

Draft Environmental Assessment

PROPOSED KUALAPU`U SCHOOL WATERLINE IMPROVEMENTS MOLOKAI, HAWAII

Prepared for:

**State of Hawaii,
Department of Education**

March 2010



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Executive Summary

Project Name: Proposed Kualapu`u School Waterline Improvements

Type of Document: Draft Environmental Assessment

Legal Authority: Chapter 343, Hawaii Revised Statutes

Agency Determination: Anticipated Finding of No Significant Impact

Applicable Environmental Assessment Review “trigger”: Use of State owned lands and funds; Use of County owned lands and funds

Location: Island of Molokai
260 Farrington Avenue
Kualapuu, Molokai, Hawaii 96757
TMK (2) 5-2-013:027

Proposing Agency: State of Hawaii
Department of Education
P.O. Box 2360
Honolulu, Hawaii 96804

Approving Agency: State of Hawaii
Department of Education
P.O. Box 2360
Honolulu, Hawaii 96804

Consultant: Munekiyo & Hiraga, Inc.
305 High Street, Suite 104
Wailuku, Hawaii 96793
Contact: Justin Tanaka
Phone No.: (808) 244-2015

Project Summary: The State of Hawaii, Department of Education proposes to construct a new waterline to service Kualapu`u School, located at 260 Farrington Avenue in Kualapuu, Molokai, Hawaii. The proposed project encompasses the construction of a new 12-inch waterline offsite, to be connected to the onsite school system, as well as improvements to the onsite domestic and irrigation water service and fire protection lines. The purpose of this project is to provide more reliable service to the school and to upgrade the fire protection water service.

Construction of the new offsite improvements will consist of 2,600 lineal feet of 12-inch ductile iron pipe along Farrington Avenue, two (2) fire hydrants along the street serving the school, a 2-inch meter and manhole, and an irrigation meter and manhole.

Onsite improvements at Kualapu`u School will consist of both demolition work and the installation of new water infrastructure. The demolition work involves cutting and plugging lines, removing obsolete fire protection improvements, and removing pressure reducing valves. The new onsite water infrastructure consists of about 1,100 lineal feet of 12-inch ductile iron pipe for the fire protection line, and 230 lineal feet of 4-inch ductile iron pipe and smaller copper lines for the domestic distribution system. Fire protection improvements also include a 10-inch fire protection meter with a concrete manhole, four (4) fire hydrants, and about 1,200 lineal feet of a 20-foot wide fire access road. Irrigation improvements include replacement of the existing playfield irrigation system with a new automated irrigation system.

It is estimated that the onsite and offsite construction activities will take approximately six (6) months to complete.

I. PROJECT OVERVIEW

I. PROJECT OVERVIEW

A. PROJECT LOCATION, EXISTING USE AND OWNERSHIP

The State of Hawaii, Department of Education (HDOE) proposes to construct a new waterline to service Kualapu`u School, located at 260 Farrington Avenue in Kualapuu, Molokai, Hawaii. See **Figure 1** and **Figure 2**. The school property is identified by TMK (2) 5-2-013:027 and is approximately 12 acres in size. The proposed action encompasses the construction of a new 12-inch waterline offsite, to be connected to the onsite system, as well as improvements to the onsite domestic and irrigation water service and fire protection lines and a fire access road. The new 12-inch waterline will be placed along Farrington Avenue from the intersection with Kulea Street to the school.

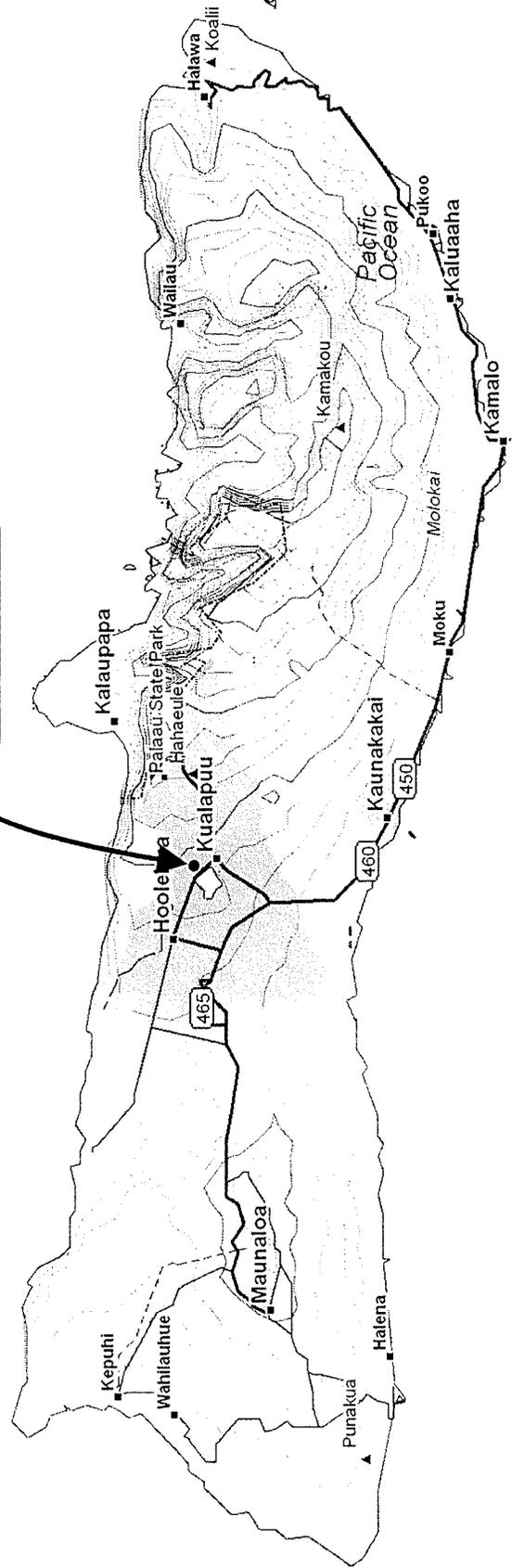
The Farrington Avenue right-of-way is owned by the State of Hawaii, Department of Transportation. The water system currently serving Kualapu`u School and the water infrastructure involved in the proposed project are owned by the Department of Hawaiian Home Lands (DHHL).

The Kualapu`u School property is owned by the County of Maui. The school currently operates on the site with an approximate enrollment of 380 students. The school site contains an administrative building, a cafeteria, multiple classroom buildings and portable classrooms, a playcourt and other play areas, and parking areas.

B. PROPOSED ACTION

The proposed project involves work both at Kualapu`u School (onsite) and along Farrington Avenue (offsite). It encompasses the construction of a new 12-inch waterline offsite, to be connected to the onsite system, as well as improvements to the onsite domestic water, irrigation service, and fire protection lines. Kualapu`u School will remain on the DHHL water system, with a new point of connection to the same system. While the onsite improvements would be exempt from the Environmental Assessment process, there is no exemption for the offsite waterline. Accordingly, this document is being prepared to encompass the project as a whole, to address both offsite and onsite components.

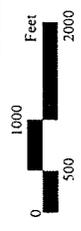
Approximate
Location of
Project Site



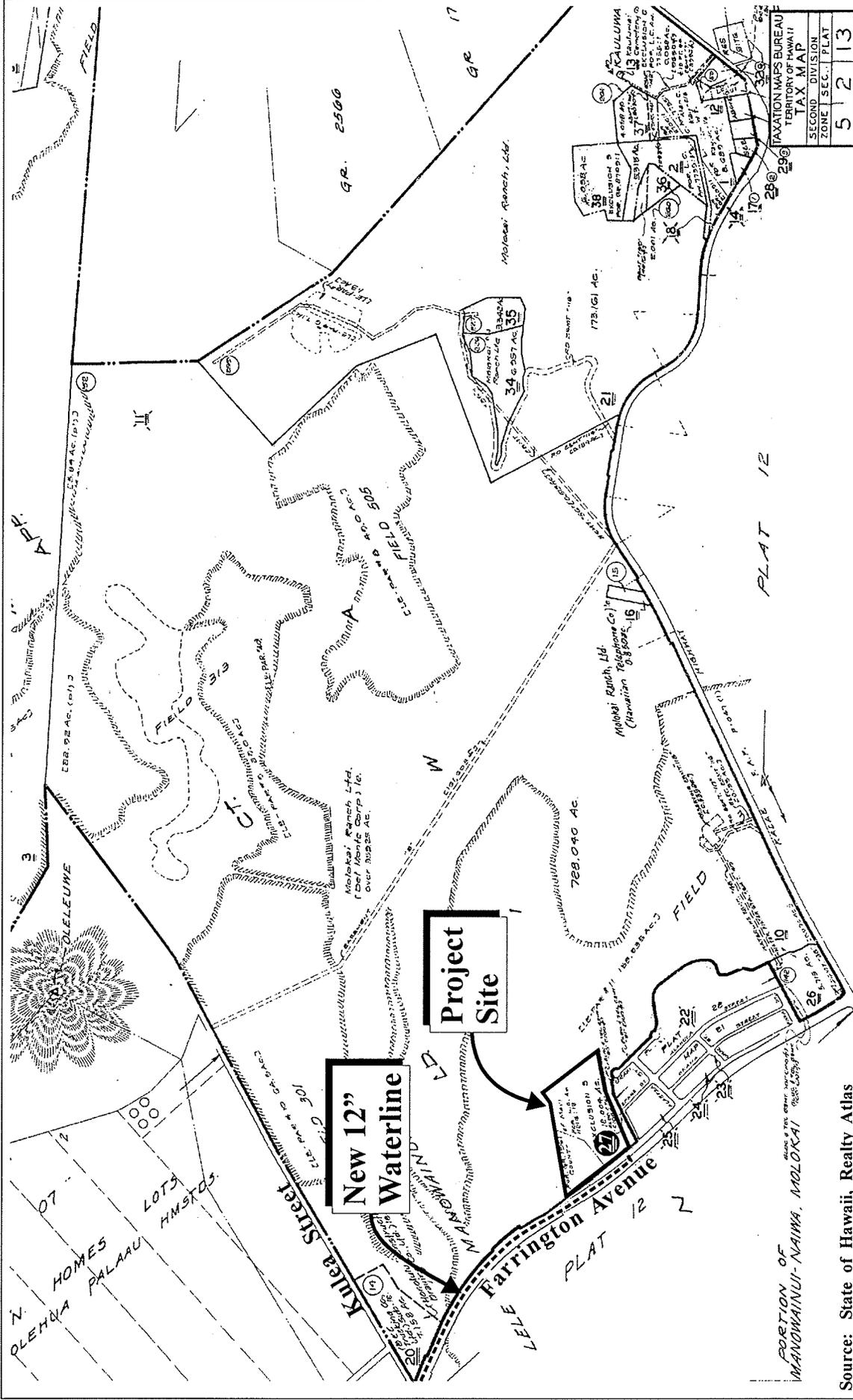
Source: DeLorme Topo Quads

Figure 1

Proposed Kualapu'u School Waterline Regional Location Map



Prepared for: State of Hawaii, Dept. Of Education



Source: State of Hawaii, Realty Atlas

Figure 2



Proposed Kualapu'u School Waterline Project Location Map

NOT TO SCALE

Prepared for: State of Hawaii, Dept. Of Education



MUNEKIYO & HIRAGA, INC.

REF:\kualapu'u\project\location

TAXATION MAPS BUREAU		
TERRITORY OF HAWAII		
TAX MAP		
SECOND DIVISION	5	2
ZONE	12	13

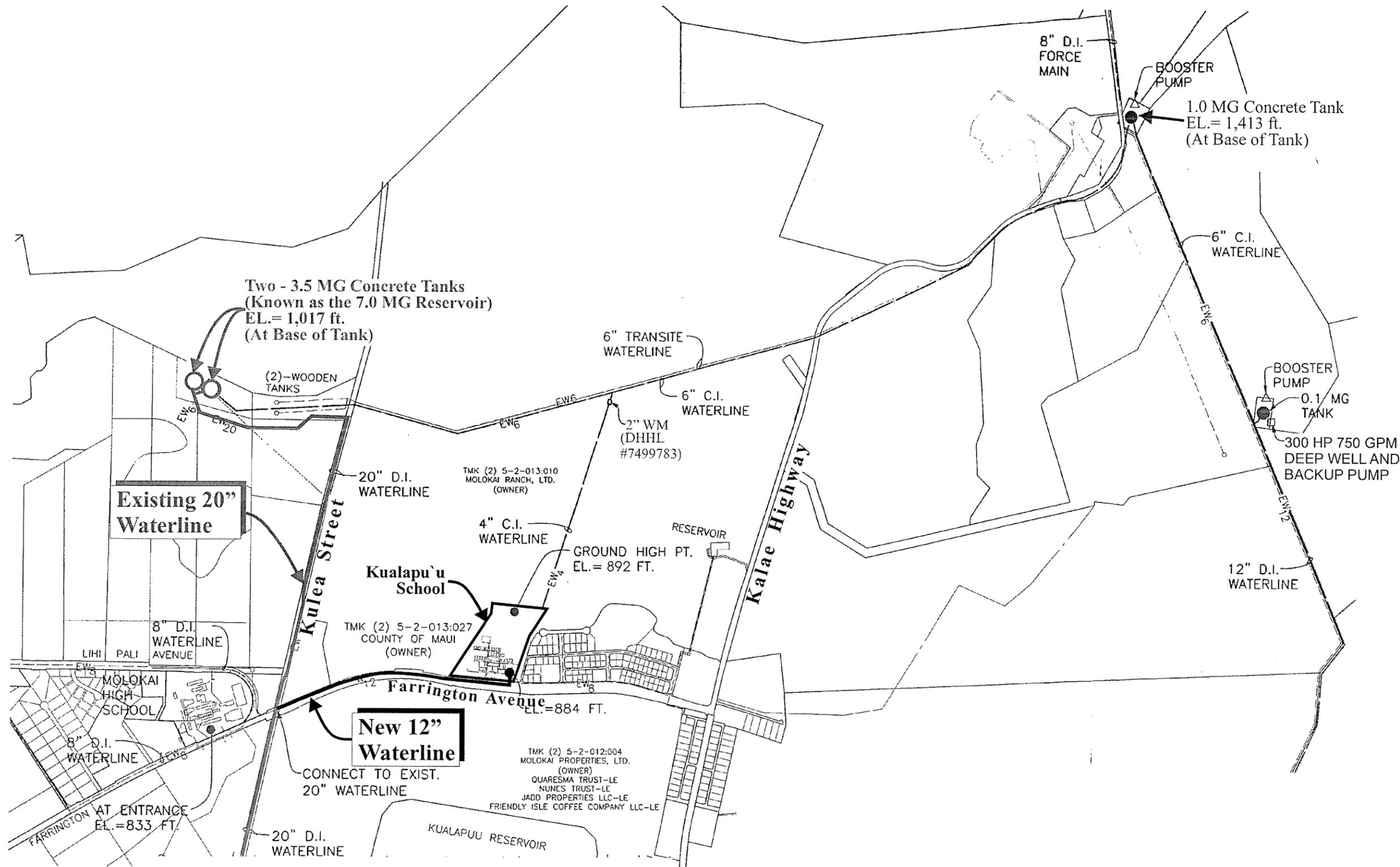
The new 12-inch waterline will be constructed along Farrington Avenue to connect an existing 20-inch DHHL waterline to the school. See **Figure 3**. This 20-inch waterline conveys water from two (2) 3.5 MG reservoirs (more commonly known as the 7.0 MG reservoir). Construction of the new offsite improvements will consist of a connection to the existing 20-inch waterline, 2,600 lineal feet of 12-inch ductile iron pipe, two (2) fire hydrants, a 2-inch meter and manhole, and an irrigation meter and manhole, all along Farrington Avenue, the street serving the school. See **Appendix “A”**. The offsite construction will take place within the existing Farrington Highway right-of-way. The offsite improvements will be dedicated to DHHL for operations and maintenance.

Onsite improvements at Kualapu`u School will consist of both demolition work and the installation of new water infrastructure. The demolition work involves cutting and plugging lines, removing obsolete fire protection improvements, and removing pressure reducing valves. See **Figure 4**. The new water infrastructure consists of about 1,100 lineal feet of 12-inch ductile iron pipe for the fire protection line, and 230 lineal feet of 4-inch ductile iron pipe and smaller copper lines for the domestic distribution system. Fire protection improvements also include a 10-inch fire protection meter with a concrete manhole, four (4) fire hydrants, and about 1,200 lineal feet of a 20-foot wide fire access road. The fire access road will be constructed with grasscrete or a similar surface. Irrigation system improvements include replacement of the existing playfield irrigation system with a new automated irrigation system. See **Figure 5** and **Figure 6**. The fire protection improvements will be consistent with the current standards. Refer to **Appendix “A”**. The onsite construction will take place on the County-owned land where the school is located.

Given that State funds and State and County lands will be used for the proposed project, this Environmental Assessment (EA) has been prepared in accordance with the provisions of Chapter 343, Hawaii Revised Statutes and Department of Health Administrative Rules, Chapter 200 of Title 11, Environmental Impact Statement Rules. Pursuant to Section 11-200-4, the approving agency for the EA is the HDOE.

C. PROJECT NEED

Kualapu`u School experiences inconsistent water pressure and related problems with the existing water system. In recent years, Kualapu`u School has experienced instances of water pressure loss, resulting in malfunctioning bathroom flush valves and low flows from cafeteria service fixtures. The failure of the flush valves created health problems, forcing the school to send the students home during those instances.



Source: Ronald M. Fukumoto Engineering, Inc.

Figure 3

Proposed Kualapu'u School Waterline
Preliminary Offsite Water Plan

NOT TO SCALE



Prepared for: State of Hawaii, Dept. Of Education



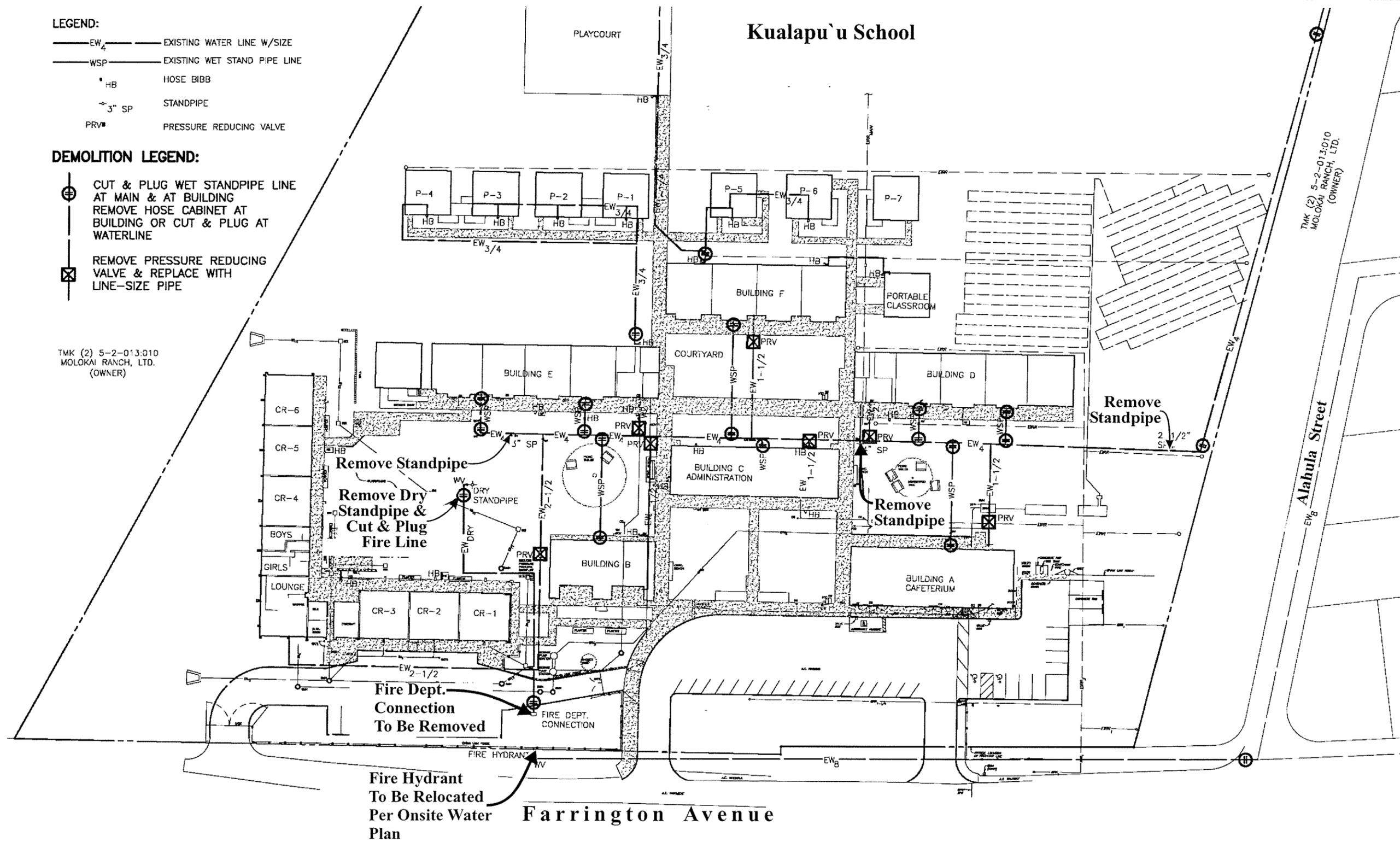
LEGEND:

- EW₄ — EXISTING WATER LINE W/SIZE
- WSP — EXISTING WET STAND PIPE LINE
- HB HOSE BIBB
- 3" SP — STANDPIPE
- PRV^{1/2} PRESSURE REDUCING VALVE

DEMOLITION LEGEND:

- ⊕ CUT & PLUG WET STANDPIPE LINE AT MAIN & AT BUILDING REMOVE HOSE CABINET AT BUILDING OR CUT & PLUG AT WATERLINE
- ⊗ REMOVE PRESSURE REDUCING VALVE & REPLACE WITH LINE-SIZE PIPE

TMK (2) 5-2-013:010
MOLOKAI RANCH, LTD.
(OWNER)



Source: Ronald M. Fukumoto Engineering, Inc.

Figure 4

**Proposed Kualapu'u School Waterline
Existing Onsite Water System and Demolition Plan**

NOT TO SCALE

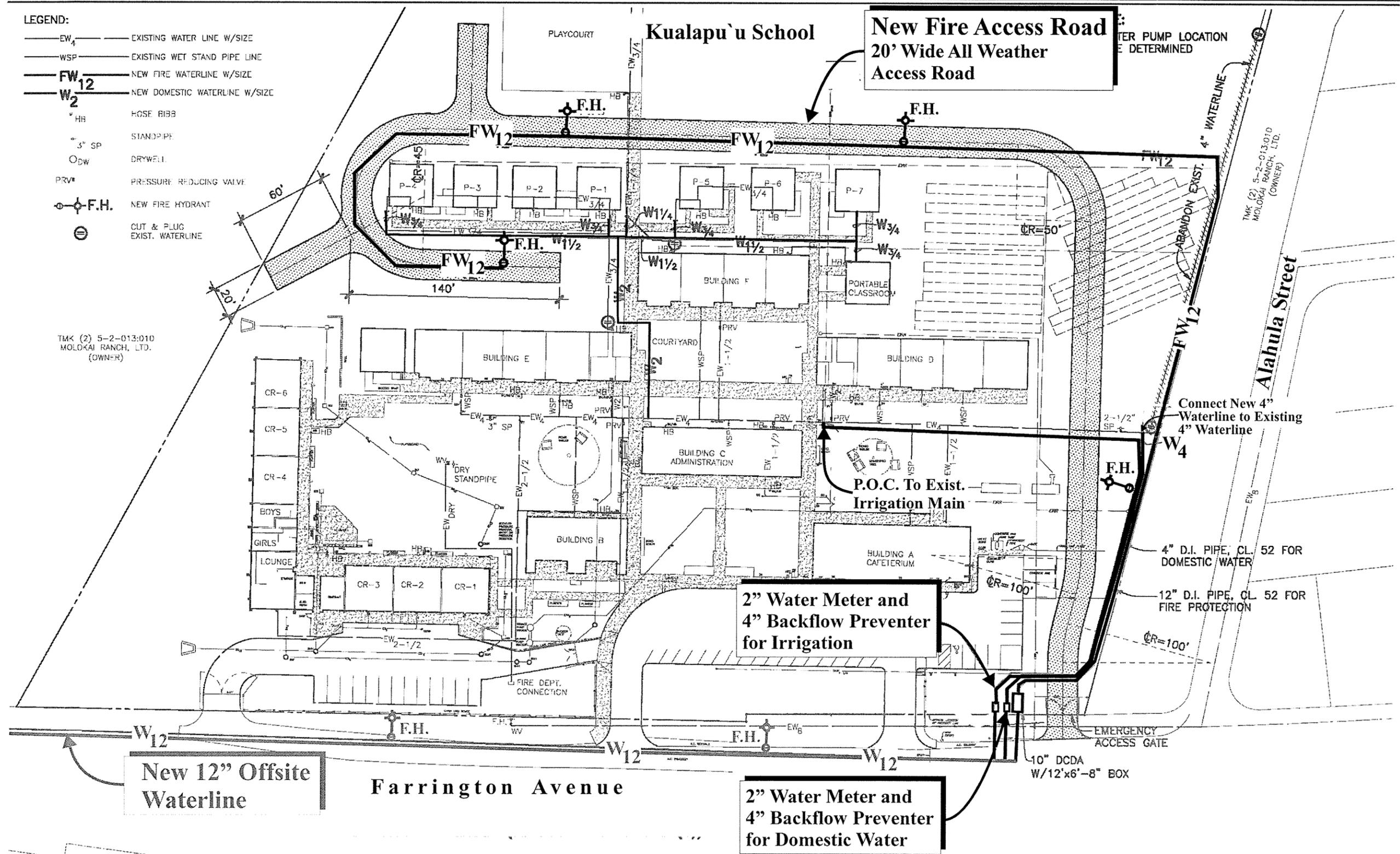


MUNEKIYO & HIRAGA, INC.

