# DEPARTMENT OF ENVIRONMENTAL SERVICES
## *KA ʻOIHANA LAWELAWE KAIĀPUNI*
## CITY AND COUNTY OF HONOLULU

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IN REPLY REFER TO:
WEC.PE 26-029

February 26, 2026

Ms. Mary Alice Evans, Director
State of Hawaiʻi
Office of Planning and Sustainable Development
235 South Beretania Street, 6th Floor
Honolulu, Hawaiʻi 96813

Dear Ms. Evans:

SUBJECT: Maunawili Park Wastewater Pump Station - Fuel Storage Tank Improvements
Tax Map Key: 4-2-007: 031
Kailua, Oʻahu

The City and County of Honolulu, Department of Environmental Services is transmitting the subject Final Environmental Assessment and Finding of No Significant Impact (FEA-FONSI) for the subject project. The FEA-FONSI has been prepared pursuant to Chapter 343, Hawaiʻi Revised Statues, and Chapter 11-200.1, Hawaiʻi Administrative Rules.

We respectfully request that the FEA-FONSI be published in the next available issue of the Environmental Notice. Materials required for the publication are being provided via the Environmental Review Program's online form.

Should you have any questions, please contact Audrey Uyema Pak from our Division of Wastewater Engineering and Construction at (808) 768-8766.

Sincerely,

Digitally signed by Babcock, Roger W
Date: 2026.02.26 22:18:39 -10'00'

Roger Babcock, Jr., Ph.D., P.E.
Director

Enclosure

cc: ENV/OAS

**From:** dbedt.opsd.erp@hawaii.gov
**To:** DBEDT OPSD Environmental Review Program
**Subject:** New online submission for The Environmental Notice
**Date:** Thursday, March 5, 2026 11:43:38 AM

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**Action Name**

Fuel Storage Tank Improvements Maunawili Wastewater Pump Station

**Type of Document/Determination**

Final environmental assessment and finding of no significant impact (FEA-FONSI)

**HRS §343-5(a) Trigger(s)**

- (1) Propose the use of state or county lands or the use of state or county funds

**Judicial district**

Koʻolaupoko, Oʻahu

**Tax Map Key(s) (TMK(s))**

(1) 4-2-007:031

**Action type**

Agency

**Other required permits and approvals**

SMA

**Proposing/determining agency**

Department of Environmental Services

**Agency jurisdiction**

City and County of Honolulu

**Agency contact name**

Audrey Uyema Pak

**Agency contact email (for info about the action)**

audrey.uyemapak@honolulu.gov

**Email address for receiving comments**

comments@townscapeinc.com

**Agency contact phone**

(808) 768-8766

**Agency address**

1000 Uluohia Street, Suite 308
Kapolei, HI 96707
United States
Map It

**Is there a consultant for this action?**

Yes

**Consultant**

Townscape, Inc.

**Consultant contact name**

Gabrielle Sham

**Consultant contact email**

gabrielle@townscapeinc.com

**Consultant contact phone**

(808) 536-6999

**Consultant address**

900 Fort Street Mall, Suite 1160
Honolulu, HI 96813
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Map It

**Action summary**

The Maunawili Park Wastewater Pump Station contains an underground storage tank (UST) that stores diesel fuel for a standby generator. To comply with current fuel storage regulations and to strengthen environmental protection efforts, the City Department of Environmental Services Division of Wastewater Engineering and Construction is proposing to replace the existing 1,000 gallon UST system and piping with a new 1,000-gallon aboveground storage tank. Additionally, the project includes replacing the underground fuel piping, fuel monitoring panel, and all associated sensors, as well as connecting the new fuel monitoring panel to the supervisory control and data acquisition (SCADA) system.

**Reasons supporting determination**

Refer to Section 6.

**Attached documents (signed agency letter & EA/EIS)**

- Agency-Letter_Maunawili-Park_ADA.pdf
- Maunawili-Park-WWPS-Final-EA_March-2026_Submittal-to-ERP_ADA.pdf

**Shapefile**

- The location map for this Final EA is the same as the location map for the associated Draft EA.

**Action location map**

- Project-Site.zip

**Compliance certification (HRS §368-1.5):**

The authorized individual listed below certifies that documents submitted are unlocked, searchable, and compliant with the Hawaii Electronic Information Technology Disability Access Standards (including, but not limited to transcripts, captions, and other descriptions accompanying audio/video files). The individual acknowledges that the submitter retains the responsibility for compliance after documents have been published and any compliance queries will be directed back to the agency and/or applicant.

**Authorized individual**

| |
|---|
| Gabrielle Sham |
| **Authorized individual email** |
| gabrielle@townscapeinc.com |
| **Authorized individual phone** |
| (808) 536-6999 |
| **Authorization** |
| • The above named authorized individual hereby certifies that he/she has the authority to make this submission. |

# Final Environmental Assessment
# Fuel Storage Tank Improvements for Maunawili Park Wastewater Pump Station in Kailua, Island of O‘ahu, Hawai‘i

**Prepared For:**

City and County of Honolulu
Department of Environmental Services

CITY AND COUNTY OF HONOLULU

ENV Community. Commitment. Continuity.

**Prepared By:**

TOWNSCAPE, INC.
Environmental & Community Planning

**March 2026**

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# Final Environmental Assessment
# Fuel Storage Tank Improvements for Maunawili Park Wastewater Pump Station in Kailua, Island of O‘ahu, Hawai‘i

## Tax Map Key (1) 4-2-007:031

This environmental document has been prepared pursuant to Chapter 343, Hawai‘i Revised Statutes.

**Prepared For:**

City and County of Honolulu
Department of Environmental Services
1000 Ulu‘ōhi‘a Street Suite 308
Kapolei, Hawai‘i 96707

**Prepared By:**

Townscape, Inc.
900 Fort Street Mall, Suite 1160
Honolulu, Hawai‘i 96813

**March 2026**

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## LIST OF ABBREVIATIONS

| Abbreviation | Definition |
|---|---|
| AST | aboveground storage tank |
| ATS | Automatic Transfer Switch |
| BMPs | Best Management Practices |
| City | City and County of Honolulu |
| CRB | Coconut Rhinoceros Beetle |
| CZM | Coastal Zone Management |
| DDC | Department of Design and Construction |
| DOFAW | Division of Forestry and Wildlife |
| DLNR | Department of Land and Natural Resources |
| DOH | Department of Health |
| DPP | Department of Planning and Permitting |
| EA | Environmental Assessment |
| ENV | Department of Environmental Services |
| FIRM | Flood Insurance Rate Maps |
| FONSI | Finding of No Significant Impact |
| HAR | Hawai‘i Administrative Rules |
| HECO | Hawaiian Electric Company, Inc. |
| HFD | Honolulu Fire Department |
| HPD | Honolulu Police Department |
| HRS | Hawai‘i Revised Statutes |
| HWMO | Hawai‘i Wildfire Management Organization |
| LRFI | Literature Review and Field Inspection |
| LUO | Land Use Ordinance |
| MCC | Motor Control Center |
| MGD | million gallons per day |
| NFPA | National Fire Protection Association |
| ROH | Revised Ordinances of Honolulu |
| SCADA | Supervisory Control and Data Acquisition |
| SCP | Sustainable Communities Plan |
| SHPD | State Historic Preservation Division |
| SMA | Special Management Area |
| UST | Underground Storage Tank |
| WWPS | Wastewater Pump Station |
| WWTP | Wastewater Treatment Plant |

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## PROJECT SUMMARY

| | |
|---|---|
| **Project Name** | Fuel Storage Tank Improvements<br>Maunawili Park Wastewater Pump Station |
| **Proposing and Determining Agency** | City & County of Honolulu<br>Department of Environmental Services<br>1000 Ulu‘ōhi‘a Street Suite 308<br>Honolulu, Hawai‘i 96707 |
| **HRS, Chapter 343 Trigger** | Use of County lands |
| **Location** | Kailua, O‘ahu, Hawai‘i |
| **Tax Map Key** | (1) 4-2-007:031 |
| **Project Address** | 830 Auloa Road<br>Kailua, Hawai‘i 96734 |
| **Land Area** | 1.448 acres (or 63,075 square feet) parcel area |
| **Recorded Fee Owner** | City & County of Honolulu |
| **Existing Use** | Wastewater Pump Station |
| **Proposed Use** | Wastewater Pump Station |
| **Community Plan Region** | Ko‘olau Poko Sustainable Communities Plan |
| **Land Use Designations** | |
| State Land Use | Agricultural |
| County Zoning | Ag-2 General Agriculture |
| **Special Management Area** | In Special Management Area |
| **Proposed Action** | The proposed project involves replacing the existing underground fuel storage tank with a new 1,000-gallon aboveground fuel storage tank, replacing the underground fuel piping, fuel monitoring panel, and all associated sensors, as well as connecting the new fuel monitoring panel to the supervisory control and data acquisition system. |
| **Agency Determination** | Finding of No Significant Impact |

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# 1. SETTING AND PROJECT DESCRIPTION

## 1.1. Background and Need

The Maunawili Park Wastewater Pump Station (WWPS), placed into service in 1989, is owned and operated by the City and County of Honolulu (City). It is located adjacent to the residential subdivision of Maunawili in Kailua, Oʻahu. The WWPS site is an approximately 0.22-acre fenced area that occupies roughly 15 percent of the land within Tax Map Key (1) 4-2-007:031.

The Maunawili Park WWPS collects wastewater from approximately 233 acres, consisting of residential homes along Kalaniana'ole Highway and the Maunawili Estates WWPS. An underground storage tank (UST) stores diesel fuel for a standby generator within the pump station. The generator automatically activates during an outage and provides power to the entire pump station, including the sewage pump, support equipment, and lighting.

To comply with current fuel storage regulations and to strengthen environmental protection efforts, the City Department of Environmental Services Division of Wastewater Engineering and Construction (ENV) is proposing to upgrade the existing UST along with making other related improvements. Pursuant to Hawai'i Administrative Rules (HAR) 11-280.1, all USTs and piping must have secondary containment and use interstitial monitoring to detect releases from tanks and piping by July 15, 2028. The rules are designed to regulate the release of fluids from outdated tanks due to structural failure, corrosion, or spills and overfills.

Without the standby backup power system, the WWPS could experience system downtime and sewage backups, both of which are costly and environmentally harmful. In addition to improving the existing UST, upgrades to the fuel monitoring panels are needed. The fuel monitoring panels detect fuel levels and inform the City when fuel is low. Monitoring fuel levels allows for timely refueling, which helps to ensure the generator is ready to use. The new panel will include sensors that provide real-time data on fuel levels within the storage tanks.

Environmental review of this project is required by Hawai'i Revised Statutes (HRS) Chapter 343. The statutory trigger for the preparation of this Environmental Assessment (EA) is the use of State and County funds and lands. Given that the parcel is in the Special Management Area (SMA), the proposed project must comply with Revised Ordinances of Honolulu (ROH) Chapter 25.

## 1.2. Proposed Action

Improvements to the WWPS include replacing the existing 1,000 gallon UST system and piping with a new 1,000-gallon aboveground storage tank (AST). Additionally, the project includes replacing the underground fuel piping, fuel monitoring panel, and all associated sensors, as well as connecting the new fuel monitoring panel to the supervisory control and data acquisition (SCADA) system.

## 1.3. Site Location and Description

The Maunawili Park WWPS is located at 830 Auloa Road in the ahupua‘a of Kailua, within the moku (district) of Ko‘olaupoko on the mokupuni (island) of O‘ahu in the state of Hawai‘i. The parcel is bordered on the west, east, and south sides by Maunawili District Park (see Figure 1). To the north, it is bordered by Auloa Road. The WWPS occupies the site of a former sewage treatment plant, which was decommissioned when the WWPS was built in 1988 (Office of Environmental Quality Control, 1984).

The site is surrounded by a chain-link fence with three strands of barbed wire. The fenced WWPS area is situated along the north side of the 1.448-acre parcel. Vehicular access is provided through double swing gates that connect to an asphalt driveway off Auloa Road, on the north side of the property. The paved driveway extends around to the south side of the pump station building. A curb borders the entire paved area, with gravel around the perimeter of the pavement and building, except on the north side of the building, where there is bare ground and grass, and on the east side, where a cement stairway is located. Small shrubs are planted near the southwest and southeast corners of the fence. Auloa Road, fronting the WWPS, is lined with kukui trees.

The State land use designation for the project site is Agricultural (see Figure 2). Land in this category includes “lands for the cultivation of crops, aquaculture, raising livestock, wind energy facility, timber cultivation, agriculture-support activities (i.e., mills, employee quarters, etc.) and land with significant potential for agriculture uses”. The City’s Land Use Ordinance (LUO) classifies the project site as AG-2 General Agriculture District (see Figure 3), which, according to LUO §21-3.50 is intended to “conserve and protect agricultural activities on smaller parcels of land”.

## 1.4. Existing Facility

### 1.4.1. Pump Station Description

This section is based on information described in the Maunawili WWPS O&M Manual prepared by R.M. Towill Corporation in February 1997 and the Draft Preliminary Engineering Report prepared by Okahara and Associates, Inc. in August 2025. Refer to Figure 4 for a layout of the existing site plan.

With an average design flow of 0.286 million gallons per day (mgd) and a peak flow of 1.742 mgd, the Maunawaili WWPS collects wastewater from the residential neighborhoods along Kalaniana‘ole Highway and the Maunawili Estates WWPS. Wastewater is pumped through a 10-inch and 12-inch force main along Kalaniana‘ole Highway where it then transitions to flow by gravity to the Kailua Road WWPS, and eventually to the Kailua Regional Wastewater Treatment Plant (WWTP), where it is treated before discharge into the ocean via the Mokapu Outfall.

The pump station building is a three-story structure with CMU walls, consisting of a pump floor, an intermediate floor, and a ground floor. The ground floor, which includes the Motor Room and Generator Room, is approximately 688 square feet and has a finished floor elevation of 33 feet above mean sea level. The intermediate floor covers 355 square feet and has a finished floor elevation of approximately 21 feet above mean sea level, while the pump floor covers 610 square feet and has a finished floor elevation of seven feet above mean sea level. The Generator Room houses the generator, day tank, and the Automatic Transfer Switch (ATS), while the fuel monitoring panel is located in the Motor Room.

### 1.4.2. Fuel System

The Maunawili WWPS facility has a backup power system that activates when normal electrical service from Hawaiian Electric Company, Inc. (HECO) is interrupted. The system consists of two primary components: a standby generator and an automatic transfer switch.

The existing fuel system for the 150kW diesel standby generator includes a 50-gallon day tank located inside the WWPS Generator Room and a 1,000-gallon, single-walled, fiberglass UST situated west of the Generator Room. The UST, located at approximately 23 feet above mean sea level at its invert, is equipped with a sump monitor probe and a fuel inventory probe and supplies fuel to the day tank.

Fuel supply and return piping run underground from the UST to the underside of the Generator Room, where they transition to aboveground routing beneath the floor before entering the day tank. The underground fuel oil piping is constructed of double-containment fiberglass, while the aboveground fuel oil piping is black steel.

During a loss of commercial power, the ATS automatically switches the entire station to operate on the generator, enabling continuous operation of the WWPS Once power is restored, the ATS switches the system back to normal electrical service.

### 1.4.3. Electrical and Monitoring Systems

The facility is powered by a motor control center (MCC), which is located on the first floor of the Motor Room. The utility service to the MCC is provided by HECO. The MCC serves sewage pumps, exhaust fans, and a 10kVA dry-type transformer. A fuel monitoring panel (Veeder Root, Model TLS-300C) monitors the sensors inside the fuel storage tank to gauge fuel levels and to detect leaks within the fuel piping and UST. The SCADA cabinet, located on the first floor of the Motor Room, monitors signals for various equipment including the fuel monitoring panel and the day tank, in the pump station. It has an existing conduit path and wiring for the day tank and fuel monitoring control panel. The existing fuel monitoring panel and day tank are also both fed by Panel A, a 120/240V, 1-phase, 3-wire power panel with a 2P100A main circuit breaker.

**Figure 1 Location and Vicinity Map**

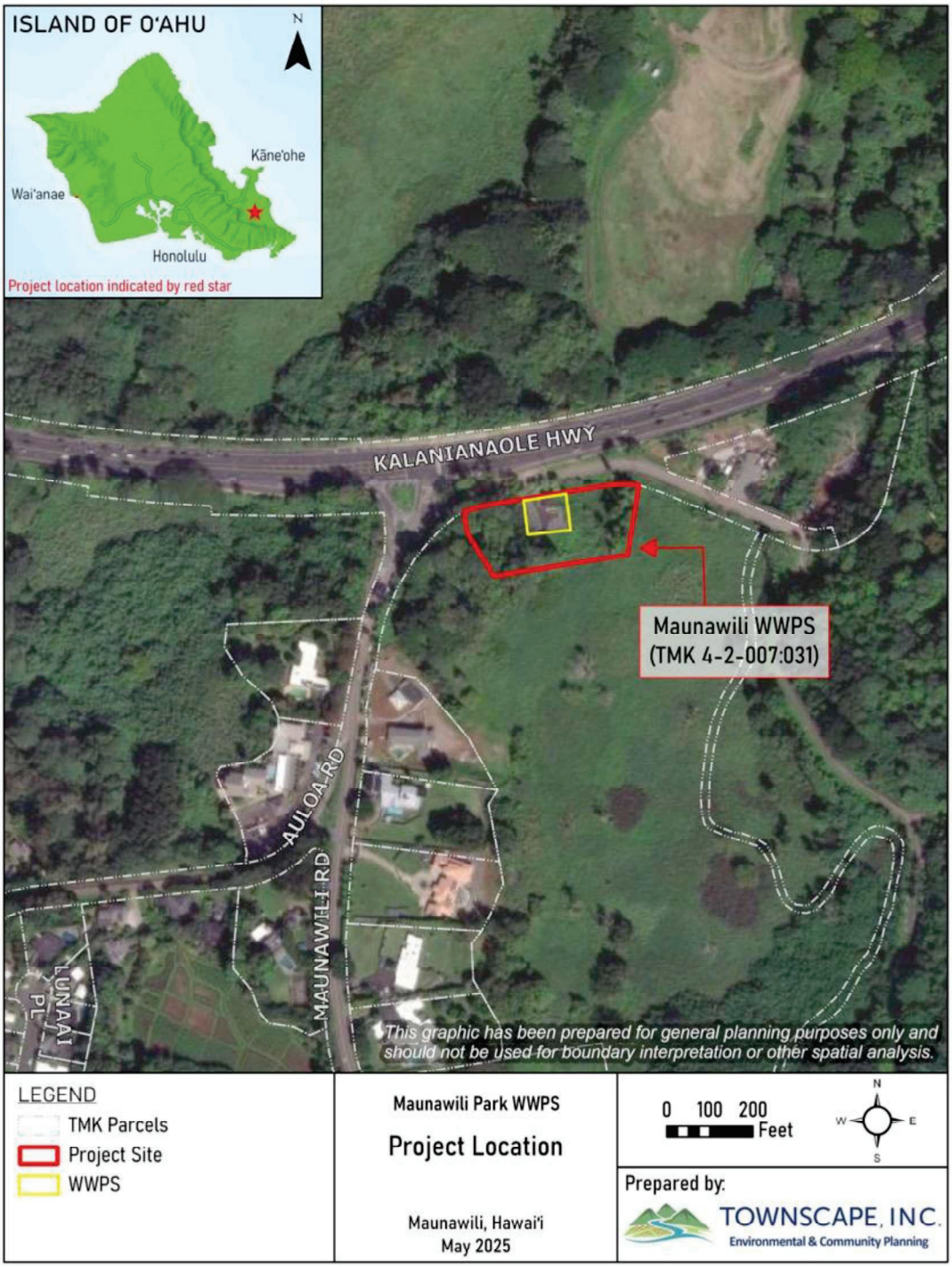


**Figure 2 State Land Use Map**

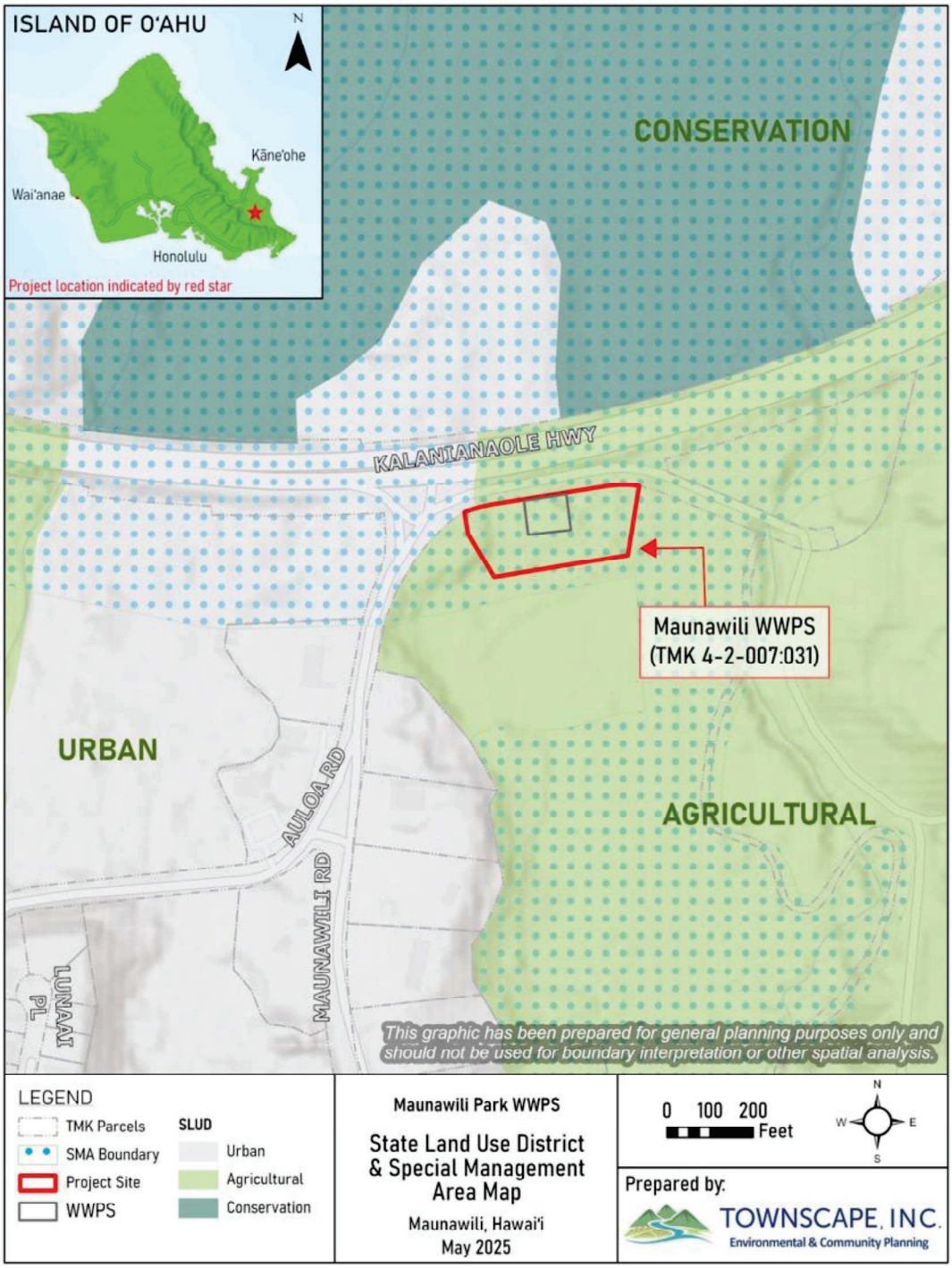


**Figure 3 City Zoning Map**

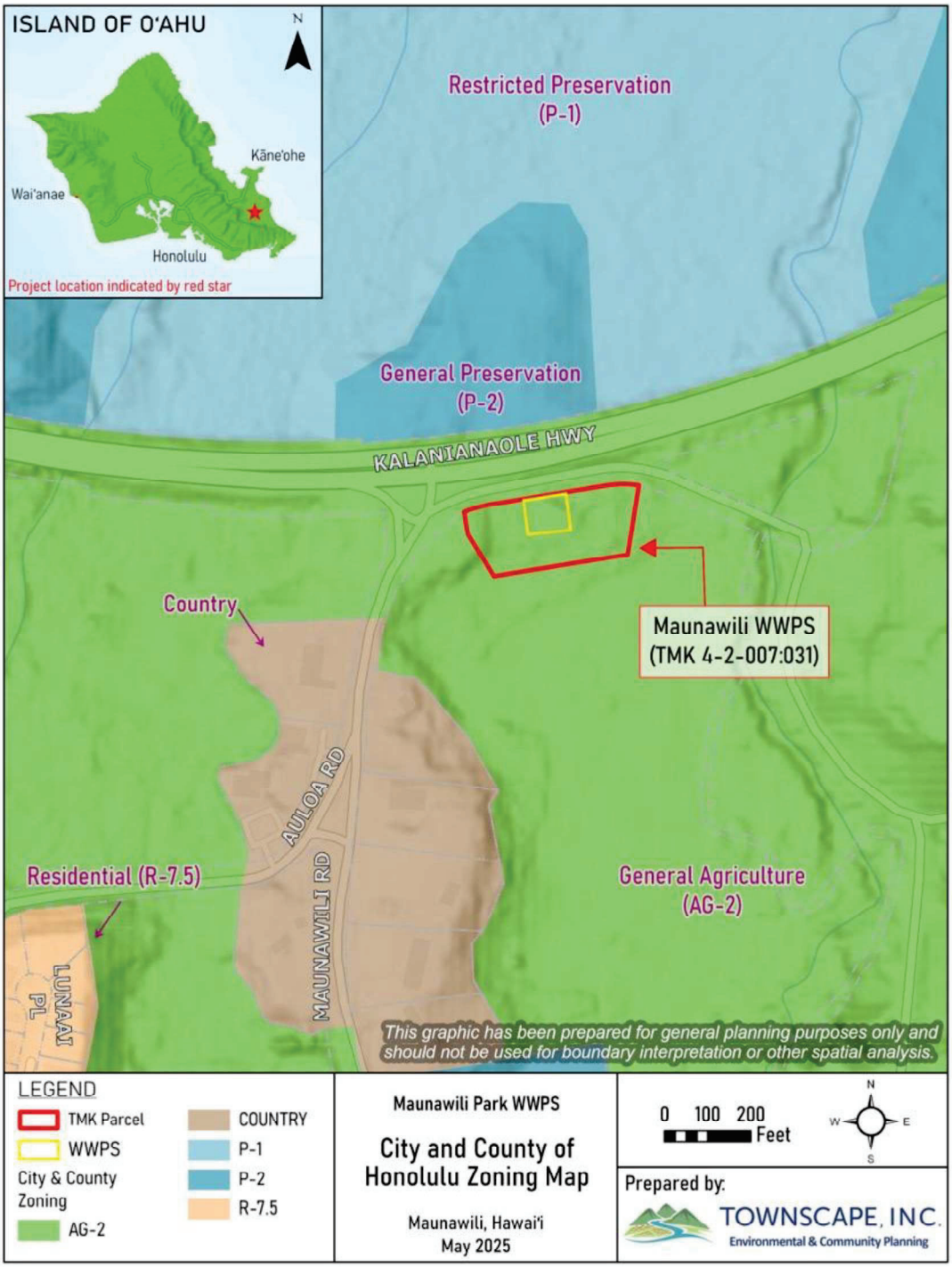
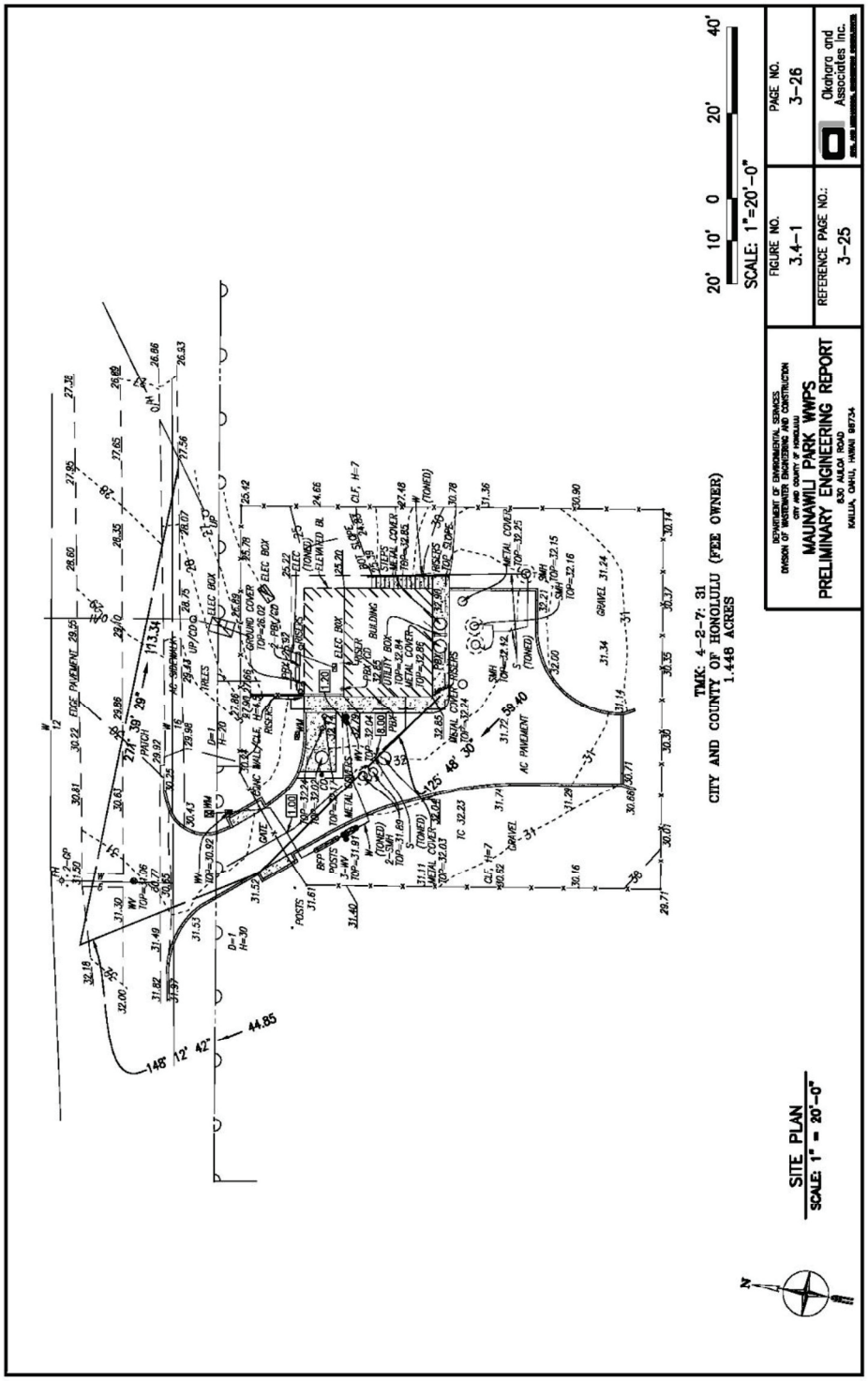


**Figure 4 Existing Conditions**




Source: Okahara and Associates, Inc., 2025

## 1.5. Project Details

The proposed project includes the following actions (see Figures 5 to 9):

**Civil**

- Excavate area to remove the existing 1,000-gallon UST, including associated fuel lines, conduit, and vent line. Backfill to the bottom of the surface restoration layer. Restore surface with asphalt concrete pavement.
- Excavate area to install the new 1,000-gallon AST. Asphalt pavement, crushed gravel surface, and concrete curbs impacted from construction activities will be restored to match adjacent surfaces.
- Repave roadway areas impacted from construction activities to match the existing condition (no less than two-inch asphalt pavement over six-inch compacted aggregate base course).
- Install nine pipe bollards filled with concrete around the AST to protect the new AST from vehicular traffic.

**Architectural**

- Paint existing exterior masonry walls and miscellaneous surface incidental to scope using existing colors.
- Paint a minimum of one prime coat and two finish coats on all interior surfaces incidental to scope, conforming to existing standard color palette.

**Structural**

- Install concrete pads for the new AST and the new day tank in the Generator Room. The AST requires 12-inch pedestals at the tank supports.

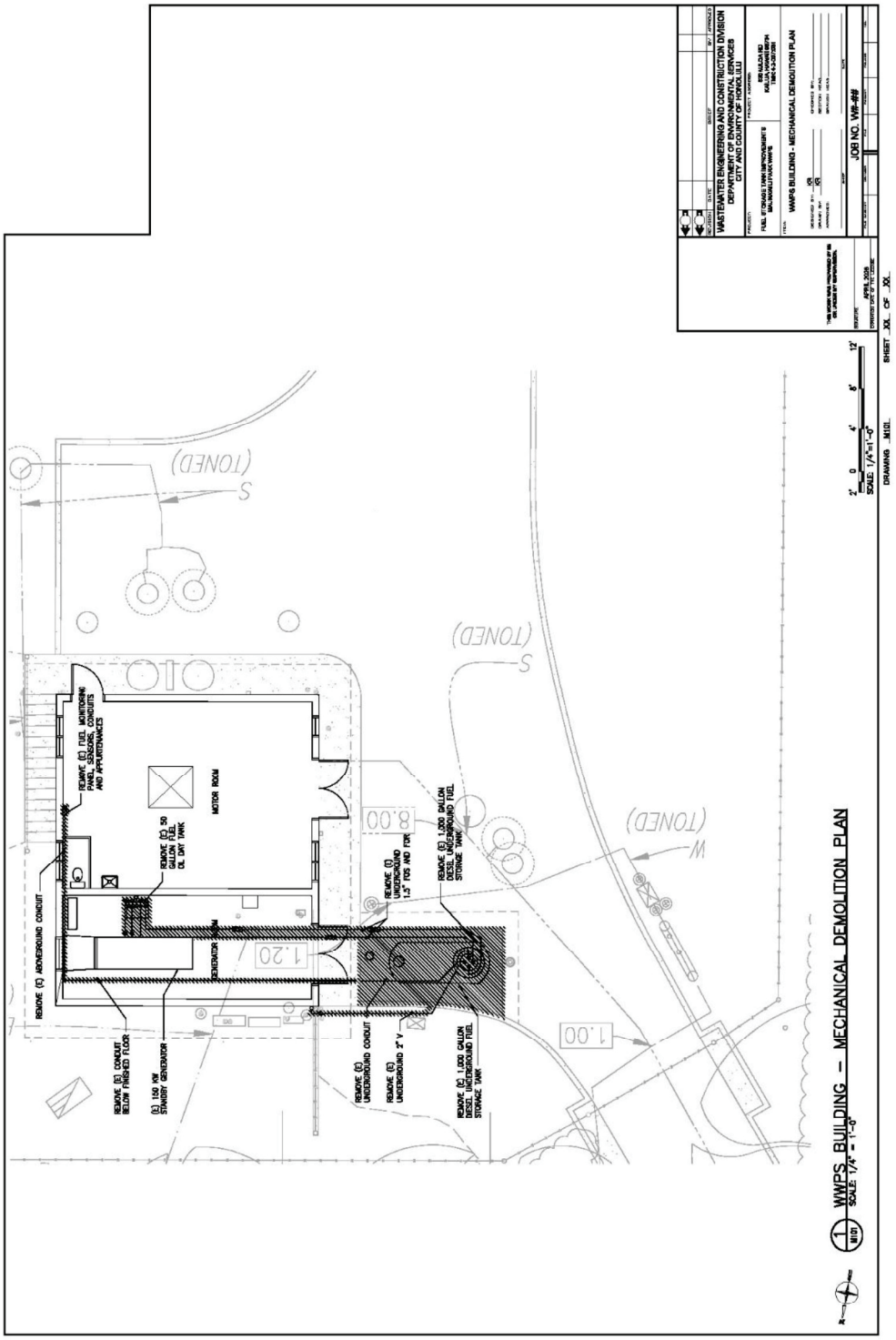
**Mechanical**

- Replace the existing 1,000-gallon UST with a new 1,000-gallon ConVault AST within the vacant graveled area at the western end of the property, which was selected as the most suitable location to accommodate separation requirements and its ability to remain off the driveway. The AST will be a double wall steel tank encased in concrete measuring eleven feet long, four feet four inches high, and five feet eight inches wide, weighing 28,609 pounds with a full tank.
- Remove existing underground one-inch fuel supply and fuel return piping and install new underground fuel supply and return piping (two-inch Fiber Reinforced Plastic Piping 316) from the AST to the day tank. Existing pipe penetrations will be reused where feasible, otherwise, a new penetration will be made. These pipes will have to be buried at least one and a half

feet below the surface to mitigate the forces will experiences from vehicles on the driveway.

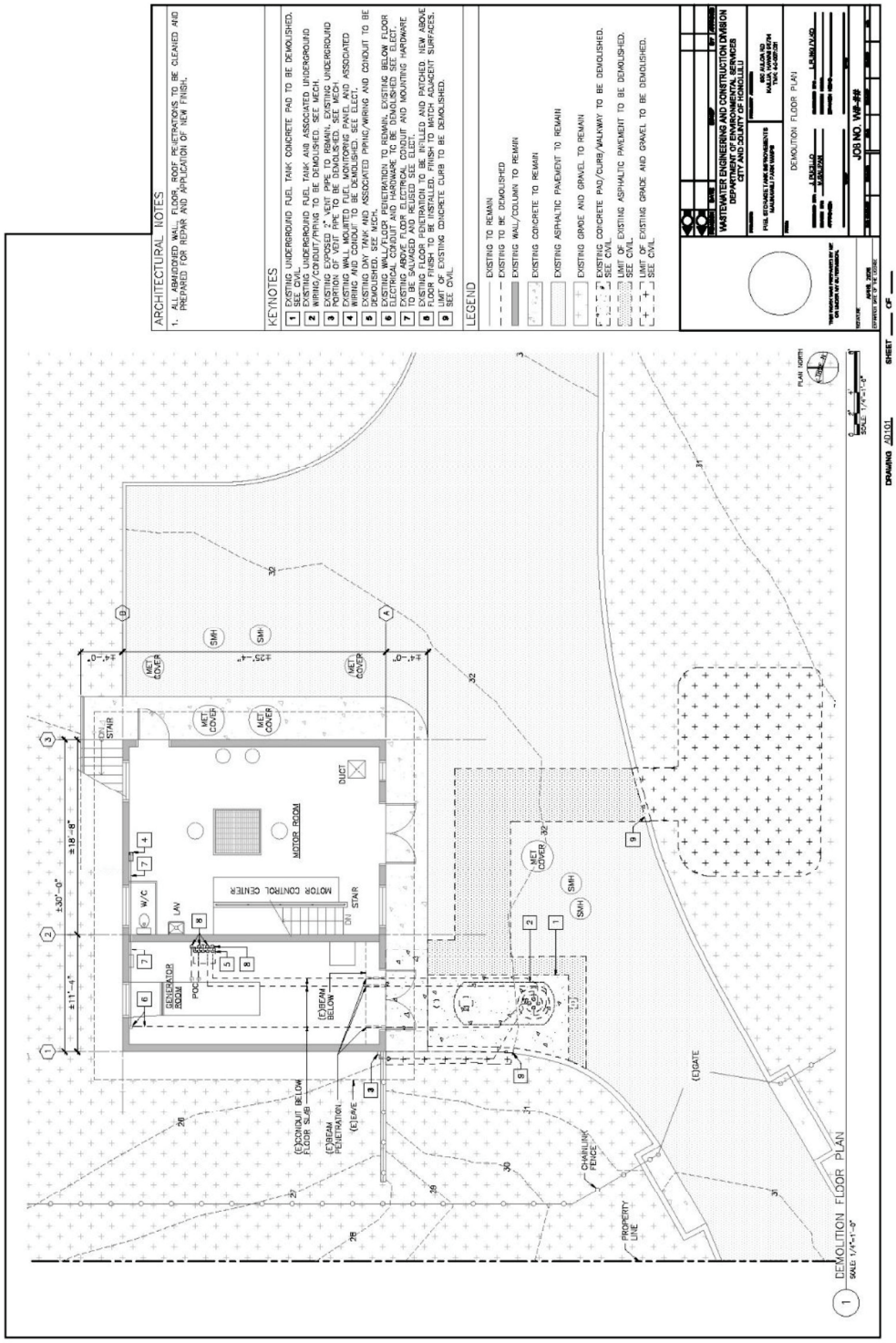
- Install a SCADA compatible fuel monitoring panel and connect to existing SCADA cabinet.
- Install interstitial monitoring and inventory sensors on the AST and integrated with the fuel monitoring panel.
- Replace the existing 50-gallon fuel oil day tank and associated piping/wiring and conduit in the generator room with a new 60-gallon day tank with two supply pumps, one return pump, and one hand pump.

**Figure 5 Mechanical Demolition Plan**



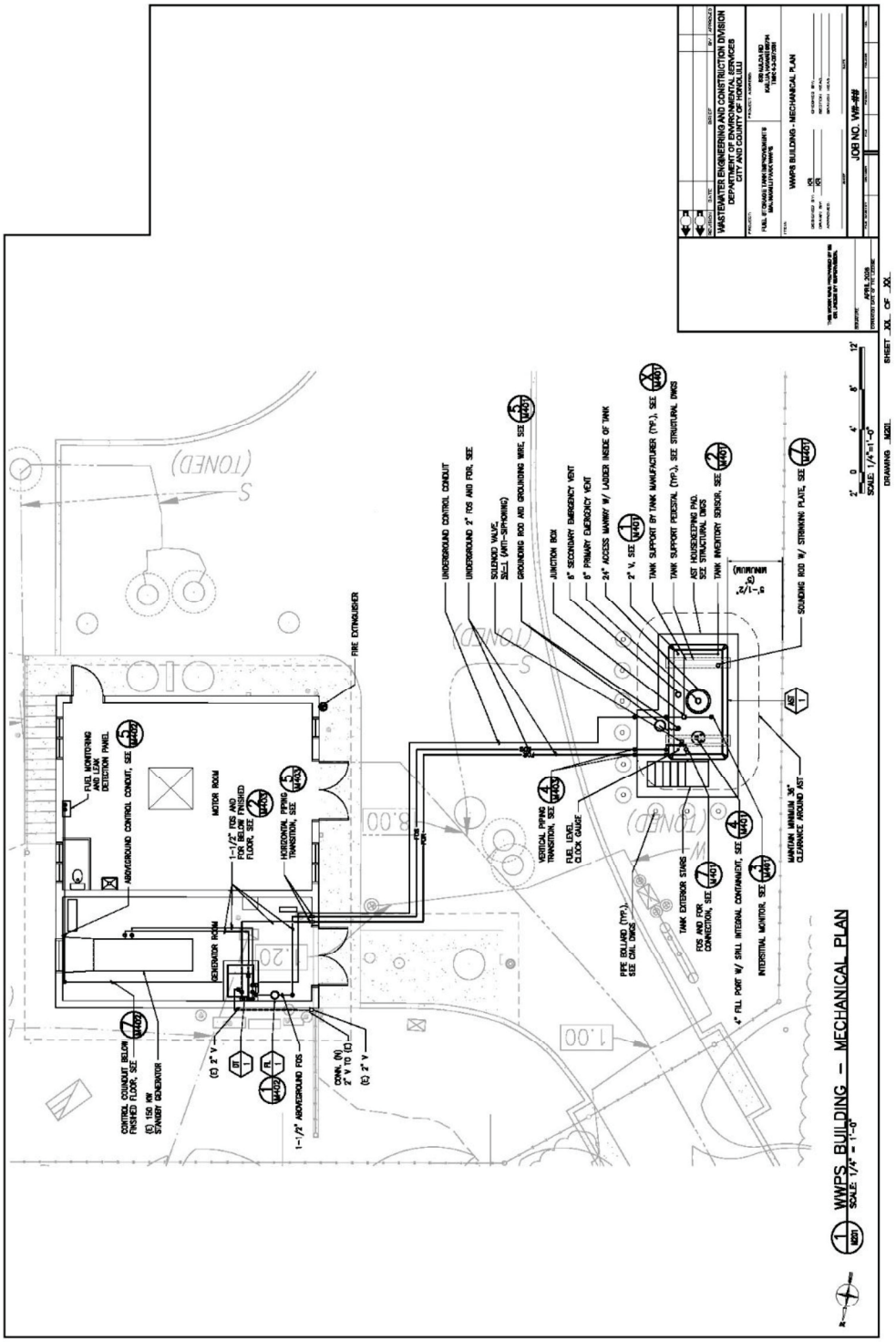

Source: Okahara and Associates, Inc., 2026

**Figure 6 Demolition Floor Plan**



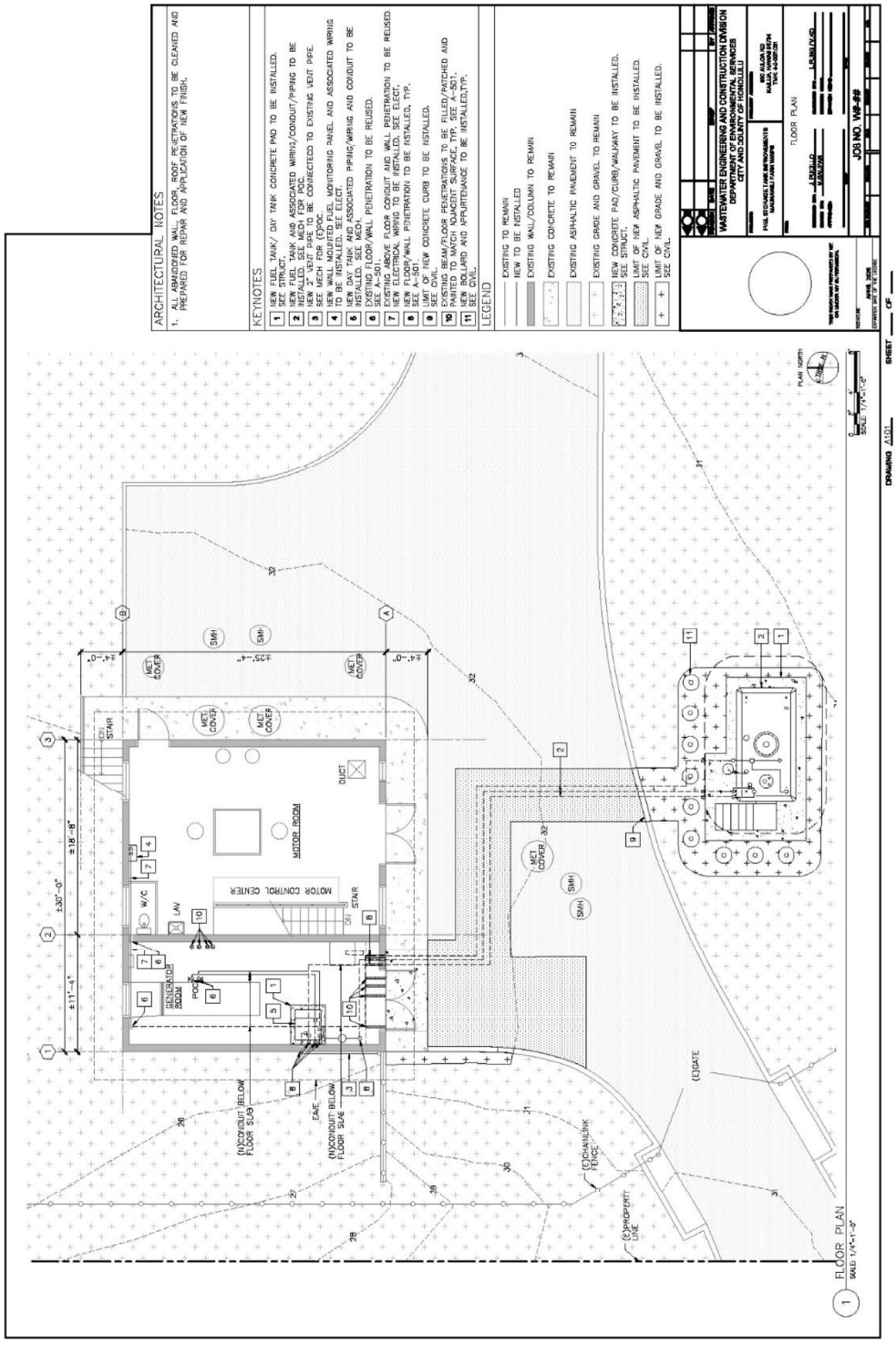

Source: Okahara and Associates, Inc., 2026

**Figure 7 Mechanical Plan**



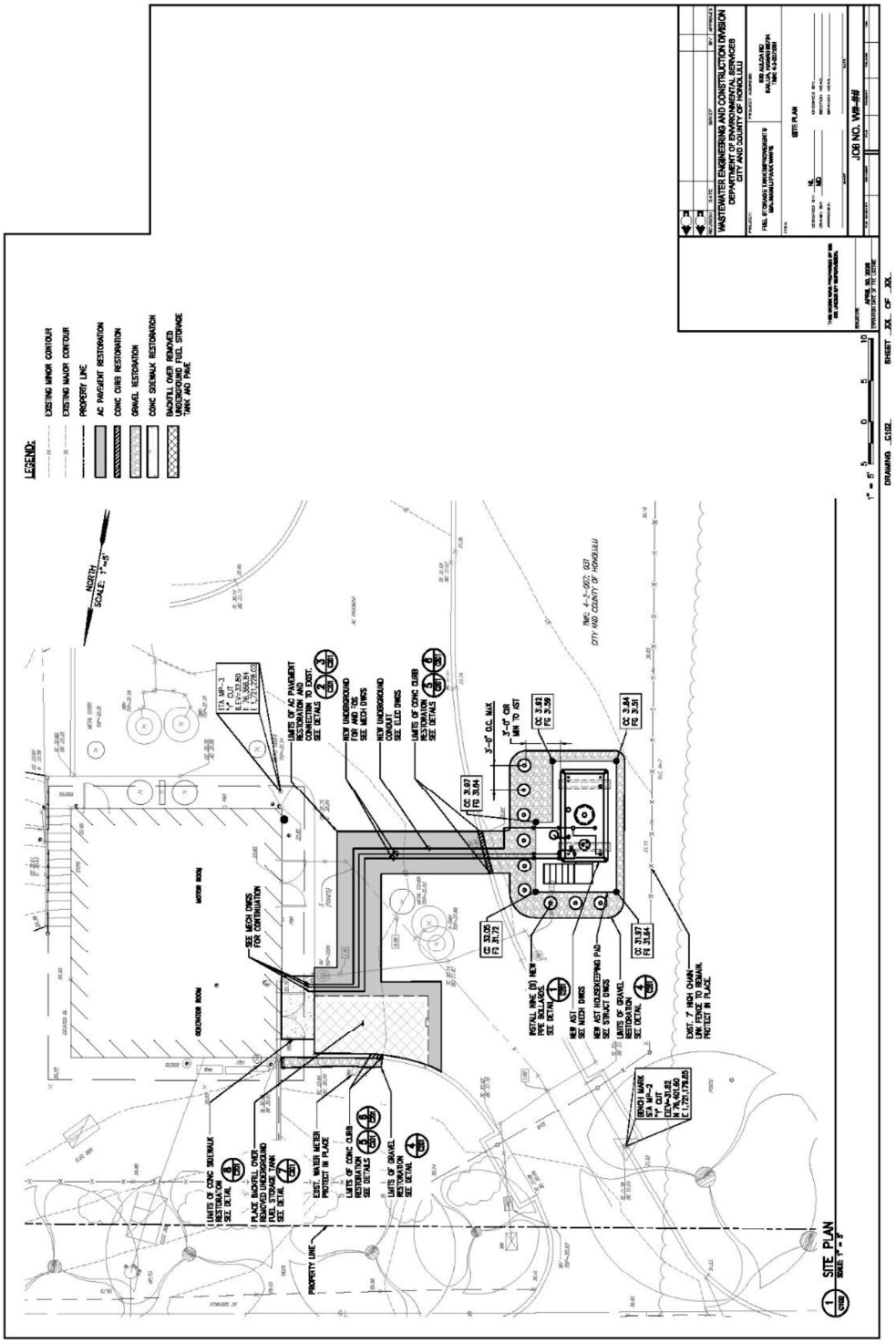

Source: Okahara and Associates, Inc., 2026

**Figure 8 Floor Plan**




Source: Okahara and Associates, Inc., 2026

**Figure 9 Site Plan with Proposed Actions**




Source: Okahara and Associates, Inc., 2026

**Figure 10 Proposed Location of AST**

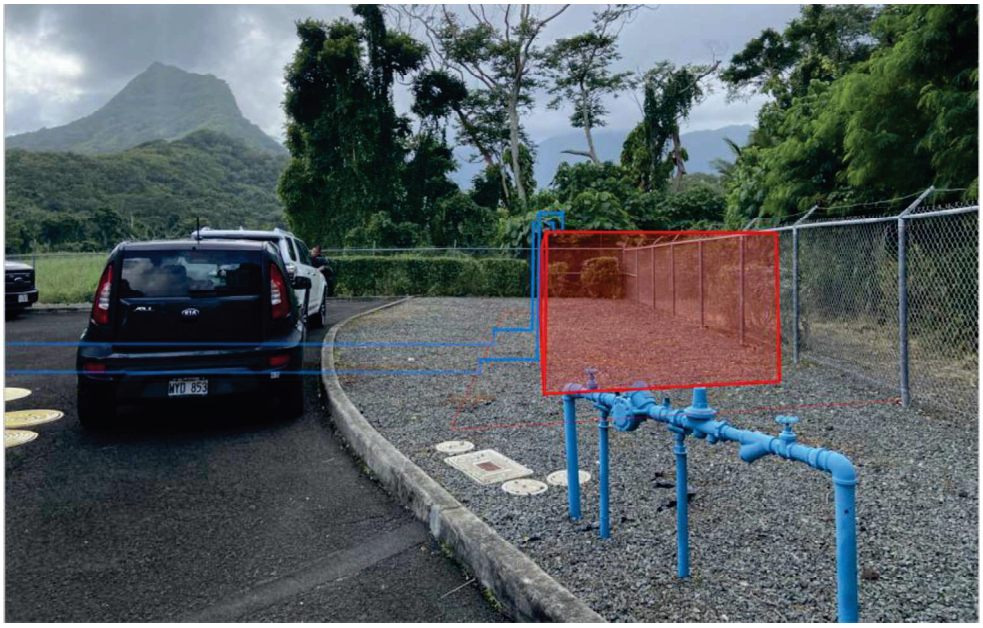


**Figure 11 Proposed location of underground piping (marked in in blue)**

## 1.6. Project Schedule

The project will be executed in multiple phases with other WWPSs, with construction expected to start in April 2027 for 12 months.

