current study area between 1899 and 1984.

W. H. Shipman continued expanding his landholdings in Puna throughout this period (Maly and Maly 2022). With respect to the current project areas, by 1898 Shipman had received title to Waikahekahe Nui through an heir of Kale (Sarah) Davis, and by 1930 he had also acquired title to the lands of Waikahekahe Iki. Hawai‘i Registered Map No. 1376, prepared by A. B. Loebenstein in ca. 1899, shows the boundaries of Waikahakehe Nui Ahupua‘a, and indicates that two old trails once crossed the ahupua‘a near the location of the current project area, one labeled as extending “from Olaa to Makuu,” and the other labeled as “Old Trail To Kuolo on Volcano Road” (Figure 10). Later, in December of 1930, W.H. Shipman filed Land Court Application (LCA) No. 1053 with the Territorial Land Court to formally reconcile some 72,127 acres of land he owned in Puna including roughly 11,035 acres in Waikahekahe and 61,092 acres in Kea‘au, excluding any lands previously sold or granted by Shipman to other private owners and enterprises. The map accompanying LCA No. 1053, depicts the alignment of the trail to Kuolo shown on Hawai‘i Registered Map No. 1376, but does not show the route of the branch trail between Maku‘u and ‘Ōla‘a (Maly and Maly 2022:185).

The current study area was too rocky for the cultivation of sugarcane and was used by the Shipman family primarily as ranch/grazing land until the late 1950s when it was sold to the Honolulu-based Watumull Investment Co. By 1959, Watumull Investment Co. completed the subdivision of roughly 9,850 acres along the coast of Kea‘au and Waikahekahe Nui/Iki *ahupua‘a* into nearly 8,900 individual parcels that today make up the Hawaiian Paradise Park subdivision, where the current project area is located.

Prior Archaeological Studies Conducted in the Vicinity of the Current Project Areas

Records on file at DLNR-SHPD indicate that at least 23 one-acre parcels and portions of five larger (20-acre) parcels within the HPP subdivision have been previously surveyed for cultural resources (Clark 2018, 2024; Clark et al. 2024; Gonzales et al. 2023; Haun and Henry 2013b, 2013c, 2013d; Higelmire and Lash 2017). While these surveys have largely reported negative findings with respect to historic properties, archaeological sites and features have been previously documented within the HPP subdivision in three general locations including (1) along the coast, (2) within subterranean lava tube systems, and (3) within *kīpuka* of older lava flows (Figure 11). Several inadvertent discoveries of human skeletal remains have also occurred within HPP, including two in the general vicinity of the current project area, both of which were discovered during grubbing/grading activities within lava blisters or lava tubes.

Alfred Hudson (1932) of the B. P. Bishop conducted the earliest survey of archaeological resources in the vicinity of the current study area, as he attempted to inventory the sites of East Hawai‘i Island between Waipio Valley and the Ka‘ū District. The route of the survey took him through the coastal portion of Waikahekahe Nui and Iki Ahupua‘a. In general, Hudson noted that it was not easy to obtain information about sites in Puna because “most of them are located along the coast between Keaau and Kopoho where no one now lives, and it is difficult to locate descendants of the former Hawaiian population of the area who might be able to shed light on the nature and function of certain sites,” adding that “back from the sea the land is under cultivation in cane, used for pasture, or covered with dense vegetation which can be penetrated only with difficulty” (Hudson 1932:304). While Hudson did not record the locations of any specific sites in Waikahekahe, he did note that, “over a distance of more than a mile between Mokuopihi and Waikahiula [to the southeast of the current study area] are mazes of old walls and occasional inclosures [sic.] giving evidence of the former population and extensive cultivation of this stretch of coast” (1932:309). Later in his survey, while speaking with a Mr. Kaomea of Pohoiki about

Mahinaakaaka Heiau in Keahialaka Ahupua‘a, Hudson (1932:370) was told that there was “another heiau named Mahinaakaaka on Manna Kea that was built by menehunes,” and that “the stones for this heiau were carried to Mauna Kea from Waikahekahe.”