LEGEND:

- EW₄— EXISTING WATER LINE W/SIZE
- WSP— EXISTING WET STAND PIPE LINE
- FW₁₂— NEW FIRE WATERLINE W/SIZE
- W₂— NEW DOMESTIC WATERLINE W/SIZE
- ⊕ HH HOSE BIBB
- ⊕ 3" SP STANDPIPE
- ⊕ ODW DRYWELL
- PRV# PRESSURE REDUCING VALVE
- ⊕ F.H. NEW FIRE HYDRANT
- ⊕ CUT & PLUG EXIST. WATERLINE

TMK (2) 5-2-013:010
MOLOKAI RANCH, LTD.
(OWNER)



Source: Ronald M. Fukumoto Engineering, Inc.

Figure 5

**Proposed Kualapu'u School Waterline
Preliminary Onsite Water Plan**

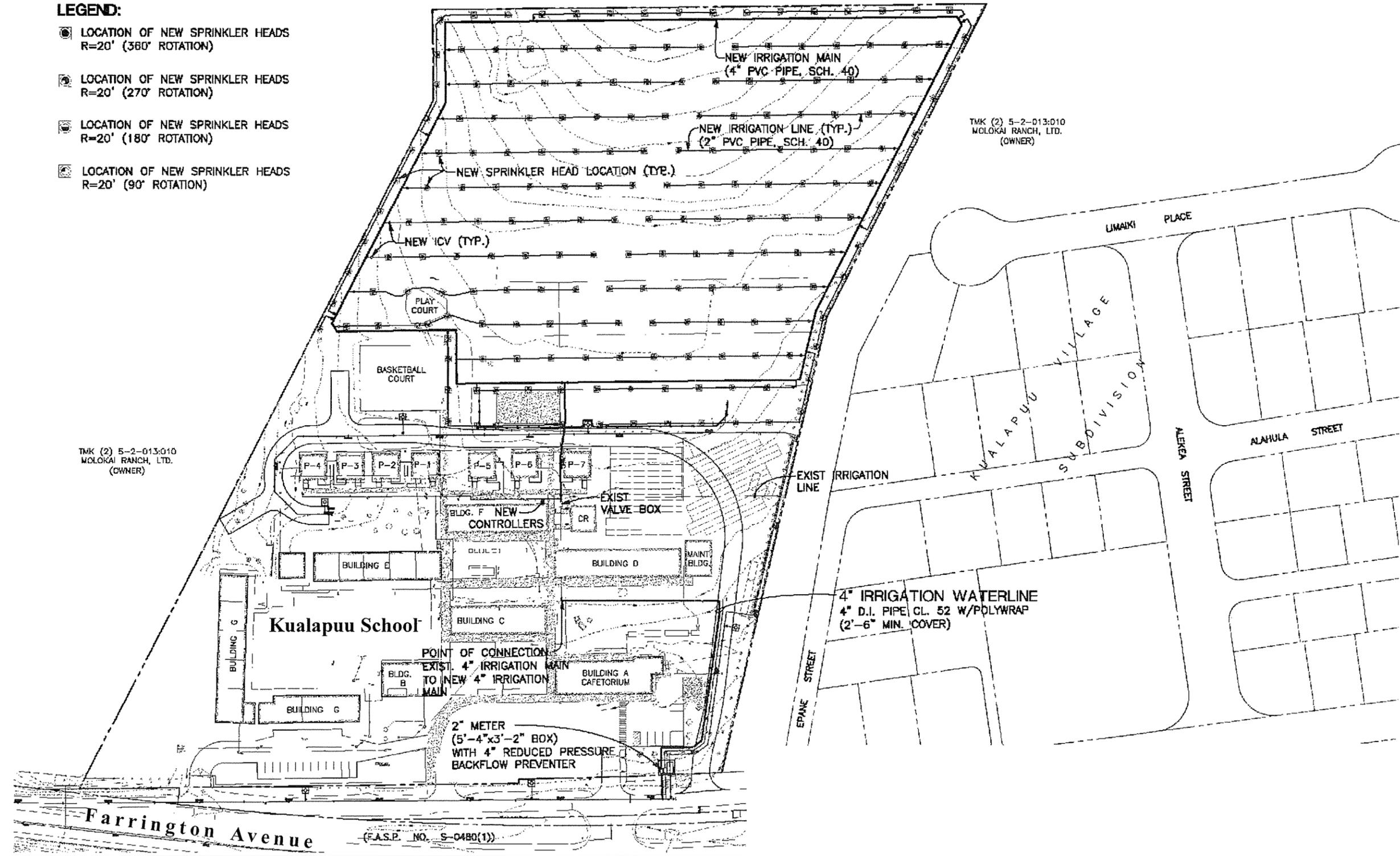
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LEGEND:

- ⊙ LOCATION OF NEW SPRINKLER HEADS
R=20' (360° ROTATION)
- ⊙ LOCATION OF NEW SPRINKLER HEADS
R=20' (270° ROTATION)
- ⊙ LOCATION OF NEW SPRINKLER HEADS
R=20' (180° ROTATION)
- ⊙ LOCATION OF NEW SPRINKLER HEADS
R=20' (90° ROTATION)



Source: Ronald M. Fukumoto Engineering, Inc.

Figure 6

Proposed Kualapuu School Waterline
Preliminary Irrigation Plan

NOT TO SCALE



MUNEKIYO & HIRAGA, INC.

Kualapu`u School is also in need of a sufficient fire protection water service to protect the school in the case of a fire. The proposed system would be capable of delivering the required fire flow of 2,000 gallons per minute (gpm) at a critical fire hydrant onsite with at least 20 pounds per square inch (psi) residual pressure utilizing the new 12-inch waterline. This is in compliance with the Fire Flow Requirements defined in the County of Maui, Department of Water Supply's *Water System Standards*. Refer to **Appendix "A"**.

The replacement of the existing playfield irrigation system with a new automated irrigation system will reduce manpower requirements and reduce water usage. Nighttime operation of the system will reduce water usage by irrigating when there is less evaporation, due to lower temperatures and wind speeds.

The water provided for the school currently comes from a 1.0 million gallon (MG) reservoir along Kalae Highway at an elevation of 1,413 feet above mean sea level (MSL). The proposed project would change the source for the school to two 3.5 MG reservoirs (known as the 7.0 MG reservoir) located at 1,017 feet msl. The resulting static pressures after the change would be between 54 psi and 69 psi, compared to the current range of pressures of 226 psi to 241 psi, which had required the installation of pressure reducers throughout the site. Water service from the new source would provide the school with water at a more consistent acceptable range of static pressures. Refer to **Figure 3**.

D. PROJECT FUNDING AND SCHEDULING

The estimated cost of the project construction is approximately \$1.993 million. It is estimated that construction will take approximately six (6) months. The construction process will commence upon receipt of the appropriate permits and approvals.

**II. DESCRIPTION OF THE
EXISTING
ENVIRONMENT,
POTENTIAL IMPACTS
AND MITIGATION
MEASURES**

II. DESCRIPTION OF THE EXISTING ENVIRONMENT, POTENTIAL IMPACTS AND MITIGATION MEASURES

A. PHYSICAL SETTING

1. Surrounding Land Uses

a. Existing Conditions

Kualapu`u School is located on Farrington Avenue in Kualapuu, Molokai, Hawaii. The area is rural in character. The campus consists of an administrative building, a cafeteria, multiple classroom buildings and portable classrooms, a playcourt and other play areas, and parking areas. Refer to **Figure 4**.

Kualapu`u School is approximately 0.6 mile from Molokai High & Intermediate School and approximately four (4) miles from the Molokai Airport. Molokai Ranch lands, characterized by pastureland and woods, surround the school to the north and the east. Across Farrington Highway from the school, Coffees of Hawaii maintains a coffee plantation in former pineapple fields. To the southeast of the school is a residential neighborhood interspersed with establishments, such as the Kualapuu Market, the Kualapuu Cookhouse, and a post office.

b. Potential Impacts and Mitigation Measures

During construction, the contractor will be responsible for implementing required pedestrian controls to ensure that the construction area is safely secured. Applicable Best Management Practices will be implemented to reduce any negative impacts of construction on surrounding land uses.

The new waterline and associated water infrastructure improvements at the school, with the exception of the fire hydrants and the fire access road, will be below grade. Neither the below grade improvements, nor the fire hydrants or fire access road, are anticipated to adversely impact surrounding land uses.

Construction of on-campus improvements disruptive to school activities will be scheduled during the summer break to the extent practicable.

2. Climate, Topography and Soils

a. Existing Conditions

Hawaii's tropical location results in uniform weather conditions throughout the year. Climatic conditions on Molokai are characterized by mild and consistent year round temperatures, moderate humidity and steady northeasterly tradewinds. Variations in Molokai's weather are attributable to regional topographic and climatic conditions.

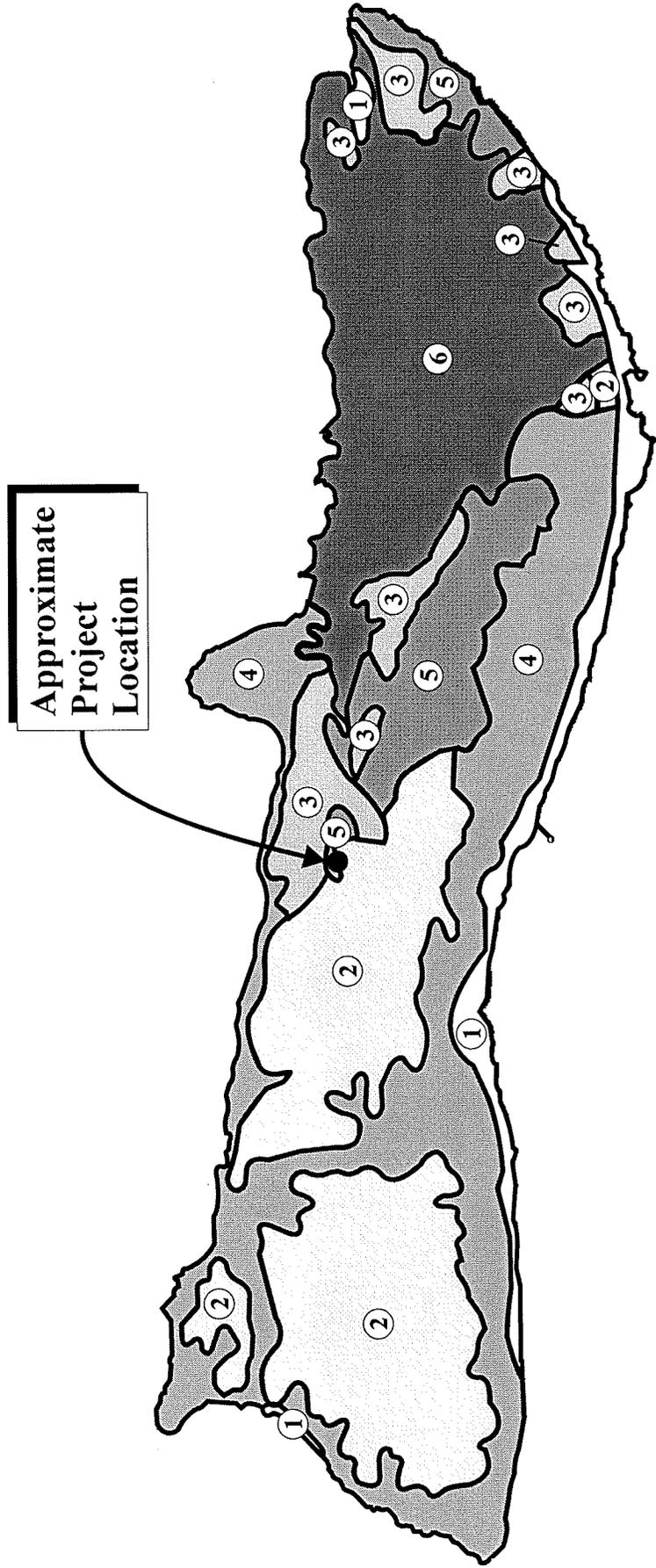
Kualapu`u School is located between the center and the north coast of Molokai Island. Average annual rainfall is 25.97 inches at the Molokai Airport near Kualapu`u School. The wettest month of the year is January, with about 4.53 inches of precipitation. June is the driest month, with 0.54 inch of precipitation. The daily average high temperature in the area is 81.4 degrees Fahrenheit and the daily average low temperature is 67.6 degrees Fahrenheit. August is the warmest month, with a high of 85.2 degrees Fahrenheit. February is the coolest month, with a low of 63.2 degrees Fahrenheit (Maui County Data Book, 2008).

Underlying the Kualapuu area are soils belonging to the Molokai-Lahaina association and the Oli association. See **Figure 7**. The Molokai-Lahaina association is characterized by deep, nearly level to moderately steep, well-drained soils that have a moderately fine textured or fine textured subsoil. This soil association is found on uplands. The rough broken land Oli association is characterized by shallow to deep, very steep to precipitous soils in gulches and moderately deep to deep, gently sloping to steep, well-drained soils that have a medium-textured and moderately fine textured subsoil. This soil association is also found on uplands.

The subject property contains underlying soils mostly from the Lahaina silty clay, 3 to 7 percent slopes (LaB) soil classification. See **Figure 8**. This soil

LEGEND

- | | | | |
|---|-----------------------------------|---|--|
|  | Jaucas-Mala-Pulehu association |  | Very stony land-Rock land association |
|  | Molokai-Lahaina association |  | Rough broken land-Oli association |
|  | Kahanui-Kalae-Kanepuu association |  | Rough moutainous land-Amalu-Olokui association |



Source: USDA, Soil Conservation Service

Figure 7 Proposed Kualapu'u School Waterline Soil Association Map

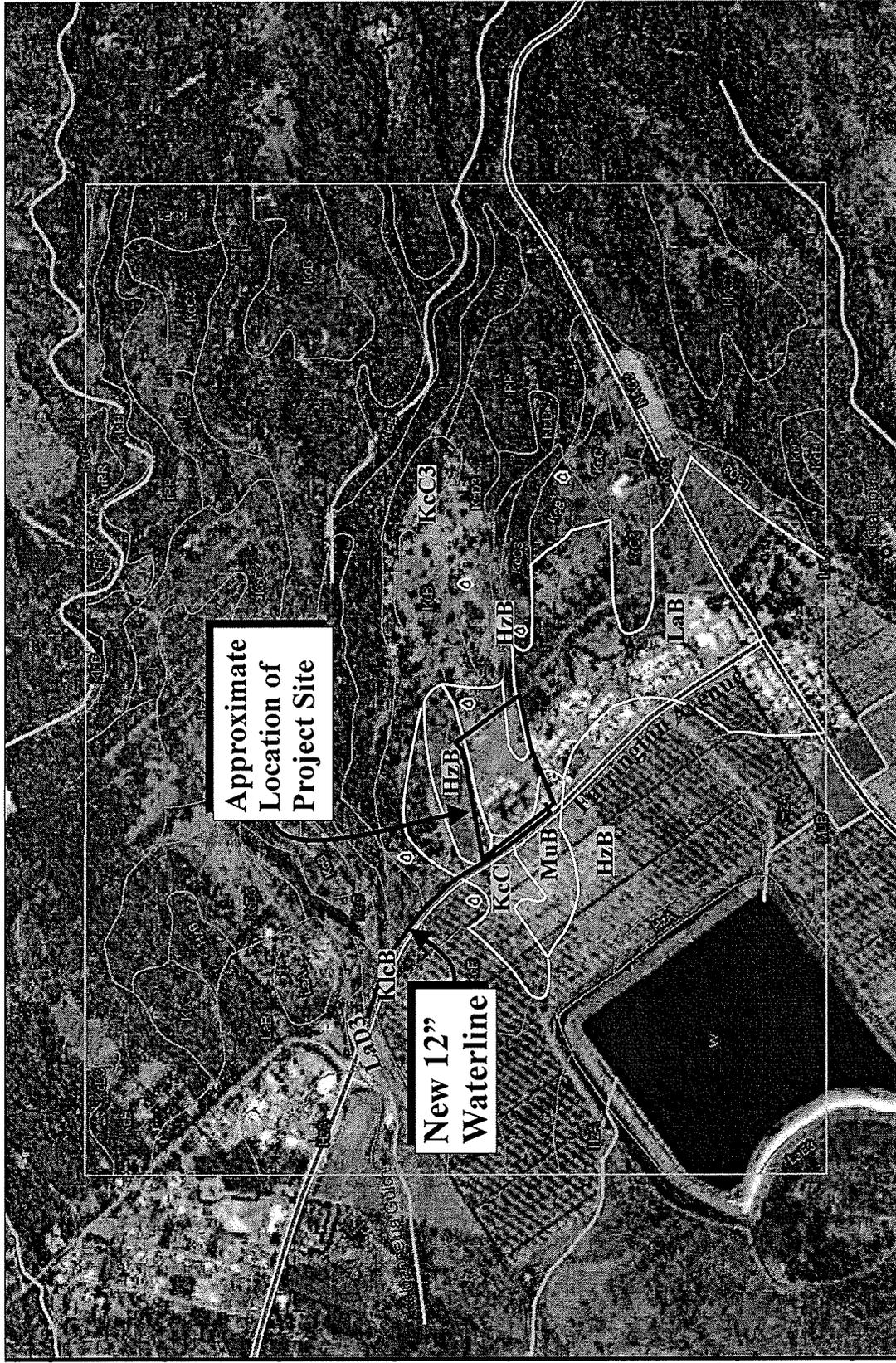


NOT TO SCALE

Prepared for: State of Hawaii, Dept. of Education

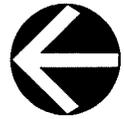


MUNEKIYO & HIRAGA, INC.
RFE/Kualapu'u/Soil Association



Source: USDA, Natural Resources Conservation Service

Figure 8



Proposed Kualapu`u School Watershed Soil Classification Map

NOT TO SCALE

Prepared for: State of Hawaii, Dept. Of Education

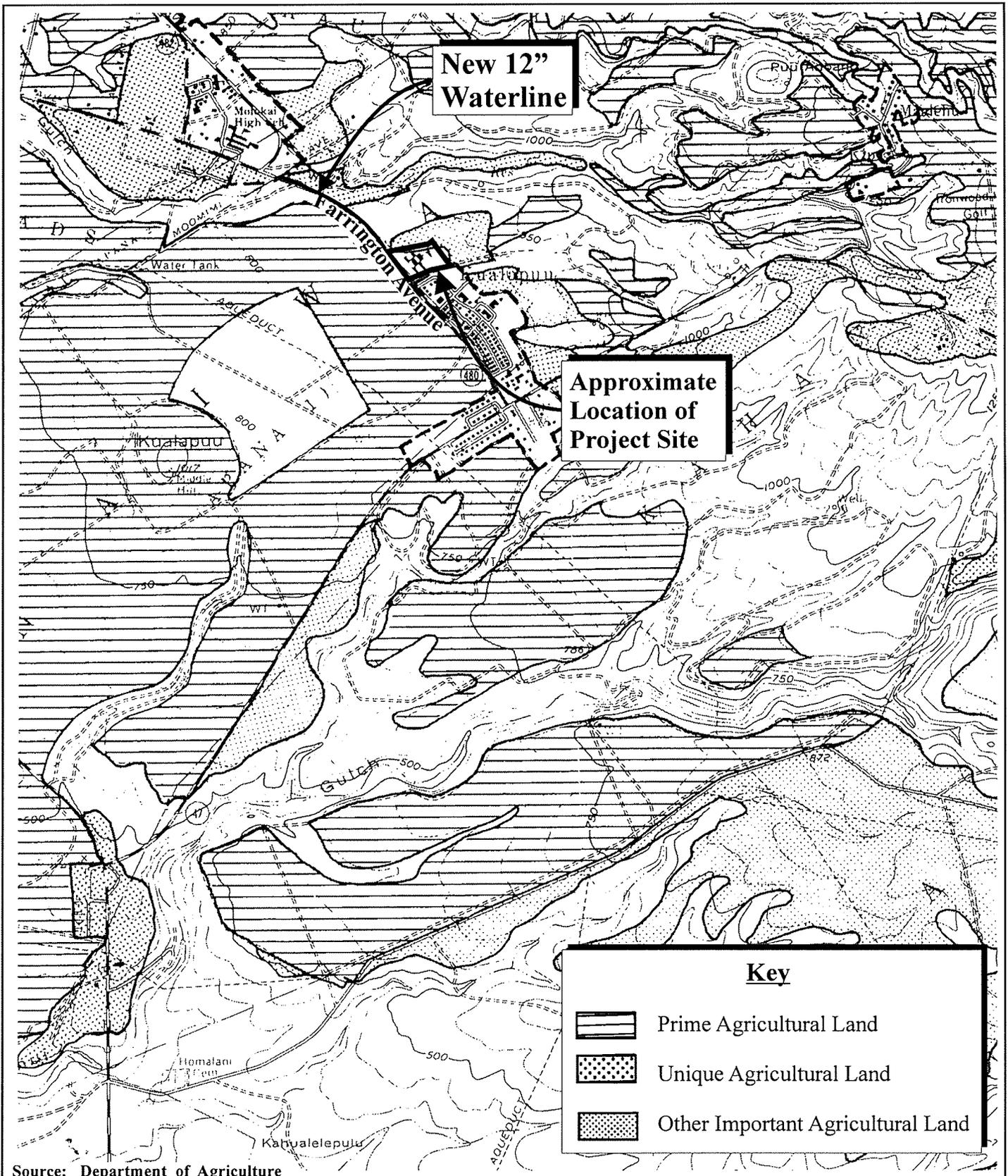
type is characterized by moderate permeability, slow runoff, and a slight erosion hazard. This soil is primarily used for sugar cane and pineapple, as well as truck crops, pasture, homesites, and wildlife habitat (U.S. Department of Agriculture Soil Conservation Service, 1972).

The Kualapu`u School property and the Farrington Avenue right-of-way also contain patches of six (6) other soil types: Hoolehua silty clay (HzB), 3 to 7 percent slopes; Molokai silty clay loam (MuB), 3 to 7 percent slopes; Kalae silty clay (KcC), 7 to 15 percent slopes; severely eroded Kalae silty clay (KcC3), 5 to 15 percent slopes; Kawaihapai silty clay loam (KlCB), 2 to 7 percent slopes; and severely eroded Lahaina silty clay (LaD3), 15 to 25 percent slopes. These soil types have slow to medium runoff, and are used for pineapple, sugar cane, pasture, wildlife habitat, and homes (U.S. Department of Agriculture Soil Conservation Service, 1972). The erosion hazard of these soils is slight to moderate, with the exception of two (2) of the six (6) types. The new waterline will pass through a section of eroded Kalae silty clay, and connect with the existing waterline in a small section of eroded Lahaina silty clay, where both sections have a moderate to severe erosion hazard. Refer to **Figure 8**.

The State Department of Agriculture has established three (3) categories of Agricultural Lands of Importance to the State of Hawaii (ALISH). The ALISH system classifies lands into "Prime", "Unique", and "Other Important Agricultural Land". The remaining lands are "Unclassified". Utilizing modern farming methods, "Prime" agricultural lands have the soil quality, growing season, and moisture supply needed to produce sustained crop yields economically, while "Unique" agricultural lands possess a combination of soil quality, location, growing season, and moisture supply currently used to produce sustained high yields of a specific crop. "Other Important Agricultural Land" includes those which have not been rated as "Prime" or "Unique". The Kualapu`u School is located on "Unclassified" land. Across Farrington Avenue, the land is designated "Prime" agricultural land, and behind the school is "Other Important Agricultural Land". See **Figure 9**.

b. Potential Impacts and Mitigation Measures

The proposed project is not anticipated to have any adverse impacts on the climate, topography, or soils. The improvements will be below grade, with



Source: Department of Agriculture

Figure 9

Proposed Kualapu'u
 School Waterline
 Agricultural Lands of Importance
 to the State of Hawaii

NOT TO SCALE



Prepared for: State of Hawaii, Department of Education

MUNEKIYO & HIRAGA, INC.

the exception of the fire hydrants and the fire access road, and require no changes in topography.