**Figure 12 Maunawili Park WWPS as seen from Auloa Road**

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# 2. DESCRIPTION OF EXISTING ENVIRONMENT, PROJECT IMPACTS, AND MITIGATION

## 2.1. Physical Environment

### 2.1.1. Climate and Rainfall

The climate in the State of Hawai‘i is generally characterized by two seasons: a warm, dry summer and a cool, wet winter. Rainfall distribution across Hawai‘i varies greatly according to geographic conditions, elevation, and long-term climatic cycles.

The project area is located within the Windward Lowland climatic subregion, defined as below 2,000 feet on the north to northeast sides of the islands. The Windward O‘ahu region of Maunawili lies roughly perpendicular to the prevailing trade winds, creating a climate with mild temperatures, moderate humidity, and moderate rainfall. Partly cloudy days with frequent trade wind showers are common, while severe storms are infrequent. The typical trade wind weather pattern brings wetter conditions between October and April and warmer, drier weather during the summer months. The average annual rainfall for the project area is 50 inches.

Overall, Hawai‘i is experiencing drier conditions because of climate change. By the end of the century, rainfall is predicted to decrease by up to 60% in dry areas and increase by up to 30% in wet areas such as Maunawili (Hamilton, 2014; USGCRP, 2018). Temperatures are also rising at an estimated rate 170 times faster than would be expected under natural conditions, as climatic feedback loops that help regulate temperatures are increasingly disrupted (Rising Temperatures, n.d.; USGCRP, 2018).

**Impacts and Mitigation Measures**

The proposed project is not anticipated to affect, or be significantly affected by, the existing climatic conditions of the area and region. Although increased rainfall may pose an elevated risk of tank corrosion for ASTs, the proposed new fuel storage tank includes secondary containment and interstitial monitoring. These measures help prevent fuel from spreading into the surrounding environment in case of a leak. In addition, ASTs provide advantages over USTs, including a reduced risk of ground water contamination, since potential issues such as corrosion or structural damage are more easily detected and repaired, helping to prevent leaks and spills.

## 2.1.2. Water Resources

The project site is located within the ahupua‘a of Kailua and the Commission of Water Resource Management Aquifer System Area of Waimānalo, which has a sustainable yield of 10 mgd. Maunawili Stream, a perennial stream located approximately 300 feet to the east of the project site, flow south to north into Kawainui Marsh.

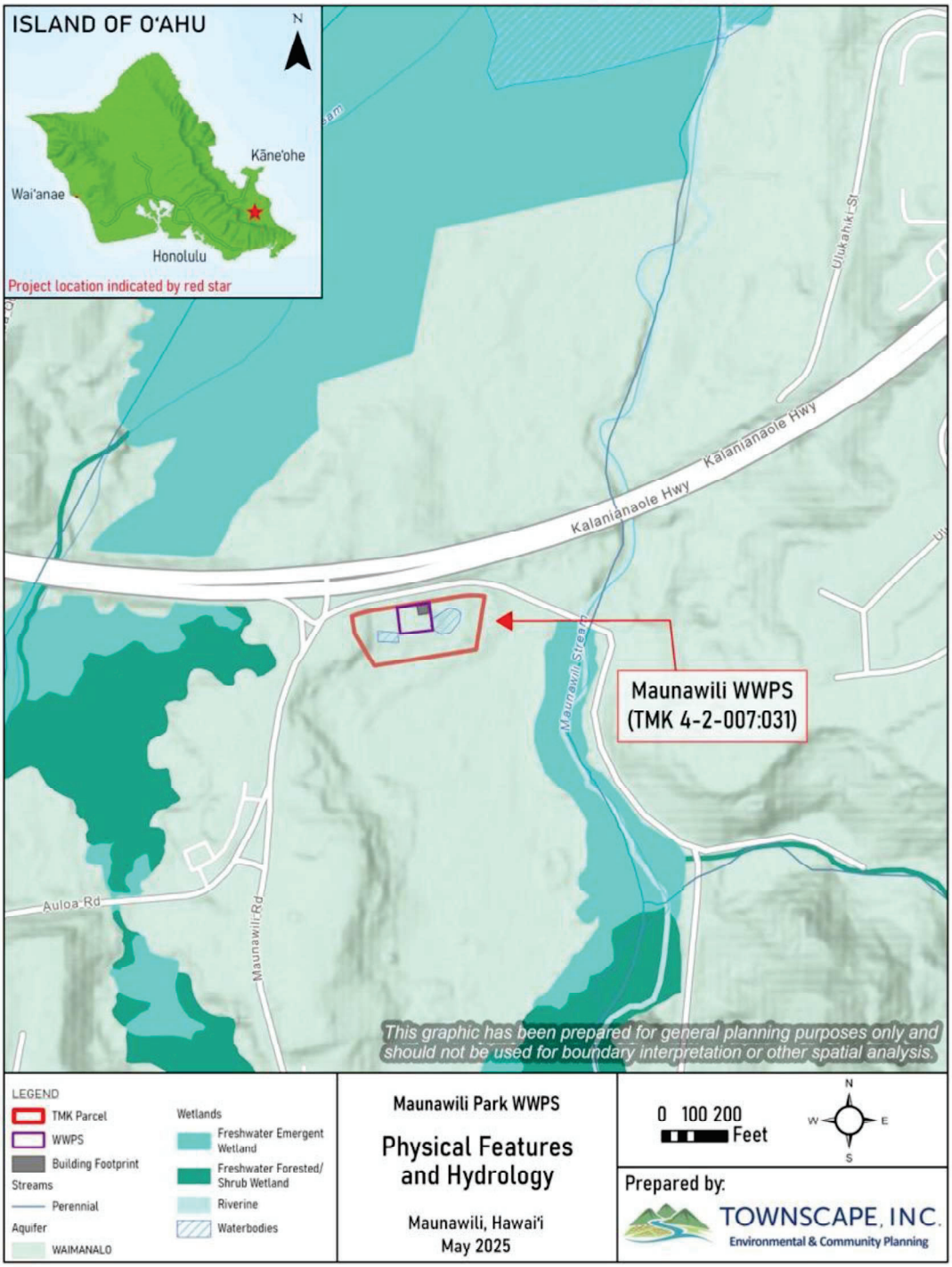
Other nearby water resources include freshwater emergent wetlands to the east and west of the project site and to the north across Kalaniana‘ole Highway at Kawainui Marsh, as well as freshwater forested/shrub wetlands to the west and south of the project site. According to the National Hydrography Dataset (October 2022), two waterbodies are located on the same Tax Map Key parcel as the WWPS within 100 feet of the facility: a perennial pond (458 square meters) and a small reservoir (179 square meters). These features are remnants of the former Maunawili Park Sewage Treatment Plant, which was decommissioned when the WWPS was constructed in 1989.

**Impacts and Mitigation Measures**

Replacing and relocating the underground fuel storage tank will improve water resource protection and regulatory compliance. Relocating the tank above ground will allow for easier inspections, quicker leak detection and containment, and lower overall installation and maintenance costs. Aboveground tanks are also easier to relocate if needed, and any leaks are more visible, allowing for faster cleanup and potentially reduced remediation costs. No stormwater drainage connection will be connected to the AST tank, thereby minimizing any potential for polluted runoff.

Given that there are nearby waterbodies, the contractor will be required to implement stormwater management and erosion control Best Management Practices (BMPs) during construction to prevent erosion or contamination. Specifically, the contractor will be responsible for conforming with applicable provisions of the HAR, Chapter 11-54, “Water Quality Standards,” and Chapter 11-55, “Water Pollution Control,” as well as Chapter 14 of the ROH, as amended. If pollutants or other hazards impact or pose a threat of impact to the adjacent aquatic environment, DAR staff will be promptly notified.

**Figure 13 Physical Features and Hydrology**



## 2.1.3. Topography, Geology and Soils

The Island of Oʻahu contains the Koʻolau and Waiʻanae mountain ranges, which are connected by a central plateau. The younger Koʻolau mountain range extends for 37 miles in a northwest to southeast alignment across the eastern two-thirds of the island. The older Waiʻanae mountain range spans a distance of about 20 miles across the western third of Oʻahu.

The project site has an elevation of approximately 1,745 feet. Parcel elevations range from 1,744 to 1,747 feet, with the lowest point containing a documented ponding area (part of the former sewage treatment plant) located east of the WWPS on Hanalei soil.

The project area contains both Hanalei (23 percent of site) and Waikane (77 percent of site) soil types. According to the National Cooperative Soil Survey, the Hanalei series consists of somewhat poorly drained to poorly drained soils formed in alluvium derived from basic igneous rock (see Figure 14). Hanalei soils are typically found on bottomlands and low terraces along streams, with slopes ranging from 0 to 6 percent, most commonly less than 2 percent. The Waikane series consists of very deep, well-drained soils formed in material weathered from alluvium and colluvium derived from basic igneous rock. Waikane soils are on fans and terraces, with slopes ranging from 3 to 70 percent, moderately rapid permeability, and runoff that varies from slow to very rapid runoff depending on slope. The portion of the site proposed for the project is composed of Waikane soil.

The project site ground surface primarily consists of asphalt pavement and crushed gravel surfaces. According to as-built drawings dated June 1989, the asphalt pavement section is two-inch asphalt pavement over six-inch compacted aggregate base course. The existing surface at the proposed AST location is a crushed gravel surface.

**Impacts and Mitigation Measures**

No changes to the site topography are expected as a result of the fuel tank improvements. The project site is mostly level, except along the driveway adjacent to the existing fuel tank location and in the northeast corner, where a steep section descends from the side of the building to the edge of the fenced area.

The project will adhere to Erosion and Sediment Control measures in accordance with HAR 11-55 and the City's Storm Water Best Management Practice Manual, Construction, Draft, dated August 2017 (see Figure 15).

The slopes will be protected from erosion and runoff through the implementation of BMPs, including the installation of 12-inch compost filter

socks to protect the surrounding area and prevent stormwater runoff from flowing south of the proposed AST site. To further minimize erosion and sediment transport, hard surface guards will be installed and maintained along the driveway adjacent to the construction area. These guards will help prevent sediment and debris from washing off-site. If pollutants or other hazards impact or pose a threat of impact to the adjacent aquatic environment, DAR staff will be promptly notified.

**Figure 14 Soils and Topography**

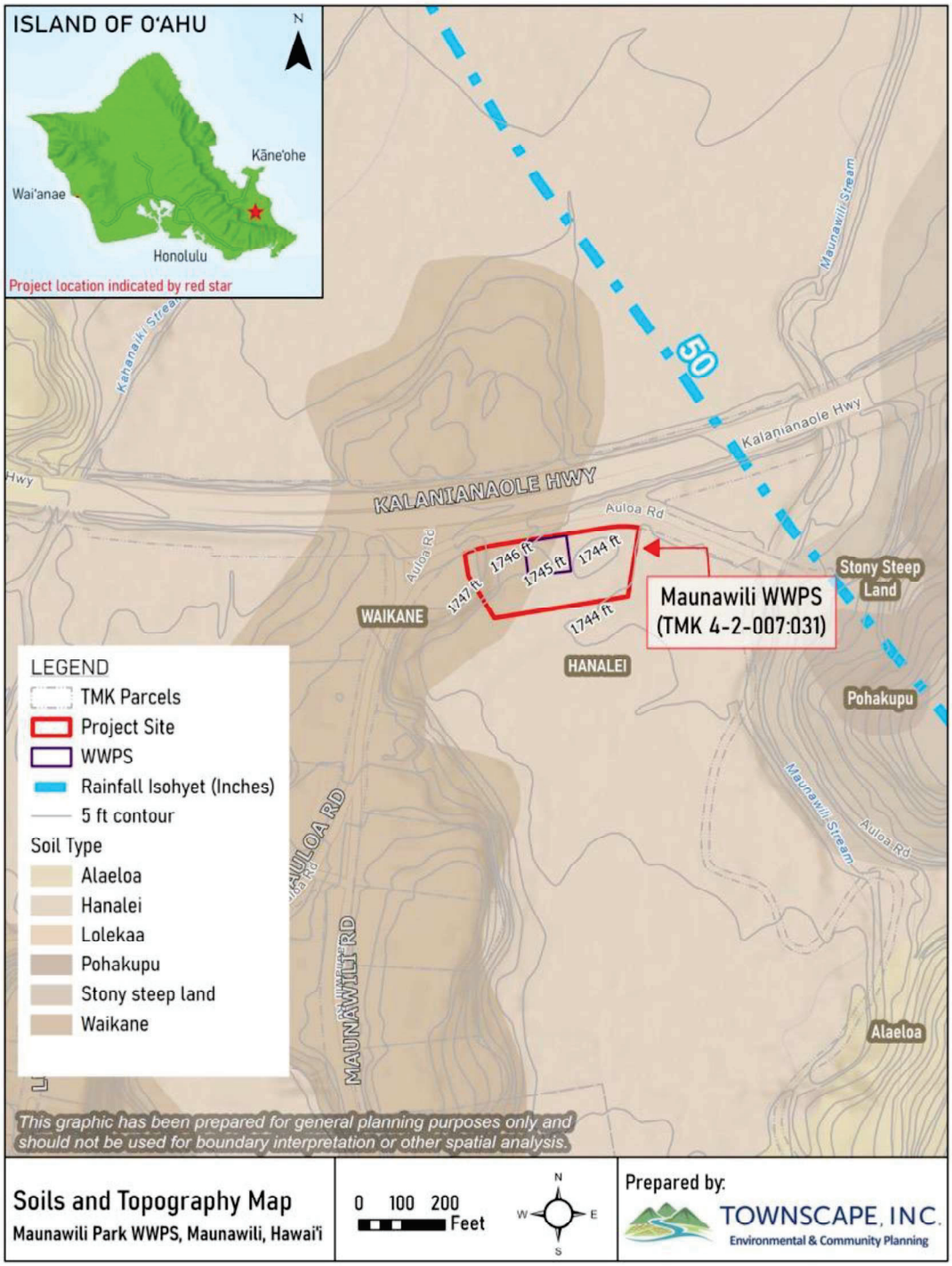
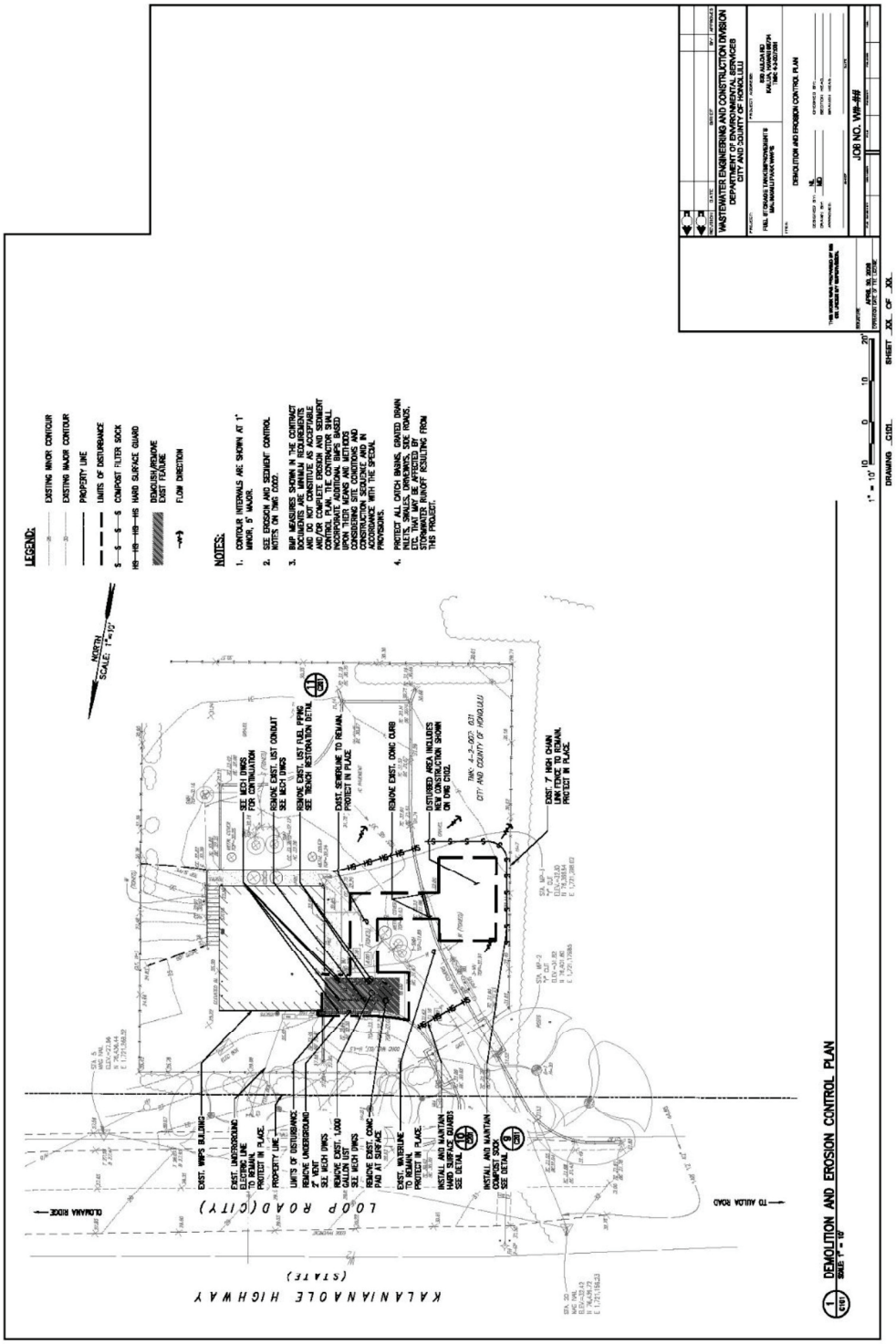


**Figure 15 Demolition and Erosion Control Plan**




Source: Okahara and Associates, Inc., 2026

## 2.1.4. Natural Hazards

Natural hazards are an ongoing consideration that may threaten life and property on O‘ahu.

### Tsunami

Although the project site is not in a Tsunami Evacuation Zone, Kawainui Marsh, which is located across Kalaniana‘ole Highway from the project site, is within the Extreme Tsunami Evacuation Zone. While tsunamis are not a present risk, with the changing climate and sea level rise, these zones may be amended at a future date.

### Hurricanes

The unique topographic features of the Hawaiian Islands intensify tropical cyclones by conducting winds over ridges and through channels between islands. The project area, similar to the rest of Hawai‘i, is susceptible to hurricanes, particularly during the Pacific hurricane season from June through November. The State of Hawai‘i has a 68.5 percent chance of a hurricane of any magnitude occurring within 60 nautical miles in any given year (Hawai‘i Emergency Management Agency, 2023). While direct hits are relatively rare, hurricanes can bring strong winds, heavy rainfall, and storm surges, which could impact the region.

### Sea Level Rise

Sea level rise has the potential to threaten life and property in coastal and low elevation areas. The project site is not within any sea level rise exposure area (as projected from 0.5-3.2 ft) according to the State of Hawai‘i Sea Level Rise Viewer.

The Sea Level Rise II guidance document (2022) developed by the City’s Climate Change Commission recommends that the City set the Intermediate High (which projects 5.9 feet of sea level rise by 2100) as a planning and policy benchmark for all planning and public infrastructure projects. Under this scenario, the Maunawili WWPS is not projected to be inundated, according to the Sea Level Rise Viewer tool provided by the National Oceanic and Atmospheric Administration (2025).

### Flooding

The project site is located in Flood Zone D. This flood zone is classified as an area of undetermined flood risk, meaning that there is insufficient data to assess flood hazards at the site. Flooding is possible, but the risk has not yet been fully evaluated.

Since 2019, the Federal Emergency Management Agency (FEMA) have been conducting studies to update O‘ahu’s Flood Insurance Rate Maps. In December 2025, FEMA issued a Letter of Final Determination for the City’s updated flood maps, which becomes effective June 10, 2026. Under the updated maps, the project

area is located in Flood Zones A and XS. Flood Zone A is an area of high flood risk, while Flood Zone XS is an area of minimal flood risk.

### Wildfire

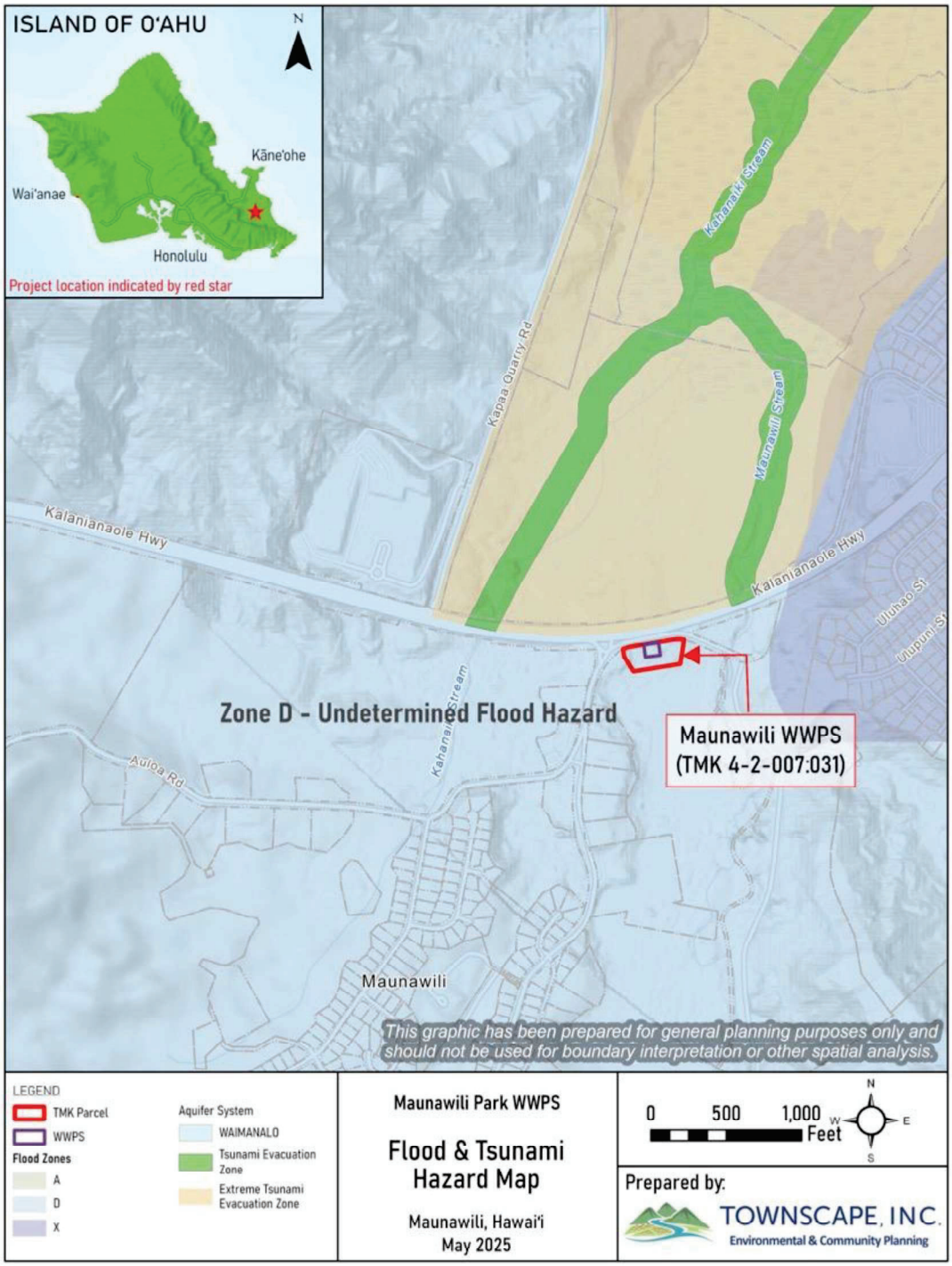
As of 2007, the project area is considered low risk for wildfire according to the Department of Land and Natural Resources, Division of Forestry and Wildlife, Fire Management Program. The Hawai‘i Wildfire Management Organization’s (HWMO) 2014 O‘ahu Communities at Risk from Wildfires Assessment classified Maunawili as low to moderate risk from wildfire. According to HWMO, wildfires are increasing in Hawai‘i, and the average area burned over the last century has increased by 17% (*Wildfire Plans and Maps*, n.d.).

#### Impacts and Mitigation Measures

The Proposed Action is not anticipated to have any impact on the risk from flooding, tsunami, hurricane, or fire. Threats to humans and property from unpredictable natural events will always be present. The likelihood and potential severity of tsunami and hurricane-related impacts will be no greater than elsewhere in the region, and the planned activities will not exacerbate any hazards associated with tsunamis or hurricanes. The location and planned activities do not introduce any significant factors that will elevate the likelihood of wildfire or flooding in the area.

The project will comply with the requirements of ROH Chapter 21A, the Flood Hazard Areas Ordinance. The AST pad will be constructed three feet above the base flood elevation.

**Figure 16 Flood and Tsunami Hazards**



## 2.2. Archaeological, Architectural and Cultural Resources

The fenced Maunawili Park WWPS lot appears to have been entirely graded except for a small area at the northeast corner of the building, and the vast majority is covered in asphalt, basalt gravel, or the existing Pump Station building.

The possible impact of the Proposed Action on the Maunawili Park WWPS facility as a potential historic property was evaluated by Cultural Surveys Hawai‘i (see Appendix A). It is noted that the facility dates from 1989, and the AST will not be in the main view plane of the Pump Station building from either Auloa Road or the entrance driveway.

A Hawaiian center of habitation near the confluence of Auloa Road and Maunawili Road in the present project area is documented. A *kahuahale* or home site (LCA 6806:2 belonging to Nakanelua) spanned the present-day junction of Auloa Road and Maunawili Road within the project area. The presence of this homesite in 1852 may indicate a pattern of habitation in this vicinity going back considerably into pre-Contact times. The presence of this homesite is suggested to significantly increase the probability of habitation deposits, human burials, and scattered human skeletal remains in this portion of the project area.

Just to the north of the homesite was a church yard *(pa halepule)* referenced on the northwest side of LCA 6813:1 to Keli‘ikanaka‘ole, which would place the churchyard spanning the project area just north of the confluence of Auloa Road and Maunawili Road. Possible remnants of this church, associated burials, or disarticulated human skeletal remains relating to this churchyard are present at this portion of the project area dating to the late 1800s and early 1900s.

**Impacts and Mitigation Measures**

Traditional gathering rights, access, or other customary activities by native Hawaiians or other ethnic groups would not be disrupted by the Proposed Action because site access is restricted to authorized City personnel via padlocked gates. Access to the WWPS facility will continue to be restricted.

It is unlikely that any archeological or cultural resources will be impacted in the project area given that the site has already been heavily disturbed and graded. All documented archeological sites are outside the fenced project site. Based on the Literature Review and Field Inspection (LRFI) report by Cultural Surveys Hawai‘i, it supports a determination as per HAR §13-275-7(a)(1) of "No historic properties affected" and for no further historic preservation study.

Pursuant to Chapter 6E, HRS, in the event any unexpected human remains historic artifacts or other potentially significant subsurface resources are encountered during the various phases of construction (e.g., excavation and trenching), the contractor will be required to halt construction activities and to immediately notify the Honolulu Police Department and the State Historic Preservation Division (SHPD) of the discovery. The ENV will prevent the disturbance or taking of any discovered archaeological, historic, or cultural resources to the extent possible by instituting mitigation measures (i.e., halt construction and immediately notify SHPD) and enforcing their implementation by its contractors.

## 2.3. Floral and Faunal Resources

According to the U.S. Fish and Wildlife Service's (USFWS) map for the Information for Planning and Consultation, there are no critical habitats within the project area. The following species are listed as potentially occurring in the general vicinity or passing through the area:

- Hawaiian Hoary Bat – *Lasiurus cinereus semotus*
- Band-Rumped Storm-Petrel – *Hydrobates castro*
- Hawaiian Common Gallinule – *Gallinula galeata sandvicensis*
- Hawaiian Coot (alae Keʻokeʻo) – *Fulica alai*
- Hawaiian Duck – *Anas wyvilliana*
- Hawaiian Petrel – *Pterodroma sandwichensis*
- Hawaiian Stilt – *Himantopus mexicanus knudseni*
- Newell's Shearwater – *Puffinus newelli*
- Green Sea Turtle – *Chelonia mydas*
- Hawksbill Sea Turtle – *Eretmochelys imbricata*

The USFWS map also identifies the following flora species for this region:

- ʻAkoko – *Euphorbia celastroides var. kaenana*
- ʻEnaʻena – *Pseudognaphalium sandwicensium var. molokaiense*
- Kamanomano – *Cenchrus agrimoniodes*
- Oʻahu cowpea – *Vigna o-wahuensis*
- Palapalai – *Microlepia strigosa var. mauiensis*

In a letter from the Department of Land and Natural Resources (DLNR), Division of Forestry and Wildlife (DOFAW) on May 19, 2025, it also indicated that the State listed ʻopeʻapeʻa or Hawaiian hoary bat (*Lasiurus semotus*) could potentially occur at or in the vicinity of the project and may roost in nearby trees. Seabirds may pass through the area and can be adversely impacted at night by artificial lighting, causing them to become disoriented. This disorientation can result in their collision with man-made structures or the grounding of birds. Permanent lighting also poses a risk of attracting seabirds. State-listed waterbirds such as aeʻo or Hawaiian stilt (*Himantopus mexicanus knudseni*), ʻalae keʻokeʻo or Hawaiian coot (*Fulica alai*), and the ʻalae ʻula or Hawaiian gallinule (*Gallinula chloropus sandvicensis*) could potentially occur at or in the vicinity of the proposed project site. It is against State law to harm or harass these species. Additionally, the State endangered pueo or Hawaiian short-eared owl (*Asio flammeus sandwichensis*) could potentially occur in the project vicinity. Pueo are most active during dawn and dusk twilights. The presence of nonnative predators such as cats, rodents, and mongooses pose a risk to vulnerable native birds if they are present at the WWPS.

The invasive Coconut Rhinoceros Beetle (*Oryctes rhinoceros*) or CRB is widespread on the island of Oʻahu. To minimize the spread of CRB to other islands, Department of Agriculture interim rule 24-1 restricts the movement of CRB-host material from the island of Oʻahu, which is defined as the Quarantine Area. Regulated material (host material or host plants) is considered a risk for potential CRB infestation. Host material for the beetle specifically includes 1) entire dead trees; 2) mulch, compost, trimmings, fruit, and vegetative scraps; and 3) decaying stumps. CRB host plants include the live palm plants in the following genera: *Washingtonia*, *Livistona*, and *Pritchardia* (all commonly known as fan palms), *Cocos* (coconut palms), *Phoenix* (date palms), and *Roystonea* (royal palms). When such material or these specific plants are moved there is a risk of spreading CRB because they may contain CRB in any life stage.

**Impacts and Mitigation Measures**

No site clearing is proposed as part of this Proposed Action. However, the following guidelines are provided to minimize impact for the following species:

Hawaiian Hoary Bat

- Woody plants greater than 15 feet (4.6 meters) should not be disturbed, removed, or trimmed during the bat birthing and pup rearing season (June 1 through September 15).
- Barbed wire should not be used in any construction as bats can become ensnared and killed by such fencing material during flight.

Seabirds

- For nighttime work that might be required, use fully shielded lights angled downward to reduce the risk of harm to native seabirds.
- Nighttime work that requires outdoor lighting should be avoided during the seabird fledging season, from September 15 through December 15, when young seabirds make their maiden voyage to sea.
- If nighttime construction is required during the seabird fledging season, a qualified biologist should be present at the project site to monitor and assess the risk of seabirds being attracted or grounded due to the lighting.
- If seabirds are seen circling the area, lights should be turned off. If a downed seabird is detected, DOFAW's recommended response protocol should be followed.
- Permanent lighting should be minimized or eliminated to protect seabird flyways and preserve the night sky.

Waterbirds

- If any of the state-listed waterbird species are present during construction, all activities within 100 feet (30 meters) should cease, and the bird or birds should not be approached.
- Work may only continue after the bird or birds leave the area on their own.
- If a nest is discovered at any point, the O'ahu Branch DOFAW Office should be contacted and a buffer zone around the nest should be established.

DLNR DOFW also notes that pueo nest on the ground, and active nests have been found year-round. To protect pueo, habitat alterations and disturbance should be minimized. Prior to initiating any potentially disturbing activities, such as clearing vegetation, especially ground-based disturbance, a qualified biologist should conduct nesting surveys during crepuscular hours for two to three nights before the start of construction. If pueo nests are detected in the area, a 100-meter buffer zone around the nest shall be established until the nesting cycle is complete and the chicks are capable of flight.

To minimize the presence of nonnative predators of vulnerable bird species during operation and for the long term, predator control measures (i.e.,

removal of cats, and placement of bait stations for rodents and mongoose) are recommended.

Although no landscaping activities are proposed, the contractor will follow BMPs to avoid inadvertently introducing invasive species as part of this Proposed Action. It is recommended to consult Oʻahu Invasive Species Committee to learn of any high-risk invasive species in the area, and ways to mitigate their spread.

To minimize the risk of spreading detrimental fungal pathogens (like Rapid ʻŌhiʻa Death), vertebrate and invertebrate pests (e.g. Little Fire Ants, and Coconut Rhinoceros Beetle), or invasive plant propagules (e.g. Albizia, Pampas Grass, Fireweed, etc.), contractors should ensure all equipment and personal items, including clothing and footwear be cleaned of excess soil and debris, and the movement of plant or soil material between worksites be minimized. Suspect pests to be reported through the statewide pest hotline.

## 2.4. Environmental Quality

### 2.4.1. Visual Resources

The Maunawili Park WWPS vicinity is characterized by forest to the west and tall grasses and shrubs to the east of the project site. Along Auloa Road on the north side of the project site are a row of kukui trees. The view to the south of the WWPS is dominated by Olomana mountain. The view to the southwest contains large vine-covered trees. The WWPS is visible from Auloa Road, however, no other structures are located or visible within the immediate vicinity.

**Impacts and Mitigation Measures**

The proposed AST will be visible from the road but will not block any view plane. The view of Olomana mountain will not be impacted due to the existing tall trees to the southwest of the property, which are in line with the proposed location of the AST.

### 2.4.2. Air Quality and Noise

Air quality in the vicinity of the project is primarily affected by emissions from vehicular traffic from Kalanianaʻole Highway, but is considered acceptable due to the prevailing northeasterly trade winds. Air quality during construction activities may pose a temporary concern for personnel working in confined spaces who may be exposed to gases such as hydrogen sulfide, carbon monoxide, and flammable gases.

The Maunawili WWPS is located less than 50 feet from the busy four-lane Kalaniana‘ole Highway vehicular corridor. The traffic from this highway is the dominant noise in the WWPS vicinity. The project site is designated as Class C Zoning District according to HAR Title 11, Chapter 46 (HAR-11-46-4), which limits sound levels to 70 dBA. Noise levels should not exceed this level for more than ten percent of the time within any given 20-minute period.

**Impacts and Mitigation Measures**

No significant impacts to air quality are anticipated from the Proposed Action. Ambient air quality may be temporarily affected by construction-related vehicles, equipment, and activities that would generate fugitive dust and emissions. To prevent air pollution and dust control as a result of the demolition activities, water will be sprinkled on exposed soils to maintain moistness.

Although it is expected that there will be some temporary additional noise above ambient noise levels due to the presence of construction vehicles and digging activities, these are not expected to have any significant negative impact, particularly since there are no immediate neighbors in the project vicinity.

### 2.4.3. Hazardous Materials

The proposed AST will store up to 1,000 gallons of diesel fuel for the WWPS facility operations. Stored fuel is regulated under National Fire Protection Association (NFPA) 30 (Flammable and Combustible Liquids Code), the Honolulu Fire Code, Chapter 66 of the ROH, the Resource Conservation and Recovery Act and Clean Water Act Spill Prevention, Control and Counter Measures or SPCC rule (40 CFR 112).

**Impacts and Mitigation Measures**

The primary tank will be constructed of steel and encased by a secondary tank to provide secondary containment with interstitial monitoring in compliance with regulatory requirements. The double-walled tank will be encased in concrete to ensure corrosion, fire, and impact resistance. The secondary containment serves as a barrier between the steel and concrete.

The proposed fuel storage tank will be designed, installed, and maintained in accordance with all applicable federal, state, and county regulations. With appropriate containment and emergency measures in place, the project is not expected to result in significant adverse impacts related to hazardous materials. The upgrades of the storage tank system shall be in strict

accordance with the guidelines and requirements set forth in the Federal Register 40, CFR PART 280 and American Petroleum Institute recommended practice 2015 "safe entry and cleaning of petroleum storage tanks" and shall adhere to all required safety precautions. If there are any fuel spillages or existing leaks found or as a result of construction, it will be reported to the Hazard Evaluation and Emergency Response Unit of the Department of Health (DOH).

Underground fuel piping from the new AST to the day tank will be required to run underneath the driveway. These pipes will be buried at least one and half feet below the surface to mitigate the forces the pipes will experience from vehicles on the driveway.

Nine steel pipe bollards filled with concrete will be installed to protect the new AST from vehicular traffic. Pipe bollards will be sized and spaced with proper clearances to meet the minimum NFPA requirements, including:

- Three feet minimum horizontal clearance between the edge of the AST and the outer edge of the pipe bollard.
- Three feet maximum spacing, on-center, between adjacent pipe bollards.
- Three feet minimum height of bollard, as measured from finish grade to the top of the bollard.

## 2.5. Public Infrastructure & Services

### 2.5.1. Site Access, Circulation and Traffic

Site access to the WWPS is provided by a paved driveway off Auloa Road. Although the Proposed Action may temporarily generate additional traffic in the vicinity of the WWPS, it is not projected to significantly impact traffic patterns. The City and County of Honolulu's Department of Design and Construction (DDC) has a planned Rehabilitation project of Auloa Road Bridge (Bridge No. 407) over Maunawili Stream, which is adjacent to the Maunawili Park WWPS. The construction is estimated to start by the end of 2026 and will continue for about six months.

The project site is located nearby a bus stop at the junction of Auloa Road and Kalaniana'ole Highway. However, access to the bus stop will not be impacted by the Proposed Action as access to the project location does not intersect with the bus stop location.

**Impacts and Mitigation Measures**

Construction for this proposed project is not expected to start until April 2027. While there may be some slight overlap with DDC's planned bridge rehabilitation project, the Department of Environmental Services will coordinate the fuel storage tank improvement work to avoid any scheduling conflicts. In addition, the contractor will coordinate roadway improvements with Department of Transportation Services, Transportation Mobility Division to ensure any potential impact on bus service is mitigated.

The contractor will install and maintain all necessary lights, signs, barricades, and other safety equipment during the construction phase of the Proposed Action as recommended by the Honolulu Police Department (HPD). Also, adequate notifications shall be made to area businesses and residents before possible road closures, impacts to pedestrian and/or vehicular traffic, and potential for construction-related debris. The contractor shall maintain unobstructed access to and from driveways and public streets at all times. During non-working hours, all open trenches shall be covered with a safe non-skid bridging material. Where pedestrian walkways exist and remain open in the vicinity of the project site, they shall be maintained in passable condition or other facilities for pedestrians shall be provided. Temporary passageways shall be accessible per 2010 ADA Standards for Accessible Design, Chapter 2. The contractor staging and stockpile areas shall be coordinated and approved in writing by the City.

The contractor shall restore to their original condition, or better, all improvements damaged as a result of the construction, including pavement, curbs, signs, landscaping, walls, valve boxes, manholes, fences, structures, etc.

## 2.5.2. Utilities (Wastewater, Water, Stormwater)

The Maunawili Park WWPS is an important wastewater facility serving the needs of the Maunawili community. The WWPS contains a 15-inch influent sewer pipe entering from the south side of the lot into the wet well in the pump station building. A 12-inch ductile iron force main exits the pump station to the west and follows the driveway out to Auloa Road to the north. The sewer line will be protected in place.

A water line runs parallel to Kalaniana‘ole Highway outside the fence. There is a water line to the west of the limits of disturbance within the WWPS fence. This water line goes inward right by the entrance of the WWPS and will be protected in place.

No stormwater drainage connection exists at the site.

**Impacts and Mitigation Measures**

No impacts to wastewater, water, or stormwater utilities are anticipated.

In a letter dated April 24, 2025, the Board of Water Supply indicated that the existing water system is adequate to accommodate the Proposed Action. However, final decision on the availability of water will be confirmed when the building permit application is submitted for approval.

As mentioned earlier, the slopes will be protected from erosion and runoff through the implementation of BMPs in accordance with HAR Chapter 11-54, including the installation of 12-inch compost filter socks to protect the surrounding area and prevent stormwater runoff from flowing south of the proposed AST site into State waterways. To further minimize erosion and sediment transport, hard surface guards will be installed and maintained along the driveway adjacent to the construction area. These guards will help prevent sediment and debris from washing off-site.

### 2.5.3. Power and Communications

Electrical and communication lines run along north of the building. Electrical power is provided by HECO and communication services are provided by Hawaiian Telcom and Spectrum. The WWPS facility receives power and communications service from existing service providers.

**Impacts and Mitigation Measures**

No significant adverse impacts to power and communications are anticipated. A small-scale temporary fuel storage will be provided during the transition from the existing UST to the new AST fuel system. The portable fuel storage tank will be staged on site and connected to the generator in advance to ensure continuous standby power capability. Therefore, in the event of a HECO power outage, the generator will be able to use fuel from the temporary tank to provide backup power.

### 2.5.4. Emergency Service Facilities and Shelters

Law enforcement services are provided by HPD. The nearest police station is the HPD Kailua Substation, located at 219 Kuulei Road in Kailua, approximately 2.2 miles from the WWPS.

Fire protection and emergency first responder services are provided by the Honolulu Fire Department (HFD). The nearest station is HFD Station 39-Olomana, located at 42 Kalaniana‘ole Highway in Kailua, about one mile from the WWPS.

The nearest hospital is Adventist Health Castle Hospital, located approximately 0.8 miles from the WWPS, which provides emergency services for the project area.

The nearest designated hurricane evacuation shelter is Maunawili Elementary, located about a mile from the WWPS.

**Impacts and Mitigation Measures**

No significant adverse impacts to police, fire, medical, or emergency shelter services are expected from the fuel storage tank upgrades at the existing WWPS facility.

The HPD recommends that all necessary lights, signs, barricades, and other safety equipment be installed and maintained by the contractor during the construction phase of the Proposed Action. Additionally, adequate notification will be made to area businesses and residents prior to possible road closures, as any impact to pedestrian and/or vehicular traffic or construction-related debris could lead to complaints.

In a response letter, HFD requested that the Proposed Action comply with all applicable codes in the Revised Ordinances of Honolulu, Chapter 20, regarding the storage of flammable and combustible liquid tanks.

### 2.5.5. Recreational Resources

Maunawili District Park is adjacent to the project site on three sides, to the east, south, and west. Access to the park does not require passing in the vicinity of the WWPS via Auloa Road. The Royal Hawaiian Golf Club is located less than a mile along Auloa Road beyond the WWPS.

**Impacts and Mitigation Measures**

The Proposed Action is not expected to have any impact on the park's recreational resources or demand for recreational facilities. Should there be any possible road closures that may impact access to recreational resources, adequate notification will be provided to the public in advance.

## 2.6. Socio-Economic Characteristics

The project site is located within the Koʻolaupoko planning region. Maunawili is a Census Designated Place with a resident population of 2,288 as of the 2023 American Community Survey. The median household income is $188,611, and the median monthly housing cost is $2,924. The nearby Maunawili and Olomana developments are suburban in character, although portions of Maunawili remain rural. Nearby schools and institutions include Maunawili Elementary School, Kailua

High School, Olomana School at the Hawai‘i Youth Correctional Facility, Le Jardin Academy, and the Women’s Correctional Center.

**Impacts and Mitigation Measures**

The Proposed Action at an existing WWPS facility will involve construction activities that will create short-term jobs in design and construction. The Proposed Action will not affect population levels, housing, or schools. The proposed upgrades will not alter the capacity or operations of the WWPS, so the community can expect continued reliable wastewater services, which support the economic and social welfare of the communities served by the WWPS.