In 1974, Ned Ewart and Margret Luscomb, archaeologists from the B. P. Bishop Museum, conducted an archaeological reconnaissance survey of a six-mile long corridor along the proposed route of a Kapoho-Keaukaha Highway through the District of Puna from Waiakahiula Ahupua‘a to Kea‘au Ahupua‘a. The area surveyed by Ewart and Luscomb (1974) consisted of a 2,000-foot wide corridor that generally followed the route of the Old Government Beach Road along the coast. Within the survey corridor they briefly recorded the locations and types of all of the archaeological sites they encountered. Three sites were identified along the coast of Waikahekahe Nui and Iki Ahupua‘a *makai* of the current study area (see Figure 11). These sites included two complexes of walls, depressions, and platforms (Ha-A2-1 and Ha-A2-2) situated *makai* of the Old Government Beach Road, and a possible *heiau* complex situated *mauka* of the road (Ha-A2-3). These three sites were later assigned the State Inventory of Historic Places (SIHP) site designations 50-10-45-18973, -18974, and -18975.

Studies conducted at more inland locations within Waikahekahe Nui and Waikahekahe Iki *ahupua‘a* (Allred and Allred 1997; Allred et al. 1999; Clark 2018, 2024; Emory 1945; Escott 2020; Franklin et al. 1992; Gonzales et al. 2023; Haun and Henry 2013a, 2013b, 2013c, 2013d; Higelmire and Lash 2017; Olson 1984; Rosendahl 1989; Wilkinson et al. 2010), despite covering thousands of acres, have reported finding only isolated surface features, but have documented extensive cave systems containing traditional Hawaiian features and artifacts as well as *iwi kūpuna* (ancestral bones). These include Pāhoa Cave and other unnamed caves documented by Yent (1983) and McEldowney and Stone (1991) in the uplands of Maku‘u Waikahekahe Iki *ahupua‘a* (to the south of the current study area) as well as Keala Cave and Kazumura Cave documented by Emory (1945), Olson (1984), and Allred and Allred (1997) in Kea‘au and Waikahekahe Nui *ahupua‘a* (to the west of the current study area).

Kazumura (or Puna) Cave (Site 50-10-45-10001) extends beneath HPP to the west of the current project area. This cave has been fully explored and mapped (Olson 1984). The site consists of over fourteen miles of a multi-chambered, subterranean lava tube that extends from the mountains towards the sea. This cave is recognized as the longest lava tube in the world and the deepest cave in the nation (Allred and Allred 1997; National Park Service 2021). Olson (1984:1) describes “six separate, but seemingly related, major archaeological sites” within the cave. According to his study, the sites include features of “underground temples, altars, platforms, walls, fire hearths, ceremonial areas, ancient burial tombs of *ali‘i* (chiefs), human sacrifices, stone images of ancient gods, and extensive deposits of prehistoric Hawaiian artifacts” (Olson 1984:1). Five of the six sites are located within the Kea‘au Ahupua‘a, but none sites or cave openings are located in the immediate vicinity of the current project area.

Roughly a kilometer inland of the current project area, along the boundary between Waikahekahe Nui and Iki Ahupua‘a, Rosendahl (1985) conducted an archaeological field inspection of a small *kipuka* that spanned several parcels (TMKs: [3] 1-5-023:001, 040, 074, 075, 117, 126, 147, and 184). This work was done in anticipation of a then proposed park along 17th street. As a result of that field inspection numerous habitation and agricultural features were identified and interpreted as “traditional Hawaiian dryland agricultural exploitation and associated temporary residential occupation” (Rosendahl 1985:1). The features consisted of “stacked stone walls, walled enclosures, low terraces and platforms, modified bed-rock outcrops, stone mounds and piles, and cleared areas” (Rosendahl 1985:1). Rosendahl (1985) did not prepare a map of the site, but recommended preservation of the area and additional detailed documentation of the area in the form of an intensive archaeological inventory survey. More recently Scientific Consultant Services, Inc. (SCS) conducted archeological field inspections of this general area for the completion of 17th Avenue (Escott 2020) and to map the boundaries of the complex (Escott 2022), and ASM conducted an archaeological reconnaissance survey to fully document the features and extent of the site (Clark et al. 2024).