3. Flood and Tsunami Conditions

a. Existing Conditions

The project site is located in Flood Zone C, an area of minimal flooding. See **Figure 10**.

According to the Civil Defense Disaster Preparedness Information, Kualapu`u School and the areas of Farrington Avenue affected by the proposed project are not in the tsunami evacuation zone.

b. Potential Impacts and Mitigation Measures

The proposed project does not affect the flood and tsunami conditions of the site, and as such is not anticipated to adversely impact the flood and tsunami characteristics of the area.

4. Flora and Fauna

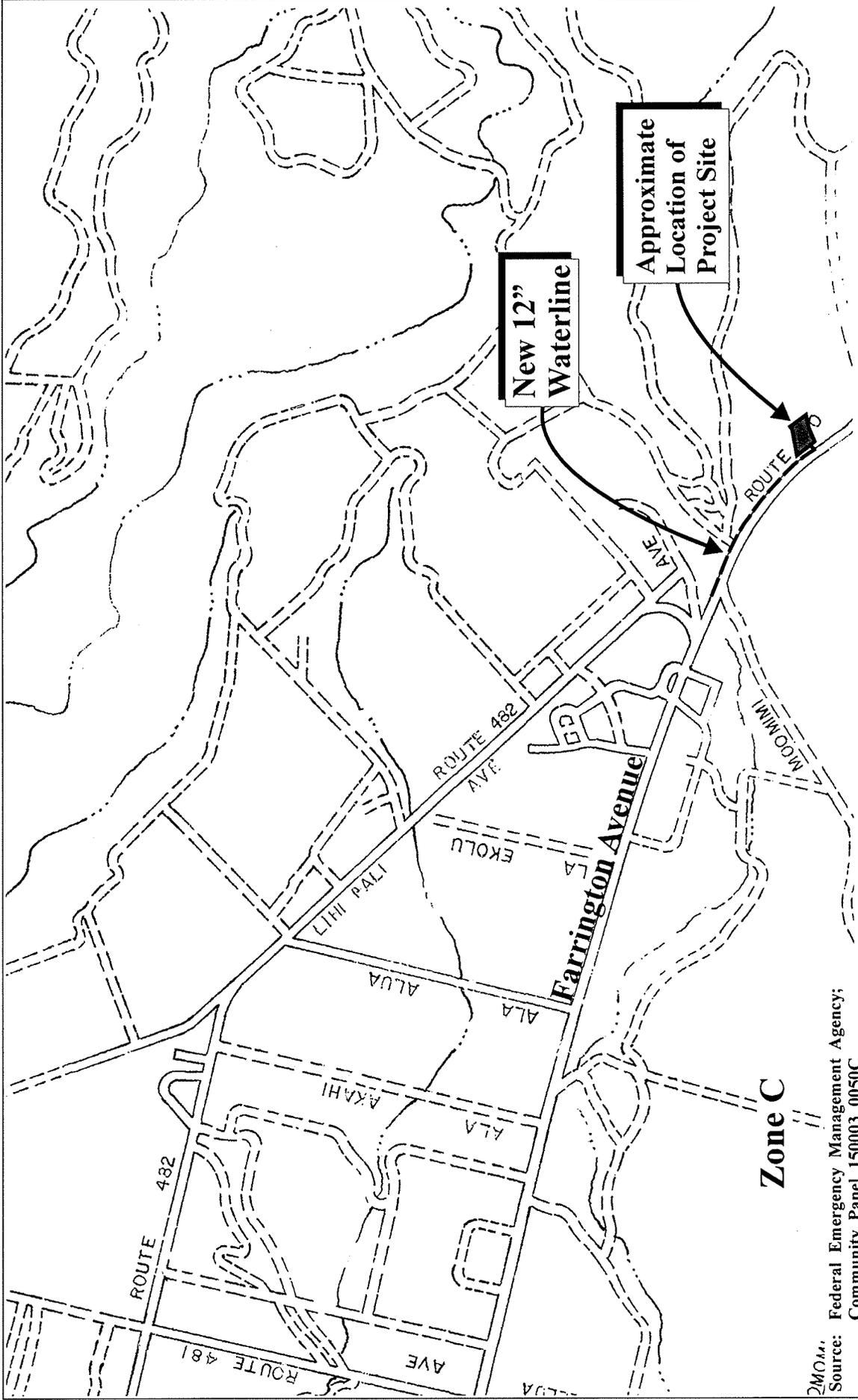
a. Existing Conditions

Vegetation on the Kualapu`u School campus includes different varieties of hibiscus, grasses, weeds, banana trees, bird of paradise, ti, taro, Norfolk pine trees, lauae, and tomatoes. The campus has a native Hawaiian plant garden, with plants cultivated by students and their teachers. Norfolk pine trees and various roadside grasses and weeds are found along Farrington Avenue in the vicinity of the proposed project.

Avifauna and mammals common to the project site and surrounding areas include introduced birds and feral animals, such as cattle and deer in the surrounding ranch lands.

b. Potential Impacts and Mitigation Measures

As the Farrington Highway right-of-way and the Kualapu`u School are currently developed areas, the proposed waterline and related improvements



2MOM
 Source: Federal Emergency Management Agency;
 Community Panel 150003 0050C

**Figure 10 Proposed Kualapu'u School Waterline
 Flood Insurance Rate Map**



NOT TO SCALE

Prepared for: State of Hawaii, Department of Education



RFE/Kualapu'u/WL/FRM

are not anticipated to have an adverse impact upon the biological environment. Cultivated plants located in areas of construction can be removed and replanted in other areas of the campus.

5. Streams and Wetlands

a. Existing Conditions

Portions of Palaau Gulch, a non-perennial drainageway, are in the vicinity of the property. This gulch crosses Farrington Avenue through culvert crossings. See **Figure 11**. There are no bridges along the affected portion of Farrington Avenue.

There are no wetlands in the vicinity of the project site. The nearest wetland is approximately 3,000 feet north of the school property.

b. Potential Impacts and Mitigation Measures

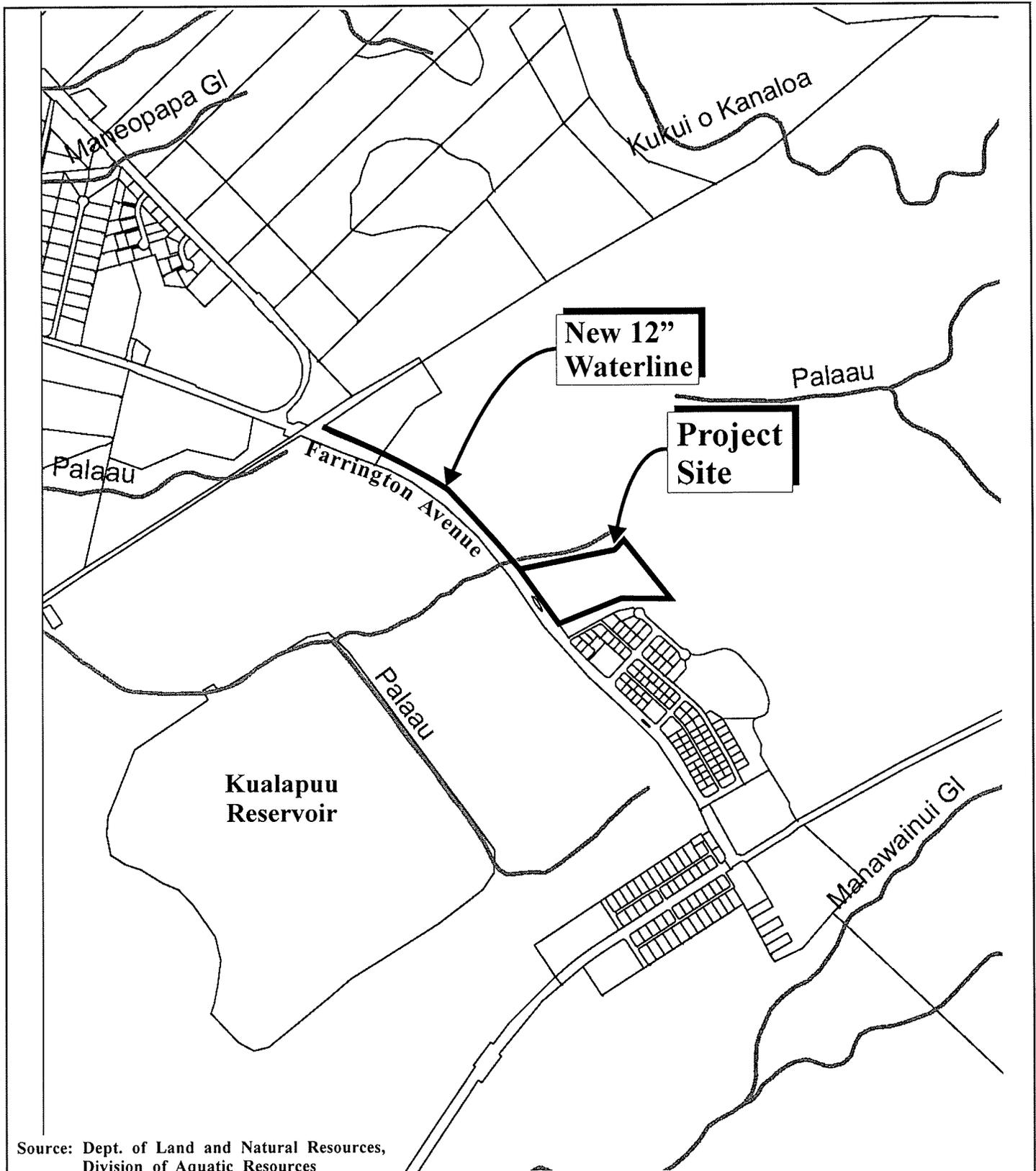
Best Management Practices (BMPs) will be implemented to mitigate any impacts to the drainageway. BMPs will include silt fences, site barriers at Kualapu`u School, gravel snake bags along Farrington Avenue to catch and filter runoff, and silt barriers and drain inlet filters in culverts along the road. As a result, there will be no discharges of stormwater into the stream. The culvert crossings have been surveyed and determined to be structurally sound. The proposed waterline construction is not anticipated to impact these crossings or any element of the drainageway.

As there are no wetlands in the vicinity of the project, no impacts to wetlands are anticipated.

6. Historical and Archaeological Resources

a. Existing Conditions

The Kualapu`u School property and Farrington Avenue are both developed areas. Kualapu`u School contains various structures, such as classroom buildings, a cafeteria, parking areas, and a playground, as well as existing utilities that were previously installed underground. The State right-of-way along Farrington Avenue is developed and the area is used by vehicles daily.

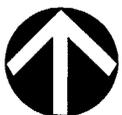


Source: Dept. of Land and Natural Resources,
Division of Aquatic Resources

Figure 11

Proposed Kualapu`u
School Waterline
Drainageway Delineation

NOT TO SCALE



There are no registered Historic Places within the school grounds or Farrington Avenue State right-of-way.

b. Potential Impacts and Mitigation Measures

As there are no registered Historic Places within or connected to the project area, there are no anticipated adverse impacts on any of the sites from the Hawaii State Register of Historic Places.

Since Kualapu`u School and Farrington Avenue are existing developed lands, an archaeological survey is not planned. Instead, a final Archaeological Monitoring Plan (AMP) has been prepared by Xamanek Researches for the construction of the proposed project. See **Appendix “B”**. The AMP was approved by the Department of Land and Natural Resources, State Historic Preservation Division (SHPD) on December 18, 2009. See **Appendix “B-1”**.

An archaeological monitor will be present during all subsurface earthmoving activities. Should any archaeological remains or cultural materials be encountered during construction activities, all work in the vicinity of the find will cease and the SHPD will be contacted for establishment of appropriate mitigation measures in accordance with Chapter 6E, Hawaii Revised Statutes.

7. Cultural Assessment

a. Existing Conditions

(1) Historical Overview

During the pre-contact era, the Molokai population base was primarily concentrated at the island’s windward coasts. The area was rich in ocean resources and the deep valleys with perennial streams supported a lifestyle based on subsistence agriculture, primarily associated with intensive taro production.

The 18th century saw great upheaval on Molokai as the island became subject to the ambitions of the rulers of neighboring

islands. Political authority over Molokai passed back and forth between the chiefs of Maui and Oahu throughout the century, only ceasing with the unification of all the islands under Kamehameha I.

With the onset of western contact, a western influence began to permeate through the island's social environment. The result was a reduced reliance on subsistence lifestyles and an increased dependence on a plantation and ranching-based economy. As a result, the island of Molokai experienced a westward population movement from the windward coast to the leeward side of the island.

Several important changes for Molokai occurred in the 19th century. Herd animals were introduced at this time: cattle in 1833, followed by deer and sheep 30 years later. Cattle had profound socio-economic and, thus, cultural impacts through ranching activities. Sheep, on the other hand, had a notably adverse impact on the landscape because of their grazing (Wiesler and Kirch). The Molokai Ranch was founded at the end of the century, purchasing lands formerly owned by Kamehameha V.

The 19th century also saw the creation of the Hansen's Disease colony at Kalaupapa, Molokai by the government. The first habitants arrived at Kalaupapa on January 6, 1866 to live on approximately 800 acres purchased by the kingdom (De Loach).

During the westward movement, the island's political and commercial center developed in accordance with the population movement. The first western town was established at Pukoo, which included a County seat, a court house, a wharf, and several small stores. In 1925, Ualapue became the island's new major commercial center, where a new hospital was constructed. Finally in 1935, Kaunakakai was established as the political center and economic nucleus of the island.

In the 1920's, large pineapple plantations were established in the Maunaloa and Kualapuu areas, further strengthening the westward movement. However, in the 1970's and 1980's, both plantations ceased operations and the island's economy became primarily dependent on diversified agriculture and ranching activities with an emerging visitor industry (Molokai Community Plan, 2001).

(2) Geopolitical Organization

Prior to Western contact in Hawaii, land was divided into *moku*, or districts. Each of these was further subdivided into units called *ahupuaa*. Ideally, each *ahupuaa* was self-sufficient, running from *mauka*, the mountain, to *makai*, the ocean (MacKenzie). These divisions served as both cultural and settlement systems as traditional Hawaiian life was tied intimately to the land. Hunting, gathering, cultivation, and habitation took place within three (3) zones which characterized the *ahupuaa*: the *Mauka* Zone, the Agricultural Zone, and the Coastal Zone. The *Mauka* Zone provided access to a variety of trees, plants, and herbs for various needs, customs and practices. Planting of yams, sweet potato, sugar cane, taro, and other foods took place in the Agricultural Zone, where gradual slopes of land allowed terraces to be constructed for more efficient irrigation. The Coastal Zone and low-lying areas was where most of the *kauhale*, group of houses, were found, as well as temples, fishing shrines, and fishponds (Minerbi).

Molokai was traditionally divided into two (2) *moku*: Koolau district and Kona district, although there is some evidence of a third district having been used at some point (Wiesler and Kirch; Summers). The Koolau district was centered on the windward coast of the island, with the Kona district essentially comprising the remainder of Molokai. These *moku* were subdivided into *ahupuaa* which ranged in size from 79 to 46,500 acres (Summers). Molokai is noted for having had some unusual *ahupuaa* which stretched from shore to shore, rather than the more usual *mauka* to *makai*;

this is due to the shape of the central portion of the island (De Loach).

In 1859, the traditional *moku* divisions were eliminated and the entire island made into one district, called the Molokai district. Fifty years later, the island was redivided, this time into the Kalawao district, which is comprised of those areas known as Kalaupapa, Kalawao, and Waikolu and is administratively distinct from Maui County, and the remainder of the island, which is still designated as the Molokai district.

Western contact brought changes to the Hawaiian land system with the introduction of private ownership of land, a concept foreign to the native Hawaiians. A Board of Land Commissioners was established in 1845 to uphold or reject all private land claims of both foreigners and Hawaiians. The Commission adopted rules pertaining to the proof of claims, right of tenants, and commutation to the government in attempts to achieve the goal of totally partitioning undivided lands. All lands not claimed by February 1848 were to be forfeited to the government (MacKenzie).

Following the enactment of these rules, the *Mahele* division of 1848 divided all lands of Hawaii between the king and chiefs. Two (2) years later the *Kuleana* act completed the *Mahele* process by authorizing the Land Commission to award fee simple titles to native tenants for their land. These *kuleana* parcels, also known as Land Commission Awards (LCA), were generally among the richest and most fertile in the islands and came from the king, government, or chief's land. All claims and awards were numbered and recorded in the *Mahele* Book (MacKenzie). In addition, government lands were sold as "Royal Patent Grants" or "Grants" in order to meet the increasing costs of government. These grants differed from LCAs, as it was not necessary for the recipients to obtain an award for their land from the Land Commission (Chinen).

(3) **Stories and Traditions of Molokai**

As is frequently the case with the islands, Molokai is the subject of multiple creation stories. Some say that all of the islands were born of the god Wakea and his wives; Molokai being the off-spring of that god and his third wife, Hina, after his previous wives had given birth to Hawaii, Maui, Kahoolawe, and Lanai. A separate tradition gives the formation of all the islands as having resulted from pieces of coral tossed back into the sea by the fisherman Kapuhe'euanui (Fornander).

The traditional history of Molokai is only extant in fragmentary form. It begins with Kamauaua, reputedly the first *alii-nui* of the island, who is thought to have lived sometime in the 13th century. There are subsequently many stories which suggest that the island was repeatedly subject to domination by the rulers of Hawaii and Maui, with lordship over Molokai passing back and forth between the kings of the other two (2) islands, as well as intervening periods of autonomy (Summers).

The famous kahuna, Lanikaula, is thought to have lived in the 16th century. He is reputed to have lived in seclusion, but to have been frequently visited by peoples from all the islands in search of his advice. It is said that he had an *aumakua* in the form of a small bird, who spoke to the wise man. Stories tell that Lanikaula predicted the defeat of a powerful Mauian king who attempted to invade Hawaii from Molokai.

At some point towards the late 18th century, Molokai acquired a reputation as being an *aina hoomana*, a land of sorcery and the island was sometimes called *Molokai pule oo*, "Molokai of the potent prayers" (De Loach, Summers). This reputation is connected with the *kalaipahoa*, the poison-tree gods, whose introduction to Molokai are the subject of several legends. The poison-trees and their associated gods were thought to be so deadly that the mere touch of their wood or sap led to instant death and the *kalaipahoa* could be used to invoke fatal illness in people; conversely, the *kahuna*

associated with the *kalaipahoa* was granted great wealth from his *akua* (Summers).

(4) **Traditional and Customary Rights**

The traditional and customary rights of Native Hawaiians can be broken down into access rights, gathering rights, burial rights, and religious rights.

Access

Native Hawaiians generally share the same access rights as the general public. However, they have the unique access rights to *kuleana* parcels and between *ahupuaa*. Access to *kuleana* parcels may involve access via ancient trails or expanded access not limited to any route. Additionally, the *Kuleana Act* granted unobstructed access within the *ahupuaa* to obtain items necessary to make the *kuleana* parcel productive. Access rights between *ahupuaa* involve access through ancient or well established trails (MacKenzie).

Gathering

In terms of gathering rights, the Hawaii Supreme Court has upheld gathering rights within an *ahupuaa* for firewood, house-timber, *aho* cord, thatch, and *ki*-leaf under three (3) conditions. The tenant must physically reside within the *ahupuaa*, the right to gather can only be exercised upon undeveloped lands within the *ahupuaa*, and the right must be exercised only for the purpose of practicing Native Hawaiian customs and traditions (MacKenzie).

Burial

According to traditional Hawaiian burial beliefs, following death, the *uhane*, or spirit, must remain near *na iwi*, or bones. Burial sites are chosen by Hawaiians for symbolic purposes in places for safekeeping. Often, bones were hidden in caves, cliffs, sand dunes, or deposited in the ocean. Today, federal

and state laws protect both unmarked and marked burial sites. Island Burial Councils assist the State Historic Preservation Division with inventory and identification of unmarked Hawaiian burial sites and determine the preservation or relocation of native Hawaiian burial sites (MacKenzie).

Religious

Hawaiian religion and beliefs were intimately tied to the land. While some practices and traditions were lost over the years, basic Hawaiian religious concepts remain. The terms “*aloha aina*,” love the land and “*malama aina*,” care for and protect the land, convey the unity of humans, nature, and the gods in Hawaiian philosophy (Minerbi). Furthermore, Hawaiians honored and worshiped *aumakua*, deities, and *akua*, gods. There were numerous *akua* of farming, fishing, tapa making, dancing, sports, and any other activity of Hawaiian life. The concept of *mana* or sacred attachment to places, people, or things also remains as a significant aspect of Hawaiian religion (MacKenzie).

(5) Cultural Interviews

To assess cultural impacts associated with the proposed project, interviews were conducted with three (3) individuals with relationships to the area. Summaries of the interviews with Juan Trinidad, Sherman Napoleon, and Opu‘ulani Albino are presented below.

Interview with Juan Trinidad

Mr. Trinidad came to Molokai from the Ilocos Region of the Philippines in 1946. He came with about 1,500 *sakadas*, the Filipino word for recruited laborers, to work in the pineapple fields of Hawaii. “Unfortunately or fortunately”, he jokes, he ended up on Molokai. The youngest living sakada on Molokai, he still has the wooden suitcase he carried with him when he came to Hawaii, along with a collection of photographs from the plantation days. He is now 81 years

old. He worked hard for many years, and loved working, but now he is enjoying different pursuits.

In 1946, when Mr. Trinidad arrived on Molokai, California Packing Corporation was cultivating pineapple in Kualapuu, and later Del Monte assumed management of the plantation. Pineapple had been grown in Kualapuu since 1927. He recalled how the Japanese camp and the Filipino camp were separate at first. The Japanese camp was in Kualapuu on Kalae Highway. There were few Hawaiians living in Kualapuu because they mostly lived in the homestead area outside the camp. The plantation laborers began to mix with each other, and when the union started, everyone worked together for the interests of the laborers.

Del Monte closed the pineapple plantation in 1985, due to high shipping costs from Molokai to Oahu's fresh fruit pineapple plant. The plantation laborers fought to save their homes, with collaboration between the County and the union to improve the existing infrastructure. The workers wanted to buy their homes so they could continue living in Kualapuu Village, but the banks refused to lend them money because they had just lost their jobs. Del Monte came to their rescue, and announced that they would keep planting pineapple. The company kept a few acres of pineapple in cultivation so that the bank would lend money for the workers to buy their houses. Back then, the workers bought their houses for prices between \$16,000.00 and \$45,000.00, Mr. Trinidad included. From 1989 to 2007, Mr. Trinidad lived and worked in Wahiawa on Oahu, and now he has returned to live on Molokai again. He still owns the same house in Kualapuu, though he now lives in Kaunakakai.

When asked, he said he did not know of any cultural practices in the vicinity of Kualapu`u School, and explained that the school campus is on former pineapple fields. He did not see any problems with the proposed project, although he strongly recommended that the school not go on the Molokai Ranch water system.

Interview with Sherman Napoleon

Mr. Sherman Napoleon has spent the majority of his 74 years on Molokai, including 40 years working as a supervising custodian at Kualapu`u School. He was born on Oahu, but his grandparents raised him in the east end of Molokai. He returned to Oahu in his teenage years, playing football at McKinley High School. In 1990, Mr. Napoleon retired and now lives in Ranch Camp in Kaunakakai. He still drives the school bus for Kilohana School.

His full name is Sherman Uaia Manuela Napoleon, which tells the story of his heritage. Mr. Napoleon is both native Hawaiian and Tahitian. When his grandfather moved from Tahiti to Oahu, he changed his last name from Nihe to Napoleon because it was an important-sounding name. Mr. Napoleon's other grandfather had the last name Uaia, and Mr. Napoleon keeps these names in honor of his family heritage. His family now includes four (4) children, twelve (12) grandchildren, and five (5) great-grandchildren, who all get together often.

As far back as he can remember, the Kualapuu area was in pineapple cultivation and the ranch lands behind the school had cattle. Now, the lands across from the school are planted with coffee trees. Mr. Napoleon noted one (1) important cultural site in the area, the piko stone, which is where hula started on Molokai. The stone looks flat and stage-like. Some kumu hula go up to the stone, even coming from other islands to visit. Mr. Napoleon has visited the stone himself, but not for a while. It is important to visit the piko stone with respect, and the kumu chant to get permission from the spirits before proceeding.

He has opposed different kinds of developments in the past, but Mr. Napoleon said he had no concerns about the Kualapu`u School waterline project. The piko stone is between Molokai High and Kualapu`u School, in an area

about two (2) miles from Kualapu`u School, and is not in the project area.