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# 3. RELATIONSHIP TO PLANS, POLICIES, AND CONTROLS

## 3.1. Hawai‘i State Plan

The Hawai‘i State Plan, HRS Chapter 226, outlines broad goals, policies, and objectives to serve as guidelines for the future growth and development of the State. It also provides a basis for determining priorities, allocating limited resources, and improving coordination of State and County plans, policies, programs, projects, and regulatory activities. The Hawai‘i State Plan establishes a set of themes, goals, objectives, and policies that are meant to guide the State’s long-range growth and development activities. Applicable sections of HRS Chapter 226 to the proposed project are discussed below.

**§226-13 Objectives and policies for the physical environment--land, air, and water quality.**

Objective 1. Maintenance and pursuit of improved quality in Hawai‘i’s land, air, and water resources.

Policy 2. Promote the proper management of Hawai‘i’s land and water resources.

Policy 3. Promote effective measures to achieve desired quality in Hawai‘i’s surface, ground, and coastal waters.

Policy 5. Reduce the threat to life and property from erosion, flooding, tsunamis, hurricanes, earthquakes, volcanic eruptions, and other natural or man-induced hazards and disasters.

Policy 6. Encourage design and construction practices that enhance the physical qualities of Hawai‘i’s communities.

**§226-14 Objective and policies for facility systems--in general.**

Policy 1. Accommodate the needs of Hawai‘i’s people through coordination of facility systems and capital improvement priorities in consonance with state and county plans.

Policy 3. Ensure that required facility systems can be supported within resource capacities and at reasonable cost to the user.

**§226-15 Objectives and policies for facility systems--solid and liquid wastes.**

Objective 1. Maintenance of basic public health and sanitation standards relating to treatment and disposal of solid and liquid wastes.

Objective 2. Provision of adequate sewerage facilities for physical and economic activities that alleviate problems in housing, employment, mobility, and other areas.

**Discussion:**
The Proposed Action aligns with the Hawai‘i State Plan by upgrading the fuel tank storage infrastructure to reduce the probability of fuel leaks into the environment. It meets objectives to maintain sewerage facilities to maintain public health and sanitation standards, at a reasonable cost. This action helps provide environmentally healthful and sanitary conditions and helps prepare the State to adapt to climate change by complying with regulations that integrate climate change policy.

## 3.2. State Land Use District

The State Land Use Law (Chapter 205, HRS) is intended to preserve, protect, and encourage the development of lands in the State for uses which are best suited to the public health and welfare for Hawai‘i’s people. All lands in the State are classified into four land use districts by the State of Hawai‘i, Land Use Commission: Urban, Rural, Agricultural, and Conservation.

**Discussion:**
The project site is entirely located within the State Agricultural District, which is regulated by Section 21-3.50 of the Agricultural Districts, City and County of Honolulu Land Use Ordinance. Section 205-4.5 HRS defines permissible uses within the agricultural districts. The Maunawili Park WWPS parcel is classified as Class C soil. Permitted uses within Class C includes: Public institutions and buildings that are necessary for agricultural practices; Public, private, and quasi-public utility lines and roadways, transformer stations, communications equipment buildings, solid waste transfer stations, major water storage tanks, appurtenant small buildings such as booster pumping stations, but not including offices or yards for equipment, material, vehicle storage, repair or maintenance, treatment plants, corporation yards, or other similar structures.

## 3.3. State Coastal Zone Management Program

In 1977, Hawai‘i enacted HRS Chapter 205A, Hawai‘i Coastal Zone Management (CZM) Program, to carry out the state’s CZM policies and regulations. It is administered by the State of Hawai‘i, Office of Planning and Sustainable Development. The CZM program provides for the beneficial use, protection, and development of the State’s coastal zone. In Hawai‘i, "Coastal zone management area" means all lands of the State and the area extending seaward from the shoreline to the limit of the State's police power and management authority, including the United States territorial sea. The objective of the act is to protect,

preserve, and restore recreational, historic, and scenic resources, as well as implement the state's ocean resources management plan and protect coastal ecosystems.

The objectives and policies from the Coastal Zone Management Act, Chapter 205A, HRS, along with a discussion of how the Proposed Action conforms to these objectives and policies, are provided below.

**Consistency Indicator Annotation: S**=Supportive; **N**=Not Supportive (no annotation = Not Applicable)

**Recreational Resources**

Objective: Provide coastal recreational opportunities accessible to the public.

Policies:

(A) Improve coordination and funding of coastal recreational planning and management; and

(B) Provide adequate, accessible, and diverse recreational opportunities in the coastal zone management area by:

(i) Protecting coastal resources uniquely suited for recreational activities that cannot be provided in other areas;

(ii) Requiring restoration of coastal resources that have significant recreational and ecosystem value, including but not limited to coral reefs, surfing sites, fishponds, sand beaches, and coastal dunes, when these resources will be unavoidably damaged by development; or requiring monetary compensation to the State for recreation when restoration is not feasible or desirable;

(iii) Providing and managing adequate public access, consistent with conservation of natural resources, to and along shorelines with recreational value;

(iv) Providing an adequate supply of shoreline parks and other recreational facilities suitable for public recreation;

(v) Ensuring public recreational uses of county, state, and federally owned or controlled shoreline lands and waters having recreational value consistent with public safety standards and conservation of natural resources;

(vi) Adopting water quality standards and regulating point and nonpoint sources of pollution to protect, and where feasible, restore the recreational value of coastal waters; **S**

(vii) Developing new shoreline recreational opportunities, where appropriate, such as artificial lagoons, artificial beaches, and artificial reefs for surfing and fishing; and

(viii) Encouraging reasonable dedication of shoreline areas with recreational value for public use as part of discretionary approvals or permits by the land use commission, board of land and natural resources, and county authorities; and crediting such dedication against the requirements of section 46-6.

**Discussion:**
The project will not have an impact on recreational access to the shoreline. By upgrading the fuel tank system, point-source pollution is regulated to protect coastal waters from pollution.

**Historic Resources**

Objective: Protect, preserve, and, where desirable, restore those natural and manmade historic and prehistoric resources in the coastal zone management area that are significant in Hawaiian and American history and culture.

Policies:

(A) Identify and analyze significant archaeological resources. **S**
(B) Maximize information retention through preservation of remains and artifacts or salvage operations; and
(C) Support state goals for protection, restoration, interpretation, and display of historic resources.

**Discussion:**
The LRFI included as Appendix A identifies and analyzes significant archeological resources existing in the project area. It finds that the Proposed Action will not interfere with any significant archeological resources. Recommendations by the SHPD will be followed to protect cultural resources, should any be discovered during construction.

**Scenic And Open Space Resources**

Objective: Protect, preserve, and, where desirable, restore or improve the quality of coastal scenic and open space resources.

Policies:

(A) Identify valued scenic resources in the coastal zone management area;

(B) Ensure that new developments are compatible with their visual environment by designing and locating those developments to minimize the alteration of natural landforms and existing public views to and along the shoreline; **S**
(C) Preserve, maintain, and, where desirable, improve and restore shoreline open space and scenic resources; and **S**
(D) Encourage those developments that are not coastal dependent to locate in inland areas.

**Discussion:**
The Proposed Action will not impact any valued scenic resources. The AST will not impede any scenic view plane based on the proposed location alignment. The Proposed Action maintains the existing development footprint of the WWPS.

**Coastal Ecosystems**

Objective: Protect valuable coastal ecosystems, including reefs, beaches, and coastal dunes, from disruption and minimize adverse impacts on all coastal ecosystems.

Policies:

(A) Exercise an overall conservation ethic, and practice stewardship in the protection, use, and development of marine and coastal resources;
(B) Improve the technical basis for natural resource management;
(C) Preserve valuable coastal ecosystems of significant biological or economic importance, including reefs, beaches, and dunes;
(D) Minimize disruption or degradation of coastal water ecosystems by effective regulation of stream diversions, channelization, and similar land and water uses, recognizing competing water needs; and
(E) Promote water quantity and quality planning and management practices that reflect the tolerance of fresh water and marine ecosystems and maintain and enhance water quality through the development and implementation of point and nonpoint source water pollution control measures. **S**

**Discussion:**
The Proposed Action maintains water quality to protect coastal waters by implementing point-source pollution control measures. It upgrades the fuel tank storage system to meet regulatory standards that require secondary containment of stored fuel and interstitial monitoring.

## Economic Uses

Objective: Provide public or private facilities and improvements important to the State's economy in suitable locations.

Policies:

(A) Concentrate coastal dependent development in appropriate areas;
(B) Ensure that coastal dependent development and coastal related development are located, designed, and constructed to minimize exposure to coastal hazards and adverse social, visual, and environmental impacts in the coastal zone management area; and
(C) Direct the location and expansion of coastal development to areas designated and used for that development and permit reasonable long-term growth at those areas, and permit coastal dependent development outside of designated areas when:

(i) Use of designated locations is not feasible;
(ii) Adverse environmental effects and risks from coastal hazards are minimized; and
(iii) The development is important to the State's economy.

**Discussion:**
The Proposed Action supports a public utility facility that is essential for conveying wastewater from a residential area to the WWTP. By upgrading the infrastructure, the project ensures continued operation during power outages, thus supporting public health, safety, and economic stability.

## Coastal Hazards

Objective: Reduce hazard to life and property from coastal hazards.

Policies:

(A) Develop and communicate adequate information about the risks of coastal hazards; **S**
(B) Control development, including planning and zoning control, in areas subject to coastal hazards; **S**
(C) Ensure that developments comply with requirements of the National Flood Insurance Program; and **S**
(D) Prevent coastal flooding from inland projects. **S**

**Discussion:**
Upgrading the fuel tank system helps to control point-source pollution to protect coastal waters downstream. The Proposed Action is not located within a flood or tsunami hazard zone, and no coastal flooding is anticipated as a result of the Proposed Action.

**Managing Development**

Objective: Improve the development review process, communication, and public participation in the management of coastal resources and hazards.

Policies:

(A) Use, implement, and enforce existing law effectively to the maximum extent possible in managing present and future coastal zone development; **S**
(B) Facilitate timely processing of applications for development permits and resolve overlapping or conflicting permit requirements; and
(C) Communicate the potential short and long-term impacts of proposed significant coastal developments early in their life cycle and in terms understandable to the public to facilitate public participation in the planning and review process. **S**

**Discussion:**
This EA is a public information document that improves communication and public participation in the planning and review process and management of the resources of the project area. Additional opportunities for public participation may be provided through the SMA permitting process.

**Public Participation**

Objective: Stimulate public awareness, education, and participation in coastal management.

Policies:

(A) Promote public involvement in coastal zone management processes; **S**
(B) Disseminate information on coastal management issues by means of educational materials, published reports, staff contact, and public workshops for persons and organizations concerned with coastal issues, developments, and government activities; and

(C) Organize workshops, policy dialogues, and site-specific mediations to respond to coastal issues and conflicts.

**Discussion:**
This EA is a public information document that improves communication and public participation in the planning and review process. Additional opportunities for public participation may be provided through the SMA permitting process.

**Beach and Coastal Dune Protection**

Objective:

(A) Protect beaches and coastal dunes for:

(i) Public use and recreation;

(ii) The benefit of coastal ecosystems; and

(iii) Use as natural buffers against coastal hazards, and

(B) Coordinate and fund beach management and protection.

Policies:

(A) Locate new structures inland from the shoreline setback to conserve open space, minimize interference with natural shoreline processes, and minimize loss of improvements due to erosion;
(B) Prohibit construction of private shoreline hardening structures, including seawalls and revetments, at sites having sand beaches and at sites where shoreline hardening structures interfere with existing recreational and waterline activities;
(C) Minimize the construction of public shoreline hardening structures, including seawalls and revetments, at sites having sand beaches and at sites where shoreline hardening structures interfere with existing recreational and waterline activities;
(D) Minimize grading of and damage of coastal dunes;
(E) Prohibit private property owners from creating a public nuisance by inducing or cultivating the private property owner's vegetation in a beach transit corridor; and

(D) Prohibit private property owners from creating a public nuisance by allowing the private property owner's unmaintained vegetation to interfere or encroach upon a beach transit corridor.

**Discussion:**
The Proposed Action does not involve new structures, erosion control seaward of the shoreline, or private property.

**Marine Resources**

Objective: Promote the protection, use, and development of marine and coastal resources to assure their sustainability.

Policies:

(A) Ensure that the use and development of marine and coastal resources are ecologically and environmentally sound and economically beneficial;
(B) Coordinate the management of marine and coastal resources and activities to improve effectiveness and efficiency;
(C) Assert and articulate the interests of the State as a partner with federal agencies in the sound management of ocean resources within the United States exclusive economic zone;
(D) Promote research, study, and understanding of ocean and coastal processes, impacts of climate change and sea level rise, marine life, and other ocean resources to acquire and inventory information necessary to understand how coastal development activities relate to and impact ocean and coastal resources; and
(E) Encourage research and development of new, innovative technologies for exploring, using, or protecting marine and coastal resources.

**Discussion:**
The Proposed Action does not involve marine or coastal resources and activities or research.

## 3.4. Special Management Area

The purpose of the SMA is to "preserve, protect, and where possible, to restore the natural resources of the coastal zone of Hawai'i" (HRS §205A). Any action defined as "development," pursuant to HRS §205A-22, requires an SMA (Minor or Major) Use Permit. On O'ahu, the SMA permit is administered by the Department of Planning and Permitting (DPP). The project area is in the SMA, and a SMA permit is required.

SMA Major Permit No. 85/SMA-5 was approved by the City Council for an underground fuel storage tank and associated equipment (Resolution 86-19). As indicated in a pre-assessment consultation letter from DPP dated April 23, 2025, the

Proposed Action is considered a major modification to the SMA Major Permit (Resolution 86-19), and a new SMA permit is required. On May 29, 2025, Act 125 was signed into law by the State of Hawai‘i changing the project valuation threshold for SMA Major and Minor permits for non-shoreline lots. Under Act 125, if the cost valuation is less than $750,000 a SMA Minor permit is required. If the cost valuation is or exceeds $750,000, an SMA Major permit is required.

An analysis of the SMA policies outlined in ROH Section 25-3.1 is provided below. The Proposed Action’s consistency with each policy, as well as the mandatory findings specified in ROH Section 25-4.1, is also discussed.

**Consistency Annotation: C**=Consistent (no annotation = Not Applicable)

*(a) Recreational resources. Development within the SMA should provide coastal recreational opportunities to the public. Adequate access, by dedication or other means, to beaches, coastal dunes, recreation areas, and natural reserves must be provided to the extent consistent with sound conservation principles. Adequate and properly located public recreation areas and wildlife preserves must be preserved.* **C**

**Discussion:**

The Proposed Action will not restrict access to any coastal recreation areas. All public recreation and wildlife preserves will be preserved.

*(b) Historic and cultural resources. Development within the SMA should protect, preserve, and restore natural or human-made historical and cultural resources.*

**Discussion:**

The Proposed Action does not contain any natural or human-made historical and cultural resources. If any such resources are unexpectedly discovered, work will halt and SHPD will be contacted. All required archeological and historic preservation protocols will be followed.

*(c) Scenic and open space resources. Development within the SMA should protect, preserve, and whenever desirable, restore or improve the quality of coastal scenic and open space resources. Alterations to existing land forms and vegetation, other than for the cultivation of coastal dependent crops, must be limited so they result in minimum adverse impacts on water resources, beaches, coastal dunes, and scenic or recreational amenities. Development that is not dependent on the coast is encouraged to locate mauka of the SMA.* ***C***

**Discussion:**

The Proposed Action will not impede any scenic resources. There is no coastal view from the project site and there are no documented scenic viewplanes in the project vicinity. The proposed AST will not interfere with any viewplane as the existing trees and building are located between the AST and any scenic viewplane.

*(d) Coastal ecosystems. Development within the SMA should protect valuable coastal ecosystems, including reefs, beaches, and coastal dunes from disruption, and minimize adverse impacts on all coastal ecosystems. Solid and liquid waste treatment and disposition must be managed to minimize adverse impacts on SMA resources.* **C**

**Discussion:**

The Proposed Action will improve fuel storage containment, and stormwater and erosion control BMPs will be implemented at the project site during construction. BMPs include the installation of 12-inch compost filter socks to protect the surrounding area and prevent stormwater runoff from flowing south of the proposed AST site. To further minimize erosion and sediment transport, hard surface guards will be installed and maintained along the driveway adjacent to the construction area. These guards will help prevent sediment and debris from washing off-site.

*(e) Economic uses. Development within the SMA should consist of facilities and improvements important to the State's economy, and ensure that coastal-dependent development and coastal-related development are located, designed, and constructed to minimize exposure to coastal hazards and adverse social, visual, and environmental impacts within the SMA.* **C**

**Discussion:**

The Proposed Action is required to support residential uses within the WWPS service area. It implements mandated upgrades and allows economic activity to continue.

*(f) Coastal hazards. Development within the SMA should reduce impacts of coastal hazards on life and property, and must be designed to minimize impacts from landslides, erosion, sea level rise, siltation, or failure in the event of earthquake.* ***C***

**Discussion:**

The Proposed Action includes upgrading the existing fuel tank system to improve containment and control of potential point-source pollution, thereby helping to protect coastal waters downstream. Although the project site is located inland and outside the coastal flood and tsunami inundation zones, the improvements are designed to enhance the overall safety and resilience of the WWPS.

*(g) Managing development and public participation. The development review process should stimulate public awareness, education, and participation in coastal management.* ***C***

**Discussion:**

The environmental review process will be followed for the Proposed Action. As part of the environmental review process, this EA is a public information document, which will help stimulate public awareness, education, and participation in coastal management.

*(h) Beach and coastal dune protection. Development within the SMA should facilitate beach management and protection by safeguarding beaches and coastal dunes for public use and recreation, the benefit of ecosystems, and use as natural buffers against coastal hazards. New structures should be located mauka of the shoreline setback line to conserve open space, minimize interference with natural shoreline processes, and minimize the loss of improvements due to erosion.*

**Discussion:**

The Proposed Action is not located along the shoreline and will not interfere with beach management and protection.

*(i) Marine and coastal resources. Development within the SMA should promote the protection, use, and development of marine and coastal resources to ensure that these resources are ecologically and environmentally sound and economically beneficial. Impacts on water resources, beaches, coastal dunes, and scenic or recreational amenities resulting from the construction of*

*structures must be minimized. Development within wetland areas should be limited to activities that are dependent on or enhance wetlands, or are otherwise approved by appropriate State and federal agencies. Examples include traditional Hawaiian agricultural uses such as wetland taro production, aquaculture, and fishpond management, as well as activities that clean and restore traditional wetland areas or create new wetlands in appropriate areas.* **C**

**Discussion:**

The Proposed Action will follow all stormwater management and erosion controls to protect marine and coastal resources and nearby wetlands. As discussed above, upgrading the existing fuel tank system will improve containment and control of potential point-source pollution, thereby helping to protect coastal waters downstream

*(j) Cumulative impact or significant effect and compelling public interest. Development within the SMA should not have any cumulative impact or significant effect, unless minimized to the extent practicable and clearly outweighed by public health, safety, or other compelling public interest.* ***C***

**Discussion:**

The Proposed Action will not have any significant cumulative impact. The new AST will replace the existing UST. As described previously in this document, the DDC will be rehabilitating the Auloa Road Bridge (Bridge No. 407) over Maunawili Stream, which is adjacent to the Maunawili Park WWPS. The construction is estimated to start by the end of 2026 and will continue for about six months. The Department of Environmental Services will coordinate the fuel storage tank improvement work to avoid conflict with DDC's bridge rehabilitation project to minimize cumulative impact.

*(k) Consistency with plans and regulations. Development within the SMA must be consistent with the general plan, development plans, sustainable communities plans, and zoning ordinances; provided that a finding of inconsistency does not preclude concurrent processing of amendments to applicable plans or a zone change.* **C**

**Discussion:**

The Proposed Action is considered consistent with plans and regulations as discussed throughout this section of this document.

**SMA Permit review guidelines (ROH Section 25-4.1)**

*(A)* No development may be approved unless the agency or the council has first found that the development is consistent with the objectives, policies, and guidelines set forth in this chapter and will not have any significant adverse environmental or ecological effect, except for situations in which the adverse effect is minimized to the extent practicable and clearly outweighed by public health and safety, or a compelling public interest. Adverse effects include, but are not limited to the potential cumulative impact of individual developments, each of which taken by itself may not have a significant adverse effect. Adverse effects may also involve development that would eliminate future planning options.

*(B)* The agency or council shall seek to minimize, whenever reasonable:

1. Dredging, filling, or otherwise altering any bay, estuary, salt marsh, wetland, river mouth, slough, or lagoon, except for restoration purposes;
2. Any development that would reduce the size of any beach, coastal dune, or other area usable for public recreation;
3. Any development that would reduce or impose restrictions upon public access to tidal and submerged lands, beaches, coastal dunes, portions of rivers and streams, and the mean high tide line where there is no beach;
4. Any development that would substantially interfere with or detract from the line of sight toward the ocean from the State highway nearest the coast;
5. Any development that would adversely affect water quality, existing areas of open water free of visible structures, existing and potential fisheries and fishing grounds, coastal ecosystems, wildlife habitats, or potential or existing agricultural uses of land; and
6. Risk to development from sea level rise and other coastal hazards, which may be accomplished by siting habitable structures outside of the sea level rise exposure area if feasible, or if not feasible, adapting habitable structures within the sea level rise exposure area to accommodate sea level rise.

**Discussion:**

The Proposed Action is consistent with the objectives, policies, and guidelines set forth in this chapter (as discussed above) and will not have any significant adverse environmental or ecological effect. Any potential effects will be mitigated by employing BMPs both during the construction phase and with long-term operation and maintenance. After review of the findings of the Hawai‘i Sea Level Rise Vulnerability and Adaptation Report (2017) as well as

its 2022 update and Guidance for Using the Sea Level Rise Exposure Area in Local Planning and Permitting Decisions, the project site does not fall within any sea level rise exposure area.

## 3.5. City and County of Honolulu General Plan

The Oʻahu General Plan (2021) contains aspirational objectives and policies that address the physical, social, cultural, economic, and environmental concerns affecting the City. The Honolulu City Council adopted the General Plan on December 1, 2021 and the Mayor signed it on January 14, 2022. Applicable goals, objectives, policies, and actions from the General Plan relevant to the Proposed Action are provided below.

### I. Population

Objective A: To plan for anticipated population in a manner that acknowledges the limits of Oʻahu's natural resources, protects the environment, and minimizes social, cultural, and economic disruptions.

Policy 1: Allocate efficiently the money and resources of the City in order to meet the needs of Oahu's current and future population.

### II. Natural Environment and Resource Stewardship

Objective A: To protect and preserve the natural environment.

Policy 1: Protect Oʻahu's natural environment, especially the shoreline, valleys, and ridges, from incompatible development.
Policy 7: Protect the natural environment from damaging levels of air, water, carbon, and noise pollution.
Policy 8: Protect plants, birds, and other animals that are unique to the State of Hawaiʻi and Oʻahu, and protect their habitats.
Policy 12: Plan, prepare for, and mitigate the impacts of climate change on the natural environment, including strategies of adaptation.

Objective B: To preserve and enhance the natural monuments and scenic views of Oʻahu for the benefit of both residents and visitors.

Policy 3: Locate and design public facilities, infratructure and utilities to minimize the obstruction of scenic views.

**V. Transportation and Utilities**

Objective C: To ensure reliable, cost-effective, and responsive service for all utilities with equitable access for residents.

Policy 1: Maintain and upgrade utility systems in order to avoid major breakdowns and service interruptions.
Policy 2: Provide improvements to utilities in existing neighborhoods to reduce substandard conditions, and increase resilience to use fluctuations, natural hazards, extreme weather, and other climate impacts.

Objective D: To maintain transportation and utility systems which support Oʻahu as a desirable place to live and visit.

Policy 1: Provide adequate resources to ensure the maintenance and improvement of transportation systems and utilities.
Policy 2: Evaluate the social, cultural, economic, and environmental impact of additions to the transportation and utility systems before they are constructed.
Policy 5: Evaluate impacts of sea level rise on existing public infrastructure, especially sewage treatment plants, roads, and other public and private utilities located along or near Oʻahu's coastal areas, and avoid the placement of future public infrastructure in threatened areas.

**VII. Physical Development and Urban Design**

Objective G: To promote and enhance the social and physical character of Oʻahu's older towns and neighborhoods.

Policy 2: Encourage, wherever desirable, the rehabilitation of existing substandard structures.
Policy 3: Provide and maintain roads, public facilities, and utilities without damaging the character of older communities.

**IX. Health and Education**

*Objective A: To protect the health and well-being of residents and visitors.*

Policy 3: Coordinate City health codes and other regulations with State and Federal health codes to facilitate the enforcement of air-, water-,and noise-pollution controls.
Policy 4: Integrate public health concerns such as air and water pollution as a consideration in land use planning decisions.

**Discussion:**
The maintenance and upgrade of the WWPS proposed for this Proposed Action is aligned with the City and County of Honolulu General Plan, by proposing a safe and cost-effective solution to comply with mandated upgrades. The Proposed Action minimizes negative impacts to the natural environment, upgrades utility infrastructure safely, is appropriate to the site conditions, and protects public health while aligning with codes and regulations.

## 3.6. Koʻolau Poko Sustainable Communities Plan

The City and County of Honolulu has divided Oʻahu into eight planning areas by ordinance, each with a Development Plan or a Sustainable Communities Plan (SCP) that outlines the vision, objectives, and goals for future development in the area. These community-oriented plans are intended to help guide land use planning and development on Oʻahu. The Koʻolau Poko SCP, updated in 2017, encompasses the windward coast of Oʻahu from Makapuʻu Point to Kaʻōʻio Point, which includes the Maunawili WWPS. The key elements of the vision for the 2017 Koʻolau Poko SCP are summarized below:

- Adapt the concept of ahupuaʻa in land use and natural resource management;
- Preserve and promote open space and agricultural uses;
- Preserve and enhance scenic, recreational and cultural features that define Koʻolau Poko's sense of place;
- Emphasize alternatives to the private passenger vehicle as modes for travel;
- Protect and enhance residential character while adapting to changing needs;
- Define and enhance existing commercial and civic districts; and

- Maintain the Community Growth Boundary to protect agricultural, open space, and natural resources.

The plan outlines several policies principles for sustainability to promote the long-term health of the land, people, and community resources for current and future generations. These principles include:

- Encourage planning, development, and construction technologies that minimize negative environmental impacts.
- Guide the process of change. Strive to make decisions based on an understanding of the effects such decisions will have on the land and community resources.
- As an integral part of the planning process, consider the long-term impact of proposed actions and prepare plans that can accommodate the needs of future generations accordingly.

The City's plan prioritizes the preservation of Koʻolau Poko's natural, cultural, and historic resources, working in tandem with members of the community. It also seeks to accommodate very little population growth and preservation of the rural character and lifestyle of the Koʻolau Poko District's people.

A guideline for commercial and light industrial uses under Section 3.6.2.4 further states the need to "prevent leachates from underground storage tanks or fill material from migrating offsite, applying particularly stringent measures to sites near wildlife preserves. Where practicable, institute leachate management systems from existing and closed quarries and landfills."

**Discussion:**

The Proposed Action maintains the spirit and intent of the Koʻolau Poko SCP. It supports the vision and policies outlined in the plan by upgrading vital community infrastructure to prevent future risk to the land and surrounding resources. The AST allows for easier access to the fuel tanks for necessary maintenance and repairs, while also avoiding the risk of leakage into the soil.

## 3.7. City and County of Honolulu Land Use Ordinance (LUO)

The LUO regulates land use in accordance with adopted land use policies, including the City's General Plan and the Development/Sustainable Community Plans. The project site is located within the Agricultural-2 (Ag-2) Zoning District.

The proposed upgrade to an AST in Maunawili complies with the Honolulu Land Use Ordinance (ROH Chapter 21) by conforming to the zoning regulations for an Ag-2 Zoning District as outlined in ROH §21-3.50. The AST installation is considered a public use and structure under ROH §21-10.1. The AST will meet all applicable

setback, height, and design standards as specified in ROH §21-4, and will incorporate safety and environmental best practices in accordance with county, state, and federal regulations. Screening and buffering measures will be implemented to ensure visual compatibility with surrounding land uses, supporting the LUO's intent to promote public health, safety, and environmental integrity. Per the DPP, the Maunawili Park WWPS qualifies for a Zoning Waiver under ROH Section 21-2.130. Since the Proposed Action is expected to meet all development standards, it is unlikely that a Zoning Waiver Permit will be required.

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# 4. POSSIBLE ALTERNATIVES

## 4.1. No Action

The no action alternative would maintain the status quo. No improvements would be made to the WWPS. However, since this project aims to provide important upgrades to the standby fuel storage system, as required by the passage of HAR Chapter 11-280.1, this option is not feasible. The City is legally required to upgrade the fuel storage tank. To forestall this action would increase the risk to the environment and public health due to non-compliant equipment.

## 4.2. Delayed Action

A delayed action implies that a project of similar scope and size to the Proposed Action would occur at an unspecific future date. As with the "no action" alternative, this option would increase the risk for long term harm to the environment and public health of the surrounding community. In addition, as stated in HAR Chapter 11-280.1, these improvements must be completed before July 15, 2028. Postponing the construction would result in not meeting this deadline; therefore, this is not a feasible option.

## 4.3. Replace Existing UST with a compliant UST

This alternative would replace the existing UST with a new, compliant UST to meet regulatory requirements. However, it is not a preferred alternative because USTs are more difficult to inspect, maintain, and monitor for leaks or structural damage compared to ASTs. USTs are also more vulnerable to groundwater infiltration, particularly as groundwater levels rise. While a UST would have no visual presence and would be less susceptible to damage from vehicles, it would pose a greater risk of soil contamination and potential impacts to water quality. Since adequate space is available on the project site, installing a compliant UST instead of an AST would pose an unnecessary environmental risk.

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# 5. PERMITS AND APPROVALS

The exact permitting and approval requirements will be determined during the design phase, and the following list contains permits and approvals that may be required for the Proposed Action.

| Permit / Review | Agency | Trigger/ Applicability |
|---|---|---|
| **Special Management Area (SMA) Use Permit** | Honolulu DPP | Proposed Action is considered a "development" and the location is within the SMA. |
| **Zoning Clearance / Determination** | Honolulu DPP | Fuel tank must be accessory to an allowed agricultural use in AG-2 zone. |
| **Building Permit** | Honolulu DPP | Required for tank pad, secondary containment, piping, electrical work |
| **Grading Permit** *(if applicable)* | Honolulu DPP | Required if earthwork exceeds 50 cubic yards |
| **Street Usage Permit for Construction** | Honolulu Department of Transportation Services | Required for any work that may temporarily obstruct any portion of a roadway or sidewalk. |
| **Flammable / Combustible Liquid Permit** | HFD | Required for above ground fuel storage (gasoline/diesel), regardless of size. |
| **AST Notification** *(advisory)* | Hawai'i DOH (Hazardous Waste Branch) | Not legally required under 1,320 gallons, but strongly recommended for tracking |
| **State Historic Preservation Division Review** | DLNR / SHPD | Recommended |
| **SPCC Plan (Spill Prevention)** | U.S. EPA / DOH | **Not required –** tank is below 1,320-gallon federal threshold |
| **Stormwater / Runoff Management** | Honolulu ENV / DOH (advisory) | BMPs required if site is near drainage, stream, or slopes |
| **Cross-connection / Water Review** | Honolulu Board of Water Supply | Required if tank is near potable water systems or hydrants |

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# 6. DETERMINATION

According to HAR §11-200.1-13, an agency must determine whether an action may have a significant impact on the environment, considering all phases of the Proposed Action, its expected primary and secondary impacts, cumulative effects with other projects, and its short- and long-term effects. In making this determination, the rules establish "significance criteria" to guide the consideration of potential environmental effects.

The Proposed Action is not likely to have a significant impact on the physical or human environment based on the analysis presented in this document. Therefore, ENV has determined that a Finding of No Significant Impact (FONSI) is appropriate. The supporting rationale for this finding as set forth in HAR §11-200.1-13 is discussed below.

*(1) Irrevocably commit a natural, cultural, or historic resource;*

The Proposed Action is not expected to involve an irrevocable commitment, loss, or destruction of any natural or cultural resource. Instead, it aims to provide protection against the harmful effects to the environment and public health that would occur as a result of deterioration or malfunction if the project were not undertaken. The project proposes to upgrade an existing underground fuel storage tank to an aboveground fuel storage tank system with mandated secondary containment and interstitial monitoring in an area that has been previously disturbed by grading, utility lines, and road construction. The proposed work is to take place within an existing pump station facility and will not extend the footprint of the property. Biological resources may exist in the area and recommendations by the DLNR-DOFAW will be followed to mitigate any impact on these resources. There are no known cultural or historic resources within the site boundary, which has been previously graded, but recommendations by the SHPD will be followed to protect cultural resources, should any be discovered during construction.

*(2) Curtail the range of beneficial uses of the environment;*

No beneficial uses of the environment will be curtailed as a result of the Proposed Action, which involves fuel tank infrastructure upgrades and installation of an AST at an existing WWPS facility. The proposed upgrades to the facility are a continuation of the beneficial use of the WWPS site for a public purpose.

*(3) Conflicts with the State's environmental policies or long-term environmental goals established by law;*

The Proposed Action would be in conformance with State Environmental Policy, inclusive of its individual policies, goals, and guidelines for population growth; natural resources; biological resources; transportation; energy; and culture, as discussed in the individual resource categories throughout this EA.

*(4) Have a substantial adverse effect on the economic welfare, social welfare, or cultural practices of the community or State;*

The Proposed Action does not substantially or negatively affect the economic or social welfare and cultural practices of the community or State. The Proposed Action creates short-term jobs for the design and installation of the AST.

*(5) Have a substantial adverse effect on public health;*

Public health will not be adversely affected by the Proposed Action. Short-term and temporary effects such as surface runoff, fugitive dust, noise, and intermittent traffic are expected to cease upon Proposed Action completion. The implementation of mitigation measures will minimize temporary impacts. Completion of the Proposed Action will facilitate the regulatory-mandated fuel tank upgrades.

*(6) Involve adverse secondary impacts, such as population changes or effects on public facilities;*

No substantial secondary impacts such as population shifts are anticipated from the Proposed Action, which involves upgrades to existing fuel storage tanks to improve fuel containment and monitoring. Such upgrades are expected to positively impact the environmental sustainability of the existing public facility.

*(7) Involves a substantial degradation of environmental quality;*

The Proposed Action is not expected to degrade environmental quality. Environmental impacts that may occur during the various phases of construction will be addressed through the implementation of mitigation measures, as appropriate. Mitigation measures have been identified throughout this EA.

*(8) Be individually limited but cumulatively has substantial adverse effect upon the environment or involves a commitment for larger actions;*

The Proposed Action, which involves the upgrades of the fuel storage tank system at the Maunawili Park WWPS facility, is not expected to result in adverse cumulative effects and represents a continuation of the long-term commitment by the City's Environmental Services Division to provide wastewater treatment services to the community it serves.

*(9) Have a substantial effect on rare, threatened, or endangered species, or its habitat;*

There is no federally designated critical habitat within the immediate vicinity of the project site. Endangered and threatened species may occur or transit through the vicinity of the proposed project area. The Proposed Action is not anticipated to displace or have a substantial effect on protected federal or State of Hawai'i listed species. Recommendations from the DLNR-DOFAW will be followed to ensure timely detection, monitoring, and protection of any sensitive species.

*(10) Have a substantial adverse effect on air or water quality or ambient noise levels;*

Short-term impacts to air quality, water quality or ambient noise levels may occur during construction and demolition. The implementation of mitigation measures is expected to avoid the exceedance of Federal or State air quality, noise, and water quality standards. Environmental impacts will be mitigated through proper construction techniques and compliance with permits and applicable administrative rules and regulations.

*(11) Have a substantial adverse effect or is likely to suffer damage by being located in an environmentally sensitive area such as a flood plain, tsunami zone, beach, erosion-prone area, geologically hazardous land, estuary, fresh water, or coastal waters;*

The project site is not situated within an environmentally sensitive area and is not anticipated to affect such areas.

*(12) Have a substantial adverse effect on scenic vistas and view planes identified in county or state plans or studies; or*

Proposed fuel tank system infrastructure will not obstruct or affect scenic vistas and view planes. The AST will be visible from the roadway but will not block any scenic vistas and view planes identified in county or state plans or studies.

*(13) Require substantial energy consumption or emit substantial greenhouse gas.*

Installation of the AST and piping would take place during a limited time period and would not require substantial energy consumption. Greenhouse gas emissions from diesel-power construction equipment and generators would occur during the temporary period of construction. No mitigation is proposed for temporary impacts. In the long term, permanent fuel tank system infrastructure represents a continuation of current operations.

# 7. PUBLIC AGENCY REVIEW AND CONSULTATION

## 7.1. Early Consultation Period

An Early Consultation Letter and Handout was sent on April 1, 2025 to initiate the environmental review process. A list of consulted agencies, organizations, and interest groups are listed below. There were nine formal responses to the early consultation letter, as indicated by the ✓ below. A copy of the Early Consultation Letter and Handout are included in Appendix B.

***State of Hawai‘i***

Department of Land and Natural Resources

- Commission on Water Resource Management ✓
- State Historic Preservation Division
- O‘ahu Island Burial Council
- Division of Forestry and Wildlife ✓
- Land Division ✓
- Engineering Division

Department of Hawaiian Homelands

Department of Health

- Safe Drinking Water Branch
- Clean Air Branch
- Clean Water Branch
- Environmental Management Division
- Indoor and Radiological Health Branch

Office of Hawaiian Affairs

Office of Planning and Sustainable Development ✓

Hawai‘i Emergency Management Agency

Department of Hawaiian Home Lands

Department of Transportation

Senate District 25 (Senator Chris Lee)

House District 49 (Representative Scott Matayoshi)

***City and County of Honolulu***

Board of Water Supply ✓

Department of Design and Construction ✓

Department of Emergency Management

Department of Environmental Services

Department of Facilities Maintenance

Department of Land Management

Department of Parks and Recreation

Department of Planning & Permitting ✓

Department of Transportation Services

Honolulu Fire Department ✓

Honolulu Police Department ✓

Office of Climate Change, Sustainability and Resiliency

Honolulu City Council District 3 (Esther Kiaʻāina)

Mayor Rick Blangiardi

Kailua Neighborhood Board No. 31

***Utility Companies***

Hawaiian Electric Company

## 7.2. Draft EA Comment Period

The Maunawili Park WWPS Draft EA was published on November 23, 2025 in the State Office of Planning and Sustainable Development's semi-monthly publication, The Environmental Notice. A 30-dy comment period from November 23, 2025 to December 23, 2025 provided an opportunity for public review and submission of written comments on the Draft EA. A letter notice announcing the publication was sent to the agencies, organizations, and interest groups listed in Section 7.1.

A total of nine comments were received during the public comment period. Five comments were not considered substantive and therefore did not require responses. Substantive comments, for which responses were provided, are indicated with an asterisk (*) below. Copies of all comments and responses are included in appendix C.

The following agencies provided comments during the public review period:

***State of Hawai‘i***

Department of Land and Natural Resources

Engineering Division*

Division of Aquatic Resources*

Office of Planning and Sustainable Development*

Department of Health

Clean Air Branch

Department of Transportation

***City and County of Honolulu***

Department of Planning and Permitting*

Honolulu Police Department

Department of Design and Construction

***Organizations and Associations***

Hawaiian Electric Company

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# 8. REFERENCES

City and County of Honolulu, Department of Facility Maintenance. (2017). Storm Water Best Management Practice Manual CONSTRUCTION.

City and County of Honolulu. (2023). Revised Ordinances of Honolulu, Chapter 21: Land Use Ordinance. https://www.honolulu.gov/rep/site/dpp/dpp_docs/Land_Use_Ordinance.pdf

City and County of Honolulu. Oahu General Plan (2021).

*Climate Change Portal | Less & Heavy Rain*. (n.d.). Retrieved June 1, 2025, from https://climate.hawaii.gov/hi-facts/rain/

Environmental Protection Agency. (2020, August). Managing Above Ground Storage Tanks to Prevent Contamination of Drinking Water. *Source Water Protection Practices Bulletin*. https://archive.epa.gov/region02/capp/web/pdf/fs_swpp_ast.pdf

Hamilton, K. (2014). Projecting Climate Change in Hawai i. *IPRC Climate*, *14*(1).

Hawai‘i Emergency Management Agency. (2023). *2023 State of Hawai‘i Hazard Mitigation Plan.*

*HURRICANES IN HAWAII*. (n.d.). Retrieved June 1, 2025, from https://www.soest.hawaii.edu/met/Faculty/businger/poster/hurricane/

*Ko‘olaupoko Sustainable Communities Plan*. (2017). https://www.honolulu.gov/dpp/wp-content/uploads/sites/56/2024/07/Koolau_Poko_SCP_2017.pdf

Office of Environmental Quality Control. (1984). Register of Chapter 343, HRS Documents. *OEQC Bulletin*, *1*. https://files.hawaii.gov/dbedt/erp/The_Environmental_Notice/1984-08-08-OEQC-Bulletin.pdf

*Rising Temperatures*. (n.d.). Retrieved May 25, 2025, from https://climate.hawaii.gov/hi-facts/temperature/

State of Hawaii. Hawaii Revised Statutes.

Tetra Tech, Inc. and University of Hawai'i Coastal Geology Group. 2017. Sea Level Rise – Exposure Area. https://planning.hawaii.gov/gis/download-gis-data-expanded/. Accessed May 1, 2025.

USGCRP. (2018). *Fourth National Climate Assessment* (pp. 1–470). U.S. Global Change Research Program, Washington, DC. https://nca2018.globalchange.govhttps://nca2018.globalchange.gov/chapter/27

*Western Regional Climate Center*. (n.d.). Retrieved June 1, 2025, from https://wrcc.dri.edu

*Wildfire Plans and Maps*. (n.d.). Hawaii Wildfire Management Organization. Retrieved May 26, 2025, from https://www.hwmo.org/wildfire-plans

United States Census Bureau Search, Accessed May 2, 2025 from https://data.census.gov

U.S. Department of Agriculture, Natural Resources Conservation Service. (n.d.). Web Soil Survey. https://websoilsurvey.nrcs.usda.gov/

U.S. Fish & Wildlife Service. (2025). IPaC Information for Planning and Consultation. Retrieved from https://ipac.ecosphere.fws.gov/.

# Appendix A

## Archaeological Literature Review and Field Inspection Report

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# Draft

# Archaeological Literature Review and Field Inspection for the Maunawili Park Wastewater Pump Station Improvements Project, Kailua Ahupua‘a, Ko‘olaupoko District, O‘ahu TMK: (1) 4-2-007:031 por.