Nearest to the current project area, on February 23, 2024, the DLNR-SHPD reviewed an after-the-fact County of Hawai'i grading permit application for the construction of the existing mailboxes on a 0.91-acre portion of the subject parcel (Project No. 2024PR00164, Doc. No. 2402NM05). The letter prepared as a result of that review determined that no archaeological sites had been previously identified within the project area or vicinity. However, because the permit application was only sent to the DLNR-SHPD after the ground disturbing work had been completed, they could not provide meaningful comments, and declined to issue an effect determination for the project.

Field Inspection

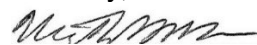
On March 31, 2026, Matthew R. Clark, M.A. (ASM Principal Investigator) and Nicole Mello, M.A., conducted an archaeological field inspection that included a 100% surface survey of a roughly 2-acre portion of TMK: (3) 1-5-028:050. The survey was conducted utilizing northeast/southwest pedestrian transects with fieldworkers spaced at 10-meter intervals. Since the exact extent of potential development activities was not known at the time of the fieldwork, the project area surveyed for historic properties was purposefully larger than the area that will ultimately be needed for the construction of the mailboxes (if this location is selected). No historic properties of any kind were observed on the surface of the project area as a result of the field inspection. Limitations to the surface survey included a dense undergrowth of *uluhe* (estimated to cover about 25% of the overall survey area) that obscured the surface of the project area in some locations. Otherwise, ground visibility was adequate for identifying any historic properties that may have been present (see Figures 6 through 9).

No evidence of either of the historic trails shown on the 1899 map of Waikahekahe Nui (see Figure 10)—such as cobble kerbing, filled bedrock cracks, or cultural material commonly transported along Hawaiian trails (i.e., marine shell, coral, or historic glass bottles)—was noted within the project area as a result of the survey, nor were any lava tube or lava blister openings. While human skeletal remains have been identified in such contexts to the west and south of the subject parcel, no known lava tubes have been mapped beneath the current project area, and no subterranean passageways were reported during the development of the neighboring mailboxes. The likelihood of encountering subsurface cultural deposits or resources within the project area (outside of lava tubes or lava blisters) is considered extremely remote given the relatively young age of the lava flows and the lack of any appreciable soil development.

Based on the negative findings of this archaeological field inspection (with respect to the identification of historic properties) it is likely that the DLNR-SHPD will issue a written determination of “no historic properties affected” for any grading activities proposed within the 2-acre project area (in accordance with HAR §13-284-5(b)1). It is recommended, if the HPPOA should seek a County of Hawai'i grading permit application for the construction of mailboxes in this area, that this report be submitted to the DLNR-SHPD along with the permit application to help facilitate HRS Chapter 6E-42 historic preservation review of the project. In the event that any archaeological resources, lava tubes, or lava blisters are encountered during future development activities within the project area, such activities should cease and the DLNR-SHPD be contacted immediately.

Should you have any questions, or if you would like further information, please feel free to contact me directly.