Mr. Napoleon explained that it is important to “keep Molokai, Molokai”. He spoke about the subsistence lifestyle, and how people grew up on the island planting their own food, hunting, fishing, and working less than 40 hours a week to sustain themselves and their families. He appreciates how the Molokai people are friendly, and will help you out if you are stuck on the side of the road. He certainly displayed this himself, waving at many friends as they passed by Molokai Burger.

Interview with Opu`ulani Albino

Ms. Opu`ulani Albino has been teaching in the native Hawaiian immersion program at Kualapu`u School for six (6) years, though she has lived in the vicinity all her life. She is also a former member of the Burial Council of Molokai. Generations back, her ancestors came from the rich land of Waikapu on Maui to the drier lands of Hoolehua. When they moved to Hoolehua to farm and homestead, they brought the water with them and the rains came back. Growing up in Hoolehua, Ms. Albino received her extensive cultural knowledge in the oral tradition, soaking in the moolelo from her kupuna. Her grand-aunty took care of her, even though she was already 56 when Ms. Albino was born, and shared much cultural knowledge with her. Ms. Albino now has a “wonderful, big family” of four (4) sons and two (2) daughters.

Ms. Albino tells the stories of the area called Naiwa, the strip of land extending from north to south between where Molokai High and Kualapu`u School are now. Many people go to sacred grounds here during the makahiki season, and at a certain time of the season, matches of couples were once made. People would worship here in ancient times, and there is a heiau about half a mile up from the school in the gulch. There is a hula piko stone about a mile and a half up in the

gulch. Other culturally significant areas include a mother and daughter rock, hula mounds, and a holua (sled) field. The imu kalua ua, where the kupuna went to bring back the rain, is also in the vicinity. It is very important to follow a certain etiquette in approaching these sacred places. It is appropriate to bring your voice asking permission as a hookupu, or offering.

There are certain considerations Ms. Albino raised about the way the project is handled. She explained that in the Hawaiian culture, it is important to request permission from the spirits before beginning work. She requested a groundbreaking and blessing ceremony at the beginning of construction, and a closing ceremony when it is concluded. She also requested that no ditches be left open and uncovered overnight. A simple covering over the opening is sufficient. Based on her experiences of supernatural happenings on the campus, she thinks it is possible that there may be findings of cultural significance. In light of this, Ms. Albino requested an Archaeological Monitoring Plan, and that any find be treated with respect.

Ms. Albino said confidently that the proposed work will not affect any of the cultural sites of Naiwa because they are far enough away from Kualapu`u School and the proposed construction. As a teacher at Kualapu`u School, she knows from experience how important it is for the school to have a reliable water supply and adequate fire protection. The area behind the school has a lot of shrubs and trees which could pose a fire hazard, and a house in the adjacent neighborhood has burned down before. She is very supportive of the project, and believes it is a good development for the school and its students.

b. Potential Impacts and Mitigation Measures

The Kualapu`u School property and the affected area along Farrington Avenue are developed lands. A final Archaeological Monitoring Plan has been prepared by Xamanek Researches for the construction of the proposed

project and approved by the Department of Land and Natural Resources, State Historic Preservation Division, in a letter dated December 18, 2009. Refer to **Appendix “B-1”**. There will also be a groundbreaking and blessing ceremony for the beginning of construction, and no ditches will be left uncovered overnight. The identified culturally significant sites are located outside of the project site. As a result, no impacts to culturally significant practices or areas are anticipated from project construction and implementation. Refer to **Appendix “B”**.

Archaeological monitoring will be carried out during all ground altering activities to ensure cultural and historical resources are not adversely impacted by the construction of the waterline and related improvements.

8. Air and Noise Quality

a. Existing Conditions

Due to the low level of residential and commercial development in the project vicinity, the lack of major point sources of air pollution, and the prevailing tradewind conditions, the region has good air quality. The primary source of emissions may be attributed to motor vehicles traversing Farrington Avenue. However, these mobile sources have no adverse influence on air quality.

There are no significant noise generators in the vicinity of the project area. Noise generated in this locale may be attributed to traffic along Farrington Avenue.

b. Potential Impacts and Mitigation Measures

Airborne particulates, including dust, may be generated during site preparation and construction activities. However, dust control measures, such as regular watering and sprinkling, will be implemented as needed to minimize wind-blown emissions.

In the long term, the proposed Kualapu`u School waterline is not anticipated to adversely impact local and regional ambient air quality conditions.

As with air quality, ambient noise conditions will be temporarily impacted by construction activities. Heavy construction equipment, such as bulldozers, front end loaders, and dump trucks and trailers will be the dominant source of noise during site construction. Construction generated noise will be mitigated through Best Management Practices (BMPs), and construction activities will be limited to daylight work hours only. The contractor will coordinate with the State Department of Health to ensure that noise permits are obtained, as appropriate.

In the long term, the proposed project is not expected to adversely impact noise conditions.

9. Scenic and Open Space Resources

a. Existing Conditions

The project site is located on Farrington Avenue near the intersection with Kalae Highway. Farrington Avenue connects the central north coast of Molokai with the towns of Hoolehua and Kualapuu.

b. Potential Impacts and Mitigation Measures

The proposed project involves improvements which are below grade. The waterlines and related infrastructure will be contained underground, with the exception of the fire hydrants and fire access road. As such, there are no anticipated impacts to the visual resources of the surrounding environment.

B. SOCIO-ECONOMIC ENVIRONMENT

1. Population and Economy

a. Existing Conditions

The resident population of the island of Molokai (excluding Kalawao), as determined by the 1990 Census, was 6,587. In the year 2000, the resident population was 7,404, representing an increase of approximately 10 percent. Kaunakakai remains the population center of Molokai with 2,726 residents, followed by Kualapuu with 1,936 residents (Maui County Data Book, 2008).

On Molokai, there is still a large number of unemployed workers, compared to Lanai and Maui. In January 2010, the unemployment rate (not seasonally adjusted) was 8.5 percent for the island of Maui, 8.3 percent for Lanai. On Molokai it was 15.0 percent. In comparison, the unemployment rate for the State of Hawaii was 7.0 percent (Hawaii Workforce Informer, 2010). The statewide unemployment rate increased since 2009 when it was 6.8 percent in the State (Hawaii Workforce Informer, 2009).

In 2007, the total number of people employed in non-farming wage and salary jobs on Molokai was 1,900 and the total number in the private sector was 1,300. There were 600 people employed in government, 200 in retail, 350 in educational and health services, and 300 in leisure and hospitality (Maui County Data Book, 2008).

The visitor industry continues to provide a valuable contribution to the Molokai economy. In 2007, a total of 83,163 visitors traveled to Molokai by air. Of those visitors, 65,197 were domestic, while 17,966 visitors were from foreign countries. However, the Molokai tourism market has grown from 299 available rooms in 2003 to 309 available rooms in 2007. However, the number of available rooms has decreased from approximately 450 in 2005 and 2006. The average occupancy rate was 59.59 percent, and an average room rate of \$119.94 per night in 2005. These figures are substantially lower than those of Maui, which had an average occupancy rate of 79.98 percent, and an average room rate of \$256.07 in the same period (Maui County Data Book, 2007).

Despite comparatively higher unemployment and fewer jobs, Molokai has experienced continued population growth for decades. With the closing of Molokai Ranch, Ltd., however, Molokai is suffering from high unemployment.

b. Potential Impacts and Mitigation Measures

Short-term economic benefit associated with construction expenditures is anticipated. The proposed project is not a population generator. Thus, there are no anticipated long-term impacts on population parameters.

C. PUBLIC SERVICES

1. Police and Fire Protection

a. Existing Conditions

Police services on Molokai are provided by the Maui County Police Department. The Molokai station is located at the Mitchell Pauole Center in Kaunakakai.

Fire prevention, protection and suppression services are provided by the Maui County Department of Fire and Public Safety. The Fire Department maintains stations in Kaunakakai and Hoolehua, with a substation in Pukoo.

b. Potential Impacts and Mitigation Measures

The proposed waterline at Kualapu`u School is not anticipated to adversely impact police and fire protection services. In the long term, the proposed project will benefit fire protection services by providing sufficient fire protection water service to the school that is compliant with current standards. The new 20-foot wide fire access road will also provide fire protection services with better access to the school in the case of an emergency.

2. Medical Facilities

a. Existing Conditions

Molokai General Hospital, which is operated by the Queen's Health Systems, is the only major medical facility on the island. Licensed for 30 beds, the hospital located in Kaunakakai provides acute, emergency, and obstetrics care services. The hospital also houses the Women's Health Center, which offers mid-wife and maternity services to local residents.

Other medical facilities include the Molokai Family Health Center in Kaunakakai.

b. Potential Impacts and Mitigation Measures

The proposed action is not anticipated to have adverse impacts on existing medical facilities or services on Molokai.

3. Solid Waste

a. Existing Conditions

Except for remote areas, single family solid waste collection service is provided by the County of Maui once weekly.

Solid waste is collected by County refuse collection crews and disposed at the County landfill at Palaau. Commercial waste from private collection companies is also disposed of at the landfill.

b. Potential Impacts and Mitigation Measures

The proposed Kualapu`u School waterline is not anticipated to adversely impact existing solid waste services on Molokai.

4. Recreational Resources

a. Existing Conditions

The island of Molokai offers a wide range of recreational opportunities. Possible outdoor activities include bicycling, boating, camping, diving, fishing, golfing, hiking, horseback riding, hunting, surfing, swimming, tennis, and windsurfing.

b. Potential Impacts and Mitigation Measures

The proposed project is not anticipated to adversely impact the existing recreational facilities located in the vicinity.

5. **Educational Facilities**

a. **Existing Conditions**

There are five (5) public schools on Molokai. Four (4) are public elementary schools: Kaunakakai, Kilohana, Kualapuu, and Maunaloa, providing elementary school education for children from Kindergarten through Grade 6. There is one (1) secondary school, Molokai High and Intermediate School, located in Hoolehua. School capacity, enrollment and projected enrollment are summarized in **Table 1**.

Table 1. Official Enrollment for Molokai Schools

School	Capacity for 2007-2008 School Year	Enrollment 2009-2010 School Year	Projected Enrollment 2011-2012
Kaunakakai Elementary School (Grades K-6)	464	229	218
Kilohana Elementary School (Grades K-6)	209	105	87
Maunaloa Elementary School (Grades K-6)	121	61	51
Kualapu`u Elementary School (Charter School-Grades K-6)	436	364	420
Molokai Intermediate School (Grades 7-8)	343	171	173
Molokai High School (Grades 9-12)	756	334	268
Source: State of Hawaii, Department of Education, 2008.			

Private schools include Molokai Christian Academy (Grades K-12) and Molokai Mission School (Grades 1-8).

Molokai Education Center, a satellite facility of Maui Community College, offers post-secondary, vocational and technical credit courses, and is located at the intersection of Alanui Ka Imi Ike and Kamehameha V Highway.

b. Potential Impacts and Mitigation Measures

The proposed project is not a population generator. As such, it is not anticipated to adversely impact existing education facilities or services on Molokai.

Kualapu`u School has an enrollment of approximately 380 students for the 2009-2010 school year, and the proposed project will benefit these students and future students. The new waterline and associated improvements are intended to improve the quality of educational facilities at Kualapu`u School. The project will eliminate the need for school closures due to unsanitary conditions associated with fluctuating water pressure. It will also provide sufficient fire protection service to protect the school and its students in the case of a fire.

D. INFRASTRUCTURE

1. Roadways

a. Existing Conditions

The State of Hawaii Route 480, also known as Farrington Avenue, runs from the central north coast of Molokai through Hoolehua and Kualapuu, terminating at its intersection with Kalae Highway. Kalae Highway runs from near Kualapuu towards Kalaupapa.

b. Potential Impacts and Mitigation Measures

Best Management Practices (BMPs) will be carried out to ensure the traffic is minimally impacted during construction. The installation of the new 12-inch waterline will not result in additional discharge of surface water runoff into Farrington Avenue, as it will create no additional impervious surface area. Standard traffic control measures will be implemented for the project. Although construction will occur within the State right-of-way, it will not occur in the travel lanes. Traffic will continue to flow through both lanes of Farrington Avenue while construction is in progress. Construction along Farrington Avenue will occupy approximately 200 to 300 feet at any one

time. No pipelines will be removed within the State right-of-way. The proposed improvements are not anticipated to have any long-term effects on roadways or traffic.

2. Water System

a. Existing Conditions

Major water systems on the island of Molokai include those owned and operated by DHHL, the County of Maui Department of Water Supply, and the Molokai Irrigation System. Private water systems include those of the former Molokai Ranch, Meyers Estate, and Kawela Plantation (Department of Hawaiian Home Lands, 2007).

The water system currently serving Kualapu`u School is owned and operated by the Department of Hawaiian Home Lands (DHHL). There is an existing fire hydrant fronting the school which is served by the old Molokai Ranch water system. The source of water for the DHHL system is two (2) deep wells located in Kalae and owned by DHHL. These two (2) wells feed into the 1.0 MG reservoir. Kualapu`u School's domestic water supply currently comes from this 1.0 MG reservoir via two (2) intermediary waterlines.

Water from the 1.0 MG reservoir is transported by two (2) 6-inch waterlines to the 7.0 MG reservoir, also within the DHHL system. Due to the nature of this connection, this transfer of water often disrupts the existing water service to Kualapu`u School, causing unreliable water service and school closures.

The average daily water demand at the school is low. The average daily demand has been calculated to be between 14 and 16 gallons per minute (gpm), based on the Domestic Consumption Guidelines of the *Water System Standards* for Maui County. The actual average daily demand, based on water billing data, is 9 gpm. This equates to approximately 13,000 gallons per day (gpd). This demand is relatively low compared to the 7 MG capacity of the reservoir to which Kualapu`u School will be connected. See **Appendix "A"**.

The automation of the irrigation system will reduce water usage by optimizing the amount of water needed in planted areas and watering at night when lower temperatures and wind speeds reduce evaporation rates.

b. Potential Impacts and Mitigation Measures

The proposed project is not anticipated to have any adverse impacts on the water system infrastructure or other uses of the same system. With the proposed improvements, Kualapu`u School would receive water from the same DHHL water system and source through a new point of connection. Since the source of water will remain the same, the school will not be utilizing any additional capacity from that source. Appropriate Best Management Practices (BMPs) will be implemented during construction to protect the integrity of the system and minimize erosion in the vicinity of the project.

3. Wastewater System

a. Existing Conditions

The Kaunakakai Wastewater Treatment Plant, built in 1987, provides service to the Kaunakakai area. Residents within one (1) mile of the plant are linked to the wastewater system. The Kaunakakai facility has a capacity of 300,000 gallons per day (gpd) and a cumulative allocated capacity of 287,000 gpd.

Most regions of Molokai are not served by a wastewater treatment system. Residents situated beyond the Kaunakakai service area utilize either cesspools or septic systems. The County of Maui provides cesspool pumping services to readily accessible areas. In May 2008, the wastewater system at the Kualapu`u School campus was switched from a cesspool to a septic system.

b. Potential Impacts and Mitigation Measures

The proposed Kualapu`u School waterline is not anticipated to adversely impact wastewater conditions and/or infrastructure on Molokai. The waterline and related improvements will not interfere with Kualapu`u School's septic system.

4. **Drainage**

a. **Existing Conditions**

There are no drainage improvements on Farrington Avenue in the area where the new waterline will be constructed. Storm water runoff sheetflows from the roadway to the sides of the road.

There are minimal drainage improvements on the Kualapu`u School campus. The campus experiences small areas of flooding during heavy rains. In general, the storm water sheetflows from the top of the campus down towards Farrington Avenue.

b. **Potential Impacts and Mitigation Measures**

The proposed project is not anticipated to have any adverse impacts on drainage patterns. The planned fire access road will be constructed with grasscrete, or a similar pervious surface, and thus will not add any significant impervious surface to the area.

5. **Electrical, Telephone, and Cable Service**

a. **Existing Conditions**

Electrical, telephone and cable services are provided via an extended overhead distribution system located along Kamehameha V Highway by Maui Electric Company, Ltd., Hawaiian Telcom and Oceanic Time Warner Cable, respectively.

b. **Potential Impacts and Mitigation Measures**

The proposed project has limited scope and does not interfere or interact with any existing electrical, telephone, or cable services. In the long term, the proposed project will not adversely impact electrical, telephone, or cable services.

III. RELATIONSHIP TO GOVERNMENTAL PLANS, POLICIES AND CONTROLS

III. RELATIONSHIP TO GOVERNMENTAL PLANS, POLICIES AND CONTROLS

A. STATE LAND USE DISTRICTS

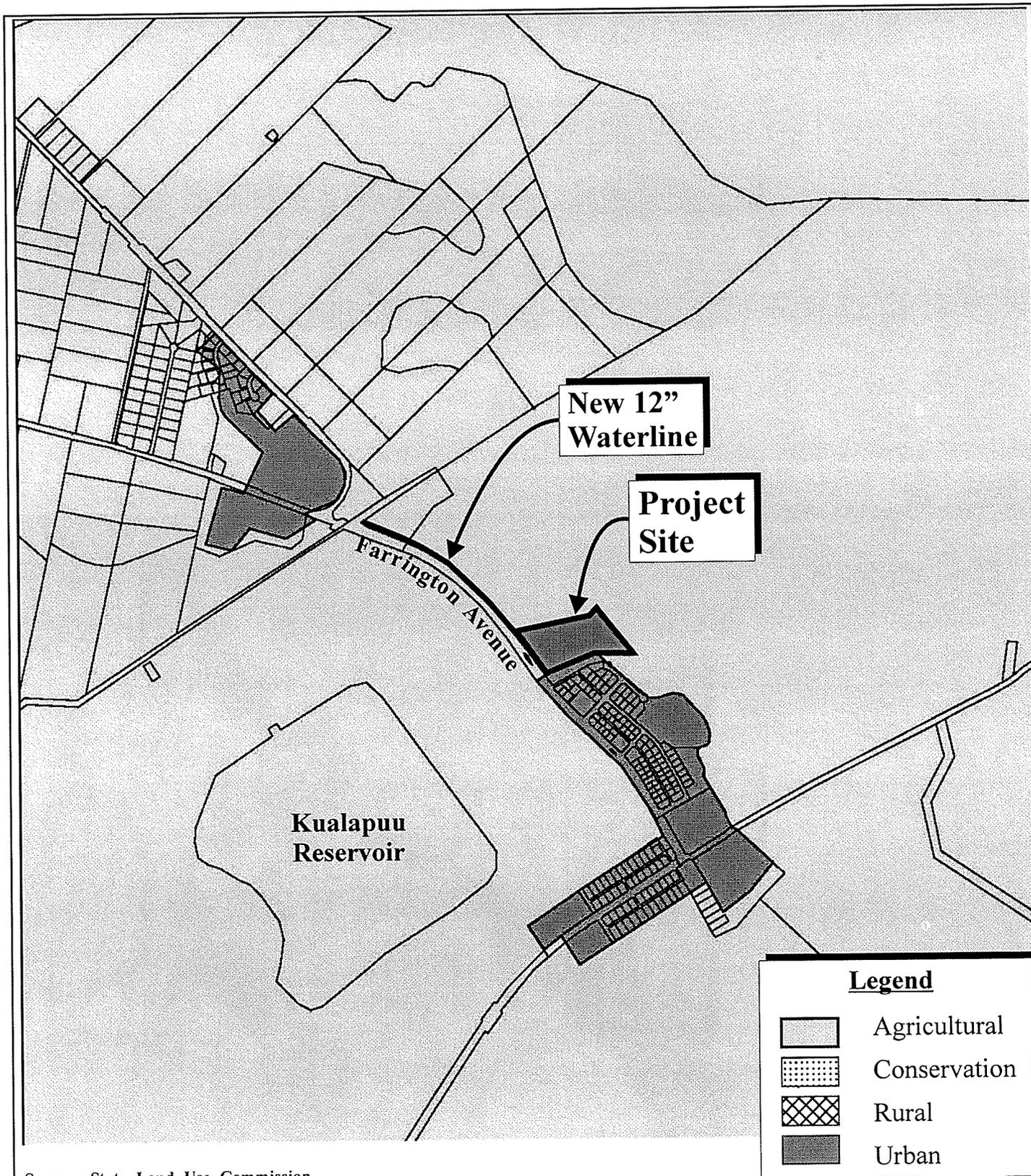
Chapter 205, Hawaii Revised Statutes, relating to the Land Use Commission (LUC), establishes the four (4) major land use districts in which lands in the State are placed. These districts are “Urban”, “Rural”, “Agricultural”, and “Conservation”. See **Figure 12**.

Kualapu`u School is located within the State “Urban” District while the affected segment of Farrington Highway falls within the “Agricultural” District. The proposed action is permitted in the “Urban” and “Agricultural” Districts.

B. CHAPTER 226, HRS, HAWAII STATE PLAN

Chapter 226, HRS, also known as the Hawaii State Plan, is a long-range comprehensive plan which serves as a guide for the future long-range development of the State by identifying goals, objectives, policies, and priorities, as well as implementation mechanisms. The proposed action is consistent with the following goals of the Hawaii State Plan.

- A strong, viable economy, characterized by stability, diversity, and growth, that enables the fulfillment of the needs and expectations of Hawaii’s present and future generations.
- A desired physical environment, characterized by beauty, cleanliness, quiet, stable natural systems, and uniqueness, that enhances the mental and physical well-being of the people.
- Physical, social, and economic well-being, for individuals and families in Hawaii, that nourishes a sense of community responsibility, of caring, and of participation in community life.



Source: State Land Use Commission

Figure 12

Proposed Kualapu'u
School Waterline
State Land Use Districts

NOT TO SCALE



1. **Objectives and Policies of the Hawaii State Plan**

The proposed action is consistent with the following objectives and policies of the Hawaii State Plan:

Chapter 226-11, HRS, Objectives and Policies for the Physical Environment - Land-Based, Shoreline, and Marine Resources.

226-11(b)(3), HRS: Take into account the physical attributes of areas when planning and designing activities and facilities.

Chapter 266-13, HRS, Objectives and Policies for the Physical Environment – Land, Air, and Water Quality

226-13(b)(6), HRS: Encourage design and construction practices that enhance the physical qualities of Hawaii's communities.

Chapter 226-14, HRS, Objectives and Policies for Facilities Systems – In General

226 -14(b)(1), HRS: Accommodate the needs of Hawaii’s people through coordination of facility systems and capital improvement priorities in consonance with state and county plans.

226-14(b)(3), HRS: Ensure that required facility systems can be supported within resource capacities and at reasonable cost to the user.

Chapter 266-16, HRS, Objectives and Policies for Facility Systems – Water

266-16(b)(4), HRS: Assist in improving the quality, efficiency, service, and storage capabilities of water systems for domestic and agricultural use.

266-16(b)(5), HRS: Support water supply services to areas experiencing critical water problems.

**Chapter 266-21, HRS, Objectives and Policies for Socio-cultural Advancement
– Education**

226-21(b)(2), HRS: Ensure the provision of adequate and accessible educational services and facilities that are designed to meet individual and community needs.

**Chapter 226-26, HRS, Objectives and Policies for Socio-cultural Advancement
– Public Safety**

226-26(a)(1), HRS: Assurance of public safety and adequate protection of life and property for all people.

**Chapter 226-27, HRS, Objectives and Policies for Socio-cultural Advancement
– Government**

226-27(b)(1), HRS: Provide for necessary public goods and services not assumed by the private sector.

C. GENERAL PLAN OF THE COUNTY OF MAUI

The Maui County General Plan (1990 Update) sets forth broad objectives and policies to help guide the long-range development of the County. As stated in the Maui County Charter:

The general plan shall indicate desired population and physical development patterns for each island and region within the county; shall address the unique problems and needs of each island and region; shall explain the opportunities and the social, economic, and environmental consequences related to potential developments; and shall set forth the desired sequence, patterns, and characteristics of future developments. The general plan shall identify objectives to be achieved, and priorities, policies, and implementing actions to be pursued with respect to population density, land use maps, land use regulations, transportation systems, public and community facility locations, water and sewage systems, visitor destinations, urban design, and other matters related to development.

The proposed action is in keeping with the following General Plan objectives and policies:

WATER

Objective:

To provide an adequate supply of potable and irrigation water to meet the needs of Maui County's residents.

Policy:

Support the improvement of water transmission systems to those areas which historically experience critical water supply problems provided the improvements are consistent with the water priorities and the County's Water Use Development Plan provisions for the applicable community plan area.

Develop improved systems to provide better fire protection.

Objective:

To make more efficient use of our ground, surface and recycled water sources.

Policy:

Develop a method of allocation of water based on community need.

EDUCATION

Objective:

To provide Maui residents with continually improving quality educational opportunities which can help them better understand themselves and their surroundings and help them realize their ambitions.

Policy:

Require that quality educational facilities and services be available to all residents.