**Prepared for**
**Townscape, Inc.**
**on behalf of the**
**City and County of Honolulu (C&C) Department of Environmental Services**

**Prepared by**
**David W. Shideler, M.A.,**
**and**
**Hallett H. Hammatt Ph.D**

**Cultural Surveys Hawai‘i, Inc.**
**Kailua, Hawai‘i**
**(Job Code: KAILUA 162)**

**April 2025**

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# Management Summary

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| **Reference** | Archaeological Literature Review and Field Inspection for the Maunawili Park Wastewater Pump Station Improvements Project, Kailua Ahupua‘a, Ko‘olaupoko District, O‘ahu, TMK: (1) 4-2-007:031 por. (Shideler and Hammatt 2025) |
| **Date** | April 2025 |
| **Project Number(s)** | Cultural Surveys Hawai‘i, Inc. (CSH) Job Code: KAILUA 162 |
| **Investigation Permit Number** | CSH completed the fieldwork component of this study under archaeological fieldwork permit number 25-04, issued by the Hawai‘i State Historic Preservation Division (SHPD) per Hawai‘i Administrative Rules (HAR) §13-13-282. |
| **Agencies** | SHPD |
| **Project Proponent** | City and County of Honolulu (C&C) Department of Environmental Services (ENV) |
| **Project Funding** | C&C |
| **Project Location** | The project area is located within the west side of the small Maunawili Park Wastewater Pump Station (WWPS) located at 830 Auloa Road, HI 96734 in upland Kailua Ahupua‘a, Ko‘olaupoko District on the windward side of O‘ahu (within the central portion of Tax Map Key [TMK] plat: [1] 4-2-007:031). The Maunawili Park WWPS is less than 100 m southeast of the intersection of Maunawili Road and Kalaniana‘ole Highway (the highway is only 25 m to the north). The project area is depicted on portions of the 2017 Honolulu, Kaneohe, Koko Head, and Mokapu Point U.S. Geological Survey (USGS) 7.5-minute series topographic quadrangles (Figure 1), a tax map plat (Figure 2), and a 2019 aerial photograph (Figure 3).<br><br>The specific location of the project work including placement of an aboveground storage tank (AST) on the central west side of the Maunawili Park Wastewater Pump Station facility and adjacent new underground fuel piping is depicted on project plans (Figure 4) and is clarified in annotated photographs (Figure 5 and Figure 6). |
| **Land Jurisdiction** | C&C |
| **Project Acreage** | The Maunawili Park WWPS facility defined by a roughly square perimeter fence is approximately 0.223 acres (0.09 hectares). The area of the specific project on the west side of the facility is approximately 20 square meters (sq m). |

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| **Project Description and Ground Disturbance** | The C&C ENV will be replacing the existing 1,000-gallon fuel underground storage tank (UST) on the west side of the existing Pump Station building with a new, 1,000-gallon AST at a slightly different location on the west side of the Pump Station building (Figure 4 and Figure 5). New underground fuel piping will connect the new AST to the Pump Station building (Figure 5 and Figure 6). |
| **Historic Preservation Regulatory Context** | This is a state/municipal “governmental” project needing review under Hawai‘i Revised Statutes (HRS) §6E-8 and HAR §13-275 |
| **Document Purpose** | This archaeological literature review and field inspection (LRFI) investigation was designed—through detailed historical, cultural, and archaeological background research and a field inspection of the project area—to determine the likelihood that historic properties may be affected by the project and based on findings, consider cultural resource management recommendations. This document is intended to facilitate the project’s planning and support the project’s historic preservation environmental review compliance. This investigation does not fulfill the requirements of an archaeological inventory survey investigation, per HAR §13-276.<br><br>For the purpose of this LRFI study, the study area was the approximately 0.22-acre, fenced, Maunawili Park WWPS facility which occupies approximately the central third of TMK: (1) 4-2-007:031. |
| **Natural and Built Environment** | The project area is in the uplands behind the sand accretion barrier of Kailua Town in Maunawili, within the ancient center of the Ko‘olau Shield volcano caldera and the weathered northwestern foothills of the Olomana Ridge, eroded caldera remnants formed at least 3 million years ago (MacDonald et al. 1983:303, 420, 443). Originating in the steep Olomana Range, the perennial Kahanaiki (“small Kahana”) and Maunawili (“twisted mountain”; Pukui et al. 1974:149) streams cut through the project area before flowing into Kawainui Marsh on their way to the sea.<br><br>The project area lies at approximately 120 foot (ft) elevation. According to the U.S. Department of Agriculture (USDA) Soil Survey Geographic (SSURGO) database (2001) and soil survey data gathered by Foote et al. (1972), soils in the project area (Figure 7) consist of Waikane silty clay, 3 to 8% slopes (WpB), on the northwest side and Hanalei silty clay, 0 to 2% slopes (HnA) on the southeast side.<br><br>The Waikane soil series is described as follows:<br><br>> This series consists of well-drained soils on alluvial fans and terraces on the island of Oahu. These soils developed in alluvium and colluvium derived from basic igneous rock. They are nearly level to very steep. Elevations range from 200 to 1,000 feet. The |

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| | annual rainfall amounts to 50 to 70 inches. It is well distributed throughout the year. […]<br><br>These soils are used for pasture, truck crops, and homesites. The natural vegetation consists of Christmas berry, guava, hilograss, and ricegrass. [Foote et al. 1972:130]<br><br>Waikane silty clay, 3 to 8% slopes (WpB) is further described as: “On this soil, runoff is slow and the erosion hazard is slight. Workability is easy” (Foote et al. 1972:131).<br><br>The Hanalei soil series is described as follows:<br><br>This series consists of somewhat poorly drained to poorly drained soils on bottom lands on the islands of Kauai and Oahu. These soils developed in alluvium derived from basic igneous rock. They are level to gently sloping. Elevations range from nearly sea level to 300 feet. The annual rainfall amounts to 20 to 120 inches […]<br><br>These soils are used for taro, pasture, sugarcane, and vegetables. The natural vegetation consists of paragrass, sensitive plant, honohono, Java plum, and guava. [Foote et al. 1972:38]<br><br>Hanalei silty clay, 0 to 2% slopes (HnA) soils are further described as: “Permeability is moderate, runoff is very slow, and the erosion hazard is no more than slight” (Foote et al. 1972:38).<br><br>Annual rainfall at the neighboring Maunawili Ranch Station at 1,805 mm (71.1 inches) (Giambelluca et al. 2013) is suggested to be representative. The neighboring Maunawili and ‘Ainoni drainages typically run with water. Vegetation (mostly exotic) is luxuriant. |
| **Background Research Methods** | Background research included a review of previous archaeological studies on file at the SHPD; review of documents at Hamilton Library of the University of Hawai‘i, the Hawai‘i State Archives, the Mission Houses Museum Library, the Hawai‘i Public Library, and the Bishop Museum Archives; study of historic photographs at the Hawai‘i State Archives and the Bishop Museum Archives; and study of historic maps at the Survey Office of the Department of Accounting and General Services. Historic maps and photographs from the CSH library were also consulted. In addition, Māhele records were examined from the Waihona ‘Aina database (Waihona ‘Aina 2025). |
| **Cultural Context** | Kailua Ahupua‘a was highly cultivated and capable of providing ample resources for a substantial traditional Native Hawaiian population. Water-rich lowlands *makai* (toward the ocean) were conducive to wet taro agriculture and may have hosted some of the initial Hawaiian settlement of the islands between the eleventh and thirteenth centuries C.E. (Athens et al. 2014:144; Bayman and Dye 2013; Kirch 2012:66; La Croix 2019:5, 6, 19; Ladefoged et al. 2009:2374; Rieth et al. 2011:2740). The sunny, dry beaches of Kailua Bay’s coastal sand barrier were possible desirable residential locations. The |

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| | well-watered inlands surrounding the project area, including the two marsh/pond areas of Ka‘elepulu and Kawainui, and the many springs and streams of Maunawili, provided bountiful agricultural and resource gathering areas. Situated between the sunny beach area and uplands watered by frequent showers, plentiful resources included marine organisms, birds, and hard, dense stone used by the ancient Hawaiians from a basalt quarry (MacDonald and Abbott 1974:363). |
| **Land Commission Awards (LCAs)** | With the arrival of Europeans and Americans in the Islands there was great concern expressed by King Kamehameha III and various chiefs that the land would be taken over by the foreigners who considered land to be a possession rather than a trust as Hawaiians did. To retain power for the kingdom and for Hawaiians, in 1845, King Kamehameha III appointed a Board of Commissioners to Quiet Land Titles (Kuykendall 1968:279). During the Māhele land division of 1848, all the land was acknowledged as belonging to the king. The king first selected which pieces he wanted to keep for himself, which he would give to his chiefs and his family, and then which lands might be sold. Among the first selections of land for himself as “Crown Lands,” Kamehameha III took the *‘ili* (a traditional Hawaiian land division smaller than an *ahupua‘a*) of Kawailoa in Kailua (which is the portion of land from Kamehameha Highway near the Kailua Fire Station up to the peak of Olomana) but quit-claimed the *ahupua‘a* (traditional land division typically running from the mountains to the sea) to his wife, Hazaleleponi Kalama (Kelly and Nakamura 1981:19–20). Kamehameha III gave over to the Hawaiian government as “Government Lands” his interests in 35 other *‘ili* in Kailua including the *‘ili* of Maunawili (Kelly and Nakamura 1981:20).<br><br>Approximately 130 separate Land Commission Award (LCA) claims are recorded for the *ahupua‘a* of Kailua (Kelly and Nakamura 1981:23). The most common timeframe given for the acquisition of lands in the Kailua Land Commission Award claims is a statement that they received their piece of land in the time of Boki or his wife Liliha (Creed 1992:10). Boki “was over the land of O‘ahu by the time of the *‘ai noa* ‘free eating’ event in 1819” (Kamakau 1992:225) and he became Governor (or *Kuhina nui*) of O‘ahu under the young Kamehameha III. His wife, Liliha, succeeded him as *Kuhina nui* after he was lost at sea.<br><br>The vicinity of the present project area had a high density of native tenant LCA claims (*kuleana*) as depicted in Figure 8. The LCA claims are summarized in Table 1. As near as we can tell, almost all the land claims very close to the project area are associated with taro cultivation but with one house lot (*kahuahale*), LCA 6806:2 belonging to Nakanelua, having spanned the present-day junction of Auloa Road and Maunawili Road but this was more than 150 m southwest of the Maunawili Park WWPS (Figure 8).<br><br>Of interest is the evidence of a *halepule* or church in the vicinity of the project area; early churches may have been associated with graveyards that, although long forgotten, may still be partially extant. |

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| | Western ethnohistoric accounts corroborate Māhele-era records by situating nineteenth century Christian churches in Kailua, but provide scant details regarding their locations, congregations, etc. An ethnohistoric account (Chamberlain 1956:31) mentions several Christian mission schools, which may have been associated with churches, in Kailua by 1828, but offers no further details regarding their locations. Another account (Brother Victor Bertrand in Schoofs 1978:100) notes that in 1860, a Brother Calixte was sent to Kailua to build a Catholic chapel on the site of a *pili* grass thatched house of worship.<br><br>Of particular interest is the account of LCA 6813 ʻĀpana (lot) 1 to Keliikanakaole, which slightly overlapped the northwest corner of the TMK: (1) 4-2-007:031 parcel that includes the Maunawili Park WWTP and extended to the confluence of Auloa Road and Maunawili Road, because of its reference to a neighboring church "*Halepule*" yard (Figure 8, Figure 9, Figure 17, and the Appendix A treatment of LCA 6813:1 to Keliikanakaole).<br><br>It is not certain that the indicated church referenced in 1852 in the LCA 6813:1 account would have had a directly associated cemetery (but in Dr. Brennan's study he believed that it was; note his reference to "their cemeteries" plural below). Dr. Brennan's account of churches and cemeteries in the immediate vicinity follows:<br><br>> There were two known nineteenth-century Christian churches for the Hawaiian community in the Olomana area. Both are now gone and their cemeteries evidently were destroyed during the excavation for the new Kalaniana‘ole Highway in the 1950s. Elderly residents still remember them. One was located on the west side of Akam Store, above Kahanaiki Stream; the other was located near today's Castle Medical Center, in the ʻili of Makaliʻi downstream from Waipa‘akiki. Area residents, youngsters in the 1920s and 1930s, had vivid memories of the cemetery, and their fear of passing by it, especially at night. Following the construction of the highway, all traces of the cemetery were destroyed. [Brennan 2009:123]<br><br>Dr. Brennan's (2009:123) ethnohistorical documentation of elderly residents who remembered a cemetery "located on the west side of Akam Store" (Figure 10) in the 1920s and 1930s, correlates to the geographic location of the adjacent *halepule* bounding LCA 6813:1.<br><br>A close-up of a portion of the A.C. Alexander, August 1911 map (Figure 17) shows this immediate area which included a school, flagpole, and rice mill and was the center of Kailua Town as it would be into the late 1920s (Figure 10). The school (Kailua Uka School) may initially have been associated with the church. |

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| **Historical Background Focused on a Review of Historic Maps and Aerial Photographs** | Late 1800s maps showing most or all of the project area include the 1888 Bishop map (Figure 11), the 1894 Wall map (Figure 12), the 1899 Wall map (Figure 13), and the 1900 King map (Figure 14). These maps are confusing with their myriad place names and absence of contemporary geographic references. Contemporary street alignments (like Kalaniana‘ole, Maunawili Road, Auloa Road, and Kailua Road) are largely missing. Signs of human enterprise (other than land divisions) are largely absent. The main takeaways here are that the Maunawili area, as its “twisted mountain” name suggests, was a tapestry of place names and coveted parcels reflecting a rich agricultural tradition.<br><br>The 1888 Bishop map of Kailua (Figure 11) shows the main *alanui* trail descending from the Nu‘uanu Pali arced to the southeast to the primary destination of Waimānalo at a relatively high elevation, 1,200 m *mauka* (toward the uplands) of the Maunawili Park WWPS. A branch of this road descended toward coastal Kailua (bifurcating around the sides of Kawainui Marsh) with the eastern branch indicated as arcing north of the Maunawili Park WWPS.<br><br>The 1894 Wall map (Figure 12) is similar to the 1888 map in depicting that the main road (to Waimānalo) was more than a kilometer upslope of the Maunawili Park WWPS. A less formal road to Waimānalo is depicted with the west end starting abruptly at an indicated bridge near the Maunawili Park WWPS. This Maunawili Ranch map does not depict any roads to coastal Kailua.<br><br>The 1899 Wall map (Figure 13) shows Auloa Road as approximating its present alignment arcing around the north side of the Maunawili Park WWPS and depicts the north portion of Maunawili Road as in place.<br><br>The 1900 King map (Figure 14) continues to show the *alaloa* main road to Waimānalo as roughly following the contour a kilometer upslope of the Maunawili Park WWPS with the spur road (Auloa Road) to coastal Kailua arcing around to the north of the WWPS.<br><br>The 1906 Donn map (Figure 15) provides a “broad-brush” overview of land use, with the location of the Maunawili Park WWPS indicated as in a large area of “Wet Lands (Rice and Taro).” Land use in the early twentieth century was, however, diversifying.<br><br>It may be little appreciated that “In 1900, Kailua’s bustling community was concentrated between the base of Olomana and the *mauka* end of Kawainui, along old ‘Auloa Road” (Brennan 2009:115). There was virtually no town to speak of on the coastal Kailua sandbar recognized as Kailua Town today. The center of enterprise and demography of Kailua Town was focused near the confluence of Auloa Road and Maunawili Road.<br><br>Based on ethno-historical interviews, Dr. Paul Brennan and others described Kailua in present-day Maunawili as a place of commerce, industry, and social |

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| | interaction, all integrated into a dynamic society, in the first half of the twentieth century (Brennan 2009:115). Their ethno-historical work chronicles a time of transition from a community of Hawaiian upland taro farmers whose children were students at Kailua Uka School (the only school in Kailua when it began operation in 1883) to a community "most of whom were Chinese" (Brennan 2009:115), to a community that was mostly Japanese. The economy became quite diverse with rice mills, dairies, fruit and vegetable stands and piggeries, nurseries for ornamental plants and flowers, and a remarkable variety of enterprises.<br><br>The 1911 A.C. Alexander map (Figure 16, close-up in Figure 17) shows the locations of a School House, Flag Pole, and Rice Mill near the confluence of today's Auloa Road and Maunawili Road. "At the turn of the twentieth century, Kailua's only school, Kailua Uka, was located at the entrance to Maunawili Valley […]" (Kelly et al. 2009:125). Kailua's only school house was approximately 200 m southwest of the Maunawili Park WWPS (Figure 10 and Figure 17).<br><br>The 1919 U.S. Army map (Figure 18) shows the main road to the Kailua coast making a bend to the east at the Maunawili Park WWPS. Approximately 15 houses are indicated near the confluence of Maunawili Road and Auloa Road.<br><br>For details of this vibrant early center of "urban" Kailua, the reader is referred to *Kailua: In the Wisps of the Malanai Breeze* by the Kailua Historical Society (2009) (with various contributors). Only a brief overview is attempted here with a recreation of settlement in Maunawili Valley ca. 1929 depicted in Figure 19 and a summary of enterprises in Table 2.<br><br>The 1928 USGS map (Figure 19) indicates Auloa Road and the Kailua Road northeastern portion of the project corridor were paved by that date. The former *mauka* road to Waimānalo has been eclipsed by the present-day Kalaniana‘ole alignment (heading straight southeast for Waimānalo). Dr. Brennan developed details of the vibrant community focused in the vicinity of the confluence of Auloa Road and Maunawili Road in, and around, the present project area as detailed in Figure 20 and with major enterprises summarized in Table 2.<br><br>The 1936 U.S. Army map (Figure 21) shows a higher density of homes near the confluence of Auloa Road and Maunawili Road within the vicinity of the project area but that homes were still relatively dispersed.<br><br>The 1943 U.S. Army War Department terrain map (Figure 22) provides no indication of World War II's major effect on Maunawili.<br><br>The establishment of the present Kalaniana‘ole Highway effectively bypassed the former *mauka* center of Kailua with the barber shop and tailor shop going out of business when the new highway segment opened. The Maunawili Bridge conveying modern Kalaniana‘ole Highway over Maunawili Stream in the project area was built in 1951. The 1952-1954 USGS map (Figure 23) |

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| | captures this transition with both today’s Auloa Road and the modern highway labeled as “Kalanianaole Highway.”<br><br>The Maunawili subdivisions continued to expand in the 1950s and 1960s (Figure 23 through Figure 27) and have changed relatively little since (Figure 28).<br><br>The City and County ENV web site for wastewater management facilities in the Windward Region lists the “Date Built” and “Year in service” for the Maunawili Park Wastewater Pump Station as 1989. |
| **Synopsis of Previous Archaeological Work in the Vicinity** | Previous archaeological studies within approximately 500 m of the Maunawili Park WWPS TMK parcel (1) 4-2-007:031 are depicted in Figure 29 and are summarized in Table 3. Previously identified historic properties within approximately 500 m of the parcel are located on Figure 30 and are summarized in Table 4.<br><br>While there have been a number of recent archaeological studies in the immediate vicinity (Hoermann et al. 2020; Shideler and Hammatt 2024, 2025; Welser et al. 2023) there has been relatively little subsurface testing. Most neighboring historic properties are surface sites of the early twentieth century such as the State Inventory of Historic Places (SIHP) # 50-80-11-09161 complex of concrete structural remnants on the north side of Kalaniana‘ole Highway or the 1821 concrete bridge (designated with a temporary site # CSH 2 in Hoermann et al. 2020).<br><br>Of interest is SIHP # 50-80-11-02466, located approximately 200 m east of the Maunawili Park WWPS, which designates a cemetery. Dr. Paul Brennan established the site on the basis of oral historical information but he relates knowledge of the cemetery from five specified informants:<br><br>> This site, lying at the intersection of ‘Auloa and Blacksmith Roads, east of Maunawili Stream, is remembered by all the informants as a cemetery used by Hawaiians previously living in the area. Two informants (Koshiro and Mary Takahashi) made reference to "bones sticking out" of the eroded slope, following an especially heavy rainfall. [Brennan 1994:2]<br><br>While that indicated cemetery appears to be specific to a discrete eroded slope of weathered boulders, it does underscore how populous the immediate vicinity was during traditional Hawaiian times and up through the 1920s. |

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| **Fieldwork Effort** | A brief field inspection of the project area (taking approximately 1 hour) was conducted by CSH archaeologist David W. Shideler, M.A., on 18 March 2025. An archaeologist's track log showing the general location and orientation of the following photographs is provided in Figure 31. The field inspection was completed to identify the likelihood of historic properties being present within the project area. Photographs were taken of the project area.<br><br>General photographs are provided of the entry driveway to the Maunawili Park WWPS (Figure 32) and then clockwise looking toward the center of the facility from the northeast corner (Figure 33), southeast corner (Figure 34), southwest corner (Figure 35), and northwest corner (Figure 36).<br><br>Four views are provided of the Maunawili Park WWPS Pump Station building (including a Pump Station Motor Room and Generator Room) to facilitate any consideration of the facility as a historic property, with views of the front (west side, Figure 37), north side (Figure 38), east side (Figure 39), and south side (Figure 40).<br><br>Views are provided of the location of the proposed new 1,000-gallon AST in the west side of the Maunawili Park WWPS (Figure 41 and Figure 42) and of the area for the proposed new underground fuel piping to connect the new AST to the existing Pump Station (Figure 43).<br><br>The small (less than quarter acre) Maunawili Park WWPS appears to have been entirely graded and the vast majority is covered in asphalt, basalt gravel, or the existing Pump Station building. No historic properties (with the possible exception of the WWPS facility itself) were observed and none are believed to be present.<br><br>The possible impact of the present improvements project to the Maunawili Park WWPS facility as a potential historic property was evaluated. It is noted that the facility dates from 1989 and the AST will not be in the main view plane of the Pump Station building from either Auloa Road or the entrance driveway. |
| **Historic Properties Potentially Affected** | No historic properties have been previously identified in the Maunawili Park WWPS per se (Figure 30 and Table 4) and none were identified in the present study. With the understanding that the "Year in service" for the Maunawili Park Wastewater Pump Station is 1989, and in the absence of any particular uniqueness to the facility it is not regarded as a historic property in and of itself.<br><br>A thrust of this study is the documentation of a Hawaiian center of habitation near the confluence of Auloa Road and Maunawili Road in the present project area. LCAs document a *kahuahale* or home site (LCA 6806:2 belonging to Nakanelua) having spanned the present-day junction of Auloa Road and Maunawili Road within the project area (Figure 22). The presence of this homesite in 1852 may indicate a pattern of habitation in this vicinity going |

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| | back considerably into pre-Contact times. The presence of this homesite is suggested to significantly increase the probability of habitation deposits, human burials, and scattered human skeletal remains in this portion of the project area.<br><br>Just to the north of the homesite there was a church yard (*pā halepule*) referenced on the northwest side of LCA 6813:1 to Keli‘ikanaka‘ole (Figure 22 and Figure 23) which would place the churchyard spanning the project area just north of the confluence of Auloa Road and Maunawili Road. Dr. Paul Brennan related that elderly residents still remembered a cemetery in this vicinity on the “west side of Akam Store [Figure 24] which would appear to fit this location” (Brennan 2009:123). Possibly remnants of this church, associated burials, or disarticulated human skeletal remains relating to this churchyard are present at this portion of the project area.<br><br>This study serves to emphasize that this indicated locus of Hawaiian life in Kailua (centered on a church) evolved into a vibrant multi-ethnic community at this same location (near the confluence of Auloa Road and Maunawili Road; Figure 34 and Table 2). Archaeological remnants of this community, dating to the late 1800s and early 1900s, may be present. |
| **Historic Preservation Next Steps** | This study would support a C&C ENV determination as per HAR §13-275-7(a)(1) of “No historic properties affected” and for no further historic preservation study.<br><br>Early consultation with the SHPD archaeology branch is recommended (with submittal of this study to the SHPD’s Hawai‘i Cultural Resources Information System or HICRIS system), noting that with a date built of 1989 the Maunawili Park WWPS is less than 50 years old hence not in need of architecture branch review. |

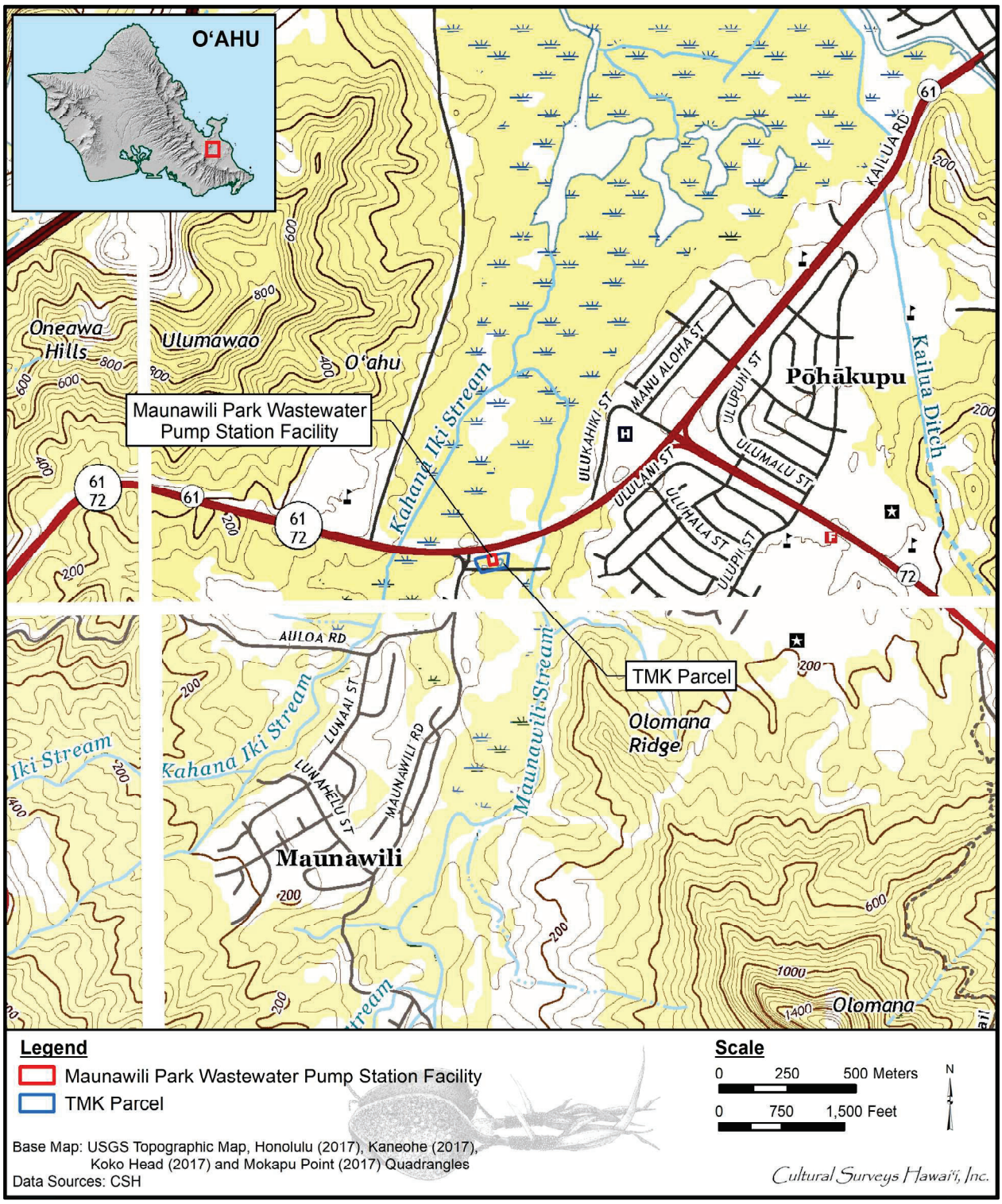



Figure 1. Portions of the 2017 Honolulu, Kaneohe, Koko Head, and Mokapu Point USGS 7.5-minute topographic quadrangles showing the location of the project's TMK parcel (1) 4-2-007:031 and the Maunawili Park WWPS

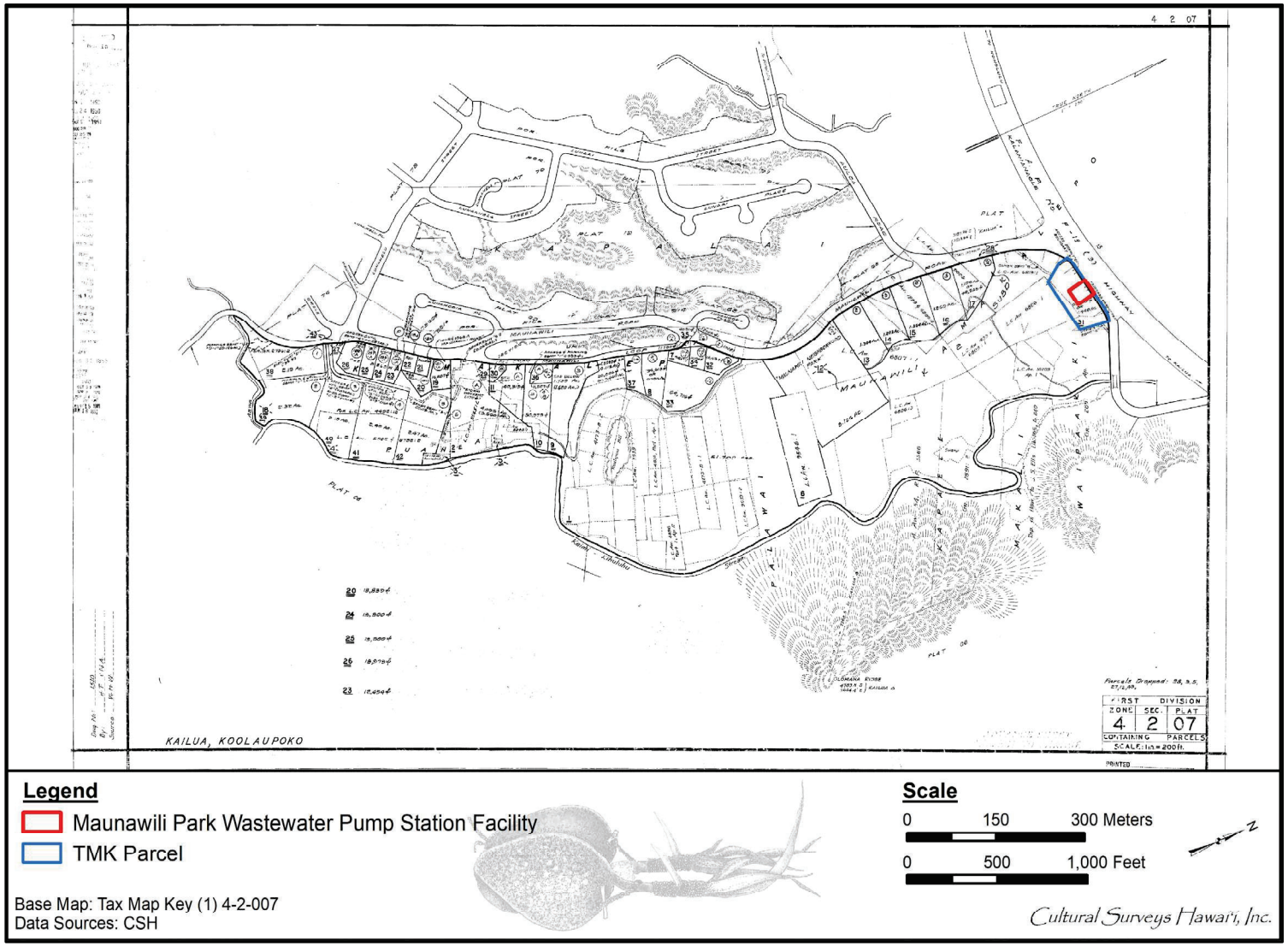



Figure 2. TMK: (1) 4-2-007 showing the location of TMK parcel (1) 4-2-007:031 and the Maunawili Park WWPS (Hawai‘i TMK Service 2025)


Figure 3. Aerial photograph (Google Earth 2019) showing the location of TMK parcel (1) 4-2-007:031 and the Maunawili Park WWPS

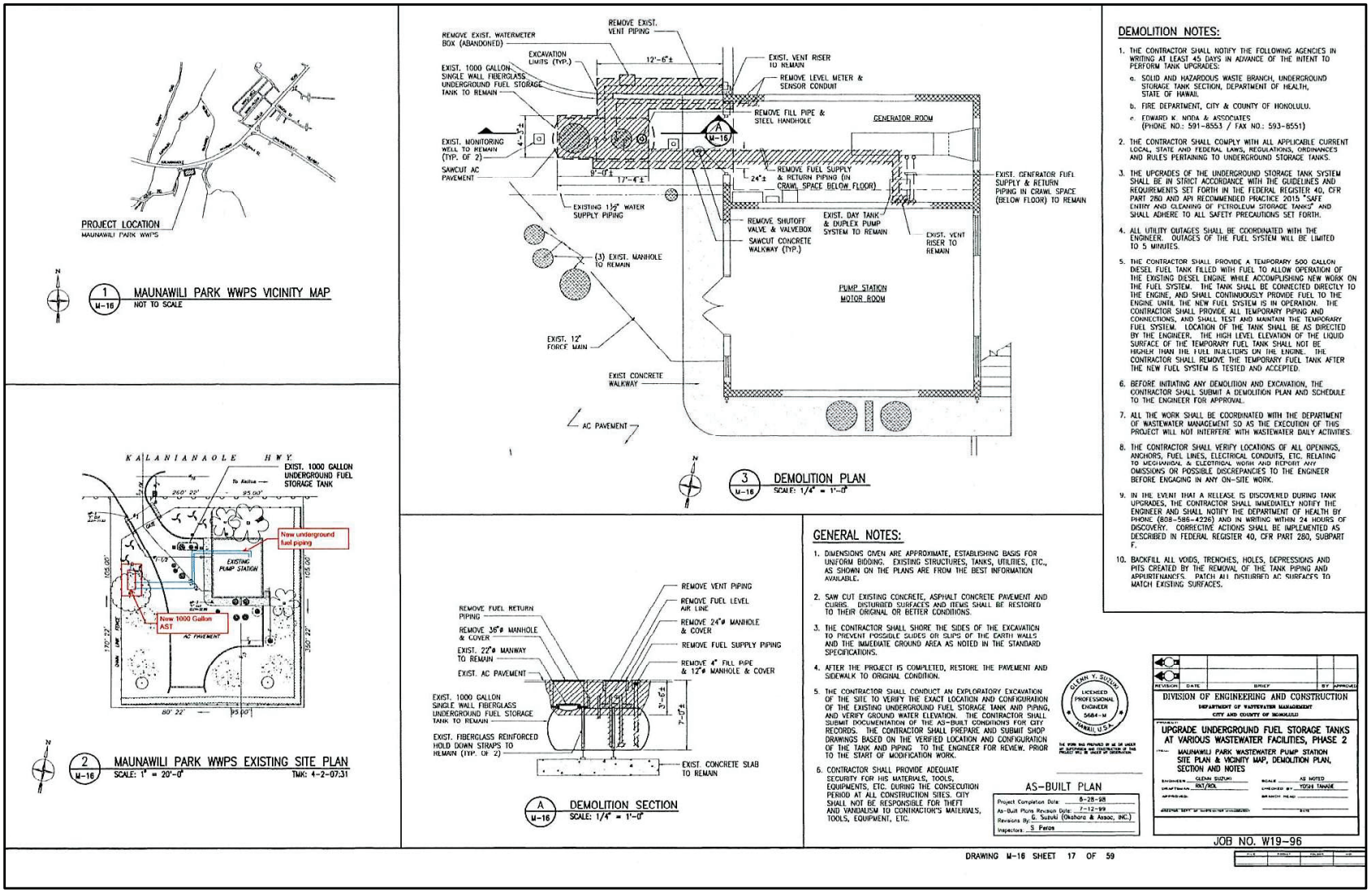



Figure 4. Upgrade Underground Fuel Storage Tanks … Maunawili Park Wastewater Pump Station Site Plan and Vicinity Map, Demolition Plan, Section and Notes (Okahara and Associates, Inc.; courtesy of client)

Figure 5. Photograph showing the location of the new 1,000-gallon AST on the central west side of the Maunawili Park Wastewater Pump Station facility and adjacent new underground fuel piping, view to south (Okahara and Associates, Inc.; courtesy of client)

Figure 6. Photograph showing the location of new underground fuel piping as it enters existing pump station building, view to south (Okahara and Associates, Inc.; courtesy of client)

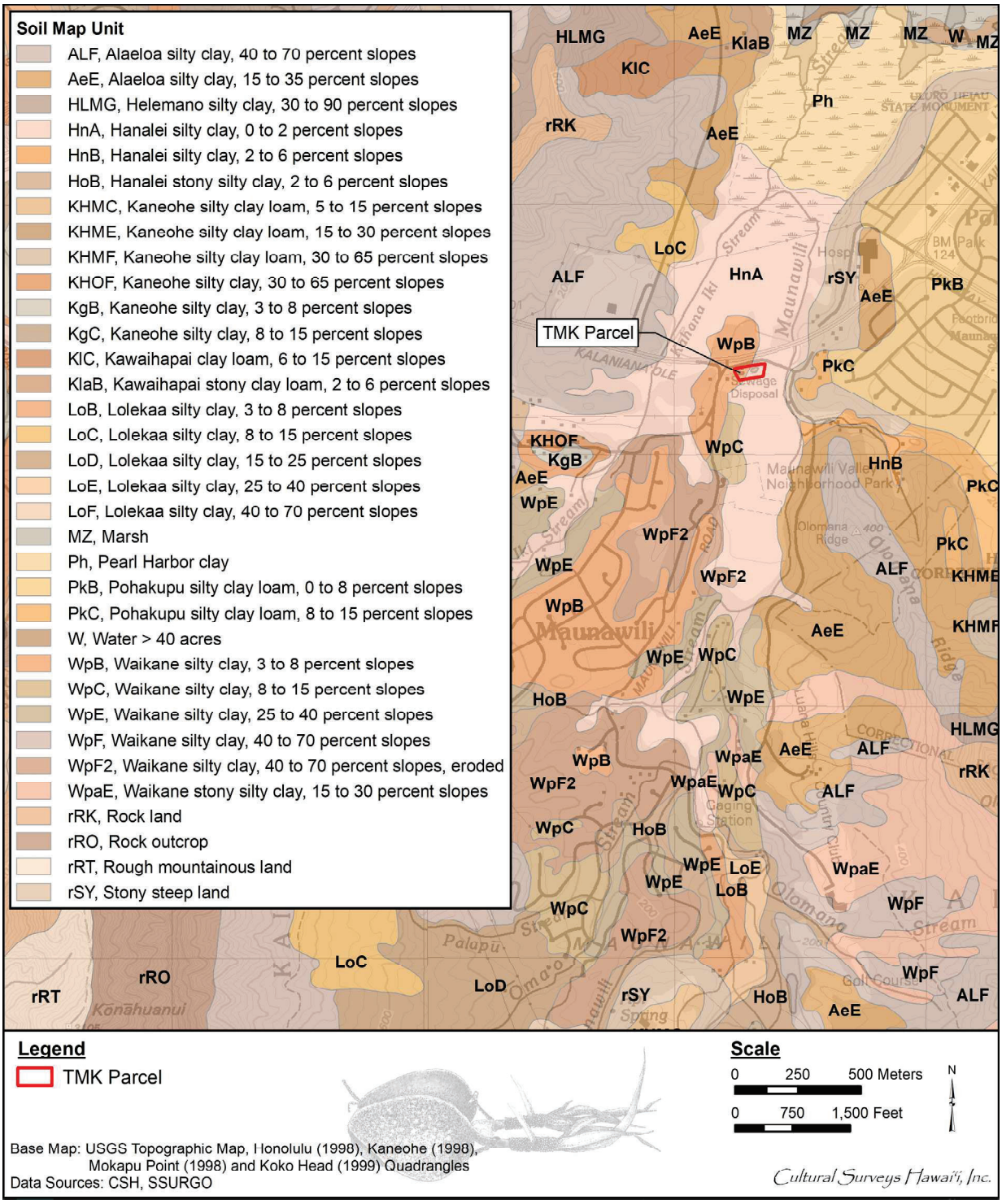



Figure 7. Overlay of *Soil Survey of the Islands of Kauai, Oahu, Maui, Molokai, and Lanai, State of Hawaii* (Foote et al. 1972), indicating soil types within and surrounding TMK: 1 (1) 4-2-007:031 (USDA SSURGO 2001) on a base map of portions of the 1998 Honolulu, Kaneohe, and Mokapu Point, and 1999 Koko Head USGS topographic quadrangles

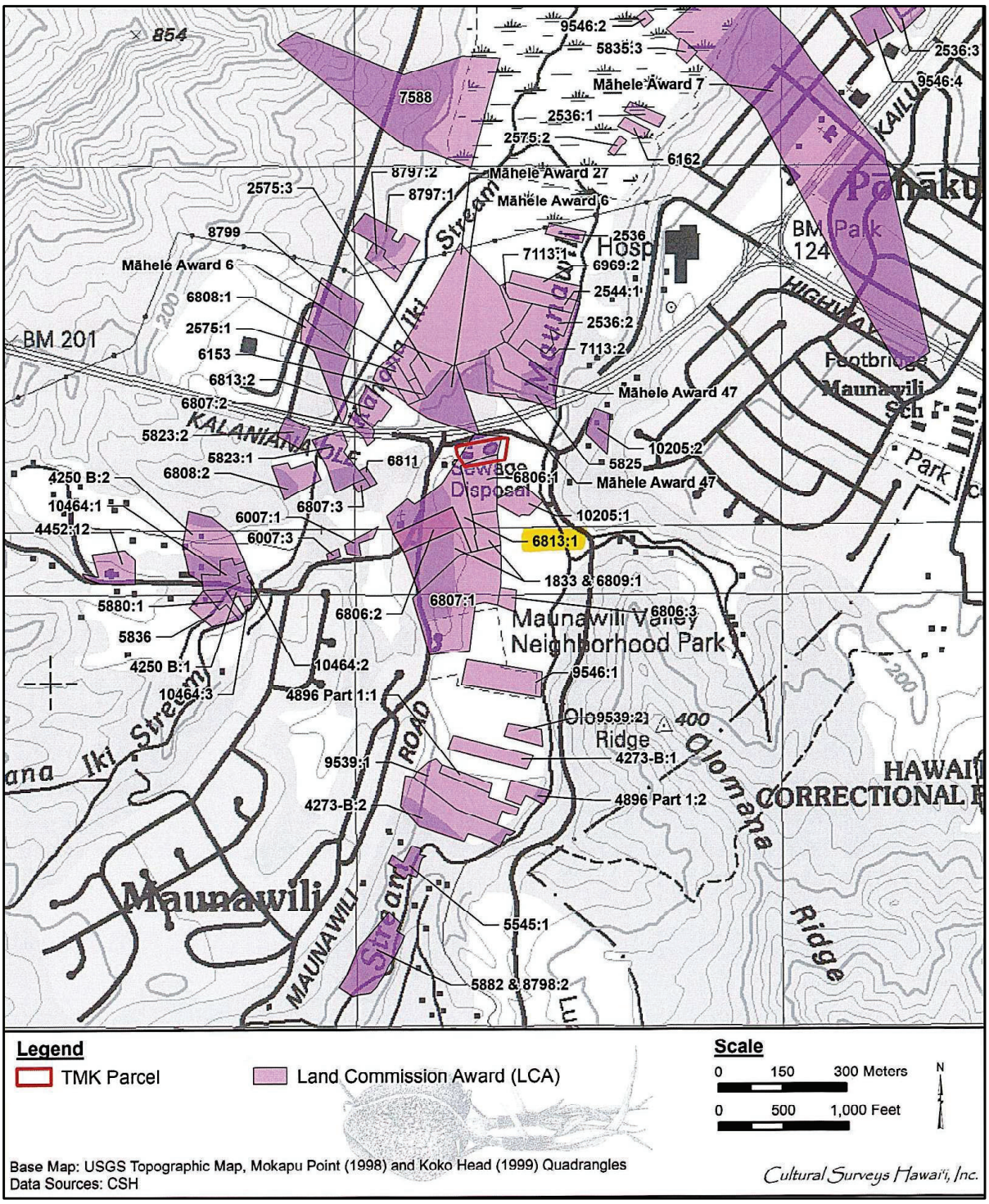



Figure 8. Location of native tenant Land Commission Awards in Maunawili in relation to TMK: (1) 4-2-007:031 on a base map of portions of the 1998 Honolulu, Kaneohe, and Mokapu Point and 1999 Koko Head USGS topographic quadrangles; of particular interest (highlighted) is LCA 6813:1 to Keliikanakaole which references a churchyard on the north-northwest side in 1852

Table 1. LCAs in the immediate vicinity of the Maunawili Park WWPS

| LCA # | Claimant | *‘Ili* | Land Use | Comments |
|---|---|---|---|---|
| M.A. 6 | Honaunau | Maunalele | Half of the *‘ili* land division of Manulele awarded to Honaunau, other half sold back to government and further divided into LCA parcels | No data on land use |
| M.A. 7 | Kaluainea | Pohakupu | Half of the *‘ili* land division of Pohakupu awarded to Kaluainea | No data on land use |
| M.A. 47 | Kaeliwai | Kaaihee | Half of the *‘ili* land division of Kaaihee awarded to Kaeliwai | No data on land use |
| 1833 and 6809:1 | Kanakaliilii | Kailualoa and Kamakalepo | *Mo‘okalo* (taro land) | The claim cites an *‘auwai* (ditch) on the east side |
| 6806:1 | Nakanelua | Kailualoa, Kamakalepo | *Mo‘okalo* (taro land) | Lands of Keliikanakaole bound the NW, SW, and SE sides and land of Maile bounds the northeast side |
| 6806:2 | Nakanelua | Kamakalepo | *Kahuahale* (house lot) and *kula* (dry land, pasture) | NW bounded by Keli‘ikanakaole, the boundary of the long SE side was a wall (*pā*) of Kanakaliilii, and the short SW side was bounded by Kapalai |
| 6007:1 | Lima | Kapalai | Two *lo‘i* (taro patches) | Bounded by an *‘auwai* on the NE side and *konohiki* lands on the other sides |
| 6007:3 | Lima | Kapalai | A *lo‘i* | Bounded by *konohiki* land on the SW, NW, and NE |
| 6807:1 | Kapano | Kawaipuolo *‘ili* of Kamakalepo | *Mo‘o‘āina* (a strip of dry agricultural land) | Notes an *‘auwai* on the NE side |
| 6813:1 | Kelii-kanakaole | Kamakalepo | *Mo‘o‘āina* | Cites neighbors and the wall of the church (*pā halepule*) on the NW side which puts the churchyard in the project area |

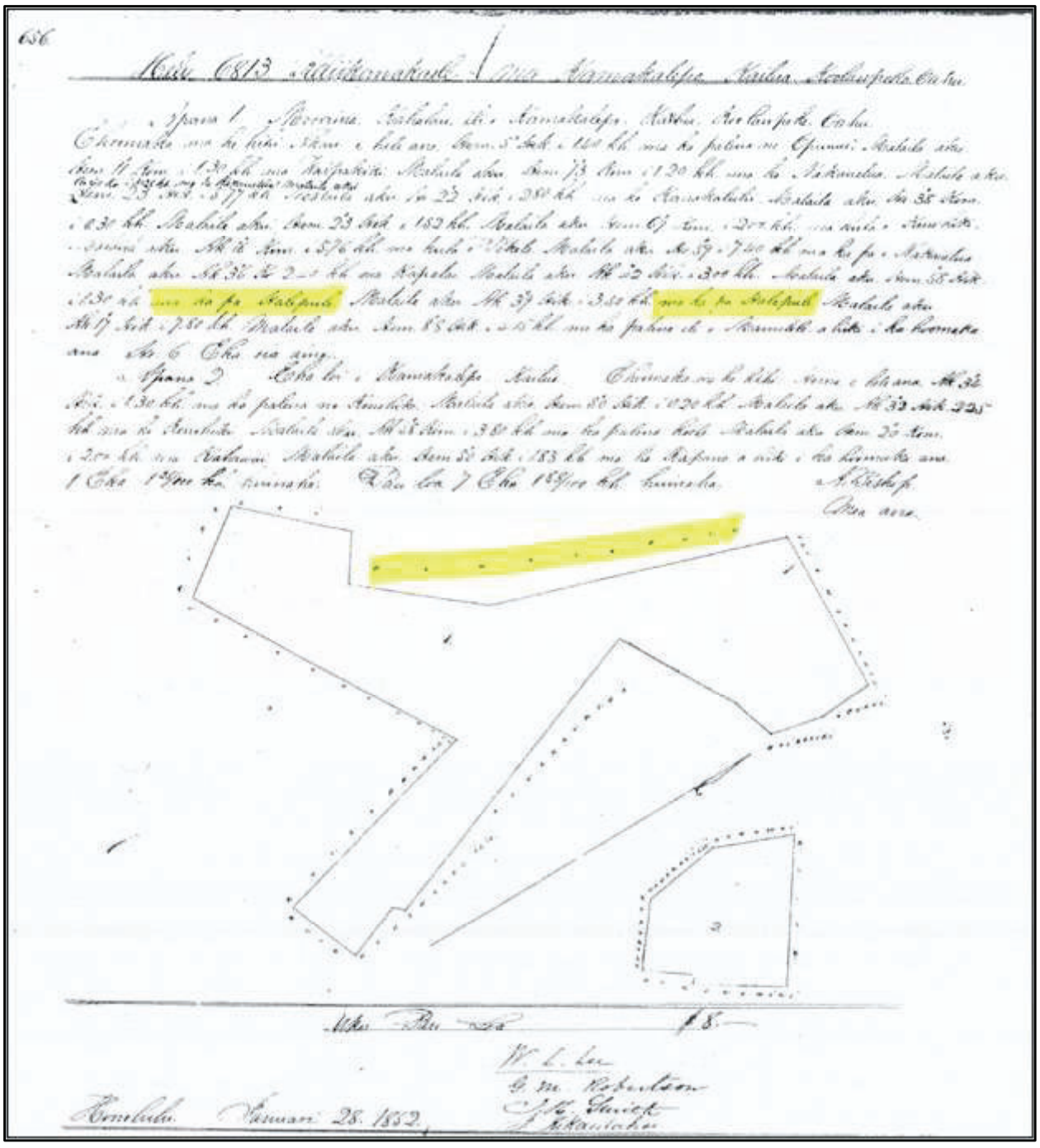


Figure 9. LCA 6813:1 to Keliikanakaole testimony that makes three references (two in the text and one of the map) to a *pā halepule* or churchyard bounding the LCA 6813:1 property on the north-northwest side, which would place the churchyard extending into the northwest portion of TMK: (1) 4-2-007:031 just north of the confluence of Auloa Road and Maunawili Road (see Figure 8)

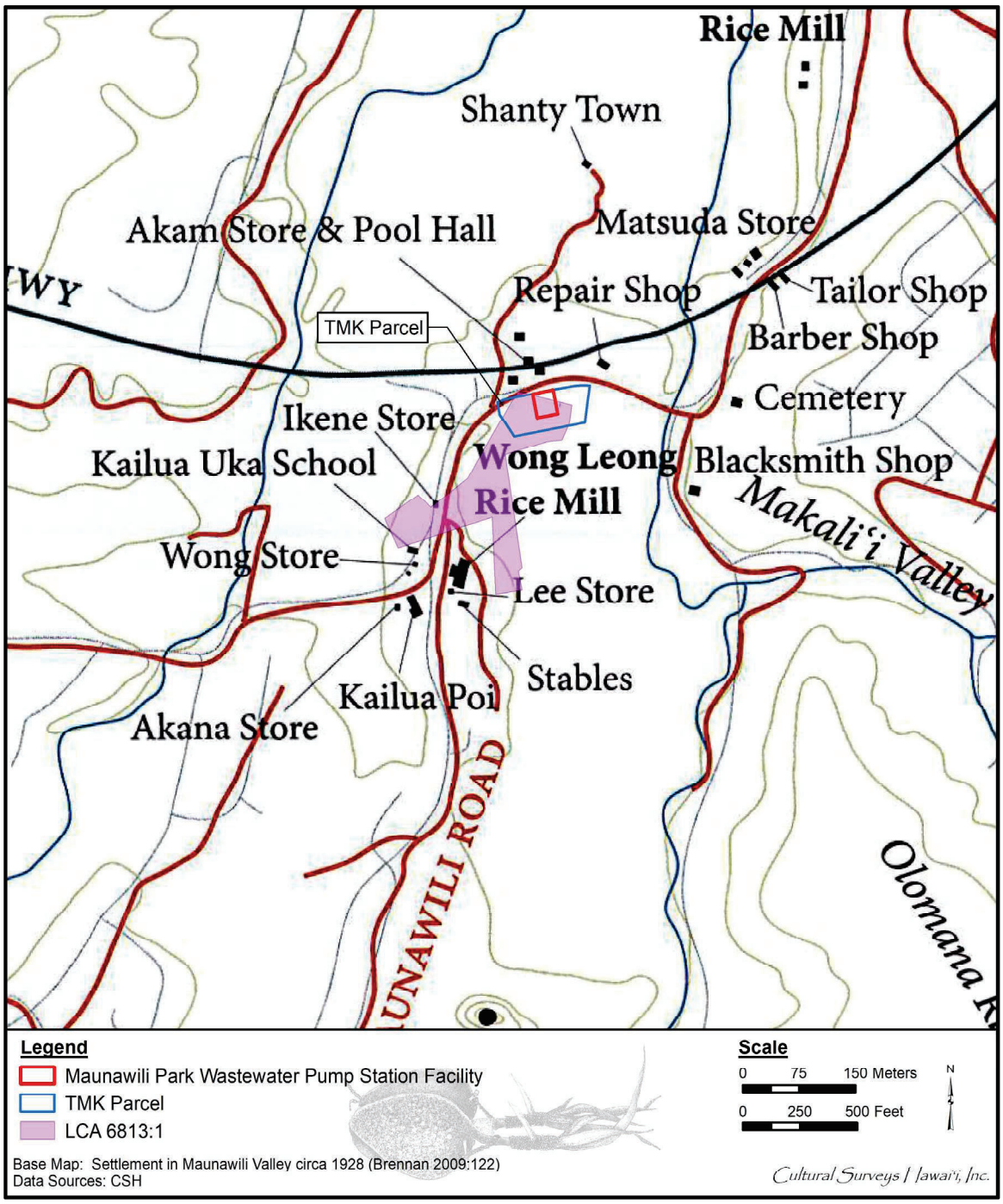



Figure 10. Close-up of a map of settlement in Maunawili Valley ca. 1929 showing the location of TMK: (1) 4-2-007:031 and the Maunawili Park WWPS with an overlay of LCA 6813:1 (adapted from Brennan 2009:122; see Figure 20 for a more complete map). The purpose of this figure is to show the posited relationship of the Akam Store (and Pool Hall) to the Maunawili Park WWPS. LCA 6813:1 and ethnohistorical accounts (Dr. Paul Brennan 2020, personal communication) situate a church yard north-northwest of the LCA and to the west of the Akam Store.