Sincerely,



Matthew R. Clark, M.A.
ASM Principal Investigator

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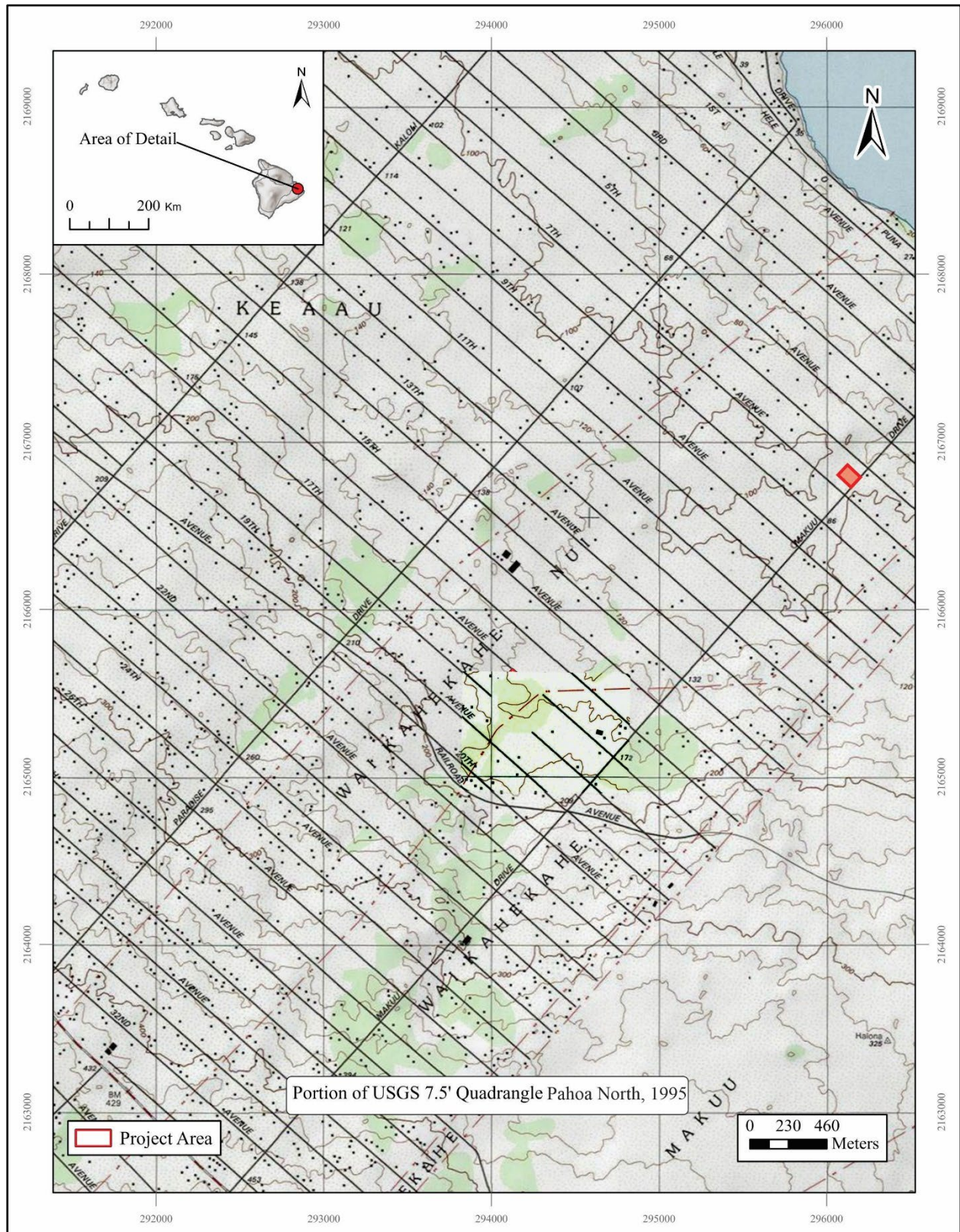
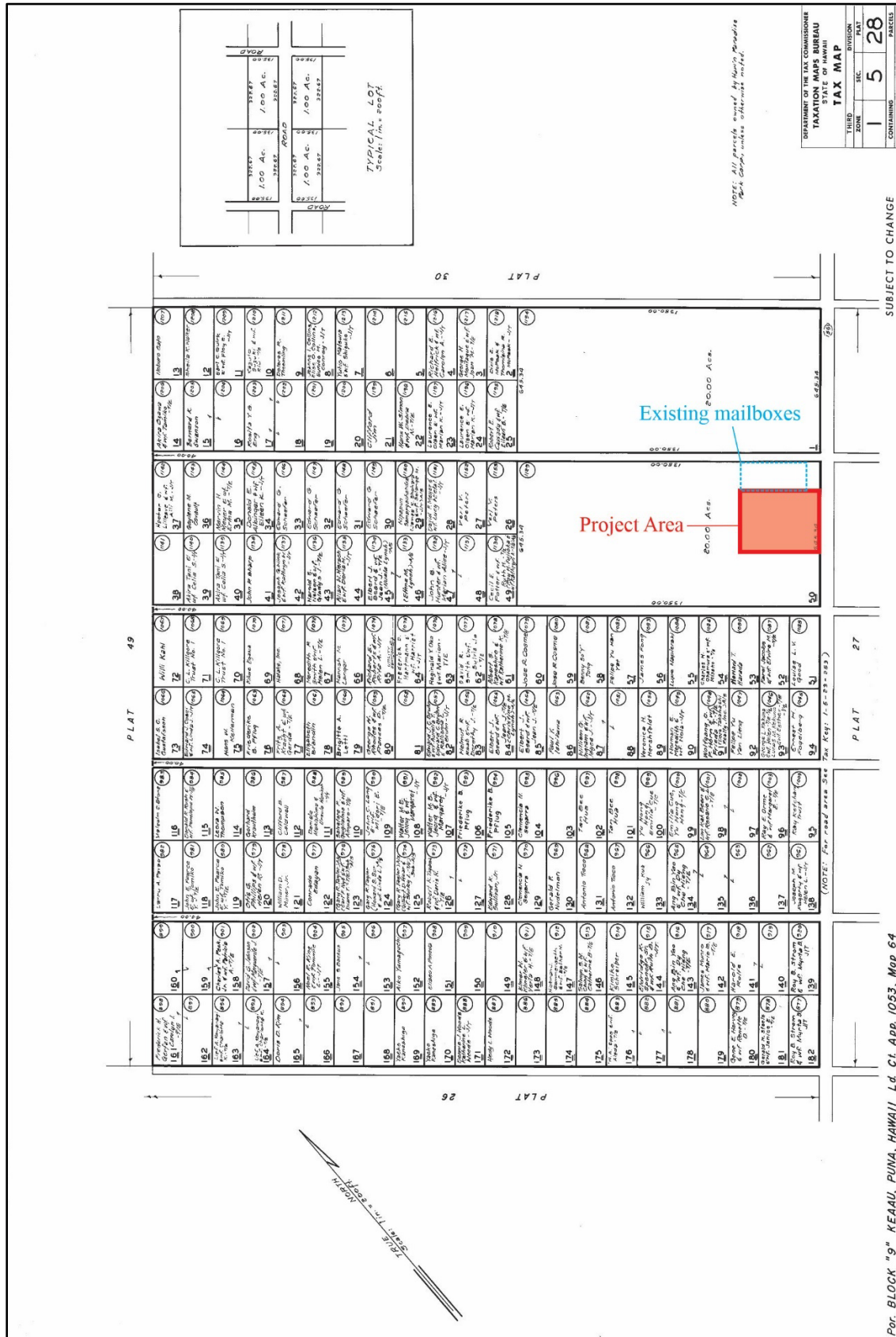


Figure 1. Subject parcel and project area locations.



For BLOCK "9" KEAULU, PUNA, HAWAII, Ld. CI. APP. 1053, MAP 64



Figure 3. Aerial image showing study areas within the subject parcels.



Figure 4. Previously graded mailbox location along 6th Avenue within Parcel 050, view to the northeast from the current project area.



Figure 5. Maku'u Drive along the southeastern boundary of the current project area, view to the southwest.



Figure 6. Typical vegetation cover within the project area, view to the south.



Figure 7. Patch of thick *uluhe* within the project area, view to the northeast.



Figure 8. Typical ground visibility within the project area, view to the northeast.



Figure 9. Exposed ground surface within the project area, view to the southwest.

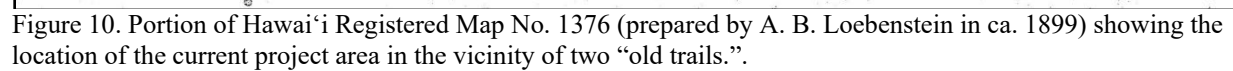




Figure 11. Prior archaeological survey areas and previously documented site locations in the vicinity of the current project area.