Support the State and the Maui community in the provision of:

- More local determination
- Improvement and timely development of facilities
- Lower student/teacher ratios
- Improved salaries and faculty support and conditions
- Pre-school curriculum for four year olds
- After school care
- Expansion of the community school library concept
- Improved adult and technical education
- Expanded opportunities for non-classroom, “hands-on” educational experiences
- Encourage the completion of a quality high school education by all students
- Support the establishment of a four year university campus in Maui County
- Encourage the State to continue funding preschool language immersion programs

PUBLIC SAFETY

Objective:

To create an atmosphere which will convey a sense of security for all residents and visitors and aid in the protection of life and property.

Policy:

Maintain a proper state of preparedness for man-made or natural disasters.

Reduce fire losses by improving and maintaining fire fighting apparatus.

GOVERNMENT

Objective:

Improve the delivery of services by government agencies to all community plan areas.

Policy:

Insure that necessary services not provided by the private sector are made available by government.

D. MOLOKAI COMMUNITY PLAN

Within Maui County, there are nine (9) community plan regions. From a General Plan implementation standpoint, each region is governed by a Community Plan which sets forth desired land use patterns, as well as goals, objectives, policies, and implementing actions for a number of functional areas, including infrastructure-related parameters.

The proposed project is located within the Molokai Community Plan region. Farrington Avenue does not have a land use designation in the community plan. When the Molokai Community Plan was revised in 2001, the Kualapu`u School property (TMK (2) 5-2-013:027) designation was changed from Agriculture to Public/Quasi-Public. To the southeast of the school is an area containing parcels designated Single-Family, Park, Business/Commercial, Public/Quasi-Public, and Light Industrial. The proposed project will take place along Farrington Avenue and within the school parcel designated Public/Quasi-Public. See **Figure 13**.

The proposed project is consistent with the following goals, policies, and objectives, of the Molokai Community Plan:

LAND USE

Goal:

Enhance the unique qualities of the island of Molokai to provide future generations the opportunity to experience rural and traditional lifestyles.

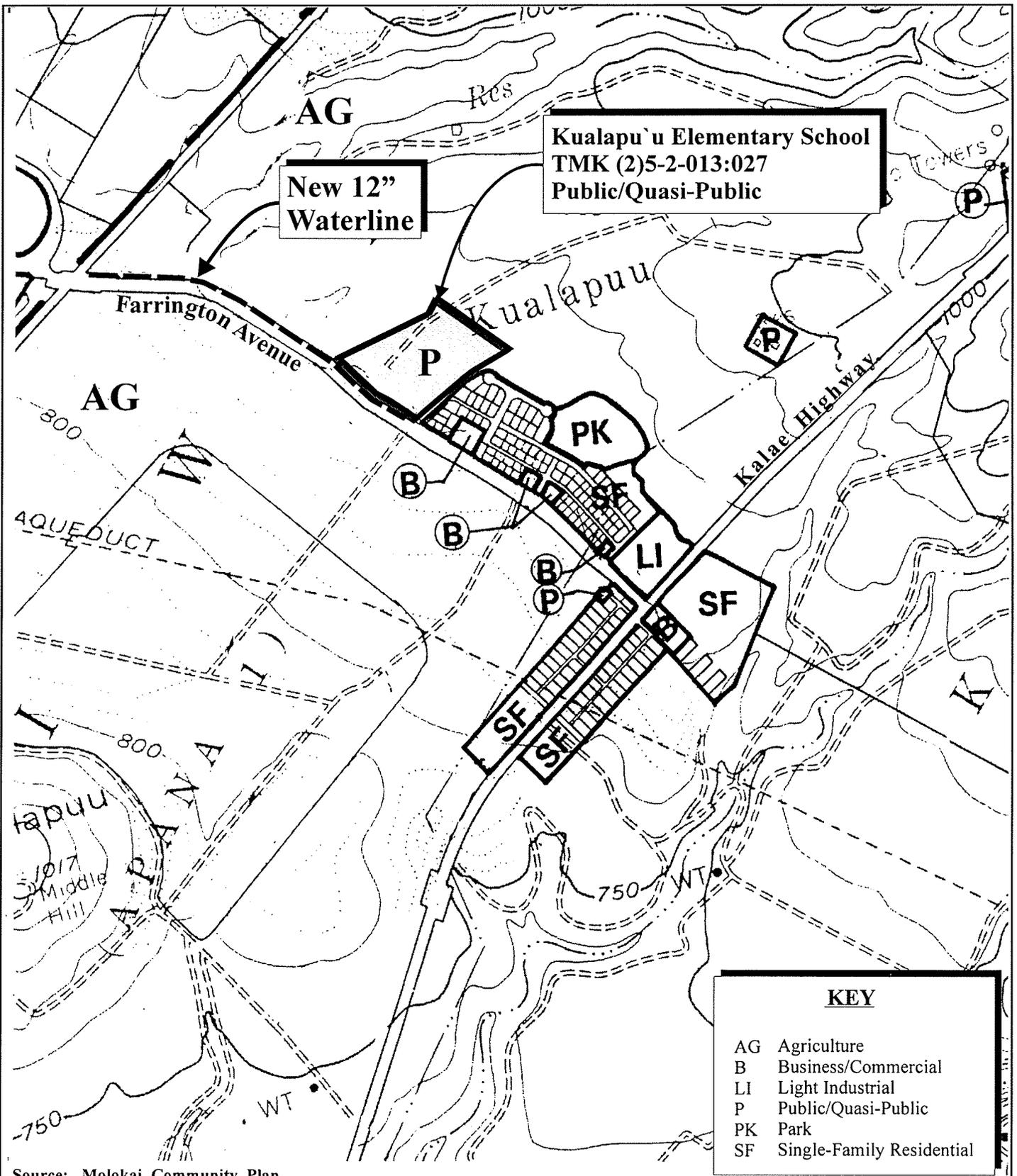
Objectives and Policies:

Require all zoning, discretionary land uses, and development approvals to be consistent with the Community Plan and be subject to public review.

INFRASTRUCTURE

Goal:

Culturally and environmentally sensitive infrastructure systems, developed and maintained in a timely fashion, which protect and preserve the safety and health of Molokai residents and visitors.



Kualapu`u Elementary School
 TMK (2)5-2-013:027
 Public/Quasi-Public

New 12\"/>

KEY

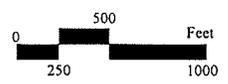
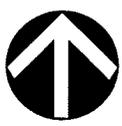
AG	Agriculture
B	Business/Commercial
LI	Light Industrial
P	Public/Quasi-Public
PK	Park
SF	Single-Family Residential

Source: Molokai Community Plan

Figure 13

**Proposed Kualapu`u
 School Waterline**

Community Plan Land Use Designations



Prepared for: State of Hawaii, Dept. Of Education

MUNEKIYO & HIRAGA, INC.

ENVIRONMENT

Goal:

Preserve, protect and manage Molokai's exceptional natural land and water resources to ensure that future generations may continue to enjoy and protect the island environment.

Objectives and Policies:

Require fire prevention and suppression strategies as a means of protecting and preserving Molokai's land and coastal water resources.

WATER

Goals:

Improve current water quality and distribution system and develop new water sources for the Molokai Community Plan area without taking water from Pelekunu and Wailau Valleys.

Develop improved transmission and/or storage systems to provide better fire protection.

EDUCATION

Goal:

Develop and maintain an educational system and facilities which will offer the youth and adults of the region opportunities and choices for self- and community-improvement.

E. COUNTY ZONING

The Kualapu'u School property, identified by TMK (2) 5-2-013:027, is zoned P-1 Public/Quasi-Public. Farrington Avenue right-of-way is owned by the State of Hawaii, Department of Transportation.

F. COASTAL ZONE MANAGEMENT CONSIDERATIONS

The subject property is not located within the County of Maui’s Special Management Area (SMA). However, the proposed project has been evaluated with respect to Coastal Zone Management (CZM) objectives, policies, and guidelines to address the project’s relationship to applicable CZM considerations, as set forth in Chapter 205A, HRS.

1. 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 replacement of coastal resources having significant recreational value, including but not limited to surfing sites, fishponds, and sand beaches, when such resources will be unavoidably damaged by development; or requiring reasonable monetary compensation to the state for recreation when replacement 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 use 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 non-point sources of pollution to protect, and where feasible, restore the recreational value of coastal waters;
- (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, HRS.

Response: The proposed project is not located in a coastal area or in the vicinity of any coastal recreational opportunities. As such, there are no impacts to coastal recreation from the project.

2. **Historical/Cultural 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;
- (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.

Response: The Kualapu`u School property and Farrington Avenue are both developed areas. An Archaeological Monitoring Plan has been prepared by Xamanek Researches for the construction of the proposed project. Refer to **Appendix “B”**. There are also no registered Historic Places within or connected to the project area.

A cultural assessment has been prepared for the proposed project, including interviews with three (3) individuals connected to the Kualapuu area. No impacts to culturally significant practices or areas are anticipated from project construction and implementation.

3. **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 such developments to minimize the alteration of natural landforms and existing public views to and along the shoreline;
- (C) Preserve, maintain, and, where desirable, improve and restore shoreline open space and scenic resources; and
- (D) Encourage those developments which are not coastal dependent to locate in inland areas.

Response: The proposed offsite waterline and onsite water infrastructure will be located below ground. The fire access road and fire hydrants are compatible with the visual environment of Kualapu`u School and Farrington Avenue. There are no anticipated impacts to scenic and open space resources.

4. **Coastal Ecosystem**

Objective

Protect valuable coastal ecosystems, including reefs, 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, including reefs, of significant biological or economic importance;
- (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.

Response: The project site is not located near any coastal ecosystems. The proposed project does not involve any stream diversions, channelization, or similar land and water uses. There are no anticipated impacts to coastal ecosystems.

5. Economic Use

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 such as harbors and ports, and coastal related development such as visitor facilities and energy generating facilities, are located, designed, and constructed to minimize adverse social, visual, and environmental impacts in the coastal zone management area; and
- (C) Direct the location and expansion of coastal dependent developments to areas presently designated and used for such developments and permit reasonable long-term growth at such areas, and permit coastal dependent development outside of presently designated areas when:

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

Response: The proposed improvements to Kualapu`u School, a public facility, provide a positive economic benefit in maintaining educational facilities. The project does not constitute a coastal development, and no negative impacts are anticipated to the economy. The project will provide a short-term economic benefit associated with construction expenditures.

6. **Coastal Hazards**

Objective

Reduce hazard to life and property from tsunami, storm waves, stream flooding, erosion, subsidence, and pollution.

Policies

- (A) Develop and communicate adequate information about storm wave, tsunami, flood, erosion, subsidence, and point and nonpoint source pollution hazards;
- (B) Control development in areas subject to storm wave, tsunami, flood, erosion, hurricane, wind, subsidence, and point and nonpoint pollution hazards;
- (C) Ensure that developments comply with requirements of the Federal Flood Insurance Program; and
- (D) Prevent coastal flooding from inland projects.

Response: The proposed project is not located in a coastal area, nor does it create significant additional impervious surface area. The project site is in Flood Zone X, an area of minimal flooding. No coastal hazards are anticipated as a result of the project.

7. 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;
- (B) Facilitate timely processing of applications for development permits and resolve overlapping of 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.

Response: The proposed project will undergo public review and comment pursuant to Chapter 343, HRS. Early consultation has been completed, and there will be a 30-day comment period following the publishing of the Draft Environmental Assessment to receive additional input from agencies and stakeholders.

8. Public Participation

Objective

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

Policies

- (A) Promote public involvement in coastal zone management processes;
- (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.

Response: As discussed above, public awareness and participation for the project are facilitated through Chapter 343, HRS.

9. **Beach Protection**

Objective

Protect beaches for public use and recreation.

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 erosion-protection structures seaward of the shoreline, except when they result in improved aesthetic and engineering solutions to erosion at the sites and do not interfere with existing recreational and waterline activities; and
- (C) Minimize the construction of public erosion-protection structures seaward of the shoreline.

Response: There are no beaches in the vicinity of the project site, and as such, no impacts are anticipated.

10. **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 processes, marine life, and other ocean resources in order to acquire and inventory information necessary to understand how ocean development activities relate to and impact upon ocean and coastal resources; and
- (E) Encourage research and development of new, innovative technologies for exploring, using, or protecting marine and coastal resources.

Response: The proposed project is not located in the vicinity of any marine resources, and is not anticipated to have any impact upon marine and coastal resources.

In addition to the foregoing objectives and policies, SMA permit review criteria pursuant to Act 224 (2005) provides that:

No special management area use permit or special management area minor permit shall be granted for structures that allow artificial light from floodlights, uplights, or spotlights used for decorative or aesthetic purposes when the light:

- (1) *Directly illuminates the shoreline and ocean waters; or*
- (2) *Is directed to travel across property boundaries toward the shoreline and ocean waters.*

Response: The proposed waterline and associated improvements will not involve or result in direct illumination of the shoreline or ocean waters, nor direct light across property boundaries toward the shoreline.

G. DEPARTMENT OF THE ARMY JURISDICTIONAL CONSIDERATIONS

As part of the early consultation process, the Department of the Army (DA) requested a detailed description of the work to facilitate determination of jurisdiction by the DA. Coordination with the DA has been initiated and a preliminary jurisdictional determination was issued on November 3, 2009 based on the DA's conclusion that the Palaau Drainageway

falls within the definition of “waters of the United States”. Additional waterline design information has since been developed and is being provided to the DA to clarify that the proposed waterline will not impact the Palaau Drainageway. Coordination with the DA will continue to ensure that applicable regulatory requirements of the DA are satisfactorily addressed.

Should there be a need for a DA permit, applications for a Section 401 Water Quality Certification and a Coastal Zone Management Consistency Review will be prepared and processed by the State Department of Health and the State Office of Planning, respectively.

**IV. SUMMARY OF
UNAVOIDABLE IMPACT
ON THE ENVIRONMENT
AND RESOURCES**

IV. SUMMARY OF UNAVOIDABLE IMPACT ON THE ENVIRONMENT AND RESOURCES

Project construction will result in a certain amount of unavoidable construction-related impacts. These impacts include noise-generated impacts and air quality impacts associated with the operation of construction equipment. Air quality will also be impacted by dust generated from site work. The construction-related impacts will be temporary and mitigated through implementation of appropriate BMPs. Water quality may also be potentially impacted during the construction of the new waterline. Water quality monitoring will be carried out during construction to mitigate potential adverse impacts to water quality.

As the project area is currently developed, potential adverse impacts to cultural and historic sites and properties are not anticipated. The proposed project will not impact park land. Archaeological monitoring will be carried out during all ground altering activities to mitigate potential adverse impacts to cultural and historic resources.

The proposed action will involve a commitment of fuel, labor, funding, and material resources. However, the commitment of resources necessary to implement the proposed project will be justified, given the eventual benefits to be realized through the completion of the new waterline and fire protection infrastructure.

In the long term, the construction of the Kualapu`u School waterline is not anticipated to create any significant, long-term adverse environmental effects.

V. ALTERNATIVES TO THE PROPOSED ACTION

V. ALTERNATIVES TO THE PROPOSED ACTION

A. PREFERRED ALTERNATIVE

The proposed project represents the preferred alternative based on an engineering analysis which defines water service and fire flow parameters. This alternative provides a cost-effective and a technically viable solution to address the current deficiencies of the water system serving Kualapu`u School.

B. STORAGE TANK ALTERNATIVE

The other alternative to provide maximum daily demand plus fire flow at the campus is to build a 20,000 gallon pressure break/storage tank where the Kualapuu water system currently connects to the 1.0 MG reservoir system. This construction alternative would require a 20,000 gallon tank, an access road to the tank site, an 8-inch water main extension, and a connection to the existing main. The fire improvements planned onsite, such as the new fire hydrants, would still be required. This alternative was assessed to have over twice the cost of the preferred alternative. This alternative would also require the acquisition of land from Molokai Ranch to support the improvements.

C. NO ACTION ALTERNATIVE

The “no action” alternative would see the existing water service to Kualapu`u School remain in its current substandard state. The no action alternative is considered inappropriate because the school currently experiences inconsistent water service and the school’s existing fire protection system requires upgrades to comply with current standards.

VI. SIGNIFICANCE CRITERIA ASSESSMENT

VI. SIGNIFICANCE CRITERIA ASSESSMENT

The significance criteria of Section 12, of the Administrative Rules of Title 11, Chapter 200, Environmental Impact Statement Rules, were reviewed and analyzed to determine whether the proposed project will have a significant adverse impact to the environment. The following analysis is provided.

1. **No Irrevocable Commitment to Loss or Destruction of any Natural or Cultural Resources Would Occur as a Result of the Project**

An Archaeological Monitoring Plan has been prepared by Xamanek Researches and submitted to SHPD for review and approval. With the implementation of Best Management Practices (BMPs), adverse long-term impacts to stream or marine water quality conditions are not anticipated as a result of the proposed action.

2. **The Proposed Action Would Not Curtail the Range of Beneficial Uses of the Environment**

The proposed project is not anticipated to result in adverse environmental impacts. There will be no consequent curtailment of uses of the environment resulting from the proposed action.

3. **The Proposed Action Does Not Conflict with the State's Long-Term Environmental Policies or Goals or Guidelines as Expressed in Chapter 344, Hawaii Revised Statutes**

The State's Environmental Policy and Guidelines are set forth in Chapter 344, Hawaii Revised Statutes (HRS). The proposed action is in consonance with the policies and guidelines of Chapter 344, HRS.

4. **The Economic or Social Welfare of the Community or State Would Not Be Substantially Affected**

The proposed action would provide a direct, short-term economic benefit to the community during the construction phase. There are no adverse long-term economic

or social welfare impacts associated with the proposed action. The objective of the project is to improve the quality of water service to Kualapu`u School and to protect it from fire-related hazards with improved fire protection water service.

5. **The Proposed Action Does Not Affect Public Health**

No adverse impacts to public health are anticipated to result from the proposed action. As noted above, the proposal represents an improvement in safety for the school, its faculty, and its students.

6. **No Substantial Secondary Impacts, Such as Population Changes or Effects on Public Facilities are Anticipated**

The proposed action is not deemed a population generator. There are also no anticipated adverse effects upon public services, such as police, fire, medical, educational, or waste collection services. The project will benefit the fire services capabilities by providing better access within the school site and improved fire suppression infrastructure on the site.

7. **No Substantial Degradation of Environmental Quality is Anticipated**

During project implementation, appropriate measures will be utilized to mitigate potential adverse environmental impacts. The proposed action is not anticipated to substantially impact environmental quality.

8. **The Proposed Action Does Not Involve a Commitment to Larger Actions, Nor Would Cumulative Impacts Result in Considerable Effects on the Environment**

The proposed action is not part of or linked to any larger action. The proposed project is not anticipated to create any considerable effect upon the environment.

9. **No Rare, Threatened or Endangered Species or Their Habitats Would Be Adversely Affected By the Proposed Action**

There are no identified rare, endangered, or threatened species or habitats within the project vicinity. Thus, impacts to rare, threatened or endangered species or their habitats from the proposed action are not anticipated.

10. Air Quality, Water Quality or Ambient Noise Levels Would Not Be Detrimentially Affected by the Proposed Project

During the construction of the new waterline and related infrastructure at Kualapu`u School, there may be short-term impacts to air and noise quality. Appropriate BMPs will be implemented to minimize these short-term impacts, which will not extend into the long term. No long-term adverse impacts to water quality are anticipated.

11. The Proposed Project Would Not Affect Environmentally Sensitive Areas, Such as Flood Plains, Tsunami Zones, Erosion-prone Areas, Geologically Hazardous Lands, Estuaries, Fresh Waters or Coastal Waters

Kualapu`u School is located in Flood Zone X, an area of minimal flooding. It is not located in a tsunami zone or erosion-prone area. No impacts to environmentally sensitive areas are anticipated.

12. The Proposed Action Would Not Substantially Affect Scenic Views and Viewplanes Identified in County Plans or Studies

The proposed action is not anticipated to result in substantive, adverse impacts to identified scenic vistas or viewplanes. The fire hydrants and fire access road are visible improvements, but are not anticipated to adversely affect scenic views or viewplanes. All other improvements associated with the project would be below grade.

13. The Proposed Action Would Not Require Substantial Energy Consumption

The proposed action will involve the short-term commitment of fuel for equipment, vehicles, and machinery during construction activities. However, this is not anticipated to result in any substantial consumption of energy. The new waterline will not substantially impact energy consumption in the long term.

In conclusion, based on the foregoing findings, the proposed action is anticipated to result in a Finding of No Significant Impact (FONSI).

VII. LIST OF PERMITS AND APPROVALS

VII. LIST OF PERMITS AND APPROVALS

The following permits and approvals will be required prior to the implementation of the project.

State of Hawaii

1. Department of Transportation Work to Perform Permit
2. National Pollutant Discharge Elimination System (NPDES), if applicable
3. Approval from Department of Health Safe Drinking Water Branch
4. Noise Permit, if applicable

County of Maui

1. Construction Permits (Grubbing and Grading), as applicable

**VIII. AGENCIES
CONSULTED DURING THE
PREPARATION OF THE
DRAFT ENVIRONMENTAL
ASSESSMENT; LETTERS
RECEIVED AND
RESPONSES TO
SUBSTANTIVE
COMMENTS**

VIII. AGENCIES CONSULTED DURING THE PREPARATION OF THE DRAFT ENVIRONMENTAL ASSESSMENT; LETTERS RECEIVED AND RESPONSES TO SUBSTANTIVE COMMENTS

The following agencies were consulted during the preparation of the Draft Environmental Assessment. Comment letters received, as well as responses to substantive comments are contained in this chapter.

- | | |
|---|--|
| <p>1. Larry Yamamoto, State Conservationist
U.S. Department of Agriculture
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Honolulu, Hawaii 96850-0001</p> | <p>6. Sandra Lee Kunimoto, Chair
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| <p>2. Ranae Ganske-Cerizo, Soil Conservationist
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Development & Tourism
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| <p>3. George Young
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4680 Kalaniana'ole Highway, #T-B1A
Honolulu, Hawaii 96821</p> |
| <p>5. Russ K. Saito, State Comptroller
Department of Accounting and General
Services
1151 Punchbowl Street, #426
Honolulu, Hawaii 96813</p> | <p>cc: Lindsay Ball, Complex Area
Superintendent (Lanai/Molokai/
Hana/Lahaina)</p> |
| | <p>10. Lydia Trinidad, Principal
Kualapuu Elementary School
P.O. Box 260
Kaunakakai, Hawaii 96757</p> |

11. Kaulana Park, Chairman
Department of Hawaiian Home Lands
P. O. Box 1879
Honolulu, Hawaii 96805
12. Chiyome Fukino, M.D., Director
State of Hawaii
Department of Health
919 Ala Moana Blvd., Room 300
Honolulu, Hawaii 96814
13. Alec Wong, P.E., Chief
Clean Water Branch
State of Hawaii
Department of Health
919 Ala Moana Blvd., Room 300
Honolulu, Hawaii 96814
14. Patti Kitkowski
Acting District Environmental Health
Program Chief
State of Hawaii
Department of Health
54 High Street
Wailuku, Hawaii 96793
15. Laura Thielen, Chairperson
State of Hawaii
**Department of Land and Natural
Resources**
P. O. Box 621
Honolulu, Hawaii 96809
16. Dr. Puaalaokalani Aiu, Administrator
State of Hawaii
**Department of Land and Natural
Resources**
State Historic Preservation Division
601 Kamokila Blvd., Room 555
Kapolei, Hawaii 96707
17. Brennon Morioka, Director
State of Hawaii
Department of Transportation
869 Punchbowl Street
Honolulu, Hawaii 96813
- cc: Fred Cajigal
18. Katherine Kealoha, Director
Office Of Environmental Quality Control
235 S. Beretania Street, Suite 702
Honolulu, Hawaii 96813
19. Clyde Nāmuo, Administrator
Office of Hawaiian Affairs
711 Kapiolani Boulevard, Suite 500
Honolulu, Hawaii 96813
20. Abbey Seth Mayer, Director
State of Hawaii
Office of Planning
P.O. Box 2359
Honolulu, Hawaii 96804
21. Mele Carroll, Representative
House of Representatives
Hawaii State Capitol, Room 405
415 S. Beretania Street
Honolulu, Hawaii 96813
22. J. Kalani English, Senator
Hawaii State Senate
Hawaii State Capitol, Room 205
415 S. Beretania Street
Honolulu, Hawaii 96813
23. Jeffrey A. Murray, Fire Chief
County of Maui
**Department of Fire
and Public Safety**
200 Dairy Road
Kahului, Hawaii 96732
24. Lori Tshako, Director
County of Maui
**Department of Housing and
Human Concerns**
One Main Plaza
2200 Main Street, Suite 546
Wailuku, Hawaii 96793
25. Tamara Horcajo, Director
County of Maui
Department of Parks and Recreation
700 Halia Nakoā Street, Unit 2
Wailuku, Hawaii 96793
26. Jeffrey Hunt, Director
County of Maui
Department of Planning
250 South High Street
Wailuku, Hawaii 96793
27. Gary Yabuta, Chief
County of Maui
Police Department
55 Mahalani Street
Wailuku, Hawaii 96793

28. Milton Arakawa, Director
County of Maui
Department of Public Works
200 South High Street
Wailuku, Hawaii 96793
29. Cheryl Okuma, Director
County of Maui
Department of Environmental Management
One Main Plaza
2200 Main Street, Suite 100
Wailuku, Hawaii 96793
30. Donald Medeiros, Director
County of Maui
Department of Transportation
200 South High Street
Wailuku, Hawaii 96793
31. Jeffrey Eng, Director
County of Maui
Department of Water Supply
200 South High Street
Wailuku, Hawaii 96793
32. Danny Mateo, Council Chair
Maui County Council
200 South High Street
Wailuku, Hawaii 96793
33. **Hawaiian Telcom**
60 South Church Street
Wailuku, Hawaii 96793
34. Greg Kauhi, Manager, Customer Operations
Maui Electric Company, Ltd.
P.O. Box 398
Kahului, Hawaii 96733



REPLY TO
ATTENTION OF:

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, HONOLULU DISTRICT
FORT SHAFTER, HAWAII 96858-5440

September 24, 2009

Regulatory Branch

File Number: POH-2009-0289

Carol Matasci, Planner
Munekiyo & Hiraga, Inc.
305 High Street, Suite 104
Wailuku, Hawaii 96793

Dear Ms. Matasci:

This letter is in response to your request, dated September 9, 2009, for early consultation comments for the proposed Kualapu'u School Waterline Project (DOE Job No. Q57001-07) located on Farrington Avenue in Kualapu'u, Hawai'i.