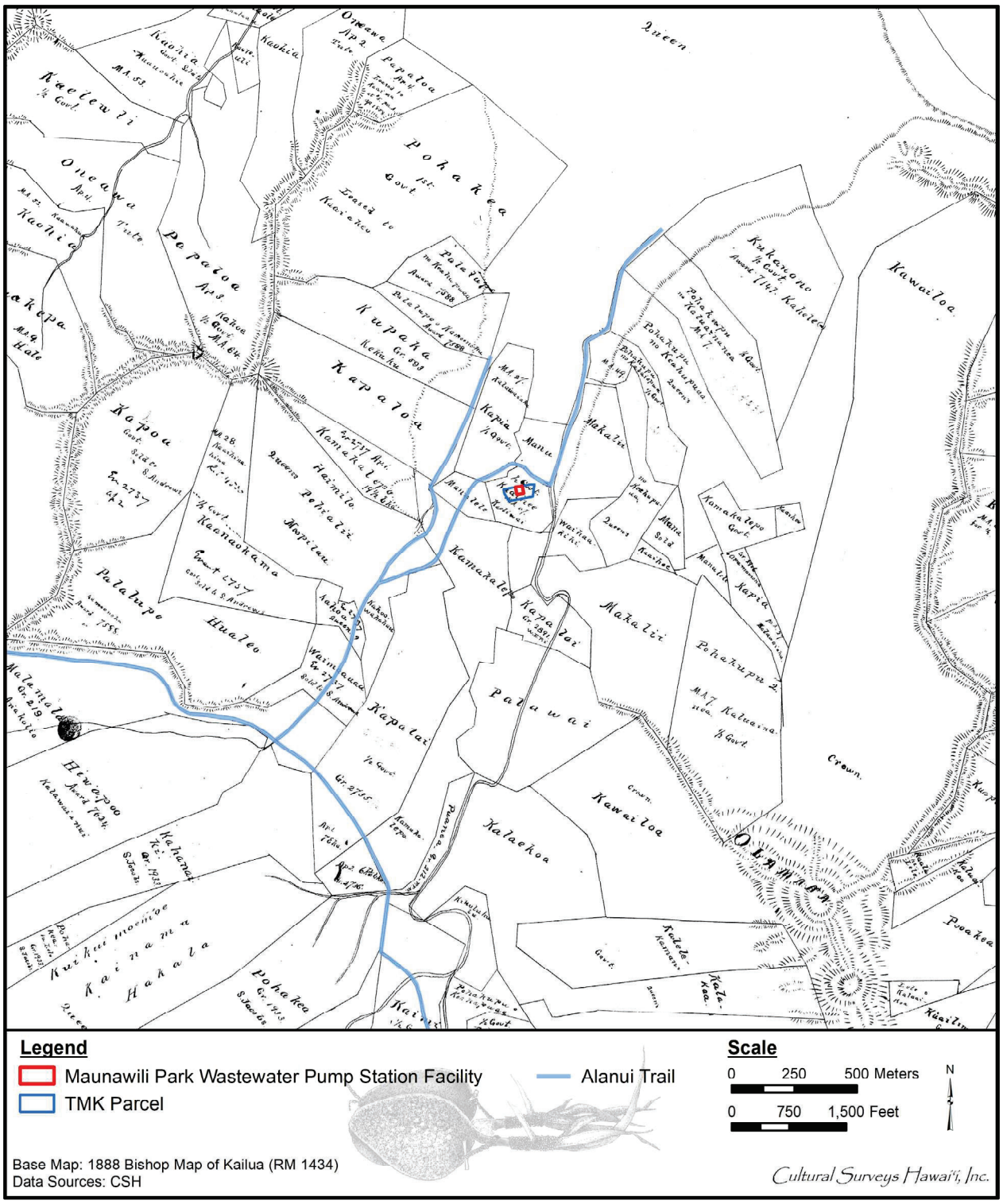



Figure 11. Portion of 1888 Bishop map of Kailua (RM 1434) with the main Ala Nui trail configuration highlighted in blue and showing the location of TMK: (1) 4-2-007:031 and the Maunawili Park WWPS; the information for the project area land designation on this map reads “½ Gov’t Kaaihee Kaeliwai”

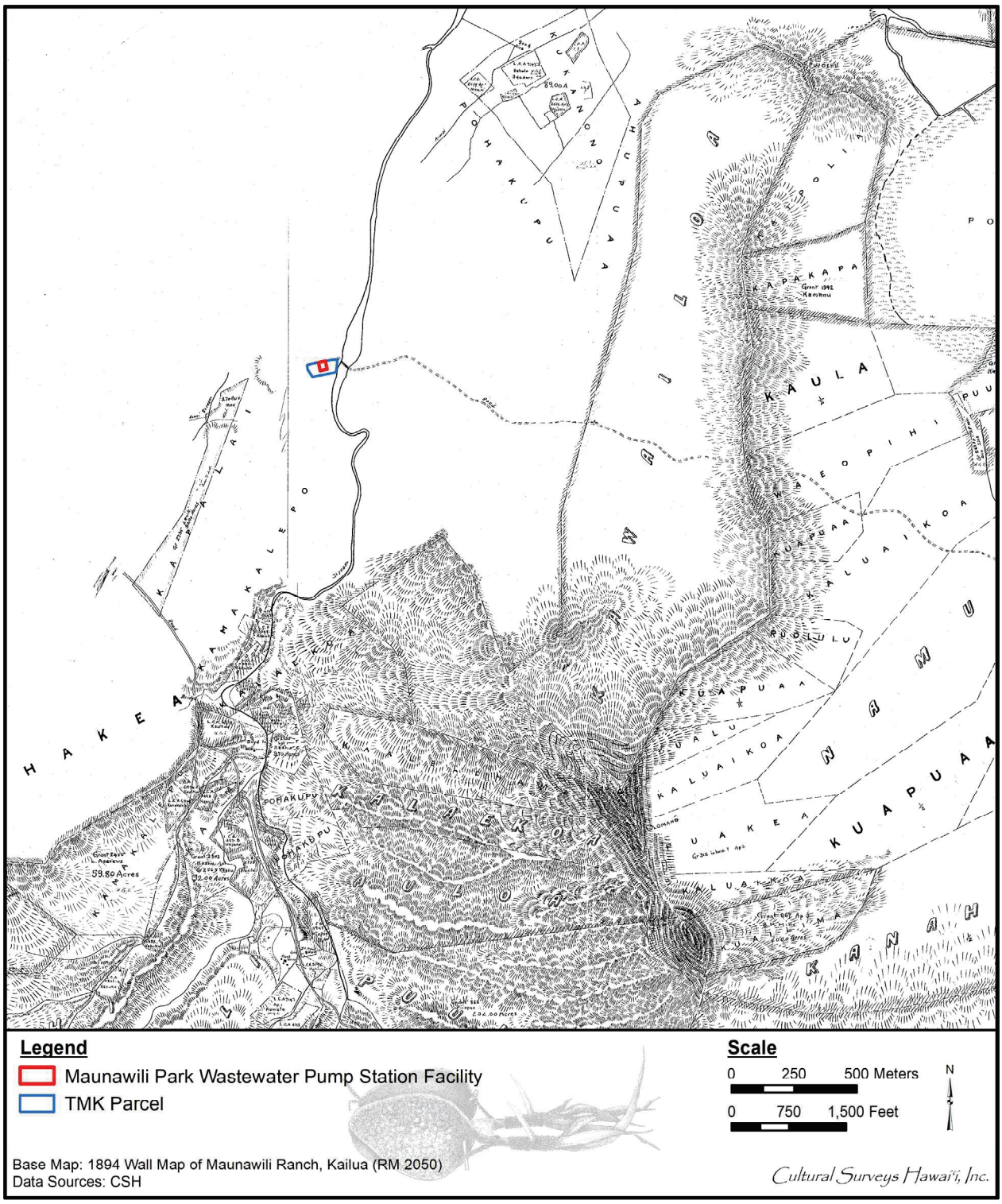



Figure 12. Portion of the 1894 Wall map of Maunawili Ranch, Kailua (RM 2050) showing the location of TMK: (1) 4-2-007:031 and the Maunawili Park WWPS; note the main road (to Waimānalo) is far to the southwest, while an unimproved road to Kailua beach is depicted starting at a bridge just east of the Maunawili Park WWPS

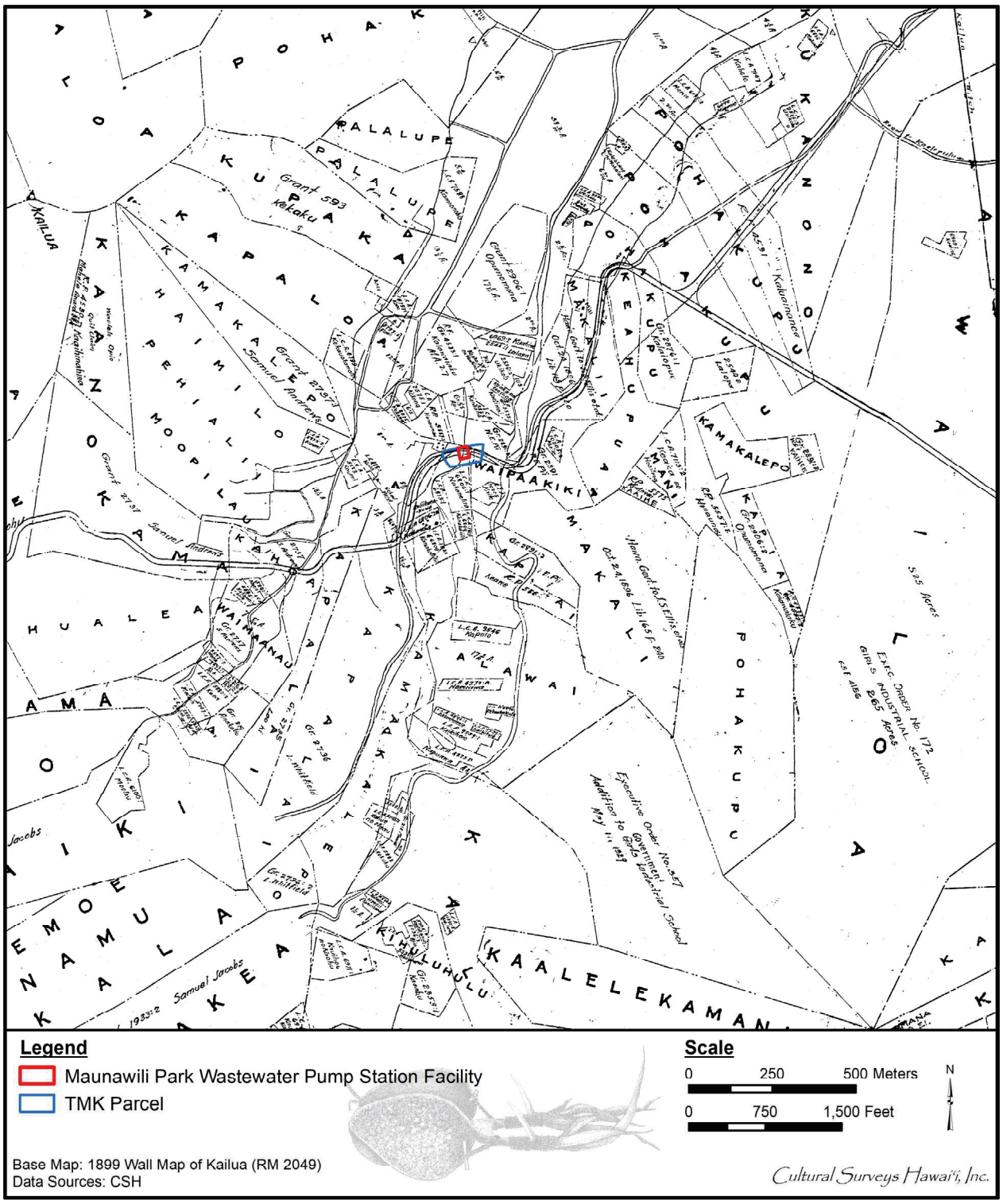



Figure 13. Portion of the 1899 Wall map of Kailua (RM 2049) showing the location of TMK: (1) 4-2-007:031 and the Maunawili Park WWPS in relation to the turn of the century trail and land holdings; note four houses appear to be indicated immediately northwest of the west end of the TMK parcel within LCA 6813:1

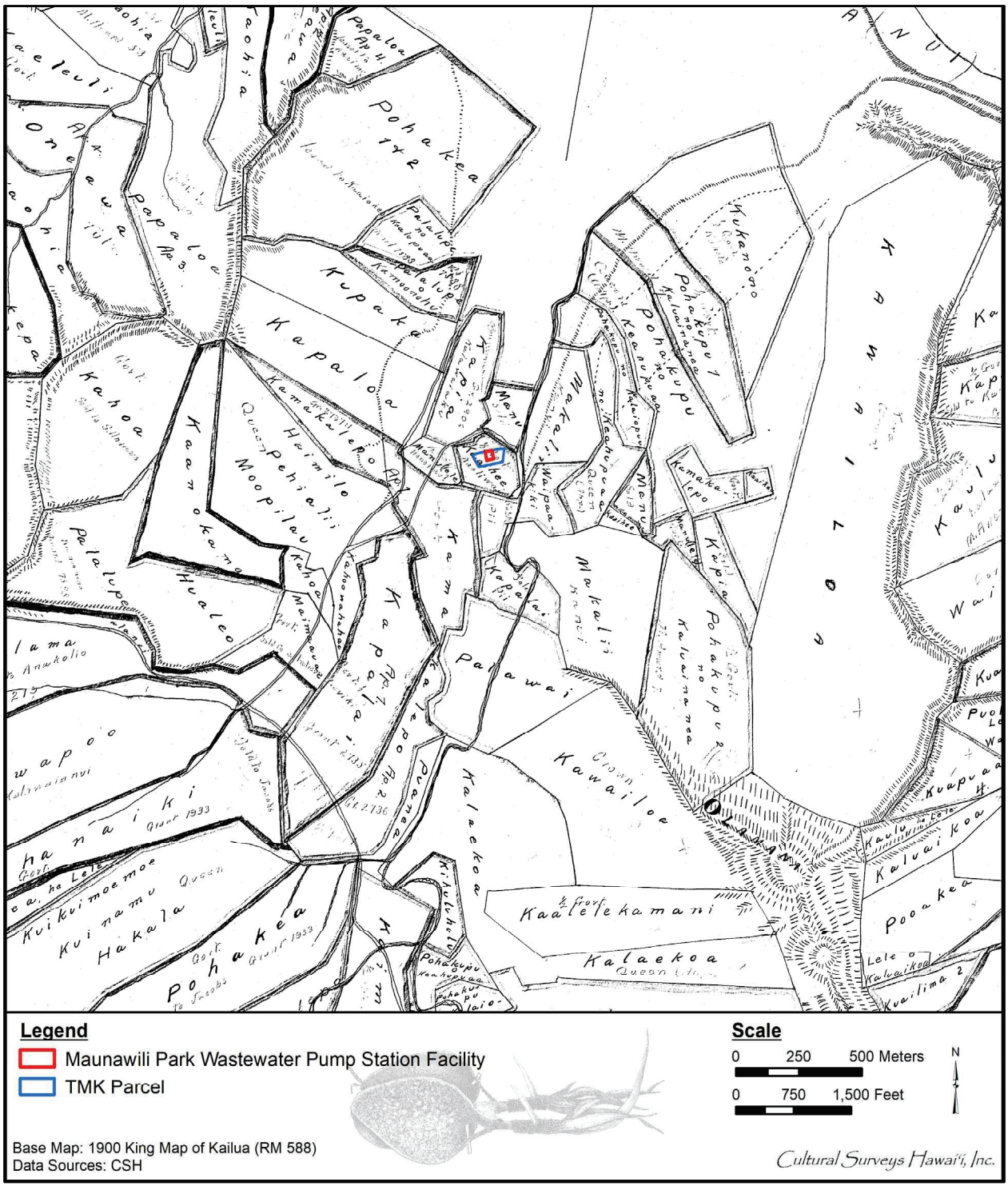



Figure 14. Portion of 1900 King map of Kailua (RM 588) showing the location of TMK: (1) 4-2-007:031 and the Maunawili Park WWPS in relation to large land holdings; the main road (to Waimānalo) is upslope (southwest) of the WWPS and the information for the project area parcel reads “½ Gov’t Kaaihee Kaeliwai”


Figure 15. Portion of the 1906 Donn map of O‘ahu with land use (RM 2374) showing the location of TMK: (1) 4-2-007:031 as overwhelmingly in an area of “Wet Lands (Rice and Taro)”


Figure 16. Portion of a “Map of Leong Lands, Kailua, Koolaupoko, Oahu Surveyed by A.C. Alexander, August 1911” reproduced in “The Early Center of Town” by Paul Brennan in *Kailua: In the Wisps of the Malanai Breeze* (Kailua Historical Society 2009:114) with an overlay of TMK: (1) 4-2-007:031 and the Maunawili Park WWPS (see following figure for detail)

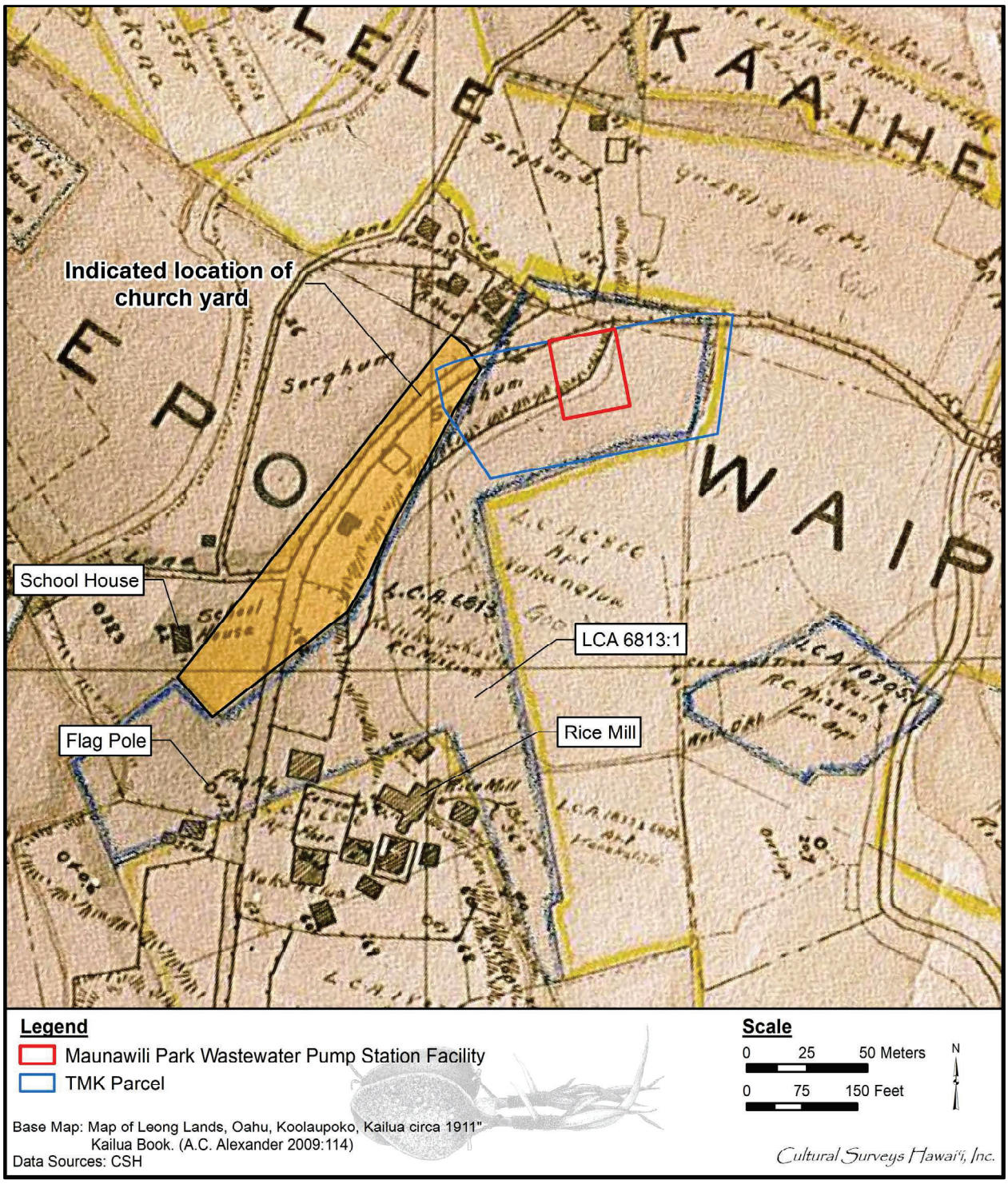



Figure 17. Close-up the A.C. Alexander, August 1911 map pointing out the locations of the School House, Flag Pole, and Rice Mill near the confluence of today's Auloa Road and Maunawili Road and showing the indication of the churchyard on the northwest side of LCA 6813:1 in relation to TMK: (1) 4-2-007:031 and the Maunawili Park WWPS

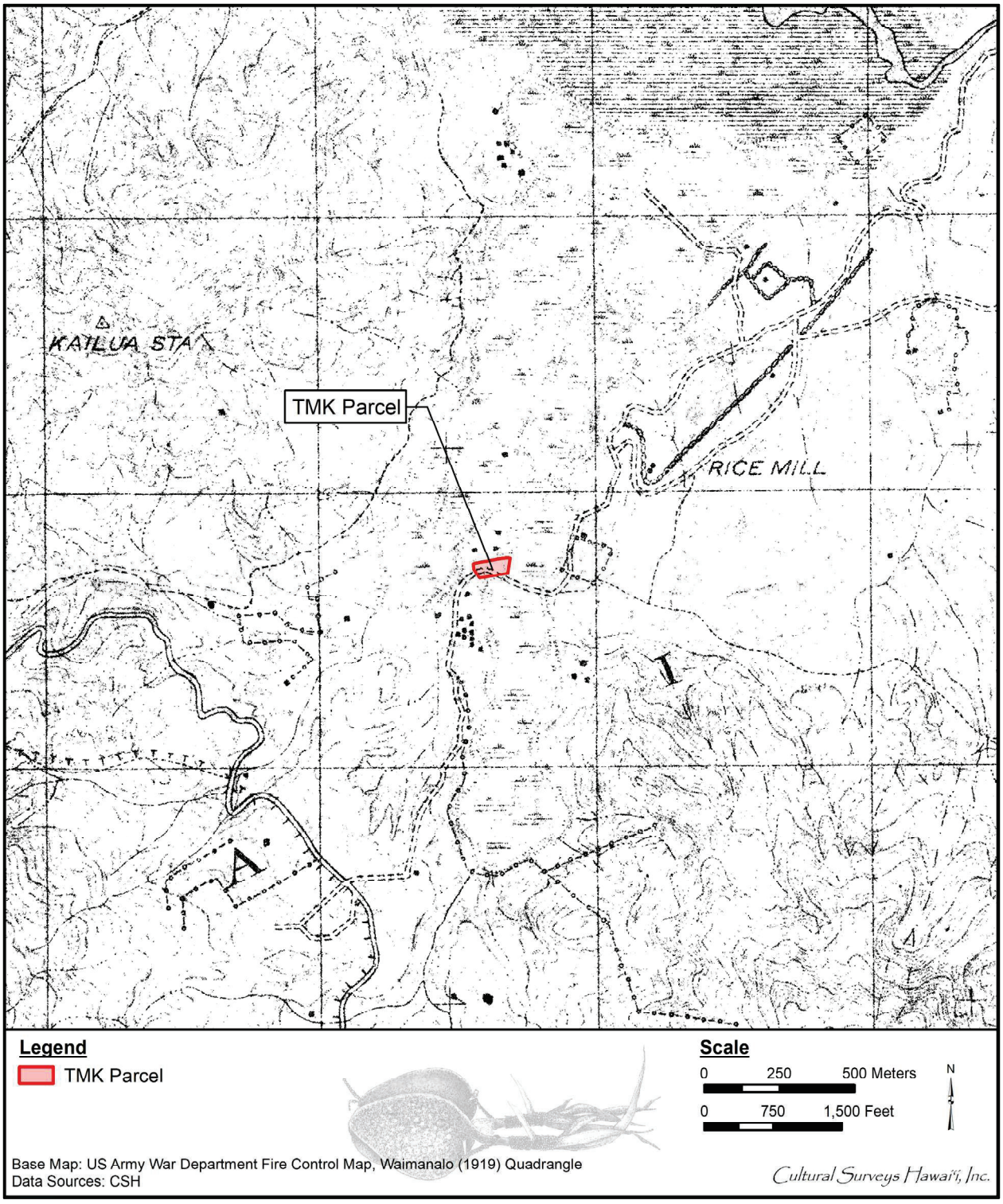



Figure 18. Portion of the 1919 U.S. Army War Department fire control map, Waimanalo quadrangle showing TMK: (1) 4-2-007:031

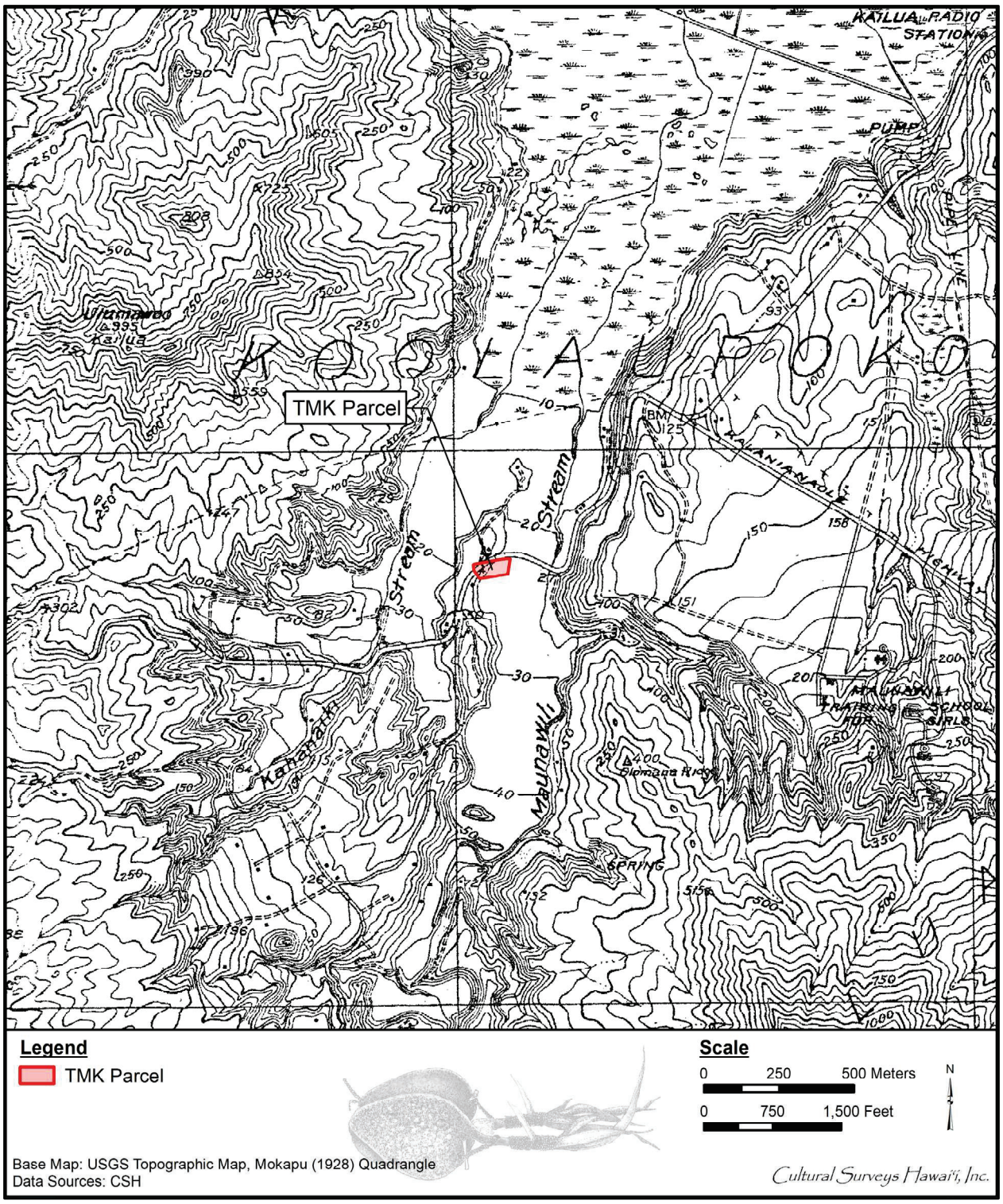



Figure 19. Portion of the1928 Mokapu USGS topographic quadrangle showing TMK: (1) 4-2-007:031 (Auloa Road and Kailua Road appear to be paved; the former *mauka* road to Waimānalo has been eclipsed by the present-day Kalaniana‘ole alignment)

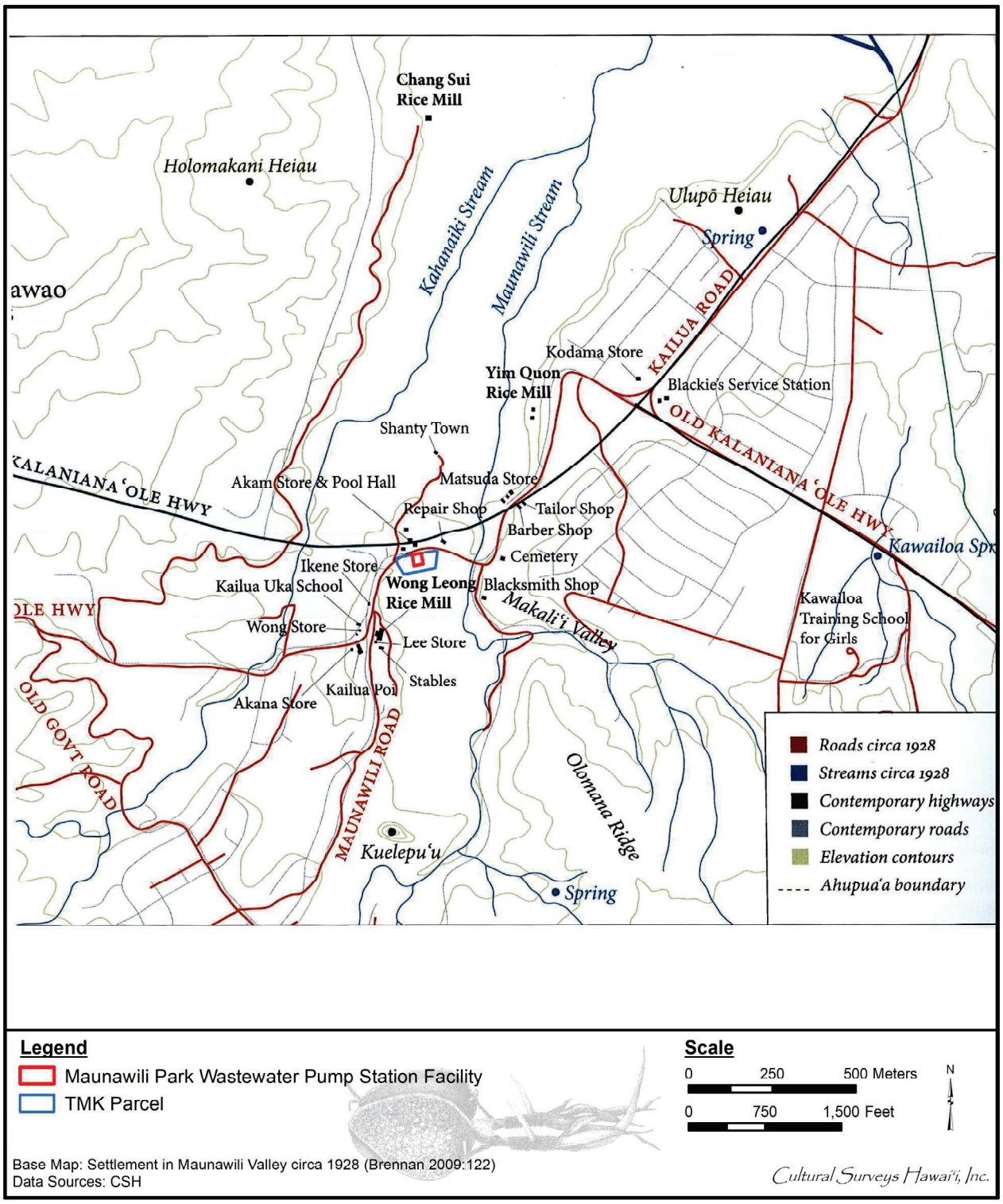



Figure 20. Settlement in Maunawili Valley ca. 1928 showing the location of TMK: (1) 4-2-007:031 and the Maunawili Park WWPS (adapted from Brennan 2009:122) (see Figure 17 for a sketch of many of these enterprises)

Table 2. Brief summary of some of the enterprises near the project area ca. 1928 (adapted from Kailua Historical Society 2009) (see Figure 20 above, for locations)

| Name of Enterprise | Description | Source |
|---|---|---|
| Akam Store and Pool Hall | Store catered to the area's largely Chinese population; located at today's traffic light leading into Maunawili, was larger than the other two, and sold mostly food supplies, utensils, and some clothing. Mr. Wong, the proprietor, often imported large wooden crates of supplies from China. Wong was also a pig farmer, and adjacent to the store his wife operated a pool hall, which was popular with the young laborers. […] as a social gathering place as late as the 1930s. | Brennan 2009:115 |
| Akana Store | The Akana Store, which came into existence about 1920 primarily to provide poi to the growing Kailua population. […] The primary effort of Akana Wong was commercial [poi] production; he had come to Hawai‘i from China in 1898, Akana built his store along ‘Auloa Road, across from today's Trinity Presbyterian Church. His wife, Elsie ran the store. In addition to poi, the store was known for its Chinese crack seed. Some groceries, clothing, and household supplies were also sold there. | Brennan 2009:116 –118 |
| Barber Shop | Across the street [from the tailor shop opened by one of the Tanimura daughters next to the Matsuda Store] was a barbershop run by two Tanaka sisters. […] [it] remained in business until highway construction bypassed the area in 1959. | Brennan 2009:118 –119 |
| Blacksmith Shop | The blacksmith Jukichi Tanimura, of Makali‘i, alongside Maunawili Stream, was known for making knives and field tools. | Brennan 2009:118 |
| Cemetery | There were two known nineteenth-century Christian churches for the Hawaiian community in the Olomana area. Both are now gone and their cemeteries evidently were destroyed during the excavation for the new Kalaniana‘ole Highway in the 1950s. Elderly residents still remember them. One was located on the west side of Akam Store, above Kahanaiki Stream; the other was located near today's Castle Medical Center, in the *‘ili* of Makali‘i downstream from Waipa‘akiki. Area residents, youngsters in the 1920s and 1930s, had vivid memories of the cemetery, and their fear of passing by it, especially at night. Following the construction of the highway, all traces of the cemetery were destroyed. A document relating to the second of these churches is in the files of Kaneohe Ranch in lease number 84; Alipuli of the Kamanu family is granted permission to use property in this area, described as "Church yard Kailua above Quan Tai Wai at Keahupuaa," for an annual charge of $1.00. There is no date on the document, but the lease's numbering suggests that it was in effect around 1910. | Brennan 2009:123 |

| Name of Enterprise | Description | Source |
|---|---|---|
| Ikene Store | Hiroshi Ikene, […] had a nursery for ornamental plants and tropical flowers. Shizue Nishikawa, one of their daughters (now ninety-four), recalls how tourists loved to have their photographs taken standing beside the large yellow hibiscus blooms. The stand was open daily from 7:30 A.M. to 5:30 P.M. and closed at 5 P.M. on Sundays; four adults worked full-time, while the *‘ohana* helped part-time on a regular basis. With the arrival of electricity around 1935, they could sell refrigerated items like soda, and even oranges and apples imported from the mainland. Potato chips, candy, Spam, Vienna sausage, and canned soups were also sold, and after the war, cigarettes. | Brennan 2009:122 |
| Kailua Poi | [Adjacent to the Akana store] […] some of the cement foundations of the poi factory, its floor, and slope retainers still remain […] Akana sold his poi factory in 1932 [and it later] was sold by the Wong family to the Teruya family. Warren Bingo, known affectionately as “Bingo,” purchased Kailua Poi around 1943 from the Teruyas, and he kept Kailua’s sole commercial poi factory in operation until the 1950s. The end of the poi operation came when taro was no longer being grown in sufficient quantities in nearby fields. | Brennan 2009:116 |
| Kailua Uka School | At the turn of the twentieth century, Kailua’s only school, Kailua Uka, was located at the entrance to Maunawili Valley in the *‘ili* of Kamakalepo; it was of the Common [charging no tuition] type. Kailua Uka School’s first year of operation was 1883; its sole teacher, S. Kalole, taught twenty-six pupils (sixteen boys, ten girls) in the school’s single classroom. Thirty-one students (seventeen boys, fourteen girls) were enrolled in 1886, under S. Kalole’s continued tutelage. In 1888, a new teacher, Alepeka Ponika, taught a smaller enrollment of fifteen (six boys, nine girls). The school was closed, possibly because of the overthrow and political uncertainty, for a five-year period between 1890 and 1894. In 1895, under a new teacher, D. Kapohakimohewa, Kailua Uka resumed operation, with seventeen boys and sixteen girls enrolled. The Biennial Report of William R. Castle, president of the Board of Education, states that “the old schoolhouse at Kailua has been put in order and reopened.” The year before, the Biennial Report had noted that “a school is asked for at Kailua, where there are now several families.” In 1899, with William K. Isaac as teacher, the school enrolled twelve males and six females. The cost of annual tuition per student was assessed at $26.67; the percentage of attendance was 74 percent. Masaru Tanaka was born nearby in 1912 and went through all seven grades. According to him, each grade had about four students, all | Brennan 2009:125–126, Kelley et al. 2009: 124–126 |

| Name of Enterprise | Description | Source |
|---|---|---|
| Kailua Uka School (cont.) | of whom were taught by Akuni Ahau. Akuni Ahau began teaching in 1903, after graduating from the Congregational Church's training school for teachers in Lahainaluna, Maui. He was remembered as wearing a starched white shirt and suit and carrying a bamboo rod. The school's doors remained open until the new Kailua School was built on Ku‘ulei Road in 1929. | |
| Kodama Store | [One of t]he last of the small commercial establishments originating in this area and time period, and still thriving in the 1950s, [was] the Kodama Store (1929–1960). The Kodama store and an adjacent family residence were razed following statehood to make way for the construction of Castle Medical Center. | Brennan 2009:120 |
| Lee store | Store catered to the area's largely Chinese population. [Was] adjacent to the rice mill, and sold groceries, poultry feed, and livestock equipment. Closed in 1929, when Wong Leong Rice Mill went out of business. | Brennan 2009:115 |
| Matsuda Store | The best known and remembered of early Kailua stores was run by the Matsuda family. The Matsuda Store (1912–1959) was begun by Kenzo Matsuda, who took out a lease from Kaneohe Ranch in 1912 for 7.99 acres at the rate of $80 annually, setting up the store on the marsh side of old ‘Auloa Road, below the current site of Castle Medical Center. Later, Chiyoko Matsuda Miike, Kenzo's niece and her husband, Hachiro, operated the store [from W]hen her adoptive-parents also moved back to Japan, […] they operated it until 1959. Their business had been adversely affected since 1951 when the realignment of the road to the Pali commenced eventually bypassing the store. The Miikes stocked their general store with groceries, dry goods, medicine, and later gasoline. Charcoal, supplied by the Chang family of upper Maunawili, was a popular commodity until around 1936, when electricity arrived. As the Japanese population in the area increased, the store's popularity grew; expansion into a two-story building adjacent to the old store allowed the Miikes to live upstairs. | Brennan 2009:115 –116, 120 |
| Repair Shop | Chōzen Kanetake, opened a little shop beside his family's house on the north side of ‘Auloa Road, across from today's sewer pumping station, repairing bicycles and radios. | Brennan 2009:119 |
| Tailor Shop | About 1915, a tailor shop was opened by one of the Tanimura daughters next to the Matsuda Store, [it] remained in business until highway construction bypassed the area in 1959. | Brennan 2009:118 –119 |
| Wong Leong Rice Mill | The best known and earliest of Kailua's rice mills was established by Aho in 1876, when 32.45 acres of rice land was in his possession. Located on what is now Maunawili Road, at the entrance to Maunawili Valley, this mill was later taken over by | Brennan 2009:108, 115 |

| Name of Enterprise | Description | Source |
|---|---|---|
| | Wong Leong, who turned it into the largest rice-growing operation in Kailua. [It was o]ne of three rice mills, located in a central location across the road from the present site of Trinity Presbyterian Church. Closed in 1929. | |
| Wong Store | Mary Wong Takahashi reminisced in an interview about her grandmother's store (Wong Store), where she worked, and the neighborhood. Mary lived in her grandmother's house beside the store. The Wong Store, started in the 1890s, was the first of three Chinese stores in the area, and sold rice, candy, charcoal, and groceries. Closed in 1929, when Wong Leong Rice Mill went out of business. | Kailua Historical Society 2009:115 |
| Yim Quon Rice Mill | Yim Quon, whose mill was built around 1879 according to court records, built the second of the largest mills. Situated in the ‘ili of Makali‘i downstream from Waipa‘akiki, this mill sat behind and below the present location of the Castle Medical Center. The foundation stones from several of the original buildings are still on the site, including part of the grinding floor; elderly informants recall that a circular grinding stone was removed from the site and sold. | Brennan 2009:107 |

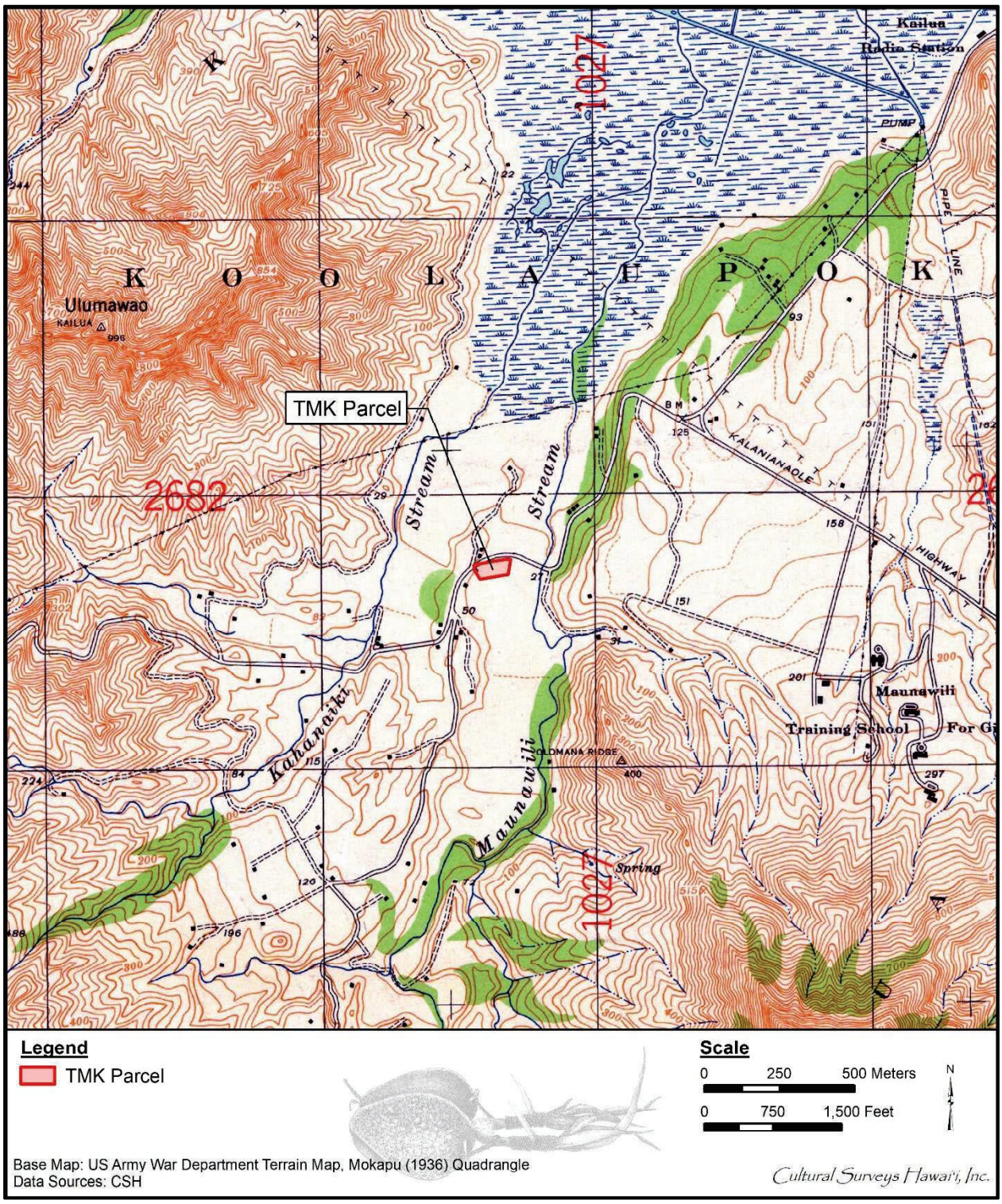



Figure 21. Portion of the 1936 U.S. Army War Department terrain map, Mokapu quadrangle showing TMK: (1) 4-2-007:031 with homes relatively dispersed in the vicinity

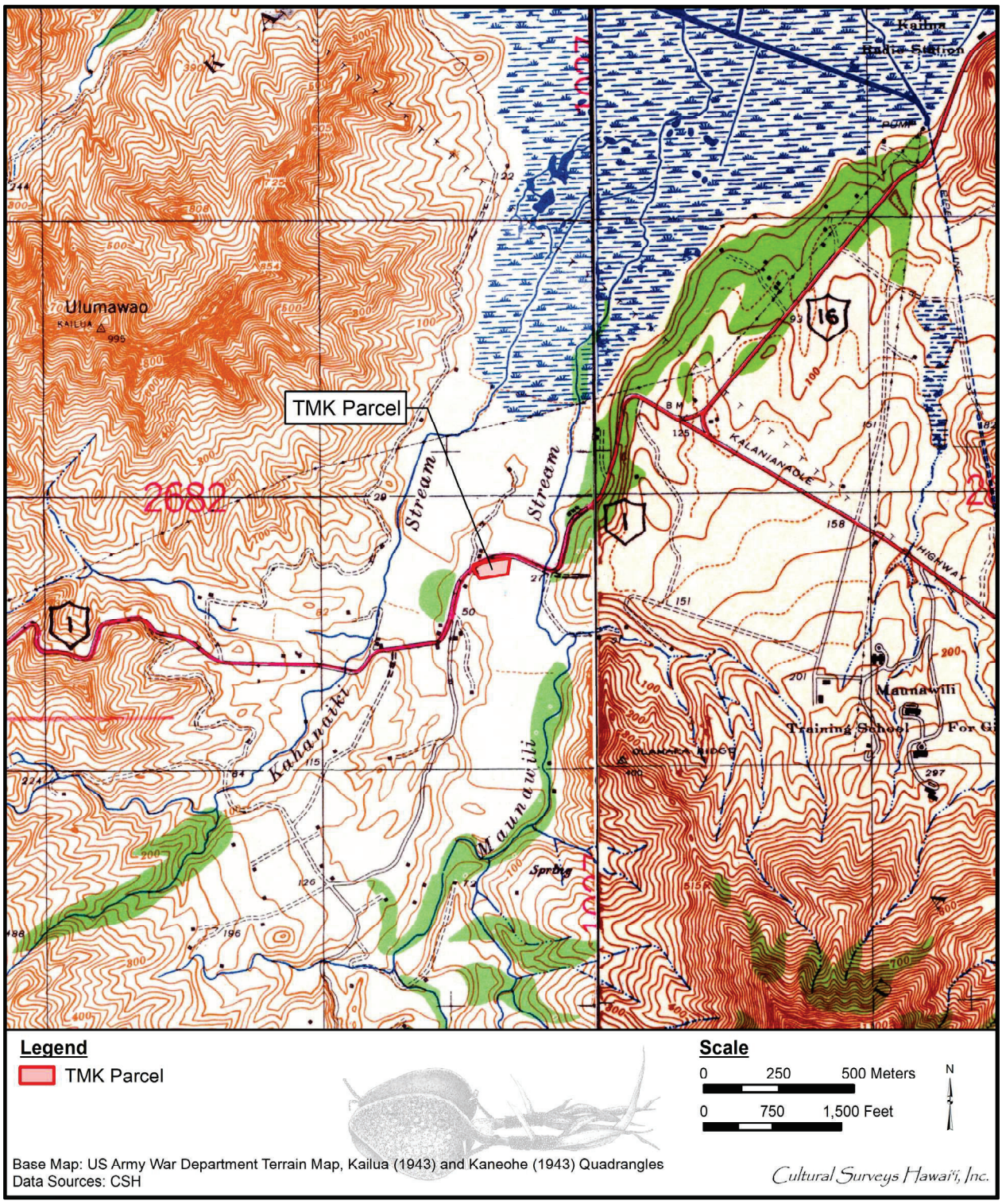



Figure 22. Portion of the 1943 U.S. Army War Department terrain map, Kailua and Kaneohe quadrangles showing TMK: (1) 4-2-007:031

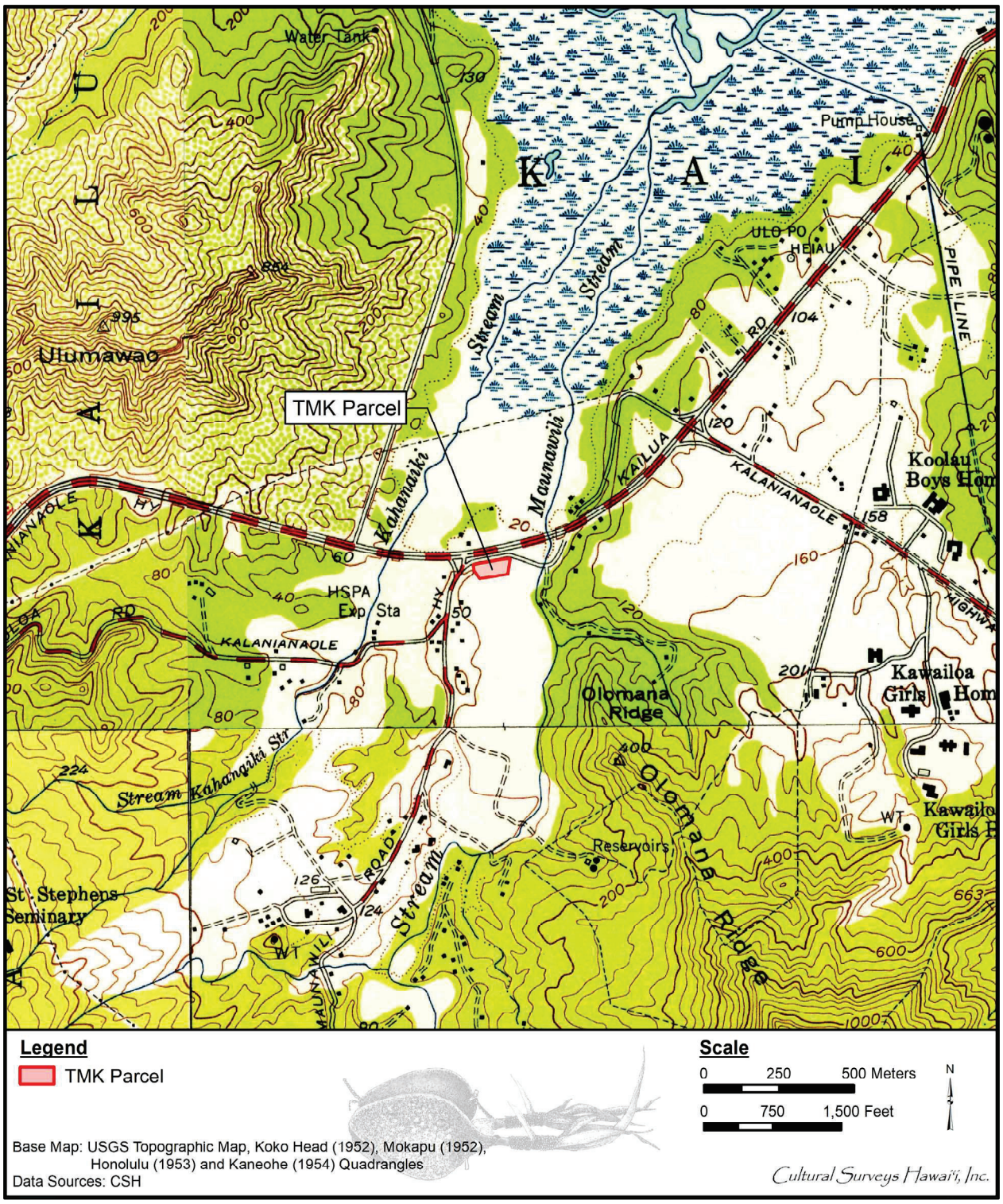



Figure 23. Portions of the 1952-1954 USGS topographic map, Koko Head and Mokapu (1952), Honolulu (1953), and Kaneohe (1954) quadrangles showing TMK: (1) 4-2-007:031 (Maunawili Road and modern Kalaniana‘ole Highway have been built)


Figure 24. 1959 USGS aerial photograph of Kailua (UH MAGIS) showing the locations of TMK: (1) 4-2-007:031 and the Maunawili Park WWPS


Figure 25. 1965 USDA aerial photograph of Kailua (UH MAGIS) showing the locations of TMK: (1) 4-2-007:031 and the Maunawili Park WWPS (a sewage disposal facility appears to be present)

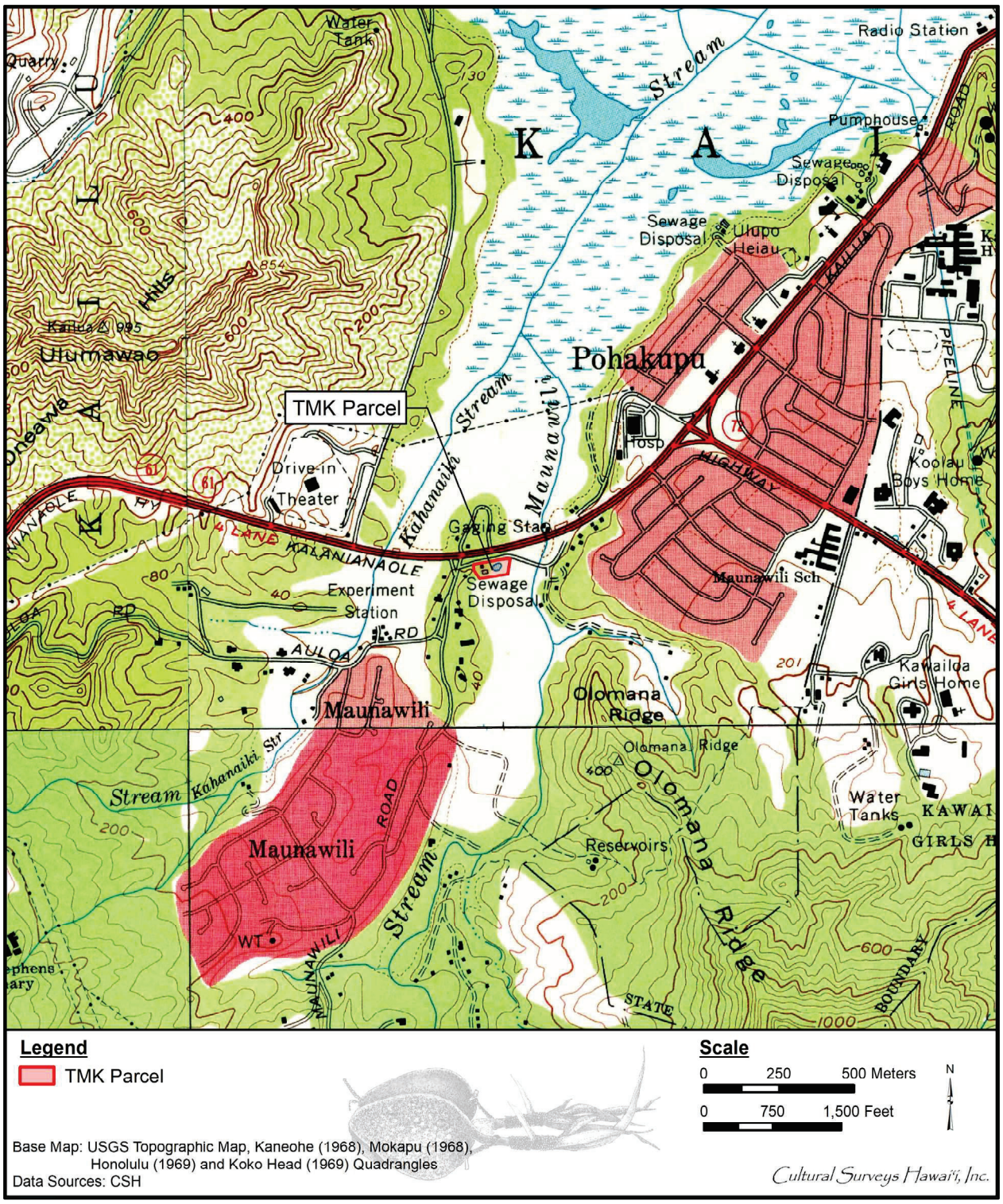



Figure 26. Portions of the 1968 Kaneohe and Mokapu, and 1969 Honolulu and Koko Head USGS topographic quadrangles showing the location of TMK: (1) 4-2-007:031 (a “Sewage Disposal” facility is indicated on the parcel)


Figure 27. 1978 USGS Orthophotoquad, Honolulu, Kaneohe, Koko Head, and Mokapu quadrangles showing the location of TMK: (1) 4-2-007:031 and the Maunawili Park WWPS (the Maunawili subdivisions are largely built out)

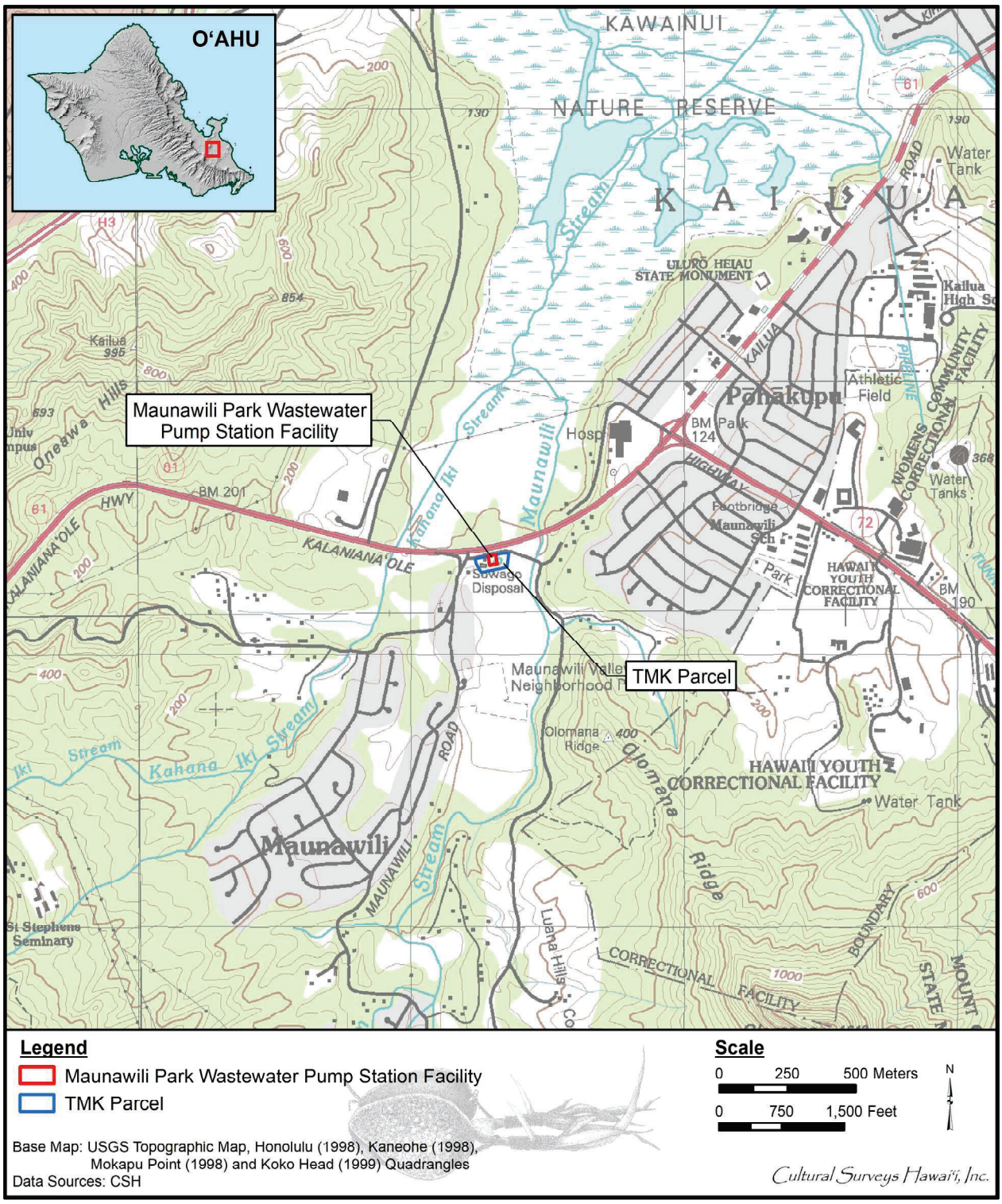



Figure 28. Portions of the 1998 Honolulu, Kaneohe, and Mokapu and 1999 Koko Head USGS topographic quadrangles showing TMK: (1) 4-2-007:031 and the Maunawili Park WWPS

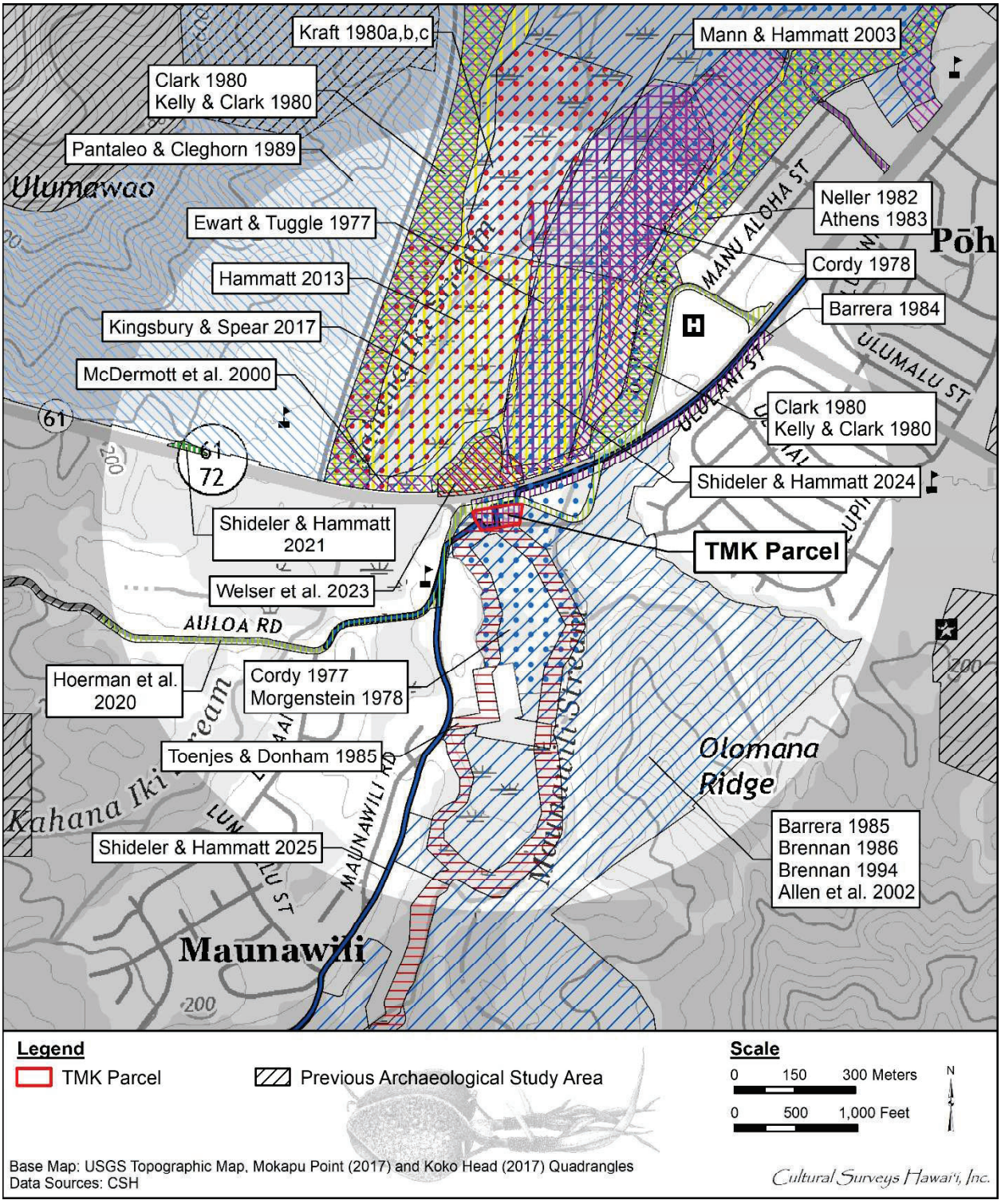



Figure 29. Prior archaeological studies within approximately 500 m of the Maunawili Park WWPS TMK: (1) 4-2-007:031 (on portions of the 2017 Koko Head and Mokapu Point USGS topographic quadrangles base map)

Table 3. Previous archaeological studies in the vicinity of the project area

| Reference | Type of Investigation | General Location | Results (SIHP # 50-80-) |
|---|---|---|---|
| McAllister 1933 | Archaeological reconnaissance | Island-wide | Discusses Ulupo Heiau (his Site 371) and Halaualolo Heiau (his Site 373) north of present project area (not depicted in Figure 30) |
| Cordy 1977 | Archaeological reconnaissance and pre-1850 literature search | Most of project on southeast margin of Kawainui marsh but it did extend south across Kalaniana‘ole Hwy into Maunawili | Some historical discussion of land divisions extending into Maunawili but no historic properties discussed south of Kalaniana‘ole |
| Ewart and Tuggle 1977 | Archaeological reconnaissance | Kawainui Marsh margins | Discusses nine designated site areas with his designated Site 1 through Site 6 on SW margin composed of walls, mounds and terraces, and his designated Site 7, a single low stone alignment identified on SW margin, and his designated Site 8 and Site 9 recently abandoned sites on northwest corner of marsh |
| Cordy 1978 | Test excavations report | Site 7 at Kawainui Marsh | Involved four test excavations in large walled agricultural complex; defined boundary of SIHP # 11-02029 |
| Morgenstein 1978 | Geoarchaeological analysis | Project area extends south across Kalaniana‘ole Hwy into Maunawili | Understood as companion to Cordy (1977) study (discussed briefly above), locations of four test excavations reported unclear |
| Clark 1980, Kelly and Clark 1980 | Archaeological inventory survey | Kawainui Marsh | Documented over 178 predominantly agricultural features, many previously located by Cordy (1977); reports AD 350–650 radiocarbon date from context not clearly associated with human activity |
| Kraft 1980a, 1980b, 1980c | Geo-archaeological study | Kawainui Marsh | Coring results suggested shallow marine embayment similar to present-day Kāne‘ohe Bay ca. 6,000 and 2,800 years BP |

| Reference | Type of Investigation | General Location | Results (SIHP # 50-80-) |
|---|---|---|---|
| Neller 1982 | Limited subsurface investigations | Kawainui, Kūkanono area; TMK: (1) 4-2-013:038 | Limited subsurface investigations by volunteers produced artifacts associated with Native Hawaiian farmers living in area in 1850s; large number of artifacts related to more recent occupation including abundance of Japanese wares from 1940s and 1950s |
| Athens 1983 | Archaeological excavations and analysis | Pōhākupu Kūkanono slope, SIHP # 50-80-11-02022 | Archaeological investigation concluded numerous surface features (primarily agricultural mounds and terraces) primarily constructed after AD 1990; calls into question early dates (AD fifth to eighth century) obtained by Clark (1980) in same slope |
| Barrera 1984 | Archaeological survey | Two discrete areas: Kailua Rd, Maunawili Park WWPS force main, and Kūkanono WWPS and force main | Reports general observations on archaeology in vicinity; no historic properties identified |
| Barrera 1985 | Archaeological reconnaissance | Maunawili at proposed golf course location | Notes potential for subsurface archaeological remains |
| Toenjes and Donham 1985 | Archaeological reconnaissance survey | Along stretch of Maunawili Stream between 80-ft and 20-ft elevation (project area 45.73 m [150 ft] wide and 3,350 m [11,000 ft] in length), TMKs: (1) 4-2-007 and 008 | Two sites identified including historic earthen flume known as “rice ditch,” (designated BPBM site 50-Oa-G6-43) and possibly prehistoric terrace complex including at least two earthen terraces (designated BPBM site 50-Oa-G6-42) |

| Reference | Type of Investigation | General Location | Results (SIHP # 50-80-) |
|---|---|---|---|
| Brennan 1986 | Archaeological reconnaissance survey | Maunawili Valley (Royal Hawaiian Country Club, Inc. lands) | Located and described 42 sites, some previously identified, including historic features, a *heiau* (pre-Christian place of worship) (possibly McAllister's Site 374) prehistoric irrigated taro fields, habitations, walls, and burials; conclusions regarding site patterns presented |
| Pantaleo and Cleghorn 1989 | Archaeological reconnaissance | Proposed Windward Park, north of Kalanaiana‘ole and west of Kapa‘a Quarry Rd | Five archaeological sites recorded: SIHP # 11-02033, two features: a large, rock-faced terrace and an L-shaped terrace; SIHP # 11-02034, consisting of two rock walls; SIHP # 11-02035 consisting of two features: a rock wall and a mound; SIHP # 11-02036, a linear mound; and SIHP # 11-02037, a complex consisting of five features: a terrace, two alignments, a mound, and a C-shaped alignment |
| Brennan 1994 | Archaeological monitoring (letter report) | Royal Hawaiian Country Club, Phase 1 golf course, Maunawili | Provides site documentation, and significance assessments for eight sites:<br>• SIHP # 11-02034, a pond field complex with fire pit and refuse dump<br>• SIHP # 11-02466, a Hawaiian cemetery<br>• SIHP #s 11-02467, 15-02468, and 15-02469, three habitation sites<br>• SIHP # 15-02470, fire pits and fire/refuse pits<br>• SIHP # 15-02471, slope retainers and fire pits<br>• SIHP # 15-02491, a pond field complex, and a military feature |

| Reference | Type of Investigation | General Location | Results (SIHP # 50-80-) |
|---|---|---|---|
| McDermott et al. 2000 | Archaeological field inspection and literature review | Kawainui Marsh; proposed circle Kawainui Trail project | Highlighted possibilities for interpretive trail through marsh area; noted three previously identified historic properties: SIHP # 11-02027, terraces and stacked basalt features; SIHP # 11-03958 complex of wall and alignments; and SIHP # 15-04042, Waimanalo Irrigation System; proposed trails also in vicinity of Ulupō Heiau; no newly identified historic properties |
| Allen et al. 2002 | Summary study: archaeological inventory survey, data recovery, and interpretive excavations (at preserved sites) conducted between 1986 and 1989 | 202.35-ha property scheduled for golf course development in middle Maunawili Valley | Described, mapped, and investigated 29 sites containing more than 607 surface features/feature clusters including a walled *heiau*; human bones; house sites; field shelters; work areas, some with grinding stones; extensive pre-Contact agricultural complexes of rainfed, irrigated, and intermediate types, one with a petroglyph boulder; a post-Contact charcoal kiln; E.H. Boyd’s and W.G. Irwin’s estates; Irwin’s coffee mill; a historic road network; ranching walls and enclosures; and sugar plantation-related features including ‘Ainoni Spring and Ditch; some 3,664 artifacts of pre-Contact types and 1,166 post-Contact artifacts addressed; radiocarbon dating indicated occupation since ca. AD 1000 |
| Mann and Hammatt 2003 | Archaeological inventory survey | Kawainui Marsh | Project within SIHP # 11-02029, Kawainui Marsh archaeological cultural-historical complex; completed two test excavations revealing buried A horizon and possible natural riverbed deposit; no additional historic properties identified |

| Reference | Type of Investigation | General Location | Results (SIHP # 50-80-) |
|---|---|---|---|
| Hammatt 2013 | Archaeological reconnaissance with subsurface testing | Kawainui Marsh Wetland Restoration and Habitat Enhancement | Identified additional components of SIHP # 11-02029, Kawainui Marsh archaeological cultural-historical complex, including a grinding stone and early historic habitation remnants; and SIHP # 11-07199, historic road remnant; core analysis documented native plants in marshy deposits dating to AD 420 to 580, overlain by modern marshy deposits dominated by *Saccarum* pollen from sugarcane fields in area |
| Kingsbury and Spear 2017 | Archaeological monitoring | SW Kawainui Marsh bounded on south side by Kalaniana‘ole Hwy, and on west side by Kapa‘a Quarry Rd | No historic properties identified (observed excavations consisted of approximately 40-cm-diameter auger holes, excavated to maximum depth of 66 cmbs) |
| Hoerman et al. 2020 | Archaeological literature review and field inspection | Auloa Rd, Loop Rd, and Ulukahiki St (BWS 16-inch and 8-inch water line project) | Notes their project area effectively bisects former—*mauka* and vibrant—center of Kailua in first half of twentieth century which collapsed rather quickly upon construction of Kalaniana‘ole Hwy in 1959 and posited that deposits such as trash pits and former privies and even foundations of early twentieth century structures might be encountered on margins of roads of their project area; archaeological monitoring plan (Shideler and Hammatt 2022) developed for this BWS project |
| Shideler and Hammatt 2021 | Archaeological literature review and field inspection | Kalaniana‘ole Hwy just west or *mauka* of Kapa‘a Quarry Rd and Le Jardin Academy | Discusses curbs where a former road or driveway, built ca. late 1964/early 1965, extended north from present-day Kalaniana‘ole Hwy to connect with the Kailua Drive-In movie screen area |
| Welser et al. 2023 | Archaeological inventory survey | Kawainui Marsh Mokulana project | One historic property identified SIHP # 11-09161, historic-era structural remnants |

| Reference | Type of Investigation | General Location | Results (SIHP # 50-80-) |
|---|---|---|---|
| Shideler and Hammatt 2024 | Archaeological literature review and field inspection | Kawainui Marsh Environmental Restoration project | Concludes historic properties associated with National Register eligible Kawainui Marsh believed to be present within at least six of configuration of 11 ponds |
| Shideler and Hammatt 2025 | Archaeological literature review and field inspection | Maunawili Wastewater Pump Stations, Force Main, and Sewer Improvements project | Documents a Hawaiian center of habitation and a vibrant multi-ethnic community at this same location; concludes archaeological remnants of this community, dating to late 1800s and early 1900s near confluence of Auloa Road and Maunawili Road may be present |

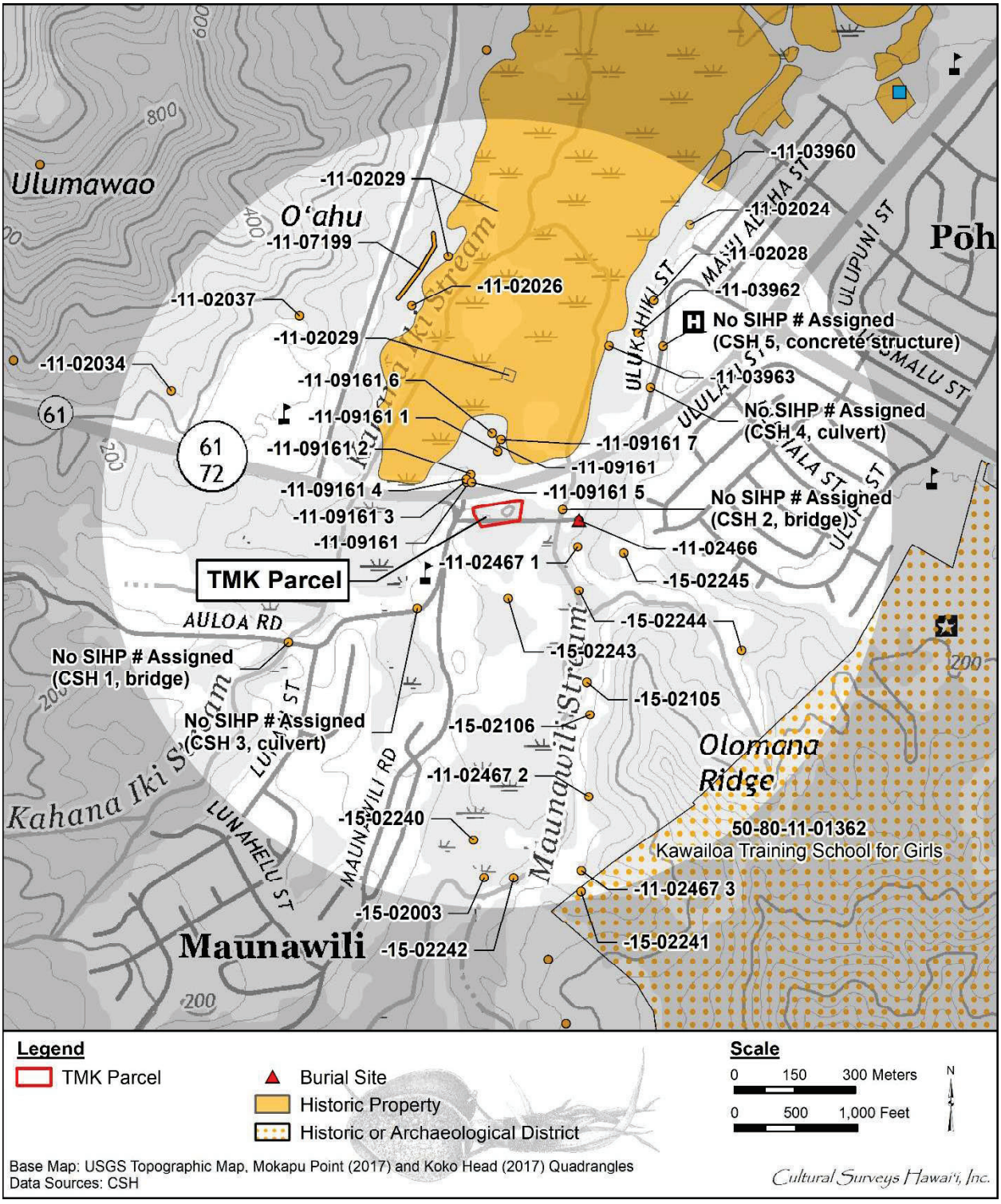



Figure 30. Previously identified historic properties within approximately 500 m of the Maunawili Park WWPS TMK: (1) 4-2-007:031 (on portions of the 2017 Koko Head and Mokapu Point USGS topographic quadrangles base map)

Table 4. Previously identified historic properties in the vicinity of the project areas

| SIHP # (50-80-) | Formal Type | Comments | Source |
|---|---|---|---|
| 11-01362 | Kawailoa Training School for Girls | Built in 1929, Kawailoa Training School for Girls at Maunawili includes five major buildings | Historic Hawai‘i Foundation 2025 NRHP Registration form Kawailoa Training School for Girls (Hibbard and Napoka 1984) |
| 15-02003 | Ditch and grinding stone | Associated with rice production | Allen et al. 2002 |
| 11-02024 | Habitation/ agricultural complex (pre- and post-Contact) (Makali‘i Slope Cluster 2024 | Mounds, wall remnants, a terrace | Ewart and Tomonari-Tuggle 1977; Clark 1980; McDermott et al. 2000 |
| 11-02026 | Terrace | Kapaloa Agricultural Terrace; large agricultural terrace; 67 m long along marsh edge in NE/SW direction, 14 m SE/NW; walls single course high; rusting crane | Clark 1980; McDermott et al. 2000 |
| 11-02028 | Walls | Two walls which meet at a right angle (in Clark 1980 “cluster 14”) | Clark 1980; McDermott et al. 2000 |
| 11-02029 | Habitation remnants | “Kawainui Marsh archaeological cultural-historical complex (grinding stone and habitation area)” | Cordy 1997, 1978; Clark 1980; Allen-Wheeler 1981; McDermott et al. 2000; Mann and Hammatt 2003; Hammatt 2013 |
| 11-02034 | Walls | Post-Contact | Pantaleo and Cleghorn 1989 |
| 11-02037 | Agricultural terrace complex | Traditional Hawaiian | Pantaleo and Cleghorn 1989 |

| SIHP # (50-80-) | Formal Type | Comments | Source |
|---|---|---|---|
| 15-02105 | Habitation/ agricultural complex | A total of 19 features, it incorporates at least two habitation-related features; relatively substantial traditional Hawaiian midden was recovered from Feature 7 | Allen et al. 2002; Dixon et al. 2002 |
| 15-2106 | Habitation complex | Included 5 features with a terrace retained by a boulder alignment, a boulder displaying two chiseled depressions, two boulders displaying well-worn grinding surfaces and a firepit | Allen et al. 2002 |
| 15-02240 | Agricultural features | Rock alignment, rock mound | Allen et al. 2002 |
| 15-02241 | Charcoal kiln | Late 19th-early 20th century | Allen et al. 2002 |
| 15-02242 | Agricultural feature | Soil retention/water diversion boulder facing | Allen et al. 2002 |
| 15-02243 | Agricultural Complex | Probably pre- and post-Contact | Allen et al. 2002 |
| 15-02244 | Agricultural Complex | Six features including a boulder alignment, rock facings, and a concrete well | Allen et al. 2002 |
| 15-02245 | Agricultural Complex | Eleven features including terraces on a steep slope and retained by substantial rock facings | Allen et al. 2002 |
| 11-02466 | Cemetery | Established by oral historical information from five people by Dr. Brennan; this site, lying at the intersection of ‘Auloa and Blacksmith Roads, east of Maunawili Stream, is remembered by all the informants as a cemetery used by Hawaiians previously living in the area. | Brennan 1994; Dixon et al. 2002 |
| 11-02467 Feature 1 | Habitation area | Post-Contact habitation area, includes a spring enclosure, was the original home of the resident blacksmith, Mr. Tanimura, who arrived in the valley about 1930 | Brennan 1994 |
| 11-02467 Feature 2 | Habitation area | Post-Contact habitation area, inhabited ca. 1930 by a mason/banana farmer named Mr. Takeuchi | Brennan 1994 |
| 11-02467 Feature 3 | Habitation area | Post-Contact habitation area, a dump site that contained glass and ceramic sherds as well as charcoal | Brennan 1994 |
| 11-03960 | Agricultural complex | Pōhakupu Agricultural Cluster; large *lo‘i*, a stone and earthen platform, a stone-lined channel, stone mounds | Clark 1980; Cordy 1978 |

| SIHP # (50-80-) | Formal Type | Comments | Source |
|---|---|---|---|
| 11-03962 | Historic buildings | Three historical buildings | Ewart and Tuggle 1977; Clark 1980 |
| 11-03963 | Earthen mounds | “Makali‘i Mounds” | Ewart and Tuggle 1977; Clark 1980 |
| 11-07199 | Unpaved historical road | Extends roughly parallel to western edge of Kawainui Marsh | Hammatt et al. 2013 |
| 11-09161 | Structural remnants | Encompassing seven historic-era structural remnants (Features 1 through 7), function unknown | Welser et al. 2023 |
| 11-09161 Feature 1 | Concrete structure | Function was unknown | Welser et al. 2023 |
| 11-09161 Feature 2 | Concrete slab | Function and age of this slab are unknown | Welser et al. 2023 |
| 11-09161 Feature 3 | Concrete staircase | A two-step concrete staircase in the middle of two platforms; the function of this feature is possibly habitation | Welser et al. 2023 |
| 11-09161 Feature 4 | Concrete platform | A possible habitation feature | Welser et al. 2023 |
| 11-09161 Feature 5 | Concrete structure | A concrete brick and mortar box of unknown function | Welser et al. 2023 |
| 11-09161 Feature 6 | Concrete platform | Unknown function | Welser et al. 2023 |
| 11-09161 Feature 7 | Concrete structures | Three concrete brick and mortar remnants of unknown function | Welser et al. 2023 |
| No SIHP # assigned (CSH 1) | Concrete bridge | An in-use concrete bridge, constructed in 1921, located along Auloa Road, west of Luna‘ai Street, crossing Kahanaiki Stream | Hoerman et al. 2020 |
| No SIHP # assigned (CSH 2) | Concrete bridge | An in-use concrete bridge, constructed in 1921, located at the entrance of the Royal Hawaiian Golf Course property, crossing Maunawili Stream | Hoerman et al. 2020 |
| No SIHP # assigned (CSH 3) | Concrete culvert and additional installations | Located adjacent to Auloa Road just south of Trinity Presbyterian Church and School | Hoerman et al. 2020 |
| No SIHP # assigned (CSH 4) | Concrete culvert | Located adjacent to the eastern side of Ulukahiki Street | Hoerman et al. 2020 |

| SIHP # (50-80-) | Formal Type | Comments | Source |
|---|---|---|---|
| No SIHP # assigned (CSH 5) | Concrete water control structure | A tiered concrete structure located adjacent to the eastern side of Ulukahiki Street, west of Adventist Health Castle Hospital | Hoerman et al. 2020 |

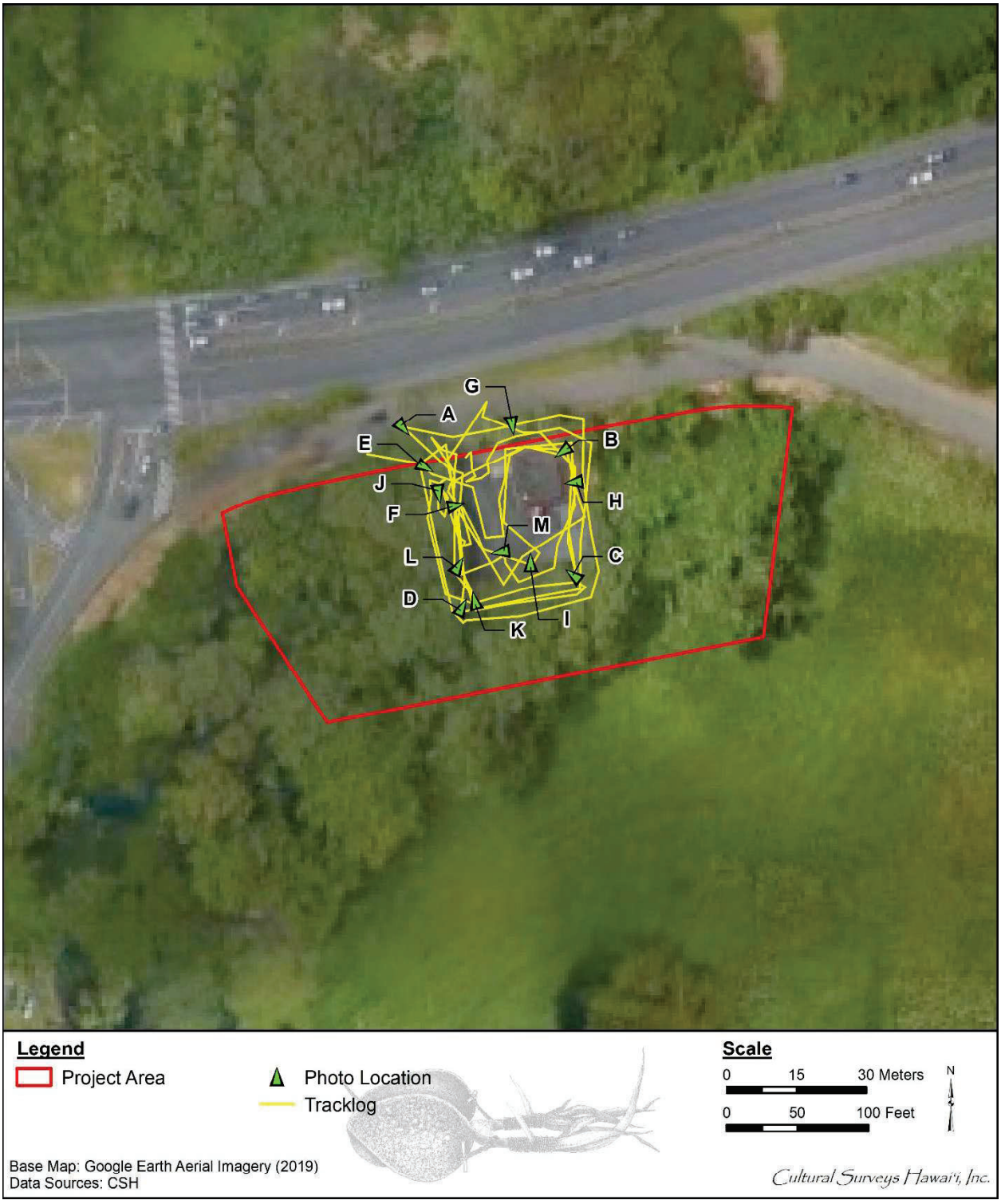



Figure 31. Archaeologist’s track log showing the general location and orientation of the following photographs on a 2019 Google Earth aerial photograph

Figure 32. Photo A: Entry driveway to the Maunawili Park WWPS; the proposed AST is to be located in the gravel area on the west side of the facility (at right), view to southeast

Figure 33. Photo B: View of the Maunawili Park WWPS from the northeast corner of the enclosure, view to southwest

Figure 34. Photo C: View of the Maunawili Park WWPS from the southeast corner of the enclosure, view to northwest

Figure 35. Photo D: View of the Maunawili Park WWPS from the southwest corner of the enclosure, view to northeast

Figure 36. Photo E: View of the Maunawili Park WWPS from the northwest corner of the enclosure, the proposed AST would be at the right, view to southeast

Figure 37. Photo F: View of the front (west side) of the existing Pump Station building, view to east

Figure 38. Photo G: View of the north side of the existing Pump Station building (from Auloa Road), view to south

Figure 39. Photo H: View of the east side of the existing Pump Station building (from outside the enclosure), view to west

Figure 40. Photo I: View of the south side of the existing Pump Station building, view to north

Figure 41. Photo J: Location of proposed new 1,000-gallon AST in the west side of Maunawili Park WWPS enclosure, view to southeast

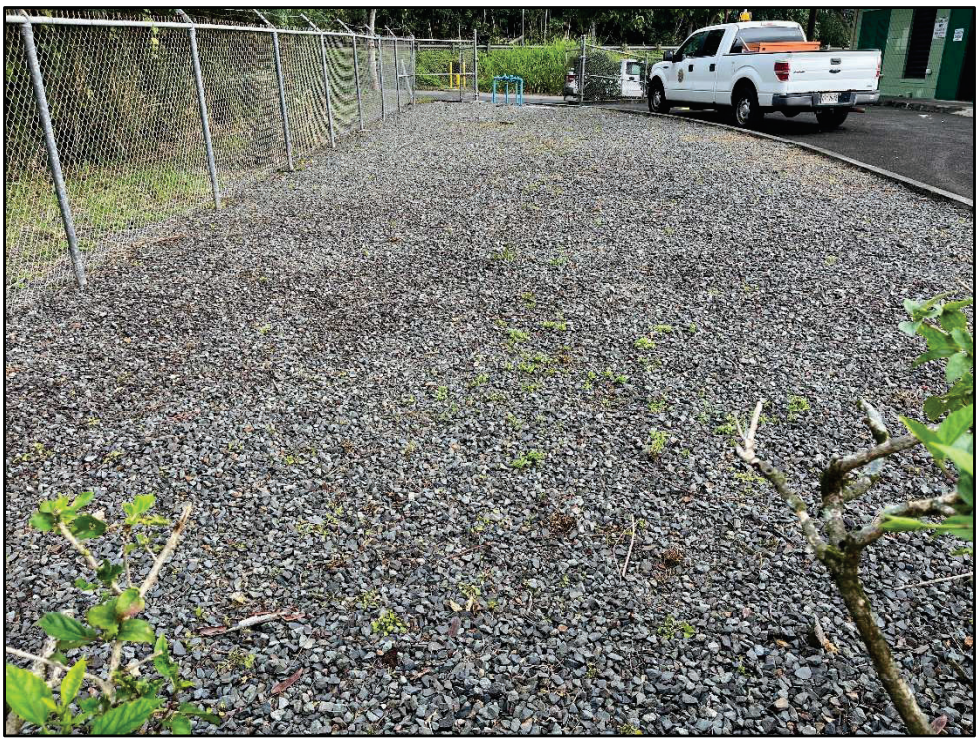


Figure 42. Photo K: Location of proposed new 1,000-gallon AST in west side of Maunawili Park WWPS enclosure, view to northwest

Figure 43. Photo L: View of the area of the proposed new underground fuel piping from the new 1,000-gallon AST (at left) to the existing Pump Station, view to northwest

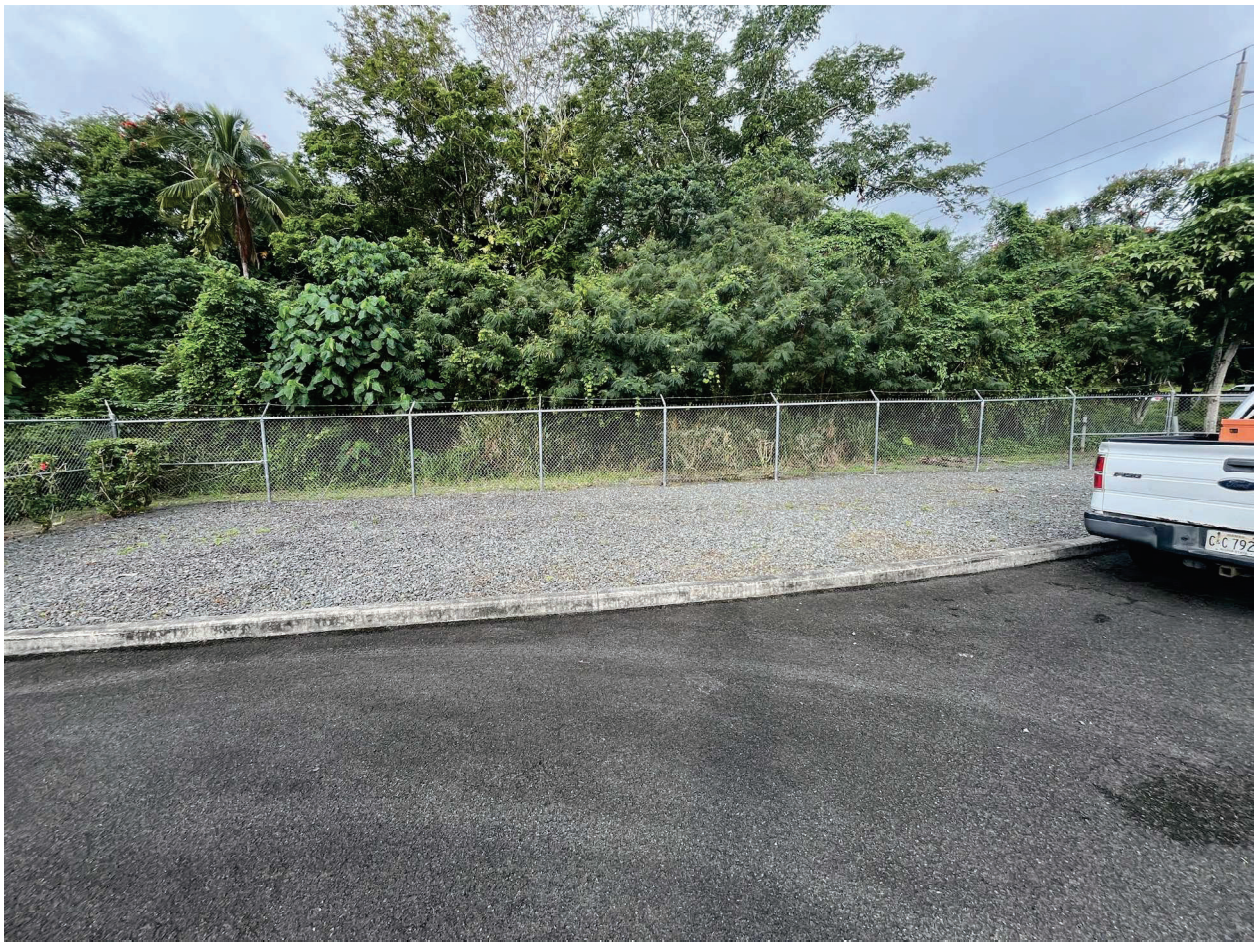


Figure 44. Photo M: View toward indicated “*Pā Halepule*” or ca. 1852 churchyard approximately 45 m to west of the facility, view to west

# References Cited

**Alexander, A.C.**

1911 Map of Leong Lands, Kailua, Koolaupoko, Oahu, August 1911 reproduced in "The Early Center of Town" by Paul Brennan. In *Kailua: In the Wisps of the Malanai Breeze.* (2009:114). Kailua Historical Society, Kailua, Hawai‘i.

**Allen, Jane, Mary F. Riford, Paul W. Brennan, David B., Chaffee, Linda Scott Cummings, Carol T. Kawachi, Lori Liu, and Gail M. Murakami**

2002 *Kula and Kahawai: Geoarchaeological and Historical Investigations in Middle Maunawili Valley, Kailua, Ko‘olau Poko, O‘ahu.* AMEC Earth & Environmental, Inc., Honolulu.

**Allen-Wheeler, Jane**

1981 *Archaeological Excavations in Kawai Nui Marsh, Island of O‘ahu*. Department of Anthropology, Bernice Pauahi Bishop Museum, Honolulu.

**Athens, J. Stephen**

1983 *Archaeological Excavations on the Pōhākupu-Kūkanono Slope, Kawainui Marsh O‘ahu*. MS 033183, Department of Anthropology, Bernice Pauahi Bishop Museum, Honolulu.

**Athens, J. Stephen, Timothy Rieth, and Thomas S. Dye**

2014 Paleoenvironmental and Archaeological Model-Based Age Estimate for the Colonization of Hawaii. *American Antiquity* 79 (2014):144–155.

**Barrera, William**

1984 *Archaeological Survey for the Kailua Road Interceptor Sewer, Maunawili Wastewater Pumping Station and Force Main, and Kukanono Wastewater Pump Station And Force Main, Kailua, Oahu*. Chiniago, Inc., Honolulu.

1985 *Maunawili, O‘ahu: Archaeological Reconnaissance at Proposed Golf Course Location.* Chiniago, Inc., Honolulu.

**Bayman, James and Thomas S. Dye**

2013 *Hawai‘i’s Past in a World of Pacific Islands*. Society for American Archaeology, Washington, D.C.

**Bishop, S.E.**

1888 Map of Kailua. Registered Map 1434. Hawai‘i Land Survey Division, Department of Accounting and General Services, Honolulu. Available online at http://dags.hawaii.gov/survey/search.php

**Brennan, Paul, W.**

1986 *Archaeological Reconnaissance of Maunawili Valley for Royal Hawaiian Country Club, Inc.* Community Planning, Inc., Honolulu.

1994 *Site Documentation and Significance in Maunawili, Kailua, Ko‘olauloa, O‘ahu.* Anthropology Department, Bernice Pauahi Bishop Museum, Honolulu.