We recommend your Draft Environmental Assessment provide a detailed description of all ground-disturbing activities associated with the project construction occurring on and in the immediate vicinity of the project site; identify all streams (perennial, intermittent, or ephemeral) and wetlands on and in the immediate vicinity of the proposed project site; characterize the hydrology and ecology of those features; and provide a cross-section of the proposed work and the existing conditions at the proposed project location.

Section 10 of the Rivers and Harbors Act (RHA) of 1899 requires that a Department of Army (DA) permit be obtained for structures or work in or affecting navigable waters (e.g., Pacific Ocean) of the U.S. (33 U.S.C. 403). Section 404 of the Clean Water Act (CWA) of 1972 requires that a DA permit be obtained for the discharge (placement) of dredge and/ or fill material into waters of the U.S., including jurisdictional wetlands. The Corps defines wetlands as those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and under normal circumstances do support a prevalence of vegetation typically adapted for life in saturated soil conditions.

If you have any questions, please contact Ms. Meris Bantilan-Smith, of my Regulatory staff at 808-438-7023 or by electronic mail at Meris.Bantilan-Smith@usace.army.mil. Please include File No. POH-2009-289 in any future correspondence regarding this project. Please be advised you can provide comments on your experience with the Corps' Honolulu District Regulatory Branch by accessing our web-based customer survey form at <http://per2.nwp.usace.army.mil/survey.html>.

Sincerely,

George P. Young, P.E.
Chief, Regulatory Branch

October 23, 2009

George P. Young, P.E.
Chief, Regulatory Branch
Department of the Army
U.S. Army Corps of Engineers, Honolulu District
Fort Shafter, Hawaii 96858-5440

SUBJECT: Request for Preliminary Jurisdictional Determination for the Proposed Kualapu`u School Waterline at TMK (2) 5-2-013:027, Kualapuu, Molokai, Hawaii (DOE Job No: Q57001-07)
File Number: POH-2009-0289

Dear Mr. Young:

Thank you for your letter of September 24, 2009 in response to the early consultation letter for the proposed Kualapu`u School Waterline on Molokai. In response to your letter and telephone conference with Department of the Army staff, we request a preliminary jurisdictional determination for the proposed Kualapu`u School Waterline project.

The proposed project involves onsite domestic water, fire protection, and irrigation service improvements. Offsite improvements include the construction of a 12-inch waterline along Farrington Avenue, connecting Kualapu`u School to an existing 20-inch Department of Hawaiian Home Lands (DHHL) waterline.

There are no wetlands in the vicinity of the project site. The nearest wetland is approximately 3,000 feet north of the school property.

There is a non-perennial drainageway, the Palaaau drainageway, which crosses Farrington Highway through culvert crossings in the vicinity of the proposed 12-inch waterline. The culvert crossings have been surveyed and determined to be structurally sound, and the waterline has been designed to have no impact on these crossings.

Best Management Practices (BMPs) will be implemented to mitigate all impacts to the stream. BMPs will include silt fences, site barriers at Kualapu`u School, gravel snake bags along Farrington Avenue to catch and filter runoff, and silt barriers and drain inlet filters in culverts along the road. As a result, there will be no discharges of stormwater into the stream.

George P. Young, P.E.
Page 2
October 23, 2009

Project plans and a cross-section of the proposed work are attached to this letter for your reference.

If you have any questions, please contact Carol Matasci at (808) 244-2015 or carol@mhplanning.com. We will provide your office with a copy of the Draft Environmental Assessment when it is available for review and comment. Thank you again for your input on the Kualapu`u School Waterline project.

Very truly yours,



Carol Matasci, Planner

CM:tn

Attachments

Cc: Jake Freeman, Ronald M. Fukumoto Engineering, Inc.
Bob Purdie, Jr., Department of Education

F:\DATA\RF\KualapuuWL\Amj\jurisdiction.ltr.doc

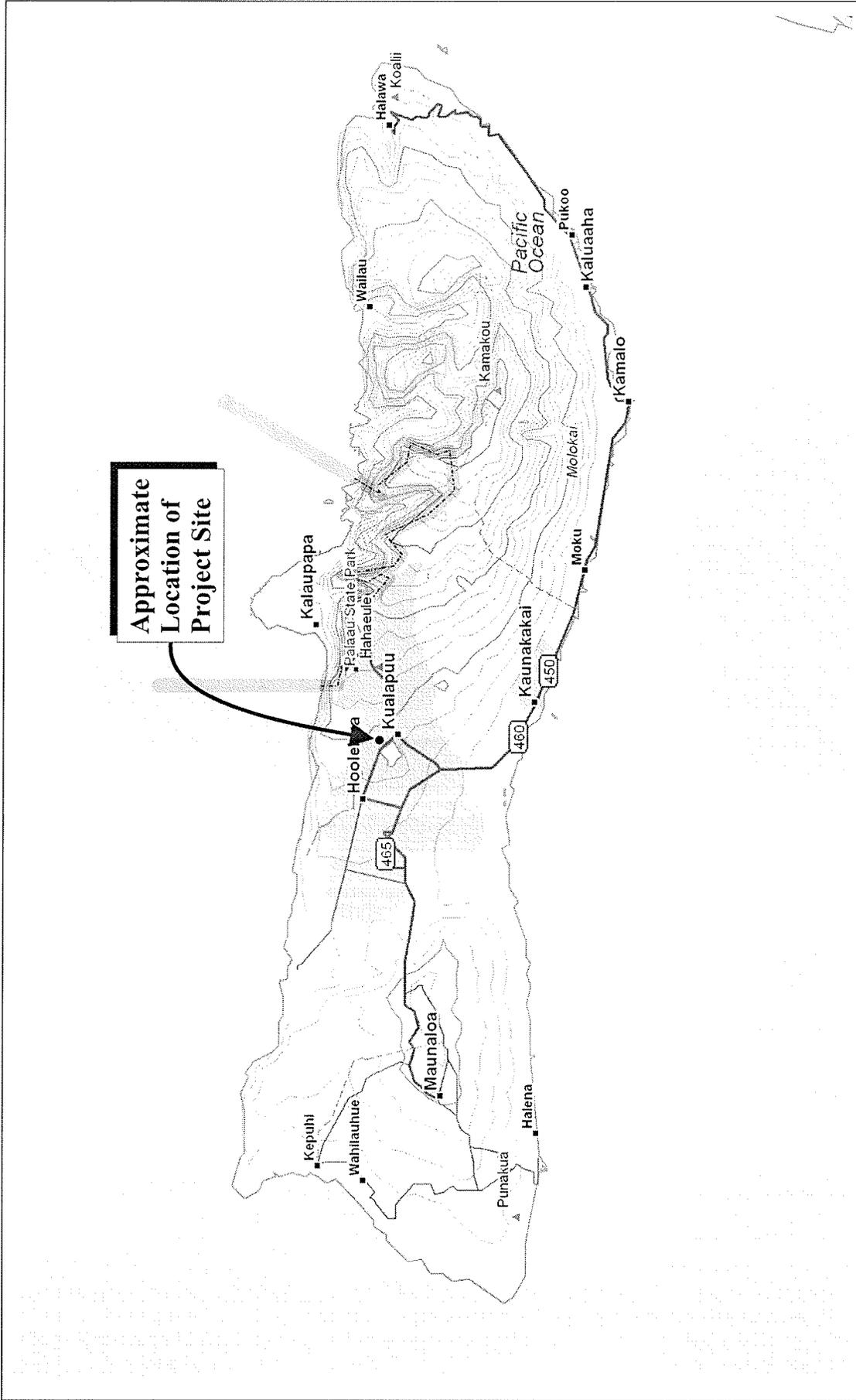


Figure 1



Proposed Kualapuu School Waterline
Regional Location Map



Prepared for: State of Hawaii, Dept. Of Education

M U N E K I Y O & H I R A G A , I N C .

RFE/Kualapuu VL regional location

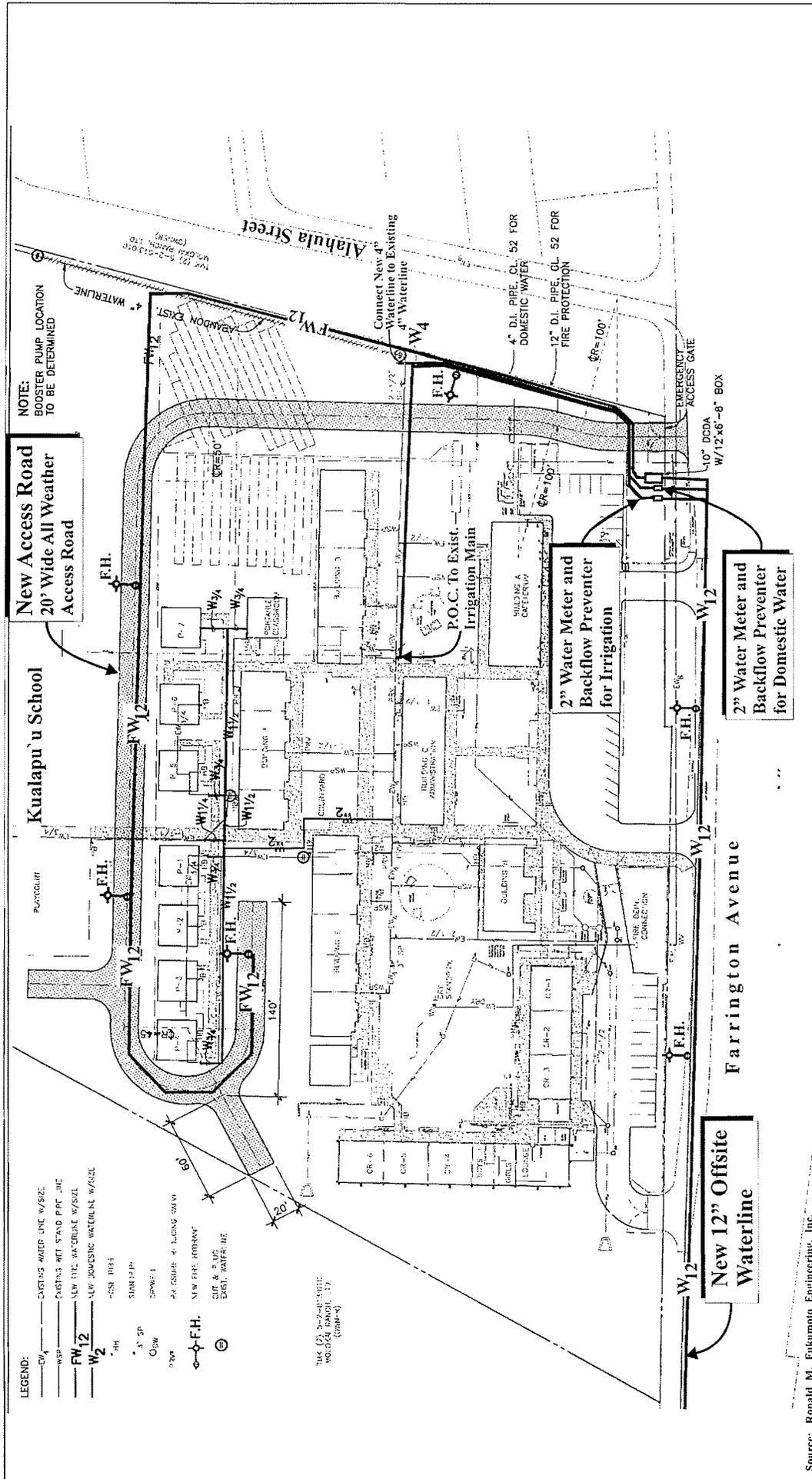


Figure 4
 Proposed Kualapu'u School Waterline
 Preliminary Onsite Water Plan

Source: Ronald M. Fukumoto Engineering, Inc.



Prepared for: State of Hawai'i, Dept. Of Education

NOT TO SCALE

MUNEKIYO & HIRAGA, INC.

REF: Kualapu'u_watervline.dwg

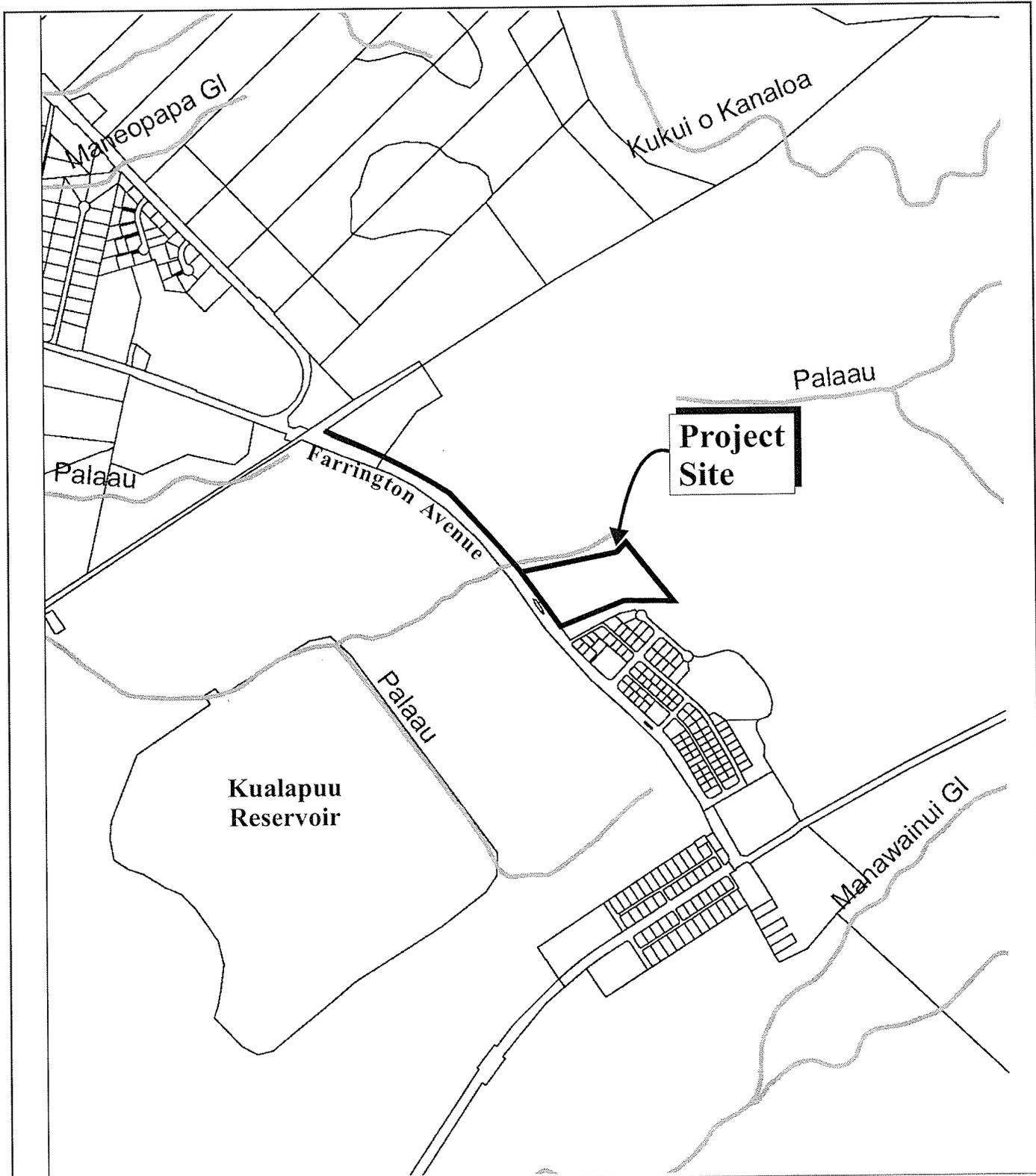


Figure 5

Proposed Kualapu'u
School Waterline
Drainageway Delineation

NOT TO SCALE



Prepared for: State of Hawaii, Dept. Of Education

MUNEKIYO & HIRAGA, INC.
RFE/KualapuuWL/drainagewaydelineation

NOV 05 2009



REPLY TO
ATTENTION OF:

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, HONOLULU DISTRICT
FORT SHAFTER, HAWAII 96858-5440

November 3, 2009

Regulatory Branch

POH-2009-00289

Carol Matasci, Planner
Munekiyo & Hiraga, Inc.
305 High St., Suite 104
Wailuku, HI 96793

PRELIMINARY JURISDICTIONAL DETERMINATION

Dear Ms. Matasci:

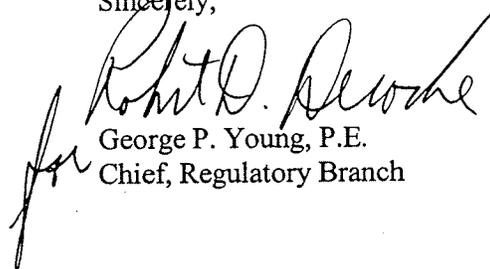
This is in response to your October 23, 2009 letter requesting a Department of the Army (DA) Preliminary Jurisdictional Determination (PJD) for proposed Kualapu'u School Waterline Crossing of Palaa Drainageway located at TMK 252013027, Farrington Avenue, Kualapu'u, Island of Molokai, Hawai'i (DOE Job No: Q57001-07).

We have made a preliminary determination that Palaa Drainageway at this location is not a navigable water of the U.S., but it is a water of the U.S (PJD enclosed). Section 404 of the Clean Water Act requires that a DA permit be obtained for the placement or discharge of dredged and/or fill material into waters of the U.S., including wetlands, prior to conducting the work (33 U.S.C. 1344). If you anticipate discharging fill material into Palaa Drainageway, you will need to apply for and receive authorization from the Corps prior to starting such work. Please visit our website at <http://www.poh.usace.army.mil/EC-R/EC-R.htm> to download copies of the DA permit application. Please ensure project drawings follow the Drawing Recommendations also found on our website.

Please be advised that, per Federal Regulations found at 33 CFR Part 331, a Preliminary JD is advisory in nature and may NOT be appealed through the Corps' Administrative Appeal program. You may submit a written request for an Approved JD, for which you can submit a formal Request for Appeal, should you disagree with the findings.

Should you have any questions, please contact Ms. Meris Bantilan-Smith of this office at the above address or telephone (808) 438-7023 (FAX: (808) 438-4060) or by E-Mail at Meris.Bantilan-Smith@usace.army.mil. Please refer to File Number POH-2009-289 in all future communications with this office regarding this or other projects at this location. Please be advised you can provide comments on your experience with the Honolulu District Regulatory Branch by accessing our web-based customer survey form at <http://per2.nwp.usace.army.mil/survey.html>.

Sincerely,



George P. Young, P.E.
Chief, Regulatory Branch

Encl(s)
Preliminary JD

J3EC9MB9 Honolulu District: POH - CEPOH
orm_regulator Role Preferences [ORM Reports] Logout

ORM2
Home Search POH-2009-00289-MB9 Help

Folder Location Aquatic Resources Jurisdiction Impacts/Mitigation Map Indicators Letters Documents Contacts Regulators Comments Feedback

Successfully Updated All Information.
Successfully Finalized.

DA Number: POH-2009-00289-MB9 (Proposed Kualapuu School Waterline Molokai)
Applicant: No Applicant Found (Agent: Carol Matascl (Munekyo and Hirega, Inc.))

Jurisdictional Determination

- X Palaau Drainage way
- 1. Begin Date 29-Oct-2009
- 2. Does Corps Have Jurisdictional Authority YES
- 2.1. Authority Section 404
- 3. Closure Method Preliminary JD That Did Not Require A Field/Site Visit
- 4. End Date 03-Nov-2009
- 5. Comments Applicant requested a Preliminary JD for Palaau Drainage way. No information was provided in terms of characterizing the flow regime (number of events, volume, duration, etc.). Site photos were not provided either.
- 6. Carabell-Rapanos

Fund Tracking

- 7. ARRA, Regulator Funded (Corps) NO
- 8. ARRA, Project Funded (Others) NO
- 9. WRDA 214, Regulator Funded (Corps) NO

Optional Items

Reopen Options

Reopen as New Version - Please Select -

Commands

Reopen Return to List



MICHAEL T. MUNEKIYO
GWEN OHASHI HIRAGA
MITSURU "MICH" HIRANO
KARLYNN FUKUDA

MARK ALEXANDER ROY

December 23, 2009

George P. Young, P.E.
Chief, Regulatory Branch
Department of the Army
U.S. Army Corps of Engineers, Honolulu District
Fort Shafter, Hawaii 96858-5440

SUBJECT: Request for Determination Regarding the Proposed Kualapu`u School Waterline at TMK (2) 5-2-013:027, Kualapuu, Molokai, Hawaii (DOE Job No: Q57001-07)
File Number: POH-2009-0289

Dear Mr. Young:

We are writing on behalf of the State of Hawaii, Department of Education to request a determination for a Department of Army Permit, pursuant to Section 404 of the Clean Water Act and Sections 9 and 10 of the Rivers and Harbors Act of 1899.

We received a preliminary jurisdictional determination of November 3, 2009 that the Palaaau Drainageway is not a navigable water of the U.S., but is a water of the U.S. There are no wetlands in the vicinity of the project. See **Exhibit "A"**. The nearest wetland is approximately 3,000 feet north of the school property.

The proposed project is located at 260 Farrington Avenue, Kualapuu, Molokai Island. The proposed Kualapu`u School waterline project involves the construction of a 12-inch waterline along Farrington Avenue, connecting Kualapu`u School to an existing 20-inch waterline along Kulea Street. See **Exhibit "B"**. Associated improvements at the school include modifications to the onsite domestic water, fire protection, and irrigation service systems, as well as a new fire access road.

The new 12-inch waterline will be contained within the Farrington Avenue right-of-way, and will be located approximately three (3) feet below ground. The non-perennial Palaaau Drainageway crosses Farrington Avenue through a culvert crossing in the vicinity of the proposed 12-inch waterline. The culvert crossing has been surveyed and determined to be structurally sound, and the waterline has been designed to have no impact on this crossing. The proposed waterline will be located 7.6 feet above the existing 6-foot by 4-foot concrete culvert. See **Exhibit "C"**. Therefore, the installation of the waterline will occur within roadway fill which covers the culvert. No work will be

required within the gulch and no work will be needed on the culvert itself.

Best Management Practices (BMPs) will be implemented to mitigate all impacts to the stream. BMPs will include silt fences, site barriers at Kualapu`u School, gravel snake bags along Farrington Avenue to catch and filter runoff, and silt barriers and drain inlet filters in culverts along the road. See **Exhibit "D"**. As a result, discharges of stormwater into the drainageway during construction will be appropriately mitigated.

As the proposed 12-inch waterline will be located 7.6 feet above the culvert crossing and BMPs will be in place to prevent any discharges to the drainageway, the proposed Kualapu`u School waterline project will not enter or impact the Palaaau Drainageway. The project scope does not involve any placement or discharge of dredged and/or fill material into waters of the U.S. See the subject drainageway in **Exhibit "E"**. Accordingly, we believe that a DA permit is not required and request your concurrence.

If you have any questions, please contact Carol Matasci at (808)244-2015 or carol@mhplanning.com. We will provide your office with a copy of the Draft Environmental Assessment when it is available for your review and comment. Thank you again for your input on the Kualapu`u School waterline project.