2009 The Early Center of Town. In *Kailua: In the Wisps of the Malanai Breeze,* pp. 114–123. Kailua Historical Society, Kailua, Hawai‘i.

**Chamberlain, Levi**

1956 Tour Around Oahu, 1828. *65th Annual Report of the Hawaiian Historical Society for the Year 1956.* Hawaiian Mission Children’s Society, Honolulu.

**City and County of Honolulu**

2025 Honolulu.gov ENV web site for Wastewater Management Facilities in the Windward Region: Kaneohe Bay #3 Wastewater Pump Station. Available online, https://www.honolulu.gov/rep/site/env/wwm_docs/wwm_kailua (accessed March 2025)

**Clark, Jeffrey T.**

1980 *Phase I Archaeological Survey of Castle Estate Lands Around the Kawai Nui Marsh, Kailua, O‘ahu.* Department of Anthropology, Bernice Pauahi Bishop Museum, Honolulu.

**Cordy, Ross**

1977 *Cultural Resources Study for the City and County of Honolulu’s Permit Request: Kawainui Marsh Sewerline (Oahu), Archaeological Reconnaissance and Pre-1850 Literature Search*. U.S. Army Corps of Engineers, Pacific Ocean Division, Honolulu.

1978 *Test Excavations: Site 7, Kawai Nui Marsh, Kailua Ahupua‘a, O‘ahu and Determination of Effect*. U.S. Army Corps of Engineers, Honolulu.

**Creed, Victoria**

1992 Settlement Pattern for Kailua Ahupua‘a, Ko‘olaupoko, O‘ahu. Paper for Anthropology 645 Historic Preservation, University of Hawai‘i, Honolulu.

**Dixon, Boyd, Allen, Jane, and Mary F. Riford**

2002 *Historic Preservation Plan Luana Hills Country Club, Inc. Property Maunawili Valley, Kailua Ahupua‘a, Ko‘olau Poko, O‘ahu*. AMEC Earth & Environmental, Inc., Honolulu.

**Donn, John M.**

1906 Hawaii Territory map of Oahu. Registered Map 2374. Hawai‘i Land Survey Division, Department of Accounting and General Services, Honolulu. Available online at http://dags.hawaii.gov/survey/search.php

**Ewart, Ned D. and Myra F. Tuggle**

1977 *Archaeological Investigation Kawainui Swamp Ko‘olaupoko, Kailua, O‘ahu Island*. Archaeological Research Center of Hawaii, Inc., Ms. 14-94., Lāwa‘i, Kaua‘i, Hawai‘i.

**Foote, Donald E., Elmer L. Hill, Sakuichi Nakamura, and Floyd Stephens**

1972 *Soil Survey of the Islands of Kauai, Oahu, Maui, Molokai, and Lanai, State of Hawaii.* U.S. Department of Agriculture, Soil Conservation Service, in cooperation with the University of Hawai‘i Agricultural Experiment Station. U.S. Government Printing Office, Washington, D.C.

**Giambelluca, T.W., Q. Chen, A.G. Frazier, J.P. Price, Y.-L. Chen, P.-S. Chu, J.K. Eischeid, and D.M. Delparte**

2013 Online Rainfall Atlas of Hawai‘i. *Bulletin of the American Meteorological Society volume 94, pp. 313-316, doi: 10.1175/BAMS-D-11-00228.1.* Electronic document, http://rainfall.geography.hawaii.edu (accessed 2022)

**Google Earth**

2019 Aerial photographs of Hawai‘i. Electronic resource, www.google.com/earth.html.

**Hammatt, Hallett H.**

2013 *Archaeological Reconnaissance Survey with Limited Subsurface Testing in Support of the Kawainui Marsh Wetland Restoration and Habitat Enhancement Project, Kailua Ahupua‘a, Ko‘olaupoko District, O‘ahu TMK: [1] 4-2-013: 005 por., 022 por. and 043 por.* Cultural Surveys Hawai‘i, Inc., Kailua, Hawai‘i.

**Hawai‘i TMK Service**

2025 Tax Map Key (1) 4-2-007. Hawai‘i TMK Service, Honolulu.

**Historic Hawai‘i Foundation**

2025 National Register of Historic Places Registration form Kawailoa Training School for Girls (Don Hibbard and Nathan Napoka July 2, 1984).

**Hoerman, Rachel, Brittany Enanoria, Ena Sroat, and David W. Shideler**

2020 *Archaeological Literature Review and Field Inspection Report for the BWS ‘Auloa Road, Loop Road and Ulukahiki Street 16-inch and 8-inch Water Line Project, Kailua Ahupua‘a, Ko‘olaupoko District, O‘ahu, TMK plats: [1] 4-2-007, 013, and 014.* Cultural Surveys Hawai‘i, Inc., Kailua, Hawai‘i.

**Kailua Historical Society**

2009 *Kailua: In the Wisps of the Malanai Breeze*. Kailua Historical Society, Kailua, Hawai‘i.

**Kamakau, Samuel M.**

1992 *Ruling Chiefs of Hawaii.* Revised edition. Kamehameha Schools Press, Honolulu.

**Kelly, Marion and Jeffrey T. Clark**

1980 *Kawainui Marsh, O‘ahu: Historical and Archaeological Studies.* Report Series 80-3. Bernice Pauahi Bishop Museum, Honolulu.

**Kelly, Marion and Barry Nakamura**

1981 *Historical Study of Kawainui Marsh Area, Island of O‘ahu*. Anthropology Department, Bernice Pauahi Bishop Museum, Honolulu.

**Kelly, Marion, Barry Nakamura, and Paul Brennan**

2009 The Early Schools. In *Kailua: In the Wisps of the Malanai Breeze,* pp. 124–132. Kailua Historical Society, Kailua, Hawai‘i.

**King, Robert**

1900 Map of Kailua. Registered Map 588. Hawai‘i Land Survey Division, Department of Accounting and General Services, Honolulu. Available online at http://dags.hawaii.gov/survey/search.php

**Kingsbury, Nigel T. and Robert L. Spear**

2017 *Archaeological Monitoring Report for the Kawainui Marsh Wetland Restoration and Habitat Enhancement Project, Kailua Ahupua‘a, Ko‘olaupoko District, O‘ahu Island, [TMK (1) 4-2-013:005 Por., 022 Por., and 043 Por.].* Scientific Consultant Services, Honolulu.

**Kirch, Patrick Vinton**

2012 *A Shark Going Inland Is My Chief: The Island Civilization of Ancient Hawai‘i.* University of California Press, Berkeley, California.

**Kraft, John C.**

1980a *Letter Report to Susumo Ono re: Corings in Kawai Nui Marsh*, 15 July.

1980b *Letter Report to Ed Mareus re: Corings in Kawai Nui Marsh*, 18 December.

1980c *Summary of Results of the Kawai Nui Marsh Study*.

**Kuykendall, Ralph S.**

1968 *The Hawaiian Kingdom, Volume 1; 1778-1854 Foundation and Transformation*. University of Hawaii Press, Honolulu.

**La Croix, Sumner**

2019 *Hawai‘i: Eight Hundred Years of Political and Economic Change*. University of Chicago Press, Chicago.

**Ladefoged, Thegn N., Patrick V. Kirch, Samuel Gon III, Oliver A. Chadwick, Anthony S. Hartshorn, and Peter M. Vitousek**

2009 Opportunities and Constraints for Intensive Agriculture in the Hawaiian Archipelago Prior to European Contact. *Journal of Archaeological Science* xxx (2009) 1–10.

**MacDonald, G.A. and A.T. Abbott**

1974 *Volcanoes in the Sea*. University of Hawaii Press, Honolulu.

**MacDonald, G.A., A.T. Abbott, and Frank L. Peterson**

1983 *Volcanoes in the Sea: The Geology of Hawaii* Second edition. University of Hawaii Press, Honolulu.

**Mann, Melanie M. and Hallett H. Hammatt**

2003 *Kawai Nui Marsh Environmental Restoration Project, Mitigation Plan & Field Verification & Flagging, Kailua Ahupua‘a, Ko‘olaupoko District, Island of O‘ahu TMK: 4-2-13.* Cultural Surveys Hawai‘i, Inc., Kailua, Hawai‘i.

**McAllister, J. Gilbert**

1933 *Archaeology of Oahu*. Bishop Museum Bulletin 104. Bernice Pauahi Bishop Museum, Honolulu.

**McDermott, Matthew, Kristina W. Bushnell, Victoria S. Creed, Scott T. Kikiloi, and Hallett H. Hammatt**

2000 *Archaeological Assessment and Background Literature Search for the Proposed Circle-Kawai Nui Marsh Trail Project, Kailua Ahupua‘a, District of Ko‘olaupoko, Island of O‘ahu.* Cultural Surveys Hawai‘i, Inc., Kailua, Hawai‘i.

**Morgenstein, Maury**
1978 *Geoarchaeological Analysis of Field Remnants, Kawainui Marsh, Kailua, Oahu*. Hawaii Marine Research Inc., Honolulu.

**Neller, Earl**
1982 *Archaeological Investigations at Kawainui Marsh, in the Kukanono Area, Kailua, Oahu, TMK 4-2-13:38*. State Historic Preservation Office, Honolulu.

**Okahara and Associate, Inc.**
2025 Project plans and annotated photographs of project area, Honolulu.

**Pantaleo, Jeffrey and Paul L. Cleghorn**
1989 *Reconnaissance Survey of the Proposed Windward Park, Kailua, Oahu Island (TMK 4-2-14:2 and 4).* Applied Research Group, Bernice Pauahi Bishop Museum, Honolulu.

**Pukui, Mary K., Samuel H. Elbert, and Esther Mookini**
1974 *Place Names of Hawaii.* University of Hawaii Press, Honolulu.

**Rieth, T., T. Hunt, C. Lipo, and J. Wilmshurst**
2011 The 13th Century Polynesian Colonization of Hawai‘i Island. *Journal of Archaeological Science* 38:2740–2749.

**Schoofs, Robert**
1978 *Pioneers of the Faith: History of the Catholic Mission in Hawaii*. Revised by Fay Wren Midkiff. Sturgis Printing Company, Honolulu.

**Shideler, David W. and Hallett H. Hammatt**
2021 *Archaeological Literature Review and Field Inspection Report to Support Consultation with the SHPD for the Kalaniana‘ole BMP Project, Kailua Ahupua‘a, Ko‘olaupoko District, O‘ahu, TMKs: [1] 4-2-014:002 por., 004 por., and Kalaniana‘ole Right-of-Way*. Cultural Surveys Hawai‘i, Inc., Kailua, Hawai‘i.

2022 *Archaeological Monitoring Plan for the BWS ‘Auloa Road, Loop Road and Ulukahiki Street 16-inch and 8-inch Water Line Project, Kailua Ahupua‘a, Ko‘olaupoko District, O‘ahu, TMKs: [1] 4-2-006:999, 4-2-13:999 (Kalaniana‘ole Highway), 4-2-007:999, 4-2-012:999, 4-2-013:999, 4-2-014:999, 4-2-068:999, 4-2-071:999 (‘Auloa Road), 4-2-006:999, 4-2-013:999, 4-2-051:999 (‘Ulukahiki Street), 4-2-007:999, 4-2-013:999 (Loop Road), and 4-2-013:021 (por.)*. Cultural Surveys Hawai‘i, Inc., Kailua, Hawai‘i.

2024 *Archaeological Literature Review and Field Inspection in Support of Consultation with the SHPD for the DLNR Engineering Division Kawainui Marsh Environmental Restoration Project, Kailua Ahupua‘a, Ko‘olaupoko District, O‘ahu Island TMK: (1) 4-2-013:005 (por.)* Cultural Surveys Hawai‘i, Inc., Kailua, Hawai‘i.

2025 [Draft] *Archaeological Literature Review and Field Inspection to Support Consultation with SHPD for the Maunawili Wastewater Pump Stations, Force Main, and Sewer Improvements Project, Kailua Ahupua‘a, Ko‘olaupoko District, O‘ahu, TMKs: (1) 4-2-006:999 (Kalaniana‘ole Hwy); 4-2-007:001 (por.), 013 (por.), 999 (‘Auloa Rd, Luana Hills Rd, Maunawili Rd, Maunawili Lp); 4-2-008:999 (Maunawili Rd); 4-2-011:999 (Maunawili Rd); 4-2-012:999 (‘Auloa Rd, Maunawili Rd); 4-2-013:999 (Kalaniana‘ole Hwy, ‘Auloa Rd); 4-2-031:999 (Kailua Rd); 4-2-042:999 (Kalaniana‘ole Hwy); 4-2-045:999 (Kalaniana‘ole Hwy); 4-2-051:999 (Kailua Rd); 4-2-062:999 (Maunawili Rd, Aloha ‘Oe Dr); 4-2-065:999 (Pu‘ualoha St, Aloha ‘Oe Dr); 4-2-067:009 (por.), 024 (por.), 025 (por.), 026 (por.), 027 (por.), 028 (por.), 4-2-067:999 (Maunawili Rd, Pu‘ualoha St); 4-2-068:999 (‘Auloa Rd, Maunawili Rd); 4-2-069:999 (Maunawili Lp, Maunawili Rd); 4-2-071:999 (‘Auloa Rd); 4-2-074:999 (Maunawili Rd.)* Cultural Surveys Hawai‘i, Inc., Kailua, Hawai‘i.

**Toenjes, James H. and Theresa K. Donham**

1985 An Archaeological Reconnaissance of Maunawili District Trunk Sewer, Section 2 Project; Island of Oahu. In *Environmental Assessment for Maunawili District Trunk Sewer, Section 2 (Maunawili Road Alignment), Tax Map Key:4-2-07 and 08.* Department of Anthropology, Bernice Pauahi Bishop Museum, Honolulu.

**U.S. Army War Department**

1919 U.S. Army War Department fire control map, Waimanalo quadrangle. USGS Information Services, Denver, Colorado.

1936 U.S. Army War Department terrain map, Mokapu quadrangle. USGS Information Services, Denver, Colorado.

1943 U.S. Army War Department terrain map, Kailua and Kaneohe quadrangles. USGS Information Services, Denver, Colorado.

**USDA (U.S. Department of Agriculture)**

1965 Aerial photograph of Kailua (UH MAGIS).

2001 Soil Survey Geographic (SSURGO) database. U.S. Department of Agriculture, Natural Resources Conservation Service. Fort Worth, Texas. http://www.ncgc.nrcs.usda.gov/products/datasets/ssurgo/ (accessed March 2005).

**USGS (U.S. Geological Survey)**

1928 Mokapu USGS 7.5-minute series topographic quadrangles. USGS Information Services, Denver, Colorado.

1952 Koko Head and Mokapu USGS 7.5-minute series topographic quadrangles. USGS Information Services, Denver, Colorado.

1953 Honolulu USGS 7.5-minute series topographic quadrangle. USGS Information Services, Denver, Colorado.

1954 Kaneohe USGS 7.5-minute series topographic quadrangles. USGS Information Services, Denver, Colorado.

1959 USGS aerial photograph of Kailua. USGS Information Services, Denver, Colorado.

1968 Kaneohe and Mokapu USGS 7.5-minute series topographic quadrangles. USGS Information Services, Denver.

1968 USGS Orthophotoquad, Kaneohe and Mokapu Quads. (Aerial photograph). USGS Information Services, Denver, Colorado.

1969 Honolulu and Koko Head USGS 7.5-minute series topographic quadrangles. USGS Information Services, Denver.

1978 USGS Orthophotoquad, Honolulu, Kaneohe, Koko Head, and Mokapu quadrangles (Aerial photograph). USGS Information Services, Denver, Colorado.

1998 Honolulu, Kaneohe, and Mokapu USGS 7.5-minute series topographic quadrangles. USGS Information Services, Denver.

1999 Koko Head USGS 7.5-minute series topographic quadrangle. USGS Information Services, Denver.

2017 Honolulu, Kaneohe, Koko Head, and Mokapu Point USGS 7.5-minute series topographic quadrangles. USGS Information Services, Denver.

**Waihona ‘Aina**

2025 *The Māhele Database*. Electronic document, http://waihona.com (accessed 7 March 2025).

**Wall, Walter E.**

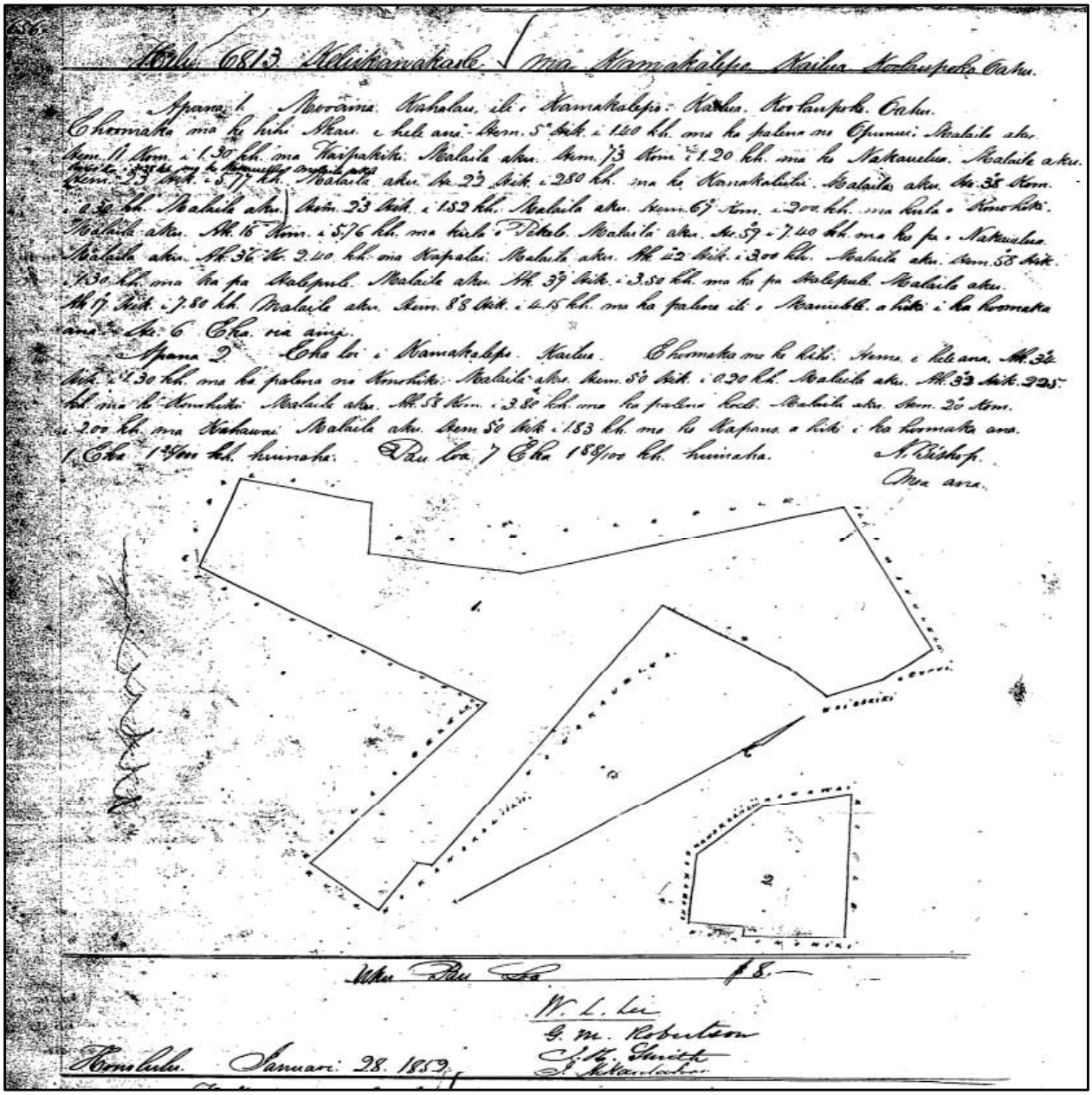
1894 Map of Maunawili Ranch. Registered Map 2050. Hawai‘i Land Survey Division, Department of Accounting and General Services, Honolulu. Available online at http://dags.hawaii.gov/survey/search.php

1899 Map of Kailua. Registered Map 2049. Hawai‘i Land Survey Division, Department of Accounting and General Services, Honolulu. Available online at http://dags.hawaii.gov/survey/search.php

**Welser, Alison, Katherine I. Placher, and Hallett H. Hammatt**

2023 *Archaeological Inventory Survey Report for the Kawainui Marsh Restoration of Endangered Habitats and Wetlands Project, Mokulana Project, Kailua Ahupua‘a, Ko‘olaupoko District, O‘ahu TMK: [1] 4-2-013:005 por.* Cultural Surveys Hawai‘i, Inc., Kailua, Hawai‘i.

# Appendix A LCA 6813:1 to Keliikanakaole



## Transcription

*Helu 6813 Keliikanakaole ma Kamakalepo Kailua Koolaupoko Oahu*

*Apana 1. Mooaina Kahalau ili o Kamakalepo Kailua Koolaupoko Oahu.*

*E hoomaka ma ke kihi Akau e hele ana Hem. 5º Hik. i 1.40 kh. ma ka palena no Opunui. Malaila aku Hem. 11º Kom. i 1.30 kh. ma Waipakiki. Malaila aku Hem 73º Kom. i 1.20 kh. ma ko Nakauelua. Malaila aku [?] 60 Ko. i 3.028 kh. ma ko [?] malaila aku Hem. 23º Hik. i 5.77 kh. Malaila aku He. 22º Hik. i 2.80 kh. ma ko Kanakaliilii. Malaila aku He. 38º Kom. i 0.30 kh. Malaila aku Hem. 23º Hik. i 1.52 kh. Malaila aku Hem. 67º Kom. i 200 kh. ma kula o Konohiki. Malaila aku Ak. 16º Kom. i 5.76 kh. ma kula o Pekelo. Malaila aku He. 59º i 7.40 kh. ma ka pa o Nakauelua. Malaila aku Ak. 36º Ko. 2.40 kh. ma Kapalai. Malaila aku Ak. 42º Hik. i 3.00 kh. Malaila aku Hem. 58º Hik. i 1.30 kh. ma ka pa Halepule. Malaila aku Ak. 39º Hik. i 3.50 kh. ma ka pa Halepule. Malaila aku. Ak 17º Hik. i 7.80 kh. Malaila aku Hem. 88º Hik. i 4.15 kh. ma ka palena ili o Manulele a hiki i ka hoomaka ana. He. 6 Eka oia aina.*

*Apana 2. Eha loi i Kamakalepo Kailua. E hoomaka ma ke kihi Hema e hele ana Ak. 34*

*Hik. i 1.30 kh. ma ka palena no Konohiki. Malaila aku Hem. 50 Hik. i 0.20 kh. Malaila aku Ak. 32 Hik. 225 kh. ma ko Konohiki Malaila aku Ak 58 Kom. i 3.80 kh. ma ka palena koele. Malaila aku Hem. 20 Kom. i 2.00 kh. ma Kahawai. Malaila aku Hem. 50 Hik. i 1.83 kh. ma ko Kapano a hiki i ka hoomaka ana 1 Eka 1 25/100 kh. huinaha. Pau loa 7 Eka 1 88/100 kh. huinaha. A. Bishop*

*Mea ana*

[Diagram in the Original]

[Text in the Diagram: *1, Kapalai, Pa halepule, Ili o Manulele, Opunui, Waipakiki, No Nakauelua, No*

*Kanakaliilii, Kula, Kula o Pekelo, Pa O Nakauelua, 2, Kanakaliilii, Kahawai, Koele, No Konohiki, No Kapano]*

*Uku Pau Loa $8*

*W. L. Lee*

*G. M. Robertson*

*J. H. Smith*

*Honolulu Ianuari 28 1852 J. Kekaulahao*

## Summary

Number 6813:1 “Keliikanakaole” at Kamakalepo, Kailua, Koʻolaupoko, Oʻahu

Division 1. *Moʻoʻāina* land division “Kahalau” within the division Kamakalepo, Kailua, Koʻolaupoko, Oʻahu. Commence at the north corner and proceed south 5° east 92 feet upon the border of the land of “Opunui.” Then proceed south 11° west 86 feet at Waipākīkī. Then proceed south 73° west 79 feet upon that of “Nakauelua.” Then proceed…south 23° east 381 feet. Then proceed south 22° east 185 feet upon that for “Kanakaliilii.” Then proceed south 38° west 20 feet

. Then proceed south 23° east 100 feet. Then proceed south 67° west 132 feet at the field of the land manager (*kula o Konohiki*). Then proceed north 16º west 380 feet at the field of Pakelo (*kula o Pakelo*). Then proceed south 59° and 488 feet along the wall of "Nakauelua" (*Pā o Nakauelua*).Then proceed north 36º west 158 feet at "Kapalai." Then proceed north 42° east 198 feet. Then proceed south 58º east 86 feet upon the church yard (*Pā Halepule*). Then proceed north 39º east 231 feet upon the church yard. Then proceed north 17º east 515 feet and south 88° east 297 feet upon the border of the division (*‘Ili*) Manulele until arriving at the beginning. 6 acres.

[…]

A. Bishop
Surveyor

Total Cost $6.-

W.L. Lee

G.M. Robertson

J.H. Smith

Honolulu, 28 January 1852. J. Kekaulahao

Of particular note is the reference (consistent in the text and map) to a Churchyard (*pā halepule*) along the west side.

# Appendix B

## Early Consultation Letter and Handout

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TOWNSCAPE, INC.
Environmental & Community Planning

900 Fort Street Mall Suite 1160 · Honolulu, HI 96813 · PH: (808) 536-6999 · FAX: (808) 524-4998 · www.townscapeinc.com

April 1, 2025

Subject: Early Consultation Request for Draft Environmental Assessment (DEA)
Fuel Storage Tank Improvements for the Maunawili Park Wastewater Pump Station–
Kailua, Island of Oʻahu
Tax Map Key 4-2-007:031

Dear Participant,

On behalf of the City and County of Honolulu, Department of Environmental Services, Townscape, Inc. is preparing a DEA, pursuant to Hawaiʻi Revised Statues, Chapter 343, and Hawaiʻi Administrative Rules (HAR), Chapter 11-200.1 for the Maunawili Park Wastewater Pump Station Fuel Storage Tank Improvements ("Project").

Pursuant to HAR, Chapter 11-200.1-18, the City's Department of Environmental Services (Proposing Agency) is conducting early consultation to seek input from agencies, citizen groups, and individuals who may have an area of expertise, which may guide the scope and preparation of the DEA, and/or may be affected by the proposed Project. Please find enclosed an Early Consultation Handout with a project description and location map for your review and comment. We are requesting comments no later than **May 1, 2025** to be sent via mail or e-mail to:

Townscape, Inc.
Attn: Gabrielle Sham
900 Fort Street Mall, Suite 1160
Honolulu, HI 96813
E-mail: gabrielle@townscapeinc.com

If we do not receive a response by this date, we will assume your agency or organization has no comments. Please contact the undersigned with any questions you may have at (808) 550-3894 or via e-mail at gabrielle@townscapeinc.com. Mahalo in advance for your participation in the early consultation for this Project.

Sincerely,

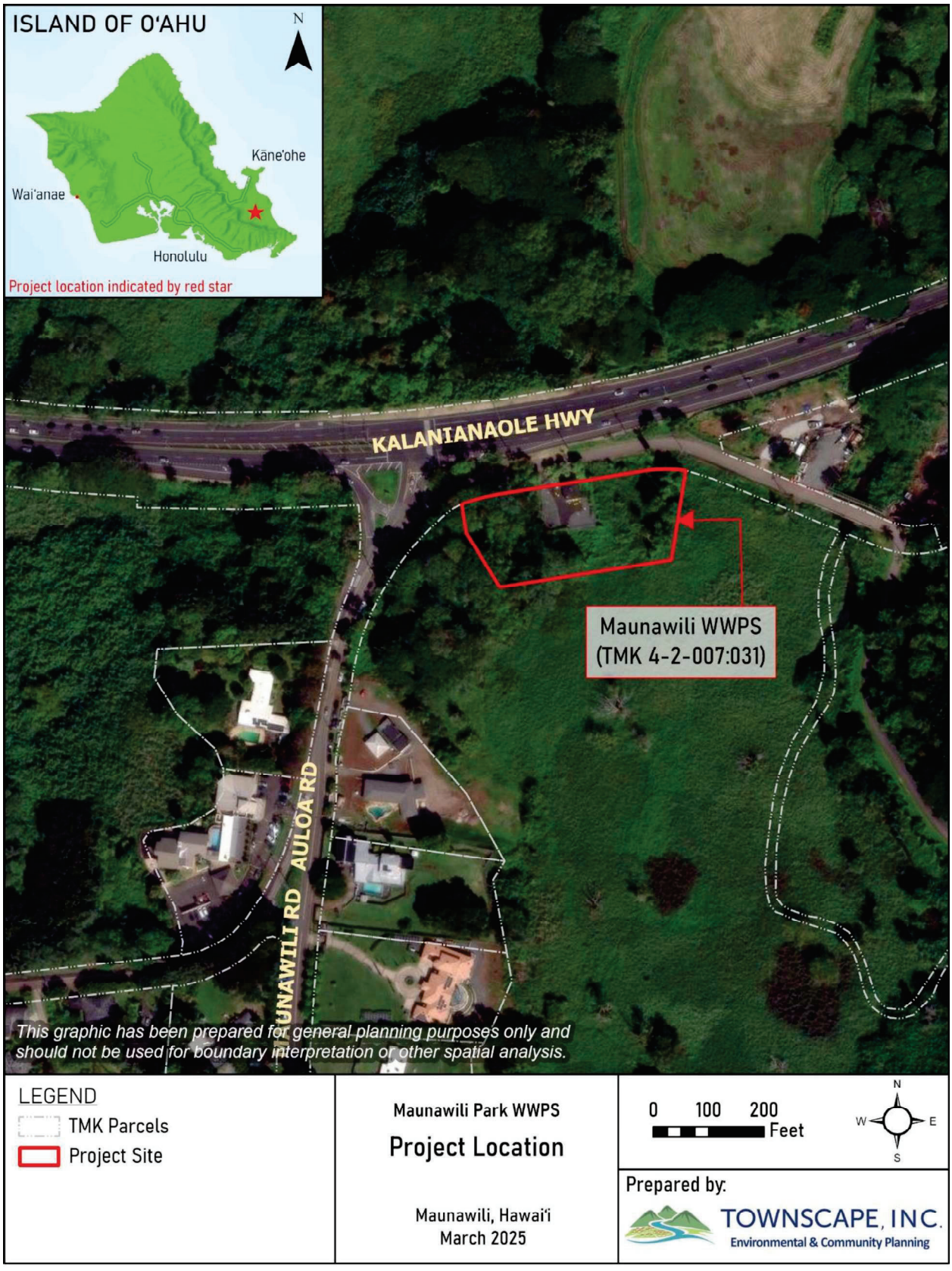
Gabrielle Sham
Associate Planner

Enclosure: Early Consultation Handout

| | |
|---|---|
| **Project Name** | Fuel Storage Tank Improvements for the Maunawili Park Wastewater Pump Station |
| **Proposing and Determining Agency** | City and County of Honolulu,<br>Department of Environmental Services<br>1000 Ulu'ōhi'a Street Suite 308<br>Honolulu, Hawai'i 96707 |
| **Agent** | Townscape, Inc.<br>900 Fort Street Mall, Suite 1160<br>Honolulu, Hawai'i 96813<br>Phone: (808) 550-3894<br>E-mail: gabrielle@townscapeinc.com |
| **HRS, Chapter 343 Trigger** | Use of County lands and funds |
| **Project Location** | 830 Auloa Road<br>Kailua, Hawai'i 96734 |
| **Tax Map Key & Recorded Fee Owner** | (1) 4-2-007:031, City & County of Honolulu |
| **Project Area** | 1.4480 acres (or 63,075 square feet) |
| **State Land Use District** | Agricultural |
| **Development Plan** | Ko'olaupoko Sustainable Communities Plan |
| **Special Management Area** | In Special Management Area |

## Overview of Proposed Project

The Maunawili Park Wastewater Pump Station (WWPS) has been in service since 1989. The proposed project involves replacing the existing underground fuel storage tank with a new 1,000-gallon aboveground fuel storage tank. Additionally, the project includes replacing the underground fuel piping, fuel monitoring panel, and all associated sensors, as well as connecting the new fuel monitoring panel to the supervisory control and data acquisition (SCADA) system. This work must be completed by July 15, 2028, in compliance with Hawai'i Administrative Rules 11-280.1, which mandates that all underground storage tanks and piping installed before August 9, 2013 to provide secondary containment and utilize interstitial monitoring. The aboveground storage tank will supply the fuel required for the emergency backup generator to service the WWPS.


ISLAND OF O'AHU
N
Kāne'ohe
Wai'anae
Honolulu
Project location indicated by red star
KALANIANAOLE HWY
Maunawili WWPS
(TMK 4-2-007:031)
MAUNAWILI RD
AULOA RD
This graphic has been prepared for general planning purposes only and should not be used for boundary interpretation or other spatial analysis.
LEGEND
TMK Parcels
Project Site
Maunawili Park WWPS
Project Location
Maunawili, Hawai'i
March 2025
0 100 200
Feet
N
W
E
S
Prepared by:
TOWNSCAPE, INC.
Environmental & Community Planning

# STATE OF HAWAI'I
# OFFICE OF PLANNING
# & SUSTAINABLE DEVELOPMENT

235 South Beretania Street, 6th Floor, Honolulu, Hawai'i 96813
Mailing Address: P.O. Box 2359, Honolulu, Hawai'i 96804

JOSH GREEN, M.D.
GOVERNOR

SYLVIA LUKE
LT. GOVERNOR

MARY ALICE EVANS
DIRECTOR

Telephone: (808) 587-2846
Fax: (808) 587-2824
Web: https://planning.hawaii.gov/


DTS202504041614HE

Coastal Zone Management Program

Environmental Review Program

Land Use Commission

Land Use Division

Special Plans Branch

State Transit-Oriented Development

Statewide Geographic Information System

Statewide Sustainability Branch

April 11, 2025

Ms. Gabrielle Sham
Townscape, Inc.
900 Fort Street Mall, Suite 1160
Honolulu, HI 96813

Dear Ms. Sham:

Subject: Early Consultation Environmental Assessment for the Proposed Fuel Storage Tank Improvements for the Maunawili Park Wastewater Pump Station at Kailua, Oahu; Tax Map Key (1) 4-2-007:031

The Office of Planning and Sustainable Development (OPSD) is in receipt of your early consultation request, received April 4, 2025, on the preparation of an Environmental Assessment (EA), for the proposed fuel storage tank improvements for the Maunawili Park Wastewater Pump Station (WWPS).

The proposed project involves replacing the existing underground fuel storage tank with a new 1,000-gallon aboveground fuel storage tank. Additionally proposed is replacing the underground fuel piping, fuel monitoring panel, and all associated sensors. The aboveground storage tank will supply the fuel required for the emergency backup generator to service the WWPS. This project must be completed by July 15, 2028, the deadline set forth in Hawaii Administrative Rules (HAR) Section 11-280.1-21 that requires all underground storage tanks and piping installed before August 9, 2013, must be provided with secondary containment design.

The OPSD has reviewed the subject request and has the following comments to offer:

1) The EA shall discuss all triggers of the preparation of an EA set forth in Hawaii Revised Statutes (HRS) Chapter 343, and list all required permits and approvals from the state, federal, and county for the proposed fuel storage tank improvements.

2) The Hawaii Coastal Zone Management (CZM) Law, HRS Chapter 205A, requires all state and county agencies to enforce the CZM objectives and policies. The subject EA should include an assessment with mitigation measures, if needed, as to how the proposed project will conform to each

of the CZM objectives and supporting policies set forth in HRS Section 205A-2, as amended.

3) The project is located within the City and County of Honolulu's designated Special Management Area (SMA). The Department of Planning and Permitting, City and County of Honolulu should be consulted for SMA permitting requirements. The OPSD suggests that the EA discusses compliance with the requirements of SMA use pursuant to the county SMA ordinance.

4) The OPSD recommends that site-specific Best Management Practices be developed and implemented to prevent any runoff, sediment, soil and debris potentially resulting from associated construction activities from adversely impacting the coastal ecosystems and the State waters as specified in HAR Chapter 11-54.

5) To assess potential impacts of sea level rise on the project area, the OPSD suggests the EA review the findings of the Hawaii Sea Level Rise Vulnerability and Adaptation Report, 2017 as well as its 2022 update and Guidance for Using the Sea Level Rise Exposure Area in Local Planning and Permitting Decisions: all documents may be found at https://climate.hawaii.gov/hi-adaptation/state-sea-level-rise-resources/.

If you respond to this comment letter, please include DTS202504041614HE in the subject line. For any questions regarding this letter, please contact Rachel Beasley of our office at (808) 587-2831 or by email at rachel.e.beasley@hawaii.gov.

Sincerely,

Mary Alice Evans

Mary Alice Evans
Director

# HONOLULU FIRE DEPARTMENT
## *KA 'OIHANA KINAI AHI O HONOLULU*
## CITY AND COUNTY OF HONOLULU

636 SOUTH STREET • HONOLULU, HAWAI'I 96813
PHONE: (808) 723-7139 • FAX: (808) 723-7111 • WEBSITE: honolulu.gov

RICK BLANGIARDI
MAYOR
*MEIA*

SHELDON K. HAO
FIRE CHIEF
*LUNA NUI KINAI AHI*

JASON SAMALA
DEPUTY FIRE CHIEF
*HOPE LUNA NUI KINAI AHI*


April 21, 2025

Ms. Gabrielle Sham, Associate Planner
Townscape, Inc.
900 Fort Street Mall, Suite 1160
Honolulu, Hawai'i 96813

Dear Ms. Sham:

Subject: Early Consultation Request for Draft Environmental Assessment
Fuel Storage Tank Improvements for the Maunawili Park Wastewater Pump Station
Kailua, Island of O'ahu
Tax Map Key: 4-2-007: 031

In response to your letter received on April 7, 2025, regarding the abovementioned subject, the Honolulu Fire Department (HFD) reviewed the submitted information and requires that this project follow all applicable codes in the Revised Ordinances of Honolulu Chapter 20 regarding Flammable and Combustible Liquid Storage Tanks.

The requirements above are required by the HFD. This project may have additional requirements to be met as determined by other agencies.

Should you have questions, please contact Battalion Chief Pao-Chi Hwang of our Fire Prevention Bureau at 808-723-7151 or hfdfpb1@honolulu.gov.

Sincerely,

CRAIG UCHIMURA
Assistant Chief

CU/MD:sk

HONOLULU POLICE DEPARTMENT
*KA 'OIHANA MĀKA'I O HONOLULU*
**CITY AND COUNTY OF HONOLULU**
801 SOUTH BERETANIA STREET • HONOLULU, HAWAI'I 96813
TELEPHONE: (808) 529-3111 • WEBSITE: www.honolulupd.org

RICK BLANGIARDI
MAYOR
*MEIA*

ARTHUR J. LOGAN
CHIEF
*KAHU MĀKA'I*

KEITH K. HORIKAWA
RADE K. VANIC
DEPUTY CHIEFS
*HOPE LUNA NUI MĀKA'I*

OUR REFERENCE EO-SH

April 21, 2025

SENT VIA EMAIL

Ms. Gabrielle Sham
gabrielle@townscapeinc.com

Dear Ms. Sham:

This is in response to your letter dated April 1, 2025, requesting input for the Draft Environmental Assessment for the proposed City and County of Honolulu, Department of Environmental Services, Fuel Storage Tank Improvements for the Maunawili Park Wastewater Pump Station in Kailua.

Based on the information provided, The Honolulu Police Department (HPD) recommends that all necessary lights, signs, barricades, and other safety equipment be installed and maintained by the contractor during the construction phase of the project. Additionally, adequate notification should be made to area businesses and residents prior to possible road closures, as any impact to pedestrian and/or vehicular traffic or construction-related debris could lead to complaints. Lastly, the HPD recommends a long-term plan to migitate the tracking of dirt, gravel, and debris to minimize potential environmental impacts from all affected areas.

If there are any questions, please call Major Randall Platt of our District 4 (Kāne'ohe, Kailua, Kahuku) at (808) 723-8640.

Sincerely,

GLENN HAYASHI
Assistant Chief of Police
Support Services Bureau

# DEPARTMENT OF DESIGN AND CONSTRUCTION
## *KA 'OIHANA HAKULAU A ME KE KĀPILI*
## CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 11TH FLOOR • HONOLULU, HAWAI'I 96813
PHONE: (808) 768-8480 • FAX: (808) 768-4567 • WEBSITE: honolulu.gov

RICK BLANGIARDI
MAYOR
*MEIA*

HAKU MILLES, P.E.
DIRECTOR
*PO'O*

MARK YONAMINE, P.E.
DEPUTY DIRECTOR
*HOPE PO'O*


April 22, 2025

SENT VIA EMAIL

Ms. Gabrielle Sham
gabrielle@townscapeinc.com

Dear Ms. Sham:

Subject: Early Consultation Request for Draft Environmental Assessment (DEA)
Fuel Storage Tank Improvements for the Maunawili Park
Wastewater Pump Station – Kailua, Island of O'ahu
Tax Map Key 4-2-007:031

Thank you for the opportunity to review and comment. Our Civil Division (CD) has comments as follows:

The Department of Design and Construction (DDC) will have a Rehabilitation of Auloa Road Bridge (Bridge No. 407) over Maunawili Stream project, which is adjacent to the Maunawili Park Wastewater Pump Station. The construction is estimated to start by the end of 2026 and will continue for about six months. The Department of Environmental Services should plan the fuel storage tank improvement work to avoid conflict with DDC's bridge rehabilitation project.

Should you have any further questions, please contact Timothy Trang, Civil Division Chief, at (808) 768-8836.

Sincerely,

Haku Milles, P.E., LEED AP
Director

HM:krn (937876)

# DEPARTMENT OF PLANNING AND PERMITTING
## *KA 'OIHANA HO'OLĀLĀ A ME NĀ PALAPALA 'AE*
## CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 7TH FLOOR • HONOLULU, HAWAI'I 96813
PHONE: (808) 768-8000 • FAX: (808) 768-6041 • WEBSITE: honolulu.gov/dpp

RICK BLANGIARDI
MAYOR
*MEIA*

DAWN TAKEUCHI APUNA
DIRECTOR
*PO'O*

BRYAN GALLAGHER, P.E.
DEPUTY DIRECTOR
*HOPE PO'O*

REGINA MAI EPEAI
2ND DEPUTY DIRECTOR
*HOPE PO'O KUALUA*


April 23, 2025

2025/ELOG-604 (DC)

Ms. Gabrielle Sham
Townscape, Inc.
900 Fort Street Mall, Suite 1160
Honolulu, Hawai'i 96813

Dear Ms. Sham:

SUBJECT: Pre-Assessment Consultation
Draft Environmental Assessment (EA)
Maunawili Park Wastewater Pump Station (Project)
830 Auloa Road – Kailua
Tax Map Key: 4-2-007:031

This is in response to your letter, received April 4, 2025, requesting the Department of Planning and Permitting (DPP) provide comments on the upcoming Draft EA, as required under Chapter 343, Hawai'i Revised Statutes (HRS) for the construction of an aboveground fuel storage tank at the above Project site. The subject parcel is 63,074 square feet and located in the AG-2 General Agriculture District and the Special Management Area (SMA). The subject property is also located within the State Agricultural Land Use District. The proposed work at the subject property includes replacing the existing underground tank with a new 1,000 gallon aboveground fuel storage tank, and replacing the underground fuel piping, fuel monitoring panel, and all associated sensors (Project). The DPP has the following comments that should be included in the Draft EA:

1. Consistency with Long-Range Plans: The Draft EA should address the proposed Project consistency with the O'ahu General Plan and Ko'olau Poko Sustainable Communities Plan. The Draft EA should address how the proposed Project is consistent, inconsistent, or implements each of the relevant statements from the respective plans.

2. Compliance with the Land Use Ordinance (LUO): The Draft EA should address compliance with Revised Ordinances of Honolulu (ROH) Chapter 21, the LUO. The LUO can be accessed on the DPP website:

www.honolulu.gov/dpp/resources/ordinances.html

The Draft EA should identify the Project's consistency with the development standards of the AG-2 General Agricultural District and other applicable LUO regulations, including but not limitied to the following:

- Maximum allowable heights and building area;
- Required yard and height setbacks;
- Parking, loading, and vehicular circulation and maneuvering areas;
- Impervious surface coverage; and
- Landscape screening.

The Maunawili Park Wastewater Pump Station is considered a public use and structure. The Project qualifies for a Zoning Waiver under ROH Section 21-2.130. In the case that any of the above-mentioned development standards are not met, a Zoning Waiver may be required. The Draft EA should state whether the Project will likely require a Zoning Waiver Permit.

3. Flood Zone: The Draft EA should identify the subject property's Flood Zone as mapped by the Federal Emergency Management Agency and evaluate the proposed Project's compliance with the City's Flood Hazard Areas Ordinance (ROH Chapter 21A).

4. SMA: The proposed project meets the ROH Chapter 25 definition of "development," which requires an SMA permit. SMA Major Permit No. 85/SMA-5 was approved by the City Council for an underground fuel storage tank and associated equipment (Resolution 86-19). The proposed Project is considered a major modification to the SMA Major Permit (Resolution 86-19) and a new SMA permit is required. If the cost valuation is less than $500,000 an SMA minor permit is required. If the cost valuation is or exceeds $500,000, an SMA Major permit is required. The EA should include an analysis of each of the SMA policies as presented in ROH Section 25-3.1, the Project's consistency with each of these policies, as well as the mandatory findings contained in ROH Section 25-4.1. Some specific issue areas requiring analysis are as follows:

   - Wetlands and Sensitive Species - The Draft EA should identify the presence or potential presence of any protected wetlands, sensitive habitat, flora species, and fauna species. The DPP recommends consulting the U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation database to obtain a list of species that are known to occur, or may potentially occur, in the project vicinity. Known, mapped wetlands can be viewed on the

USFWS National Wetlands Inventory Wetlands Mapper. The State Department of Land and Natural Resources, Department of Aquatic Resources, and Department of Forestry and Wildlife should be consulted regarding the potential presence of State-listed sensitive species or critical habitat. The Draft EA should also discuss the potential for impacts related to the spread of invasive species, such as little fire ants, coconut rhinoceros beetles, or the fungus that causes Rapid ʻŌhiʻa Death. The Draft EA must evaluate potential impacts and incorporate standard agency-required mitigation measures as well as any Project-specific mitigation measures to avoid or minimize potential impacts.

- Archaeological, Cultural, and Historic Resources - The Draft EA must include an analysis of potential impacts to Native Hawaiian access and cultural practices (Ka Paʻakai analysis). The Draft EA must evaluate potential impacts and incorporate standard agency-required mitigation measures as well as any Project-specific mitigation measures to avoid or minimize potential impacts.

- Cumulative Impacts Assessment - The Draft EA should include an evaluation of how the Project, combined with other past, present, and reasonably foreseeable development in the vicinity of the Project may result in cumulative impacts to land use or SMA resources. Cumulative impacts are generally limited to those issue areas where impacts cannot be avoided or mitigated at the site-specific level. We recommend reviewing the State Office of Planning and Sustainable Development's "Cumulative Effects/Impacts Assessment Guidance in Special Management Area Permitting" (April 2022) in determining the scope of the cumulative impacts analysis to be undertaken.

5. Alternatives: The Draft EA must include potential development alternatives and provide reasons why the proposed action is the most practical approach.

Thank you for the opportunity to comment. We may have comments regarding the Draft EA when more detailed plans are provided. Should you have any other questions, please contact David Cholak, of the Zoning Regulations and Permits Branch, at (808) 768-8026 or via email at david.cholak@honolulu.gov.

Very truly yours,

FOR Dawn Takeuchi Apuna
Director

# BOARD OF WATER SUPPLY
## *KA ʻOIHANA WAI*
## CITY AND COUNTY OF HONOLULU

630 SOUTH BERETANIA STREET • HONOLULU, HAWAIʻI 96843
Phone: (808) 748-5000 • www.boardofwatersupply.com

RICK BLANGIARDI
MAYOR
*MEIA*

ERNEST Y. W. LAU, P.E.
MANAGER AND CHIEF ENGINEER
*MANAKIA A ME KAHU WILIKĪ*

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DEPUTY MANAGER
*HOPE MANAKIA*

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GENE C. ALBANO, P.E., Ex-Officio


April 24, 2024

Ms. Gabrielle Sham
Townscape, Inc.
900 Fort Street Mall, Suite 1160
Honolulu, Hawai'i 96813

Dear Ms. Sham:

Subject: Your Letter Dated April 1, 2025 Requesting Comments on the Draft Environmental Assessment Early Consultation for Fuel Storage Tank Improvements at the Maunawili Park Wastewater Pump Station off Auloa Road, Tax Map Key: 4-2-007:031

Thank you for your letter regarding the proposed replacement of the existing underground fuel storage tank with an aboveground fuel storage tank.

The existing water system is adequate to accommodate the proposed project. However, please be advised that this information is based upon current data, and therefore, the Board of Water Supply (BWS) reserves the right to change any position or information stated herein up until the final approval of the building permit application. The final decision on the availability of water will be confirmed when the building permit application is submitted for approval.

When water is made available, the applicant will be required to pay our Water System Facilities Charges for resource development, transmission, and daily storage.

Water conservation measures are required for all proposed developments. These measures include utilization of nonpotable water for irrigation using rain catchment, drought tolerant plants, xeriscape landscaping, efficient irrigation systems, such as a drip system and moisture sensors, and the use of Water Sense labeled ultra-low flow water fixtures and toilets.

The proposed project is subject to BWS Cross-Connection Control and Backflow Prevention requirements prior to the issuance of the Building Permit Applications.

The construction drawings should be submitted for our approval, and the construction schedule should be coordinated to minimize impact to the water system.

The on-site fire protection requirements should be coordinated with the Fire Prevention Bureau of the Honolulu Fire Department.

If you have any questions, please contact Daniel Koge, Project Review Branch of our Water Resources Division at (808) 748-5444.

Very truly yours,

ERNEST Y. W. LAU, P.E.
Manager and Chief Engineer

JOSH GREEN, M.D.
GOVERNOR | KE KIA'ĀINA

SYLVIA LUKE
LIEUTENANT GOVERNOR | KA HOPE KIA'ĀINA

DAWN N. S. CHANG
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

STATE OF HAWAI'I | KA MOKU'ĀINA 'O HAWAI'I
DEPARTMENT OF LAND AND NATURAL RESOURCES
KA 'OIHANA KUMUWAIWAI 'ĀINA
LAND DIVISION

P.O. BOX 621
HONOLULU, HAWAII 96809

May 1, 2025

Townscape, Inc.
Attn: Gabrielle Sham
900 Fort Street Mall, Suite 1160
Honolulu, HI 96813

*via email:* gabrielle@townscapeinc.com

SUBJECT: Early Consultation Request for Draft Environmental Assessment (DEA) Fuel Storage Tank Improvements Maunawili Park Wastewater Pump Station Located in Kailua on the Island of O'ahu; TMK (1)4-2-007:031

Dear Ms. Sham:

Thank you for the opportunity to review and comment on the subject matter. The Land Division of the Department of Land and Natural Resources (DLNR) distributed or made available a copy of your request pertaining to the subject matter to DLNR's Divisions for their review and comments.

Please find enclosed comments from the Commission on Water Resource Management on the subject matter. Should you have any questions, please feel free to contact Dayna Vierra at (808) 587-0423 or email: dayna.k.vierra@hawaii.gov.

Sincerely,

Ian Hirokawa
Acting Land Administrator

Enclosure(s)

STATE OF HAWAI'I | KA MOKU'ĀINA 'O HAWAI'I
DEPARTMENT OF LAND AND NATURAL RESOURCES | KA 'OIHANA KUMUWAIWAI 'ĀINA
**COMMISSION ON WATER RESOURCE MANAGEMENT | KE KAHUWAI PONO**
P.O. BOX 621
HONOLULU, HAWAII 96809

Apr 24, 2025

REF: RFD.6417.3

TO: Mr. Russell Tsuji, Administrator
Land Division

APR 28 2025
RECD

FROM: Ciara W.K. Kahahane, Deputy Director
Commission on Water Resource Management

SUBJECT: Fuel Storage Tank Improvements for the Maunawili Park Wastewater Pump Station

FILE NO.: RFD.6417.3
TMK NO.: (1) 4-2-007:031

Thank you for the opportunity to review the subject document. The Commission on Water Resource Management (CWRM) is the agency responsible for administering the State Water Code (Code). Under the Code, all waters of the State are held in trust for the benefit of the citizens of the State, therefore all water use is subject to legally protected water rights. CWRM strongly promotes the efficient use of Hawaii's water resources through conservation measures and appropriate resource management. For more information, please refer to the State Water Code, Chapter 174C, Hawaii Revised Statutes, and Hawaii Administrative Rules, Chapters 13-167 to 13-171. These documents are available via the Internet at http://dlnr.hawaii.gov/cwrm.

Our comments related to water resources are checked off below.

- [ ] 1. We recommend coordination with the county to incorporate this project into the county's Water Use and Development Plan. Please contact the respective Planning Department and/or Department of Water Supply for further information.
- [ ] 2. We recommend coordination with the Engineering Division of the State Department of Land and Natural Resources to incorporate this project into the State Water Projects Plan.
- [ ] 3. We recommend coordination with the Hawaii Department of Agriculture (HDOA) to incorporate the reclassification of agricultural zoned land and the redistribution of agricultural resources into the State's Agricultural Water Use and Development Plan (AWUDP). Please contact the HDOA for more information.
- [X] 4. We recommend that water efficient fixtures be installed and water efficient practices implemented throughout the development to reduce the increased demand on the area's freshwater resources. Reducing the water usage of a home or building may earn credit towards Leadership in Energy and Environmental Design (LEED) certification. More information on LEED certification is available at http://www.usgbc.org/leed. A listing of fixtures certified by the EAP as having high water efficiency can be found at http://www.epa.gov/watersense.
- [X] 5. We recommend the use of best management practices (BMP) for stormwater management to minimize the impact of the project to the existing area's hydrology while maintaining on-site infiltration and preventing polluted runoff from storm events. Stormwater management BMPs may earn credit toward LEED certification. More information on stormwater BMPs can be found at http://planning.hawaii.gov/czm/initiatives/low-impact-development/
- [X] 6. We recommend the use of alternative water sources, wherever practicable.
- [ ] 7. We recommend participating in the Hawaii Green Business Program, that assists and recognizes businesses that strive to operate in an environmentally and socially responsible manner. The program description can be found online at http://energy.hawaii.gov/green-business-program.
- [ ] 8. We recommend adopting landscape irrigation conservation best management practices endorsed by the Landscape Industry Council of Hawaii. These practices can be found online at http://www.hawaiiscape.com/wp-content/uploads/2013/04/LICH_Irrigation_Conservation_BMPs.pdf.

- [X] 9. There may be the potential for ground or surface water degradation/contamination and recommend that approvals for this project be conditioned upon a review by the State Department of Health and the developer's acceptance of any resulting requirements related to water quality.
- [ ] 10. The proposed water supply source for the project is located in a designated water management area, and a Water Use Permit is required prior to use of water. The Water Use Permit may be conditioned on the requirement to use dual line water supply systems for new industrial and commercial developments.
- [ ] 11. The Hawaii Water Plan is directed toward the achievement of the utilization of reclaimed water for uses other than drinking and for potable water needs in one hundred per cent of State and County facilities by December 31, 2045 (§174C-31(g)(6), Hawaii Revised Statutes). We strongly recommend that this project consider using reclaimed water for its non-potable water needs, such as irrigation. Reclaimed water may include, but is not limited to, recycled wastewater, gray water, and captured rainwater/stormwater. Please contact the Hawai'i Department of Health, Wastewater Branch, for more information on their reuse guidelines and the availability of reclaimed water in the project area.
- [ ] 12. A Well Construction Permit(s) is (are) are required before the commencement of any well construction work.
- [ ] 13. A Pump Installation Permit(s) is (are) required before ground water is developed as a source of supply for the project.
- [ ] 14. There is (are) well(s) located on or adjacent to this project. If wells are not planned to be used and will be affected by any new construction, they must be properly abandoned and sealed. A permit for well abandonment must be obtained.
- [ ] 15. Ground-water withdrawals from this project may affect streamflows, which may require an instream flow standard amendment.
- [ ] 16. A Stream Channel Alteration Permit(s) is (are) required before any alteration can be made to the bed and/or banks of a steam channel.
- [ ] 17. A Stream Diversion Works Permit(s) is (are) required before any stream diversion works is constructed or altered.
- [ ] 18. A Petition to Amend the Interim Instream Flow Standard is required for any new or expanded diversion(s) of surface water.
- [ ] 19. The planned source of water for this project has not been identified in this report. Therefore, we cannot determine what permits or petitions are required from our office, or whether there are potential impacts to water resources.

- [ ] OTHER:

If you have any questions, please contact Ryan Imata of the Groundwater Regulation Branch at (808) 587-0225 or Katie Roth of the Planning Branch (808) 587-0216.

JOSH GREEN, M.D.
GOVERNOR | KE KIA'ĀINA

SYLVIA LUKE
LIEUTENANT GOVERNOR | KA HOPE KIA'ĀINA

DAWN N. S. CHANG
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

STATE OF HAWAI'I | KA MOKU'ĀINA 'O HAWAI'I
DEPARTMENT OF LAND AND NATURAL RESOURCES
KA 'OIHANA KUMUWAIWAI 'ĀINA
LAND DIVISION

P.O. BOX 621
HONOLULU, HAWAII 96809

May 19, 2025

Townscape, Inc.
Attn: Gabrielle Sham
900 Fort Street Mall, Suite 1160
Honolulu, HI 96813

*via email:* gabrielle@townscapeinc.com

SUBJECT: Early Consultation Request for Draft Environmental Assessment (DEA) Fuel Storage Tank Improvements for the Maunawili Park Wastewater Pump Station, located in Kailua, Island of O'ahu, TMK: (1)4-2-007:031.

Dear Ms. Sham:

Thank you for the opportunity to review and comment on the subject matter. In addition to our previous comments dated May 1, 2025, enclosed are comments from the Division of Forestry and Wildlife on the subject matter. Should you have any questions, please feel free to contact Dayna Vierra at (808) 587-0423 or email: dayna.k.vierra@hawaii.gov.

Sincerely,

Ian C. Hirokawa
Acting Land Administrator

Enclosure(s)

JOSH GREEN, M.D.
GOVERNOR | KE KIA'ĀINA

SYLVIA LUKE
LIEUTENANT GOVERNOR | KA HOPE KIA'ĀINA

DAWN N. S. CHANG
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

STATE OF HAWAI'I | KA MOKU'ĀINA 'O HAWAI'I
DEPARTMENT OF LAND AND NATURAL RESOURCES
KA 'OIHANA KUMUWAIWAI 'ĀINA
LAND DIVISION

P.O. BOX 621
HONOLULU, HAWAII 96809

MAY 07 2025
RECD

April 10, 2025

**MEMORANDUM**

FROM: **DLNR Agencies:**
__Div. of Aquatic Resources
__Div. of Boating & Ocean Recreation
_X_Engineering Division (DLNR.ENGR@hawaii.gov)
_X_Div. of Forestry & Wildlife (rubyrosa.t.terrago@hawaii.gov)
__Div. of State Parks
_X_Commission on Water Resource Management (DLNR.CWRM@hawaii.gov)
__Office of Conservation & Coastal Lands
_X_Land Division – O'ahu District (barry.w.cheung@hawaii.gov)
_X_Land Division – Planner (dayna.k.vierra@hawaii.gov)
_X_Land Division – Planner (lauren.e.yasaka@hawaii.gov)
_X_Aha Moku Advisory Committee (leimana.k.damate@hawaii.gov)

TO: FOR Russell Y. Tsuji, Land Administrator

SUBJECT: **Early Consultation Request for Draft Environmental Assessment Fuel Storage Tank Improvements for the Maunawili Park Wastewater Pump Station**

LOCATION: Kailua, Island of O'ahu; TMK: (1) 4-2-007:031

APPLICANT: Townscape, Inc. on behalf of the City and County of Honolulu, Department of Environmental Services

Transmitted for your review and comment is information on the above-referenced subject matter. Please submit comments to me by **April 29, 2025.**

If no response is received by this date, we will assume your agency has no comments. Should you have any questions about this request, please contact Dayna Vierra at dayna.k.vierra@hawaii.gov. Thank you.

**BRIEF COMMENTS:**

( ) We have no objections.
( ) We have no comments.
( ) We have no additional comments.
(☑) Comments are included/attached.

Signed:
Print Name: JASON D. OMICK, Wildlife Program Mgr.
Division: Forestry and Wildlife
Date: May 5, 2025

Attachments

JOSH GREEN, M.D.
GOVERNOR | KE KIA'ĀINA

SYLVIA LUKE
LIEUTENANT GOVERNOR | KA HOPE KIA'ĀINA

STATE OF HAWAI'I | KA MOKU'ĀINA 'O HAWAI'I
DEPARTMENT OF LAND AND NATURAL RESOURCES
KA 'OIHANA KUMUWAIWAI 'ĀINA

DIVISION OF FORESTRY AND WILDLIFE
1151 PUNCHBOWL STREET, ROOM 325
HONOLULU, HAWAII 96813

DAWN N.S. CHANG
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

RYAN K.P. KANAKA'OLE
FIRST DEPUTY

CIARA W.K. KAHAHANE
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
ENGINEERING
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

May 2, 2025

*Log no. 4968*

**MEMORANDUM**

**TO:** Russel Y. Tsuji, Administrator
Land Division

**FROM:** JASON D. OMICK, Wildlife Program Manager
Division of Forestry and Wildlife

**SUBJECT:** **Early Consultation Request for Draft Environmental Assessment (DEA) Fuel Storage Tank Improvements for the Maunawili Park Wastewater Pump Station in Kailua, O'ahu .**

The Department of Land and Natural Resources (DLNR), Division of Forestry and Wildlife (DOFAW) has received your Early Consultation Request for Draft Environmental Assessment Fuel Storage Tank Improvements for the Maunawili Park Wastewater Pump Station at 830 Auloa Road in Kailua on the island of O'ahu; TMK: (1) 4-2-007:031. The proposed project includes replacing the existing underground fuel storage tank with a new 1,000 gallon aboveground fuel storage tank. Additionally, the project includes replacing the underground fuel piping with new aboveground fuel piping, fuel monitoring panel, and all associated sensors, as well as connecting the new fuel monitoring panel to the supervisory control and data acquisition (SCADA) system.

The State listed 'ōpe'ape'a or Hawaiian hoary bat (*Lasiurus semotus*) could potentially occur at or in the vicinity of the project and may roost in nearby trees. Any required site clearing should be timed to avoid disturbance to bats during their birthing and pup rearing season (June 1 through September 15). During this period woody plants greater than 15 feet (4.6 meters) tall should not be disturbed, removed, or trimmed. Barbed wire should also be avoided in any construction as bats can become ensnared and killed by such fencing material during flight.

Artificial lighting can adversely impact seabirds that may pass through the area at night by causing them to become disoriented. This disorientation can result in their collision with manmade structures or the grounding of birds. For nighttime work that might be required, DOFAW recommends that all lights used be fully shielded to minimize the attraction of

seabirds. Nighttime work that requires outdoor lighting should be avoided during the seabird fledging season, from September 15 through December 15, when young seabirds make their maiden voyage to sea. If nighttime construction is required during the seabird fledgling season (September 15 to December 15), we recommend that a qualified biologist be present at the project site to monitor and assess the risk of seabirds being attracted or grounded due to the lighting. If seabirds are seen circling around the area, lights should then be turned off. If a downed seabird is detected, please follow DOFAW's recommended response protocol by visiting https://dlnr.hawaii.gov/wildlife/seabird-fallout-season/. Permanent lighting also poses a risk of seabird attraction, and as such should be minimized or eliminated to protect seabird flyways and preserve the night sky. For illustrations and guidance related to seabird-friendly light styles that also protect seabirds and the dark starry skies of Hawai'i please visit https://dlnr.hawaii.gov/wildlife/files/2016/03/DOC439.pdf.

State-listed waterbirds such as ae'o or Hawaiian stilt (*Himantopus mexicanus knudseni*), 'alae ke'oke'o or Hawaiian coot (*Fulica alai*), and the 'alae 'ula or Hawaiian gallinule (*Gallinula chloropus sandvicensis*) could potentially occur at or in the vicinity of the proposed project site. It is against State law to harm or harass these species. If any of these species are present during construction, all activities within 100 feet (30 meters) should cease and the bird or birds should not be approached. Work may continue after the bird or birds leave the area of their own accord. If a nest is discovered at any point, please contact the O'ahu Branch DOFAW Office at (808) 973-9778 and establish a buffer zone around the nest.

DOFAW is concerned about the wastewater treatment facility attracting vulnerable birds to areas that may host nonnative predators such as cats, rodents, and mongooses. We therefore recommend taking action to minimize predator presence; i.e., remove cats, place bait stations for rodents and mongoose, and provide covered trash receptacles. Implementing additional mitigation measures is also recommended to avoid avian mortality during project design and during operation for the long term.

The State endangered pueo or Hawaiian short-eared owl (*Asio flammeus sandwichensis*) could potentially occur in the project vicinity. Pueo are most active during dawn and dusk twilights. Remove and exclude non-native mammals such as mongoose, cats, dogs, and ungulates from the nesting area. Minimize habitat alterations and disturbance during pueo breeding season. These birds nest on the ground, and active nests have been found year-round. Before any potentially disturbing activities—like clearing vegetation, especially ground-based disturbance, DOFAW recommends a qualified biologist conduct surveys during crepuscular hours. Observation surveys should be done at those times from vantage points where they can see the whole project area for 2-3 nights before construction is to start. If any breeding displays are observed, it is likely there could be a nest. If pueo nests are detected in the area, a buffer zone should be established in which no activity occurs within a minimum buffer distance of 100 meters until the nesting cycle is complete, and the chicks are capable of flight. O'ahu DOFAW staff should be notified at (808) 973-9778 of any nests or adult displayed breeding behavior.

DOFAW recommends using native plant species for landscaping that are appropriate for the area; e.g., plants for which climate conditions are suitable for them to thrive, plants that historically occurred there, etc. Please do not plant invasive species. DOFAW also recommends referring to www.plantpono.org for guidance on the selection and evaluation of landscaping plants and to determine the potential invasiveness of plants proposed for use in the project.

We recommend consulting the O'ahu Invasive Species Committee (OISC) at (808) 266-7994 to help plan, design, and construct the project, learn of any high-risk invasive species in the area, and ways to mitigate their spread. Soil and plant material may contain detrimental fungal pathogens (like Rapid 'Ōhi'a Death), vertebrate and invertebrate pests (e.g. Little Fire Ants, and Coconut Rhinoceros Beetle), or invasive plant propagules (e.g. Albizia, Pampas Grass, Fireweed, etc.) that will harm our native ecosystems, and the unique native found within them. Therefore, DOFAW advances the guidance that all equipment and personal items to include clothing and foot ware should be cleaned of excess soil and debris to minimize the risk of spreading invasive species. Additionally, DOFAW recommends minimizing the movement of plant or soil material between worksites. Suspect pests should be reported through the statewide pest hotline. Photos, videos, and locations can be shared at www.643pest.org or call: 743-PEST. All equipment, materials, and personnel should be cleaned of excess soil and debris to minimize the risk of spreading invasive species.

To prevent the spread of Rapid 'Ōhi'a Death (ROD), DOFAW requests that removal, pruning/trimming, and potentially injury to 'ōhi'a trees be avoided as much as possible. Wounds serve as entry points for ROD fungus and increase the odds that the tree will be infected and die. Also, clean gear/tools, clothes, footwear, and vehicles before and after use. Make sure to removal all loose soil from the aforementioned items, spray gear/tools with 70% rubbing alcohol, and wash clothes with hot water and soap. Wash tires and undercarriages of all vehicles/machinery with a high-pressure water source. If 'ōhi'a trees must be removed or pruned/trimmed, please conduct these activities on a still day to minimize blown sawdust and use a sharp saw to create chips rather than dust. Seal all wounds to these trees with a stump seal product (e.g. Spectricide, etc.). For more information, please consult https://cms.ctahr.hawaii.edu/rod.

The invasive Coconut Rhinoceros Beetle (*Oryctes rhinoceros*) or CRB is widespread on the island of O'ahu. CRB have been detected on other islands with moderate infestation on Kaua'i, one incipient site on Hawai'i Island, and only one positive site on Maui in 2023. Hawaii Department of Agriculture interim rule 24-1 restricts the movement of CRB-host material from the island of O'ahu, which is defined as the Quarantine Area. Regulated material (host material or host plants) is considered a risk for potential CRB infestation. Host material for the beetle specifically includes 1) entire dead trees; 2) mulch, compost, trimmings, fruit and vegetative scraps, and 3) decaying stumps. CRB host plants include the live palm plants in the following genera: Washingtonia, Livistona, and Pritchardia (all commonly known as fan palms), Cocos (coconut palms), Phoenix (date palms), and Roystonea (royal palms). When such material or these specific plants are moved there is a risk of spreading CRB because they may contain CRB in any life stage. Inspection and/or treatment approved by HDOA is mandatory before inter-island transport. For more information regarding CRB, please visit https://dlnr.hawaii.gov/hisc/info/invasive-species-profiles/coconut-rhinoceros-beetle/.

We recommend that Best Management Practices are employed during and after the environmental restoration activities to contain any soils and sediment with the purpose of preventing damage to near-shore waters and marine ecosystems.

We appreciate your efforts to work with our office for the conservation of our native species. These comments are general guidelines and should not be considered comprehensive for this site or project. It is the responsibility of the applicant to do their own due diligence to avoid any negative environmental impacts. Should the scope of the project change significantly, or should it become apparent that threatened or endangered species may be impacted, please contact our staff as soon as possible. If you have additional questions, please contact Protected Species Habitat Conservation Planning associate Kinsley McEachern at (808) 587-0593 or Laurinda.k.mceachern.researcher@hawaii.gov.

Sincerely,

Jason D. Omick
Wildlife Program Manager

DEPARTMENT OF TRANSPORTATION SERVICES
*KA 'OIHANA LAWELAWE 'ŌHUA*
CITY AND COUNTY OF HONOLULU

711 KAPI'OLANI BOULEVARD, SUITE 1600
HONOLULU, HAWAI'I 96813
Phone: (808) 768-8305 • Fax: (808) 768-4730 • Website: honolulu.gov/transportation

RICK BLANGIARDI
MAYOR
*MEIA*

J. ROGER MORTON
DIRECTOR
*PO'O*

JON Y. NOUCHI
DEPUTY DIRECTOR
*HOPE PO'O*

5/25-939455

May 29, 2025

Gabrielle Sham, Associate Planner
Townscape, Inc.
900 Fort Street Mall, Suite 1160
Honolulu, Hawai'i 96813

Dear Gabrielle Sham:

SUBJECT: Early Consultation Request for Draft Environmental Assessment (DEA); Fuel Storage Tank Improvements for the Maunawili Park Wastewater Pump Station— Kailua, Island of O'ahu; Tax Map Key (TMK) 4-2-007:031

Thank you for the opportunity to provide written comments regarding the Early Consultation Request for Draft Environmental Assessment (DEA); Fuel Storage Tank Improvements for the Maunawili Park Wastewater Pump Station- Kailua, Island of O'ahu; Tax Map Key (TMK) 4-2-007:031. We have the following comments.

1. Street Usage Permit. A street usage permit from the DTS should be obtained for any construction-related work that may require the temporary closure of any traffic lane, sidewalk, bicycle lane, or pedestrian mall on a City street.

2. Neighborhood Impacts. The area representatives, neighborhood board, as well as the area guests, businesses, emergency personnel (fire, ambulance, and police), O'ahu Transit Services, Inc. (TheBus and TheHandi-Van), etc., should be kept apprised of the details and status throughout the project and the impacts that the project may have on the adjoining local street area network.

3. Bus Stops. The project site is in the immediate vicinity of bus stops. Please coordinate roadway improvements with DTS Transportation Mobility Division (TMD). Contact DTS-TMD at TheBusStop@honolulu.gov

Should you have any questions, please contact Bartholomew Mikitowicz, of my staff, at (808) 768-6681.

Very truly yours,

J. Roger Morton
Director

Appendix C

Notice of Draft EA, Comments, and Responses

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TOWNSCAPE, INC.
Environmental & Community Planning

900 Fort Street Mall Suite 1160 · Honolulu, HI 96813 · PH: (808) 536-6999 · FAX: (808) 524-4998 · www.townscapeinc.com

November 19, 2025

Subject: Notice of Availability for Review – Draft Environmental Assessment (EA)
Fuel Storage Tank Improvements Maunawili Wastewater Pump Station
Kailua, Island of Oʻahu; Tax Map Key 4-2-007:031

Dear Participant:

On behalf of the City and County of Honolulu Department of Environmental Services, we are pleased to inform you that the **Draft Environmental Assessment (EA)** for the **Fuel Storage Tank Improvements at the Maunawili Wastewater Pump Station** will be published on November 23, 2025 in the State Office of Planning and Sustainable Development's semi-monthly publication, *The Environmental Notice*. A 30-day comment period will commence on November 23, 2025 and end on December 23, 2025.

**How to Access the Draft EA:**

1. **Online**: https://files.hawaii.gov/dbedt/erp/Doc_Library/2025-11-23-OA-DEA-Fuel-Storage-Tank-Improvements-Maunawili-Wastewater-Pump-Station.pdf
2. **Hard copy**:
    - Kailua Public Library: 239 Kuulei Road, Kailua, HI 96734
    - Hawaiʻi Documents Center: 478 South King Street, Honolulu, HI 96813

**How to Submit Comments:**

- **Email**: comments@townscapeinc.com
- **Mail**: Townscape, Inc.
  900 Fort Street Mall, Suite 1160
  Honolulu, HI 96813

Sincerely,

Gabrielle Sham
Planner

# DEPARTMENT OF DESIGN AND CONSTRUCTION
## *KA 'OIHANA HAKULAU A ME KE KĀPILI*
## CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 11TH FLOOR • HONOLULU, HAWAI'I 96813
PHONE: (808) 768-8480 • FAX: (808) 768-4567 • WEBSITE: honolulu.gov

RICK BLANGIARDI
MAYOR
*MEIA*

HAKU MILLES, P.E.
DIRECTOR
*PO'O*

MARK YONAMINE, P.E.
DEPUTY DIRECTOR
*HOPE PO'O*


December 3, 2025

SENT VIA EMAIL

comments@townscapeinc.com
Ms. Gabrielle Sham

Dear Ms. Sham,

Subject: Draft Environmental Assessment (EA) for the Fuel Storage Tank Improvements at the Maunawili Wastewater Pump Station Kailua, Island of O'ahu; Tax Map Key: 4-2-007:031

The Department of Design and Construction does not have comments to offer on the Draft Environmental Assessment.

Thank you for the opportunity to review and comment. Should there be any questions, please contact me at (808) 768-8480.

Sincerely,

Haku Milles, P.E., LEED AP
Director

HM:cf (947983)

STATE OF HAWAI'I | KA MOKU'ĀINA 'O HAWAI'I
DEPARTMENT OF LAND AND NATURAL
RESOURCES DIVISION OF AQUATIC RESOURCES
1151 PUNCHBOWL STREET, ROOM 330
HONOLULU, HAWAII 96813

Date: 12/18/2025
DAR # AR7002



MEMORANDUM

TO: Brian J. Neilson
DAR Administrator

FROM: Bryan Ishida, Aquatic Biologist

SUBJECT: Notice of Availability Draft Environmental Assessment Fuel Storage Tank Improvements Maunawili Wastewater Pump Station

Request Submitted by: Ian Hirokawa, Acting Land Administrator

Location of Project: Kailua, Island of O'ahu, Hawai'i;
TMK: (1) 4-2-007:031 (por.)

Brief Description of Project:
From the DEA (see next page):

Comments:
☐ No Comments ☑ Comments Attached

Thank you for providing DAR the opportunity to review and comment on the proposed project. Should there be any changes to the project plan, DAR requests the opportunity to review and comment on those changes.

Comments Approved: _____ Date: 12/18/2025
Brian J. Neilson
DAR Administrator

DAR# AR7002

Brief Description of Project

Project Details

Civil

• Excavate area to remove the existing 1,000-gallon UST, including associated fuel lines, conduit, and vent line. Backfill to the bottom of the surface restoration layer. Restore surface with asphalt concrete pavement.
• Excavate area to install the new 1,000-gallon AST. Asphalt pavement, crushed gravel surface, and concrete curbs impacted from construction activities will be restored to match adjacent surfaces.
• Repave roadway areas impacted from construction activities to match the existing condition (no less than two-inch asphalt pavement over six-inch compacted aggregate base course).
• Install eight pipe bollards filled with concrete around the AST to protect the new AST from vehicular traffic.

Architectural

• Paint existing exterior masonry walls and miscellaneous surface incidental to scope using existing colors.
• Paint a minimum of one prime coat and two finish coats on all interior surfaces incidental to scope, conforming to existing standard color palette.

Structural

• Install concrete pads for the new AST and the new day tank in the Generator Room. The AST requires 12-inch pedestals at the tank supports.

Mechanical

• Replace the existing 1,000-gallon UST with a new 1,000-gallon ConVault AST within the vacant graveled area at the western end of the property, which was selected as the most suitable location to accommodate separation requirements and its ability to remain off the driveway. The
AST will be a double wall steel tank encased in concrete measuring 11 feet long, four feet four inches high, and five feet eight inches wide, weighing 28,609 pounds with a full tank.
• Remove existing underground one-inch fuel supply and fuel return piping and install new underground fuel supply and return piping (two-inch Fiber Reinforced Plastic Piping 316) from the AST to the day tank. Existing pipe penetrations will be reused where feasible, otherwise, a new penetration will be made. These pipes will have to be buried at least one and a half feet below the surface to mitigate the forces will experiences from vehicles on the driveway.

DAR# AR7002

Brief Description of Project

• Install a SCADA compatible fuel monitoring panel and connect to existing SCADA cabinet.
• Install interstitial monitoring and inventory sensors on the AST and integrated with the fuel monitoring panel.
• Replace the existing 50-gallon fuel oil day tank and associated piping/wiring and conduit in the generator room with a new 60-gallon day tank with two supply pumps, one return pump, and one hand pump.

DAR# AR7002

Comments

The Division of Aquatic Resources (DAR) recognizes the increased environmental protections this proposed project will offer not only in terms of fuel management, but also the reliable management of wastewater. Cesspools, especially those located in coastal areas, and high levels of domestic and commercial water usage are of particular concern to DAR due to their negative impacts to both freshwater and marine environments. DAR supports further improvement of existing wastewater management infrastructure as well as system expansion to offer greater coverage throughout the State.

Though the project area does not include any bodies of water known to contain aquatic resources, close proximity to the important aquatic ecosystems warrants a heightened level of care during planning and implementation. The release of sediment, silt, runoff, or any other byproduct of the proposed action into these environments is of particular concern especially if contaminated by previous handling and storage of fuels on the property. The Best Management Practices (BMPs) noted in the DEA will provide needed measures to mitigate such threats. DAR also requests that the Division be notified in the event that project actions impact or pose a threat of impact to the adjacent aquatic environment. Notification shall be immediate so a timely assessment of threat or impact can be made by DAR staff.

Mahalo for the opportunity to provide comment

TOWNSCAPE, INC.
Environmental & Community Planning

900 Fort Street Mall Suite 1160 · Honolulu, HI 96813 · PH: (808) 536-6999 · FAX: (808) 524-4998 · www.townscapeinc.com

February 2, 2026

Mr. Ian Hirokawa
Department of Land and Natural Resources
1151 Punchbowl Street, Room 330
Honolulu, HI 96813

Subject: Response to Comments on the Draft Environmental Assessment (EA)
Fuel Storage Tank Improvements for Maunawili Park Wastewater Pump Station
Maunawili, Oʻahu, TMK (1) 4-2-007:031

Dear Mr. Hirokawa:

Thank you for providing comments on the Draft EA. We received the memorandum dated December 18, 2025.

The project team acknowledges the importance of protecting nearby aquatic ecosystems and agrees that careful planning and implementation are essential. Although the project area does not contain aquatic habitats, Best Management Practices identified in the Draft EA will be implemented to prevent sedimentation, erosion, runoff, and potential fuel-related contamination. The project team will also coordinate with the Division of Aquatic Resources (DAR) should any proposed actions pose a threat to the adjacent aquatic environment, allowing for timely assessment and response by DAR staff. Section 2.1.3 of the EA will be updated to reflect the information above.

Sincerely,

Gabrielle Sham, Planner
Townscape, Inc.

Cc: Division of Aquatic Resources (kendall.l.tucker@hawaii.gov)
DLNR (dlnr@hawaii.gov)
Audrey Uyema Pak (audrey.uyemapak@honolulu.gov)

JOSH GREEN, M.D.
GOVERNOR | KE KIA'ĀINA

SYLVIA LUKE
LIEUTENANT GOVERNOR | KA HOPE KIA'ĀINA

DAWN N. S. CHANG
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

STATE OF HAWAI'I | KA MOKU'ĀINA 'O HAWAI'I
DEPARTMENT OF LAND AND NATURAL RESOURCES
KA 'OIHANA KUMUWAIWAI 'ĀINA
LAND DIVISION

P.O. BOX 621
HONOLULU, HAWAII 96809

November 25, 2025

**MEMORANDUM**

FROM: ~~TO~~:

**DLNR Agencies:**
_X_ Div. of Aquatic Resources (kendall.l.tucker@hawaii.gov)
_X_ Div. of Boating & Ocean Recreation (richard.t.howard@hawaii.gov)
_X_ Engineering Division (DLNR.ENGR@hawaii.gov)
_X_ Div. of Forestry & Wildlife (rubyrosa.t.terrago@hawaii.gov)
__ Div. of State Parks
_X_ Commission on Water Resource Management (DLNR.CWRM@hawaii.gov)
__ Office of Conservation & Coastal Lands
_X_ Land Division - O'ahu District (barry.w.cheung@hawaii.gov)
_X_ Aha Moku Advisory Committee (leimana.k.damate@hawaii.gov)

TO: ~~FROM~~: Ian Hirokawa, Acting Land Administrator

SUBJECT: **Notice of Availability Draft Environmental Assessment Fuel Storage Tank Improvements Maunawili Wastewater Pump Station**

LOCATION: Kailua, Island of O'ahu, Hawai'i; TMK: (1) 4-2-007:031 (por.)

APPLICANT: Townscape, Inc. on behalf of the City and County of Honolulu Department of Environmental Services

Transmitted for your review and comment is information on the above-referenced subject matter. The Draft Environmental Assessment published on November 23, 2025, by the State Environmental Review Program at the Office of Planning and Sustainable Development in the periodic bulletin, The Environmental Notice, available at the following link:

Draft Environmental Assessment for the Fuel Storage Tank Improvements at the Maunawili Wastewater Pump Station

Please submit comments by **December 19, 2025**. If no response is received by this date, we will assume your agency has no comments. Should you have any questions about this request, please contact Dayna Vierra at dayna.k.vierra@hawaii.gov. Thank you.

**BRIEF COMMENTS:**

( ) We have no objections.
( ) We have no comments.
( ) We have no additional comments.
(✓) Comments are included/attached.

Signed:
Print Name: Dina U. Lau, Acting Chief Engineer
Division: Engineering Division
Date: Dec 18, 2025

Attachment(s)

**DEPARTMENT OF LAND AND NATURAL RESOURCES**
**ENGINEERING DIVISION**

**LD/Ryan K.P. Kanaka'ole**
**Ref: Notice of Availability Draft Environmental Assessment Fuel Storage Tank Improvements Maunawili Wastewater Pump Station**
**Location: Kailua, Island of O'ahu, Hawai'i**
**TMK(s): (1) 4-2-007:031 (por.)**
**Applicant: Townscape, Inc. on behalf of the City and County of Honolulu Department of Environmental Services**

**COMMENTS**

The rules and regulations of the National Flood Insurance Program (NFIP), Title 44 of the Code of Federal Regulations (44CFR), are in effect when development falls within a Special Flood Hazard Area (high-risk areas). Be advised that 44CFR, Chapter 1, Subchapter B, Part 60 reflects the minimum standards as set forth by the NFIP. Local community flood ordinances may stipulate higher standards that can be more restrictive and would take precedence over the minimum NFIP standards.

The owner of the project property and/or their representative is responsible for researching the Flood Hazard Zone designation for the project. Flood zones subject to NFIP requirements are identified on FEMA's Flood Insurance Rate Maps (FIRM). The official FIRMs can be accessed through FEMA's Map Service Center (msc.fema.gov). Our Flood Hazard Assessment Tool (FHAT) (fhat.hawaii.gov) could also be used to research flood hazard information.

If there are questions regarding the local flood ordinances, please contact the applicable County NFIP coordinating agency below:

- Oahu: City and County of Honolulu, Department of Planning and Permitting (808) 768-8098.
- Hawaii Island: County of Hawaii, Department of Public Works (808) 961-8327.
- Maui/Molokai/Lanai County of Maui, Department of Planning (808) 270-7139.
- Kauai: County of Kauai, Department of Public Works (808) 241-4849.

Signed: _____
DINA U. LAU, ACTING CHIEF ENGINEER

Date: Dec 18, 2025

Outlook

**Comments: Fuel Storage Tank Improvements Maunawili Wastewater Pump Station – Draft EA (AFNSI)**

**From** DOH.CABPASS <DOH.CABPASS@doh.hawaii.gov>
**Date** Mon 11/24/2025 4:09 PM
**To** Townscape <comments@townscapeinc.com>

Aloha Gabrielle Sham,
Townscape, Inc.,

Thank you for the opportunity to review the Fuel Storage Tank Improvements Maunawili Wastewater Pump Station – Draft EA (AFNSI) published in the November 23, 2025 edition of The Environmental Notice. Please visit the Clean Air Branch (CAB) website to download and reference our Standard Comments for Land Use Reviews. The link is provided below.

https://health.hawaii.gov/cab/clean-air-branch/standard-comments-for-land-use-reviews/

Mahalo,

Katt

Katt Marshall

Planner I | Clean Air Branch (CAB) | Planning & Administrative Support Staff (PASS)
Hawai'i State Department of Health | Ka 'Oihana Olakino
2827 Waimano Home Road #130 | Pearl City, Hawaii 96782
Office: (808) 586-4200

# DEPARTMENT OF PLANNING AND PERMITTING
## *KA ʻOIHANA HOʻOLĀLĀ A ME NĀ PALAPALA ʻAE*
## CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 7TH FLOOR • HONOLULU, HAWAI'I 96813
PHONE: (808) 768-8000 • FAX: (808) 768-6041 • WEBSITE: honolulu.gov/dpp

RICK BLANGIARDI
MAYOR
*MEIA*

DAWN TAKEUCHI APUNA
DIRECTOR
*PO'O*

BRYAN GALLAGHER, P.E.
DEPUTY DIRECTOR
*HOPE PO'O*

REGINA MALEPEAI
2ND DEPUTY DIRECTOR
*HOPE PO'O KUALUA*


December 23, 2025 GEN-2025-334 (DC)

SENT VIA EMAIL
Ms. Gabrielle Sham
comments@townscapeinc.com

Dear Ms. Sham:

SUBJECT: Draft Environmental Assessment (EA)
Maunawili Park Wastewater Pump Station (Project)
830 Auloa Road – Kailua
Tax Map Key: 4-2-007:031

This is in response to your letter, received November 24, 2025, requesting the Department of Planning and Permitting (DPP) provide comments on the Draft EA, as required under Chapter 343, Hawai'i Revised Statutes for the construction of an above-ground fuel storage tank at the above-referenced zoning lot. The subject parcel is 63,074 square feet and located in the AG-2 General Agriculture District and the Special Management Area (SMA). The subject property is also located within the State Agricultural Land Use District. The proposed work at the subject property includes replacing the existing underground tank with a new 1,000 gallon above-ground fuel storage tank, and replacing the underground fuel piping, fuel monitoring panel, and all associated sensors (Project). The DPP has the following comments that were not included in the Draft EA and should be addressed in the Final EA:

1. Alternatives: The Final EA must include potential development alternatives and provide reasons why the proposed action is the most practical approach. No action and delayed action are not a complete analysis of alternatives.

2. Project Valuation: On May 29, 2025, Act 125, was signed into law by the State of Hawai'i and updated the valuation for SMA Major and Minor permits for non-shoreline lots. On a non-shoreline lot, a project valuation under $750,000 will require an SMA Minor permit, a project valuation equal to or greater than $750,000 will require a SMA Major permit.

Thank you for the opportunity to comment. Should you have any other questions, please contact David Cholak, of the Zoning Regulations and Permits Branch, at (808) 768-8026 or via email at david.cholak@honolulu.gov.

Very truly yours,

FOR Dawn Takeuchi Apuna
Director

TOWNSCAPE, INC.
Environmental & Community Planning

900 Fort Street Mall Suite 1160 · Honolulu, HI 96813 · PH: (808) 536-6999 · FAX: (808) 524-4998 · www.townscapeinc.com

February 2, 2026

Director Dawn T. Apuna
Department of Planning and Permitting
650 South King Street, 7th Floor
Honolulu, HI 96813

Subject: Response to Comments on the Draft Environmental Assessment (EA)
Fuel Storage Tank Improvements for Maunawili Park Wastewater Pump Station
Maunawili, Oʻahu, TMK (1) 4-2-007:031

Dear Ms. Apuna:

Thank you for the response letter dated December 23, 2025 with comments on the Draft EA for the Maunawili Park Wastewater Pump Station Fuel Storage Tank Improvements.

Based on our consultation with the State Office of Planning and Sustainable Development, Environmental Review Program, we understand that specific alternative analysis requirements apply to Environmental Impact Statements, whereas the level of alternatives addressed in an EA is determined at the discretion of the accepting agency and is informed by the scope of the proposed project. Nevertheless, Section 4 of the Final EA has been revised to include an additional alternative that evaluates replacing the existing Underground Storage Tank (UST) with a new UST.

In addition, we understand that Act 125 updated the project valuation thresholds for SMA Major and Minor permits for non-shoreline lots. Section 3.4 of the Final EA has been updated to reference Act 125. The project team will continue to ensure that SMA permitting requirements are satisfied, including compliance with the revised valuation thresholds.

Thank you again for providing comments on the Draft EA.

Sincerely,

Gabrielle Sham, Planner
Townscape, Inc.

Cc: David Cholak (david.cholak@honolulu.gov)
Audrey Uyema Pak (audrey.uyemapak@honolulu.gov)

Outlook

## Maunawili Fuel Storage DEA

**From** Thirugnanam, Jeyan <jeyan.thirugnanam@hawaii.gov>
**Date** Mon 11/24/2025 1:39 PM
**To** Townscape <comments@townscapeinc.com>

Aloha,

HDOT Highways has no comments on the DEA.

Best,
Jeyan Thirugnanam
HDOT Highways Lanu Use Permits Review

Outlook

## RE: Fuel Storage Tank Improvements Maunawili Wastewater Pump Station

**From** Bungcayao, Michael <michael.bungcayao@hawaiianelectric.com>
**Date** Thu 12/18/2025 11:14 AM
**To** Townscape <comments@townscapeinc.com>
**Cc** Kakazu, Lisa <lisa.kakazu@hawaiianelectric.com>; Liu, Rouen <rouen.liu@hawaiianelectric.com>; Kuwaye, Kristen <kristen.kuwaye@hawaiianelectric.com>

1 attachment (25 KB)
townscape.pdf;

Aloha Townscape, Inc.,

Thank you for the opportunity to review and comment on the subject project.

Hawaiian Electric Company has no objections to its advancement. Please note that if Hawaiian Electric has existing infrastructure on the subject property, continued access will be necessary for the maintenance of our infrastructure.

We greatly appreciate your efforts to keep us informed throughout the planning process. As the proposed Maunawili WW Pump Station project progresses, we kindly ask that you continue to keep us informed.

Please do not hesitate to contact us should you have any questions or require further clarification.

Thank you!

**MICHAEL JAY BUNGCAYAO**

**O:** 808.543.7075 | **M:** 808.970-4681
michael.bungcayao@hawaiianelectric.com

**Hawaiian Electric**
PO Box 2750, Honolulu, HI 96840

HONOLULU POLICE DEPARTMENT
*KA 'OIHANA MĀKA'I O HONOLULU*
**CITY AND COUNTY OF HONOLULU**
801 SOUTH BERETANIA STREET • HONOLULU, HAWAI'I 96813
TELEPHONE: (808) 529-3111 • WEBSITE: www.honolulupd.org

RICK BLANGIARDI
MAYOR
*MEIA*

RADE K. VANIC
INTERIM CHIEF
*KAHU MĀKA'I KŪIKAWĀ*

AARON TAKASAKI-YOUNG
RYAN T. NISHIBUN
INTERIM DEPUTY CHIEFS
*NĀ HOPE LUNA NUI MĀKA'I KŪIKAWĀ*

OUR REFERENCE EO-SH

December 2, 2025

SENT VIA EMAIL

Ms. Gabrielle Sham
comments@townscapeinc.com

Dear Ms. Sham:

This is in response to your letter dated November 19, 2025, requesting comments on the Draft Environmental Assessment for the Fuel Storage Tank Improvements at the Maunawili Wastewater Pump Station in Kailua.

Based on the information provided, The Honolulu Police Department does not have concerns at this time.

If there are any questions, please call Major Randall Platt of District 4 (Kāne'ohe, Kailua, Kahuku) at (808) 723-8640.

Sincerely,

CARLENE LAU
Acting Assistant Chief of Police
Support Services Bureau

**STATE OF HAWAIʻI**
**OFFICE OF PLANNING**
**& SUSTAINABLE DEVELOPMENT**

235 South Beretania Street, 6th Floor, Honolulu, Hawaiʻi 96813
Mailing Address: P.O. Box 2359, Honolulu, Hawaiʻi 96804

**JOSH GREEN, M.D.**
GOVERNOR

**SYLVIA LUKE**
LT. GOVERNOR

**MARY ALICE EVANS**
DIRECTOR

Telephone: (808) 587-2846
Fax: (808) 587-2824
Web: https://planning.hawaii.gov/

Coastal Zone Management Program

Environmental Review Program

Land Use Commission

Land Use Division

Special Plans Branch

State Transit-Oriented Development

Statewide Geographic Information System

Statewide Sustainability Branch

DTS202511211517MO

December 17, 2025

Ms. Gabrielle Sham
Townscape, Inc.
900 Fort Street Mall Suite 1160
Honolulu, Hawaiʻi 96813

Dear Ms. Sham:

Subject: Draft Environmental Assessment for Maunawili Park Wastewater Pump Station Fuel Storage Tank Improvements, Kailua, Oʻahu; Tax Map Key: (1) 4-2-007: 031

The Office of Planning and Sustainable Development (OPSD) is in receipt of your review request, received November 21, 2025, on the Draft Environmental Assessment (EA) for Maunawili Park Wastewater Pump Station (WWPS) Fuel Storage Tank Improvement Project, Kailua, Oʻahu.

As required by Hawaiʻi Administrative Rules (HAR) Chapter 11-280.1, all underground storage tanks and piping must have secondary containment and use interstitial monitoring to detect releases from tanks and piping by July 15, 2028. To comply with current fuel storage regulations for environmental protection, the Department of Environmental Services, City and County of Honolulu, proposes to replace Maunawili WWPS existing 1,000-gallon underground fuel storage tank with a new 1,000-gallon aboveground tank. The primary tank will be constructed of steel and encased by a secondary tank to provide secondary containment with interstitial monitoring in compliance with regulatory requirements. The project will also replace the underground fuel piping, fuel monitoring panel, associated sensors, and connecting the new fuel monitoring panel to the supervisory control and data acquisition system.

The City's Land Use Ordinance classifies the project site as Agricultural-2 Zoning District. The project site does not fall within 3.2-foot sea level rise exposure area.

The Maunawili WWPS fuel tank improvement project is anticipated to start in April 2027 for 12 months. The Department of Environmental Services will coordinate this fuel storage tank improvement work to avoid conflict with the Auloa Road Bridge rehabilitation project to minimize potential cumulative impacts.

The OPSD has reviewed the subject Draft EA, and has the following comments to offer:

1. The Hawai‘i Coastal Zone Management (CZM) Law, Hawai‘i Revised Statutes (HRS) Chapter 205A, requires all state and county agencies to enforce the CZM objectives and policies. OPSD acknowledges that the Draft EA has assessed the compliance of the proposed fuel tank improvement project with each of the applicable CZM objectives and policies set forth in HRS § 205A-2.

2. On Page 1-1, the Draft EA states that the WWPS site is an approximately 0.22-acre fenced area, which is less than one acre. On Page 2-2, as needed, the contractor shall obtain National Pollutant Discharge Elimination System (NPDES) permit coverage for stormwater discharges associated with construction activities that disturb one acre or more, and discharges of hydrotesting effluent, dewatering effluent, and well drilling effluent to state waters. The Final EA should consult with the State Department of Health Clean Water Branch to confirm whether an NPDES permit is required for the replacement of the existing underground fuel storage tank with a new above-ground tank. If required, such an NPDES permit should be on the list of permits and approvals.

3. Excavation of the existing fuel tank will require employing erosion control and stormwater best management practices. OPSD concurs that the proposed tank replacement project should follow stormwater management and erosion controls to prevent any runoff, sediment, soil and debris potentially resulting from associated construction activities from adversely impacting nearby wetlands and the State waters as specified in HAR Chapter 11-54.

If you respond to this comment letter, please include DTS202511211517MO in the subject line. For any questions regarding this letter, please contact Shichao Li of our office at (808) 587-2841 or by email at shichao.li@hawaii.gov.

Sincerely,

Mary Alice Evans

Mary Alice Evans
Director

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February 2, 2026

Director Mary Alice Evans
Office of Planning and Sustainable Development
P.O. Box 2359
Honolulu, HI 96804

Subject: Response to Comments on the Draft Environmental Assessment (EA)
Fuel Storage Tank Improvements for Maunawili Park Wastewater Pump Station
Maunawili, Oʻahu, TMK (1) 4-2-007:031; DTS202511211517MO

Dear Ms. Evans:

Thank you for providing comments on the Draft EA. We received the letter dated December 17, 2025.

The project team consulted with the Department of Health Clean Water Branch on January 15, 2026, and confirmed that a National Pollutant Discharge Elimination System permit is not required for the proposed project, as construction activities will not exceed one acre or discharge to State waters. Section 5, Permits and Approvals, of the EA has been updated accordingly.

Sincerely,

Gabrielle Sham, Planner
Townscape, Inc.

Cc: Shichao Li (shichao.li@hawaii.gov)
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