Very truly yours,



Carol Matasci
Planner

CM:mge
Enclosures

cc: Jake Freeman, Ronald M. Fukumoto Engineering
Bob Purdie, Jr., Department of Education

F:\DATA\IRFE\KualapuWL\DeptArmy determination.ltr.doc

NOV 05 2009



DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, HONOLULU DISTRICT
FORT SHAFTER, HAWAII 96858-5440

November 3, 2009

REPLY TO
ATTENTION OF:

Regulatory Branch

POH-2009-00289

Carol Matasci, Planner
Munekiyo & Hiraga, Inc.
305 High St., Suite 104
Wailuku, HI 96793

PRELIMINARY JURISDICTIONAL DETERMINATION

Dear Ms. Matasci:

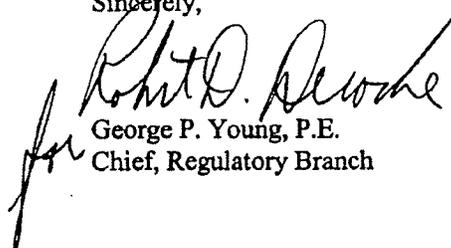
This is in response to your October 23, 2009 letter requesting a Department of the Army (DA) Preliminary Jurisdictional Determination (PJD) for proposed Kualapu'u School Waterline Crossing of Palaa Drainageway located at TMK 252013027, Farrington Avenue, Kualapu'u, Island of Molokai, Hawai'i (DOE Job No: Q57001-07).

We have made a preliminary determination that Palaa Drainageway at this location is not a navigable water of the U.S., but it is a water of the U.S (PJD enclosed). Section 404 of the Clean Water Act requires that a DA permit be obtained for the placement or discharge of dredged and/or fill material into waters of the U.S., including wetlands, prior to conducting the work (33 U.S.C. 1344). If you anticipate discharging fill material into Palaa Drainageway, you will need to apply for and receive authorization from the Corps prior to starting such work. Please visit our website at <http://www.poh.usace.army.mil/EC-R/EC-R.htm> to download copies of the DA permit application. Please ensure project drawings follow the Drawing Recommendations also found on our website.

Please be advised that, per Federal Regulations found at 33 CFR Part 331, a Preliminary JD is advisory in nature and may NOT be appealed through the Corps' Administrative Appeal program. You may submit a written request for an Approved JD, for which you can submit a formal Request for Appeal, should you disagree with the findings.

Should you have any questions, please contact Ms. Meris Bantilan-Smith of this office at the above address or telephone (808) 438-7023 (FAX: (808) 438-4060) or by E-Mail at Meris.Bantilan-Smith@usace.army.mil. Please refer to File Number POH-2009-289 in all future communications with this office regarding this or other projects at this location. Please be advised you can provide comments on your experience with the Honolulu District Regulatory Branch by accessing our web-based customer survey form at <http://per2.nwp.usace.army.mil/survey.html>.

Sincerely,


George P. Young, P.E.
Chief, Regulatory Branch

Encl(s)
Preliminary JD

EXHIBIT A

JDEC9MB9 Honolulu District: POH - CEPOH
orm_regulator Role Preferences CRM Reports Logout

ORM2 Home Search POH-2009-00289-MB9 Help

Folder Location Aquatic Resources Jurisdiction Impacts/Mitigation Map Indicators Letters Documents Contacts Regulators Comments Feedback

Successfully Updated All Information.
Successfully Finalized.

DA Number: POH-2009-00289-MB9 (Proposed Kualapuu School Waterline Molokai)
Applicant: No Applicant Found (Agent: Carol Mataea (Munekiyo and Hkraga, Inc.))

Jurisdictional Determination

- 1. Begin Date Palaeu Drainage way 29-Oct-2009
- 2. Does Corps Have Jurisdictional Authority YES
- 2.1. Authority Section 404
- 3. Closure Method Preliminary JD That Did Not Require A Field/Site Visit
- 4. End Date 03-Nov-2009
- 5. Comments Applicant requested a Preliminary JD for Palaeu Drainage way. No information was provided in terms of characterizing the flow regime (number of events, volume, duration, etc.). Site photos were not provided either.
- 6. Corbett-Response

Fund Tracking

- 7. ARRA, Regulator Funded (Corps) NO
- 8. ARRA, Project Funded (Others) NO
- 9. WRDA 214, Regulator Funded (Corps) NO

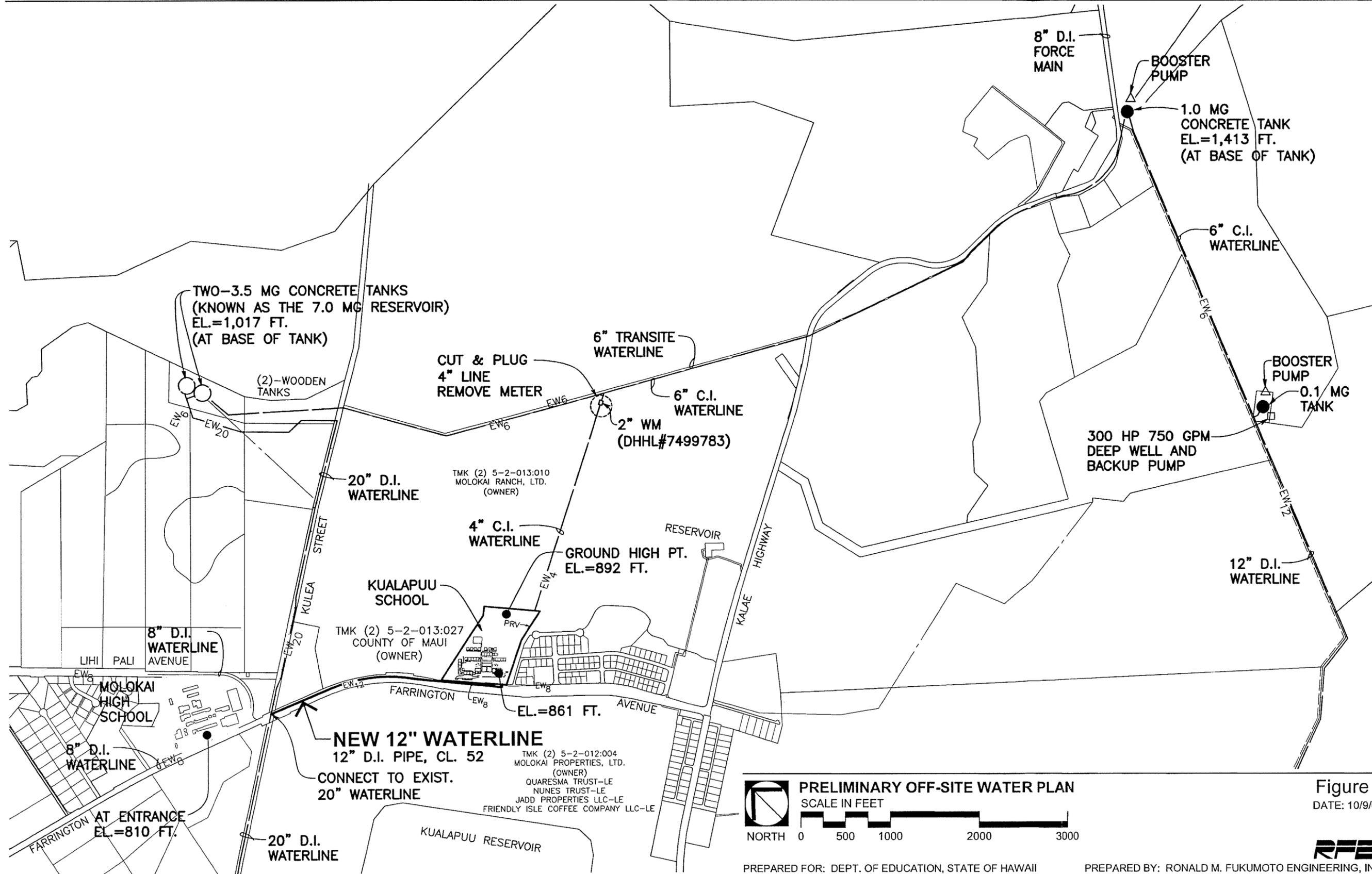
Optional Items

Reopen Options

Reopen as New Version - Please Select -

Commands

Reopen Return to List

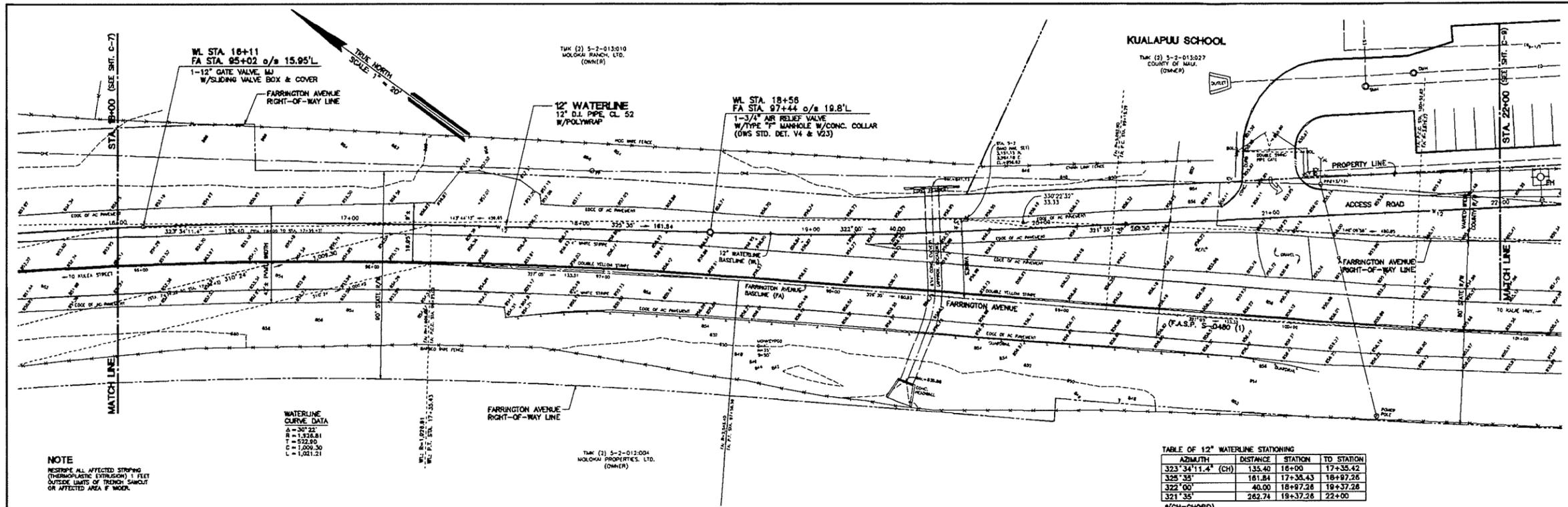


PRELIMINARY OFF-SITE WATER PLAN
 SCALE IN FEET
 NORTH 0 500 1000 2000 3000

Figure 1
 DATE: 10/9/09

PREPARED FOR: DEPT. OF EDUCATION, STATE OF HAWAII
 PREPARED BY: RONALD M. FUKUMOTO ENGINEERING, INC.
 PRELIMINARY ENGINEERING REPORT FOR KUALAPUU SCHOOL WATERLINE

EXHIBIT B



NOTE
 RESTRIPE ALL AFFECTED STRIPING
 (THERMOPLASTIC EXTRUSION) 1 FEET
 OUTSIDE LIMITS OF TRENCH SLOUT
 OR AFFECTED AREA P. WORK.

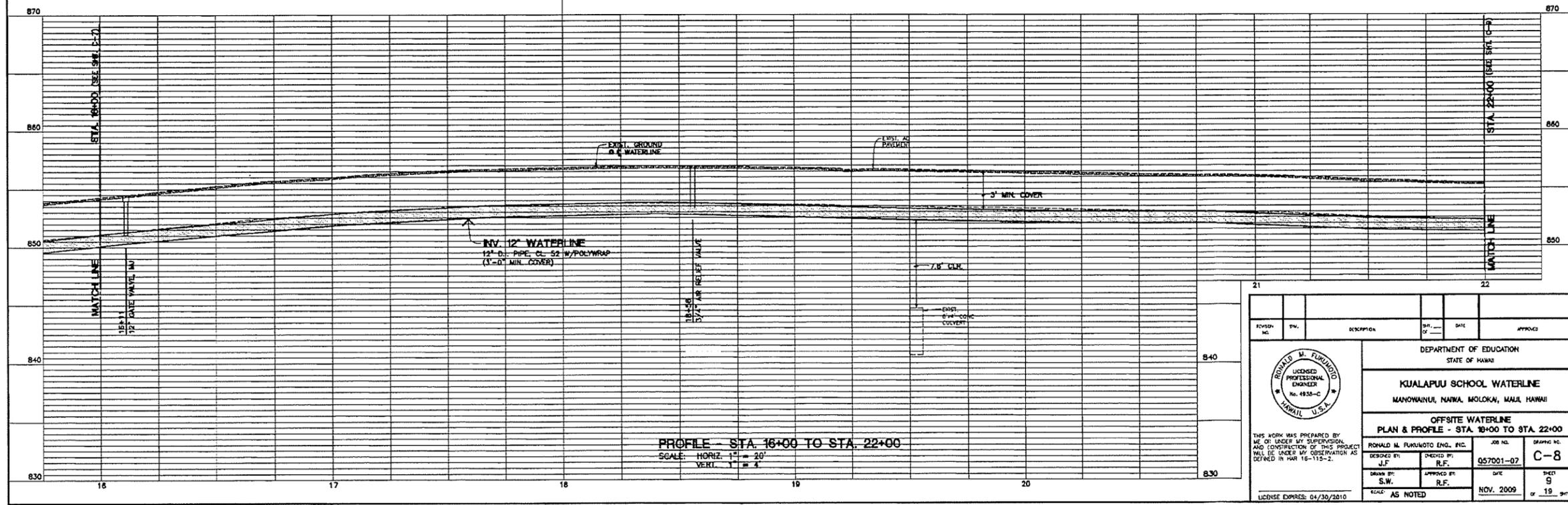
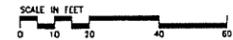
**WATERLINE
 CURVE DATA**
 A = 307.22'
 B = 1926.81'
 C = 522.90'
 D = 1,009.30'
 E = 1,081.21'

TABLE OF 12" WATERLINE STATIONING

AZIMUTH	DISTANCE	STATION	TO STATION
323°34'11.4" (CH)	135.40	16+00	17+35.42
325°35'	181.84	17+35.43	18+497.26
322°00'	40.00	18+497.26	19+37.26
321°35'	262.74	19+37.26	22+00

*(CH=CHORD)

PLAN - STA. 16+00 TO STA. 22+00
 SCALE: 1" = 20'



PROFILE - STA. 16+00 TO STA. 22+00
 SCALE: HORIZ. 1" = 20'
 VERT. 1" = 4'

PROJECT NO.	DATE	DESCRIPTION	DATE	APPROVED
16-11		12" WATERLINE		
DEPARTMENT OF EDUCATION STATE OF HAWAII KUALAPUU SCHOOL WATERLINE MANOWANUI, NAWA MOLOKAU, MAUI, HAWAII OFFSITE WATERLINE PLAN & PROFILE - STA. 16+00 TO STA. 22+00				
DESIGNED BY:	CHECKED BY:	JOB NO.	DRAWING NO.	
S.W.	R.F.	057001-07	C-8	
DRAWN BY:	APPROVED BY:	DATE	SHEET	
S.W.	R.F.	NOV. 2009	9	
SCALE: AS NOTED			NOV. 2009	

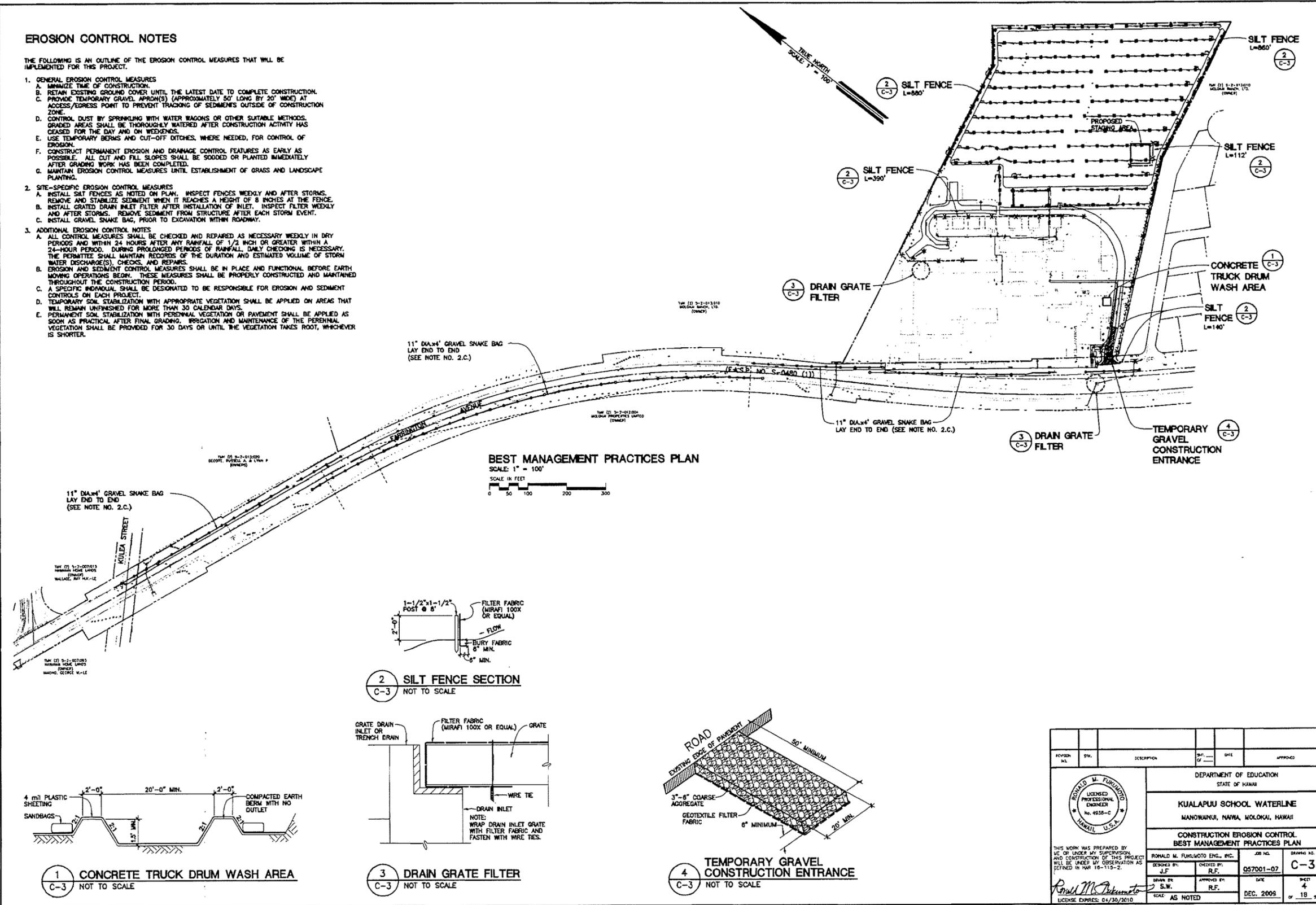
LICENSE EXPIRES: 04/30/2010

EXHIBIT C

EROSION CONTROL NOTES

THE FOLLOWING IS AN OUTLINE OF THE EROSION CONTROL MEASURES THAT WILL BE IMPLEMENTED FOR THIS PROJECT.

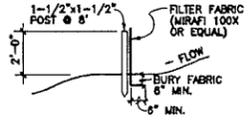
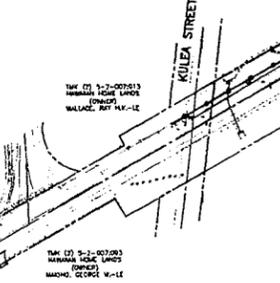
1. GENERAL EROSION CONTROL MEASURES
 - A. MINIMIZE TIME OF CONSTRUCTION.
 - B. RETAIN EXISTING GROUND COVER UNTIL THE LATEST DATE TO COMPLETE CONSTRUCTION.
 - C. PROVIDE TEMPORARY GRAVEL APRON(S) (APPROXIMATELY 50' LONG BY 20' WIDE) AT ACCESS/EGRESS POINT TO PREVENT TRACKING OF SEDIMENTS OUTSIDE OF CONSTRUCTION ZONE.
 - D. CONTROL DUST BY SPRINKLING WITH WATER WAGONS OR OTHER SUITABLE METHODS. GRADED AREAS SHALL BE THOROUGHLY WATERED AFTER CONSTRUCTION ACTIVITY HAS CEASED FOR THE DAY AND ON WEEKENDS.
 - E. USE TEMPORARY BERMS AND CUT-OFF DITCHES, WHERE NEEDED, FOR CONTROL OF EROSION.
 - F. CONSTRUCT PERMANENT EROSION AND DRAINAGE CONTROL FEATURES AS EARLY AS POSSIBLE. ALL CUT AND FILL SLOPES SHALL BE SOODED OR PLANTED IMMEDIATELY AFTER GRADING WORK HAS BEEN COMPLETED.
 - G. MAINTAIN EROSION CONTROL MEASURES UNTIL ESTABLISHMENT OF GRASS AND LANDSCAPE PLANTING.
2. SITE-SPECIFIC EROSION CONTROL MEASURES
 - A. INSTALL SILT FENCES AS NOTED ON PLAN. INSPECT FENCES WEEKLY AND AFTER STORMS. REMOVE AND STABILIZE SEDIMENT WHEN IT REACHES A HEIGHT OF 8 INCHES AT THE FENCE.
 - B. INSTALL GRATED DRAIN INLET FILTER AFTER INSTALLATION OF INLET. INSPECT FILTER WEEKLY AND AFTER STORMS. REMOVE SEDIMENT FROM STRUCTURE AFTER EACH STORM EVENT.
 - C. INSTALL GRAVEL SNAKE BAG PRIOR TO EXCAVATION WITHIN ROADWAY.
3. ADDITIONAL EROSION CONTROL NOTES
 - A. ALL CONTROL MEASURES SHALL BE CHECKED AND REPAIRED AS NECESSARY WEEKLY IN DRY PERIODS AND WITHIN 24 HOURS AFTER ANY RAINFALL OF 1/2 INCH OR GREATER WITHIN A 24-HOUR PERIOD. DURING PROLONGED PERIODS OF RAINFALL, DAILY CHECKING IS NECESSARY. THE PERMITTEE SHALL MAINTAIN RECORDS OF THE DURATION AND ESTIMATED VOLUME OF STORM WATER DISCHARGE(S), CHECKS, AND REPAIRS.
 - B. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IN PLACE AND FUNCTIONAL BEFORE EARTH MOVING OPERATIONS BEGIN. THESE MEASURES SHALL BE PROPERLY CONSTRUCTED AND MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD.
 - C. A SPECIFIC INDIVIDUAL SHALL BE DESIGNATED TO BE RESPONSIBLE FOR EROSION AND SEDIMENT CONTROLS ON EACH PROJECT.
 - D. TEMPORARY SOIL STABILIZATION WITH APPROPRIATE VEGETATION SHALL BE APPLIED ON AREAS THAT WILL REMAIN UNFINISHED FOR MORE THAN 30 CALENDAR DAYS.
 - E. PERMANENT SOIL STABILIZATION WITH PERENNIAL VEGETATION OR PAVEMENT SHALL BE APPLIED AS SOON AS PRACTICAL AFTER FINAL GRADING. IRRIGATION AND MAINTENANCE OF THE PERENNIAL VEGETATION SHALL BE PROVIDED FOR 30 DAYS OR UNTIL THE VEGETATION TAKES ROOT, WHICHEVER IS SHORTER.



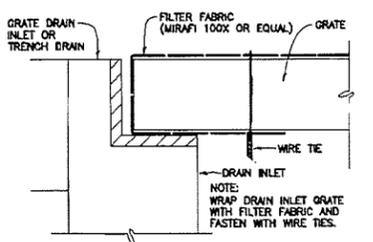
BEST MANAGEMENT PRACTICES PLAN

SCALE: 1" = 100'
SCALE IN FEET

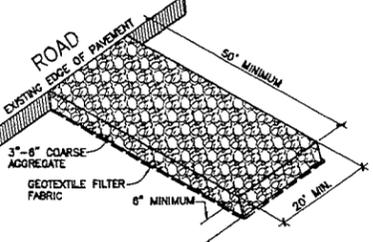
11" DIA. 11" GRV. SNAKE BAG LAY END TO END (SEE NOTE NO. 2.C.)



2 SILT FENCE SECTION
C-3 NOT TO SCALE

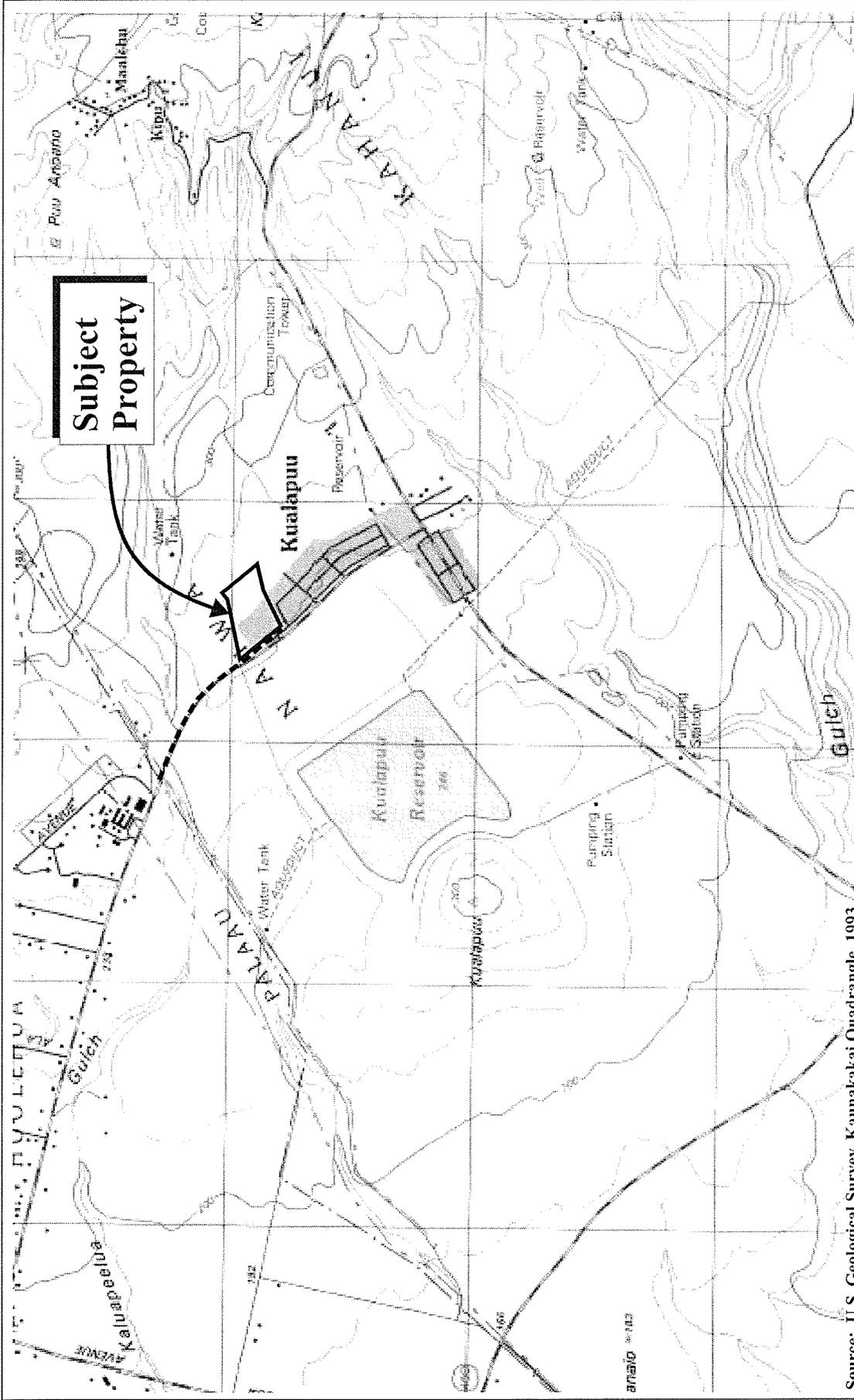


3 DRAIN GRATE FILTER
C-3 NOT TO SCALE



4 TEMPORARY GRAVEL CONSTRUCTION ENTRANCE
C-3 NOT TO SCALE

REV. NO.	REV.	DESCRIPTION	DATE	APPROVED
DEPARTMENT OF EDUCATION STATE OF HAWAII KUALAPU SCHOOL WATERLINE MANOWAIKI, NAHA, MOLOKAI, HAWAII CONSTRUCTION EROSION CONTROL BEST MANAGEMENT PRACTICES PLAN				
		THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION AS DEFINED IN HAW 16-113-2.		
DESIGNED BY:	CHECKED BY:	JOB NO.:	DATE:	DRAWING NO.:
J.F.	R.F.	057001-07	DEC. 2008	C-3
DRAWN BY:	APPROVED BY:	DATE:	SHEET:	OF:
S.W.	R.F.	DEC. 2008	4	18
SCALE: AS NOTED LICENSE EXPIRES: 04/30/2010				



Source: U.S. Geological Survey, Kaunakakai Quadrangle, 1993

Exhibit "E"

Proposed Kualapu'u School Waterline

NOT TO SCALE



Prepared for: State of Hawaii, Dept. of Education

MUNEKIYO & HIRAGA, INC.

RteKualapu'u\U\USGS Map



REPLY TO
ATTENTION OF:

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, HONOLULU DISTRICT
FORT SHAFTER, HAWAII 96858-5440

JAN 11 2010

January 6, 2010

Regulatory Branch

File No. POH-2009-00289

Carol Matasci, Planner
Munekiyo & Hiraga, Inc.
305 High Street, Suite 104
Wailuku, Hawai'i 96793

Dear Ms. Matasci:

This is in response to your December 14, 2009 letter requesting a Department of the Army (DA) permit Jurisdictional Determination (JD) for the proposed Kualapu'u School Waterline improvements located adjacent to, and above, Pala'au Drainageway, Kualapu'u, Molokai Island.

Your proposed project was reviewed pursuant to Section 10 of the Rivers and Harbors Act of 1899 (Section 10) and Section 404 of the Clean Water Act (Section 404). Section 10 requires that a DA permit be obtained for certain structures or work in or affecting navigable waters of the United States (U.S.), prior to conducting the work (33 U.S.C. 403). Navigable waters of the U.S. are those waters subject to the ebb and flow of the tide shoreward to the mean high water mark, and/or other waters identified as navigable by the Honolulu District. In addition, a Section 10 permit is required for structures or work outside this limit if they affect the course, location, or condition of the waterbody as to its navigable capacity.

Section 404 requires that a DA permit be obtained for the placement or discharge of dredged and/or fill material into waters of the U.S., including wetlands, prior to conducting the work (33 U.S.C. 1344). For regulatory purposes, the U.S. Army Corps of Engineers (Corps) defines wetlands as those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. The area of Corps jurisdiction under Section 404 extends to the Mean Higher High Tide Line (MHHTL) or to the Ordinary High Water Mark (OHWM) for navigable waters other than the Pacific Ocean, and to the upland boundary of any adjacent wetlands.

Based on our review of the information you furnished by Mr. Farley Watanabe of my staff, we have determined the following:

1. Pala'au Drainageway at the proposed culvert crossing location is an ephemeral drainageway with a defined surface connection to the Pacific Ocean. It is, therefore subject to the Corp's regulatory jurisdiction and a DA permit shall be required, pursuant to Section 404, for any activities that would involve either the temporary or permanent placement of fill and/ or dredged material below the drainageway's OHWM. A Preliminary JD was provided you on November 3, 2009.

2. The location of the proposed waterline culvert crossing is proposed to be placed 7.6 feet above the OHWM of Pala`au Drainageway as shown by the attached drawings. No discharge of fill material associated with the culvert structure is proposed within the bed of Pala`au Drainageway. Therefore, DA authorization is not required pursuant to Section 404, Clean Water Act.
- 3 Pala`au Drainageway at the proposed waterline culvert crossing location is not influenced by the ebb and flow of the tide. The navigable capacity of the Pacific Ocean will not be affected as no changes to the course, location, or condition of the tributary Pala`au Drainageway are proposed. Therefore, DA authorization is also not required pursuant to Section 10, Rivers and Harbors Act of 1899 for the proposed culvert and work.

If you anticipate discharging any dredged or fill material in Pala`au Drainageway as a result of a change in the culvert location, design, or mechanical construction access/egress, your client will need to apply for and receive authorization from the Corps prior to starting such work. You may access our website at <http://www.poh.usace.army.mil/EC-R/EC-R.htm> to download copies of the DA permit application materials that you will need to complete and submit to us in order to request authorization to perform any activities falling under the Corps' jurisdiction. As described in the application materials, you will need to include plan and cross-section view drawings of your proposed work in 8 1/2 x 11 inch format.

This letter contains an approved JD for Pala`au Drainageway. If you object to this determination, you may request an Administrative Appeal under Corps regulations at 33 Code of Federal Regulations (CFR) Part 331. We have enclosed a Notification of Appeal Process and Request For Appeal (NAP/RFA) form for Kulanihako'i Gulch. If you request to appeal the jurisdictional determination you must submit a completed NAP/RFA form to the Corps' Pacific Ocean Division office at the following address:

Thom Lichte, Appeals Review Officer
U.S. Army Corps of Engineers
Pacific Ocean Division, ATTN: CEPOD-PDC
Building 525
Fort Shafter, HI 96858-5440

In order for an NAP/RFA to be accepted by the Corps, the Corps must determine that the RFA is complete, that it meets the criteria for appeal under 33 CFR Part 331.5, and that it has been received by the Division office within 60 days of the date of the NAP/RFA sheet. If you decide to submit an NAP/RFA form, it must be received at the above address by February 3, 2010. It is not necessary to submit an NAP/RFA form to the Division office if you do not object to the determination in this letter. You may contact Mr. Lichte at (808) 438-0397.

This jurisdictional determination is valid for a period of five (5) years from the date of this letter unless new information warrants revision of the delineation before the expiration date.

Thank you for giving us the opportunity to review this proposal and for your cooperation with our regulatory program. Please be advised you can provide comments on your experience with

the Honolulu District Regulatory Branch by accessing our web-based customer survey form at <http://per2.nwp.usace.army.mil/survey.html>.

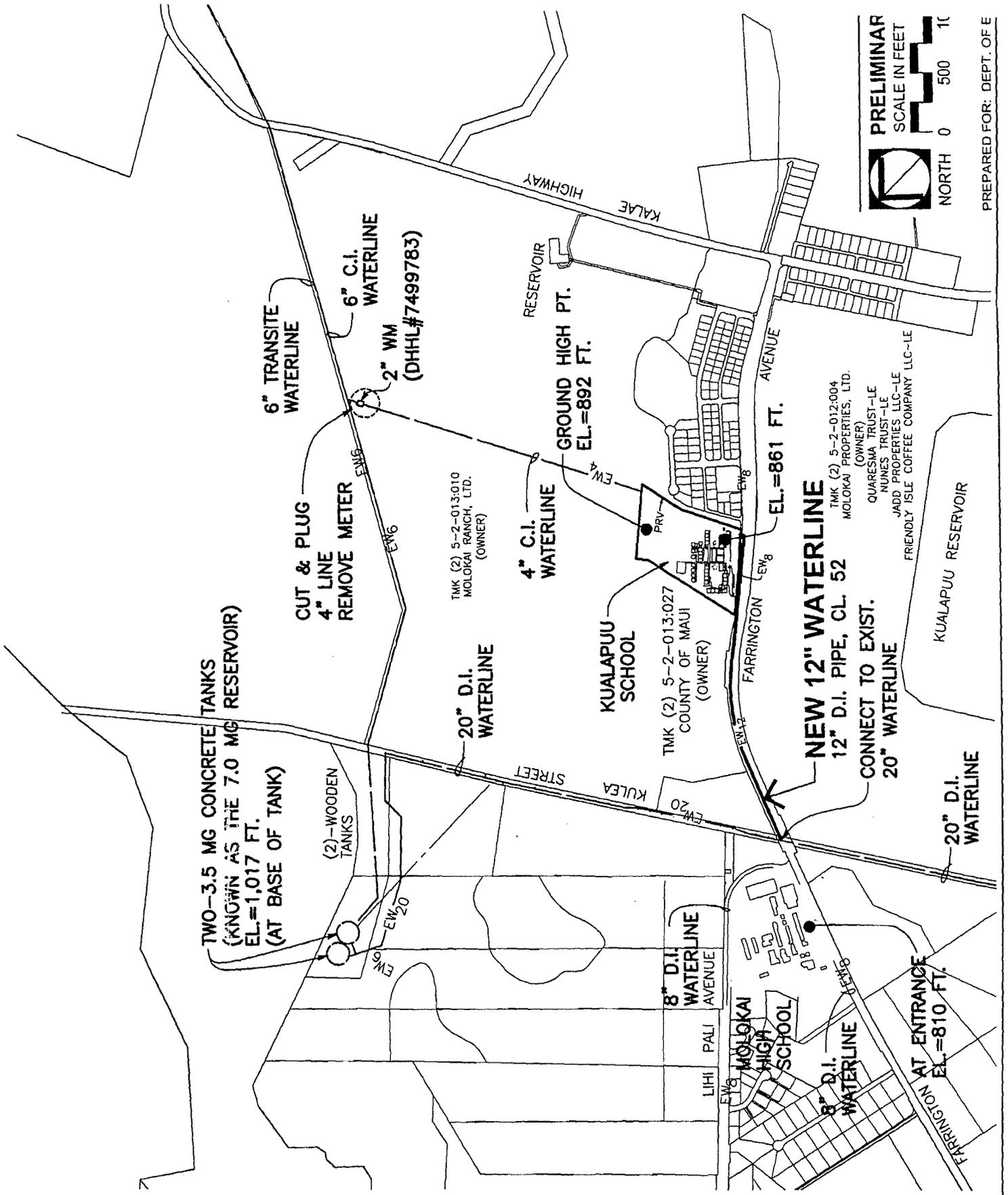
Should you have any questions, please contact Mr. Farley Watanabe of this office at the above address, by telephone 808-438-7701 (FAX: 808-438-4060), or by E-Mail at Farley.K.Watanabe@usace.army.mil. Please refer to File No. POH-2009-00289 in all future communications with this office regarding this or other projects at this location.

Sincerely,



George P. Young, P.E.
Chief, Regulatory Branch

Attachments
Culvert Crossing Location
Jurisdictional Determination
Flowchart
NAP/RFA



PRELIMINAR
SCALE IN FEET

NORTH 0 500 1000

PREPARED FOR: DEPT. OF E

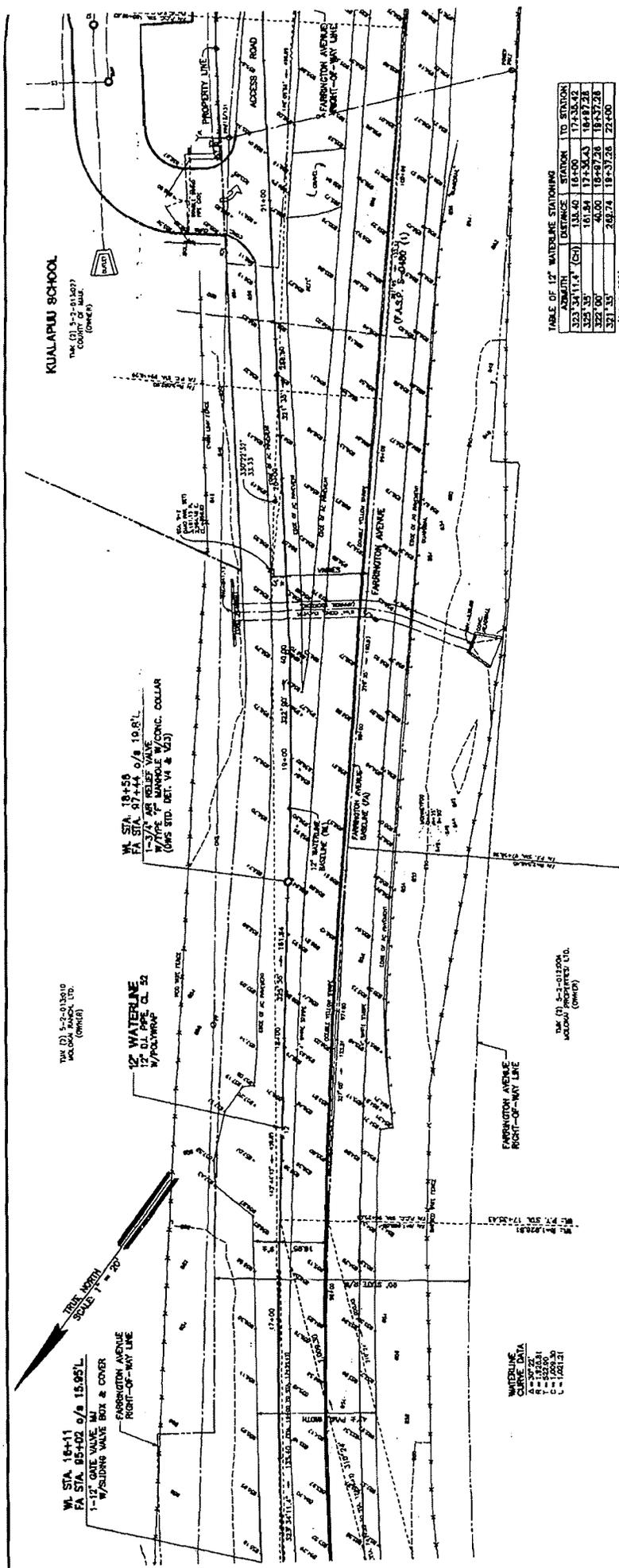
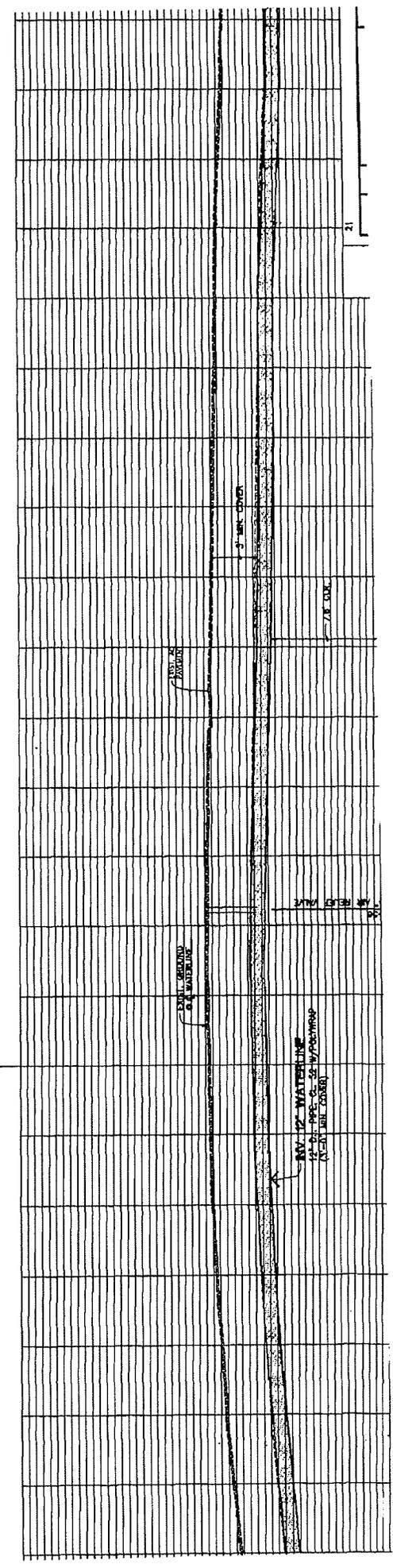
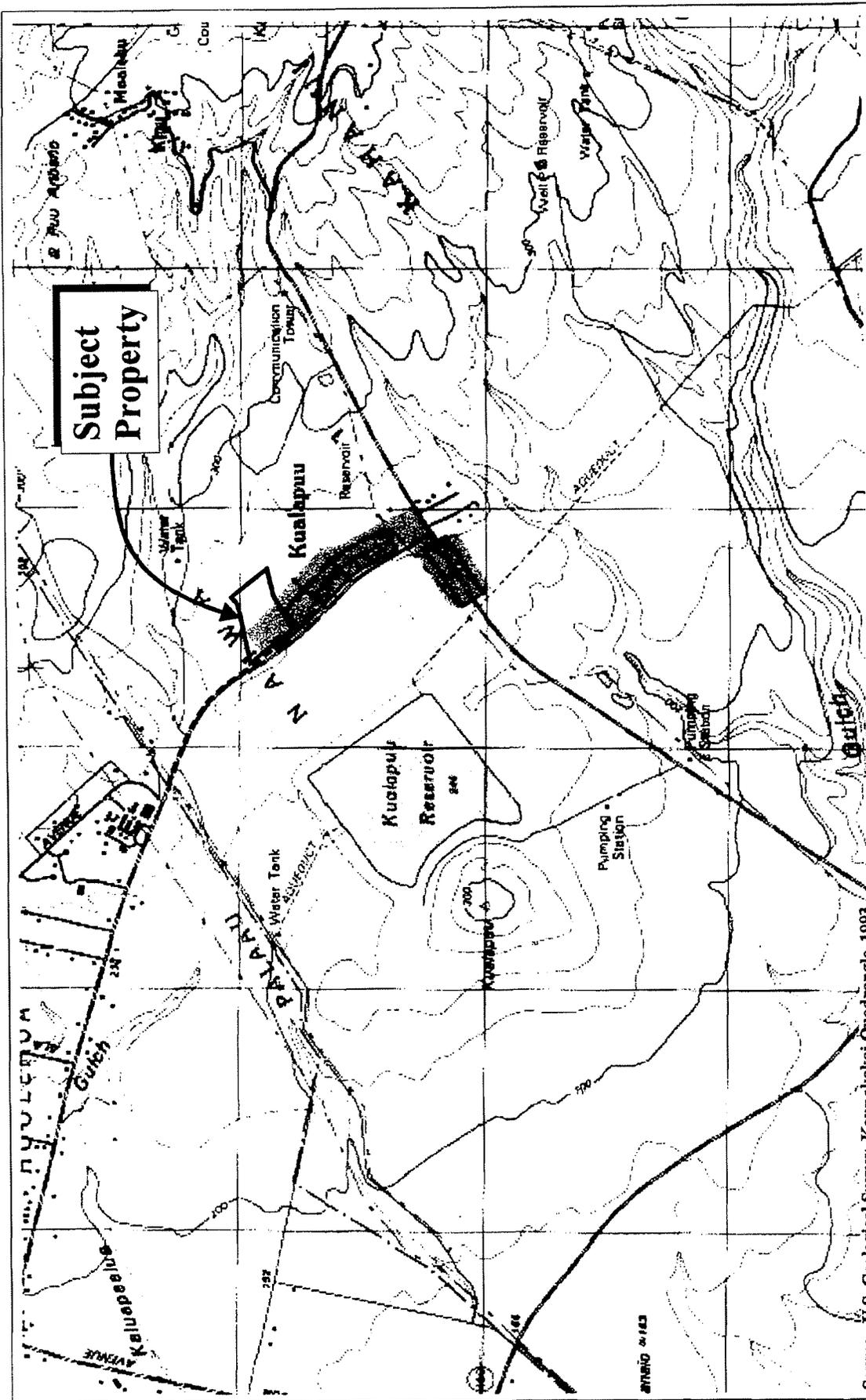


TABLE OF 12\"/>

ADUMIN	DISTANCE	STATION	TO STATION
323'34\"/>			

PLAN - STA. 19+00 TO STA. 22+00
SCALE: 1\"/>





Source: U.S. Geological Survey, Kaunakakai Quadrangle, 1993

Exhibit "E"

Proposed Kualapuu School Waterline

NOT TO SCALE



Prepared for: State of Hawaii, Dept. of Education

MUNEKIYO & HIRAGA, INC.
 ReKualapuuWELUSGS Map

J3EC9FKW Honolulu District: POH - CEPOH
orm_regulator Role Preferences (ORM Reports) Logout

ORM2
Home Search POH-2009-00289-MB9 Help

Folder Location Aquatic Resources Jurisdiction Impacts/Mitigation Map Indicators Letters Documents Contacts Regulators Comments Feedback

Successfully Updated All Information.
Successfully Finalized.

DA Number: POH-2009-00289-MB9 (Proposed Kualapuu School Waterline Molokai)
Applicant: No Applicant Found (Agent: Carol Matasci (Munekiyo and Hiraga, Inc.))

Jurisdictional Determination

- X Palaaau Drainage way
- X Palaaau Drainageway
- 1. Begin Date 05-Jan-2010
- 2. Does Corps Have Jurisdictional Authority YES
- 2.1. Authority Section 404
- 3. Closure Method Approved JD That Did Not Require A Field/Site Visit
- 4. End Date 05-Jan-2010
- 5. Comments Applicant requested a DA permit JD for Palaaau Drainage way. information was provided showing waterline crossing location above OHWM. Engineering specs were provided in lieu of photos.
- 6. Carabell-Rapanos

Fund Tracking

- 7. ARRA, Regulator Funded (Corps) NO
- 8. ARRA, Project Funded (Others) NO
- 9. WRDA 214, Regulator Funded (Corps) NO

Optional Items

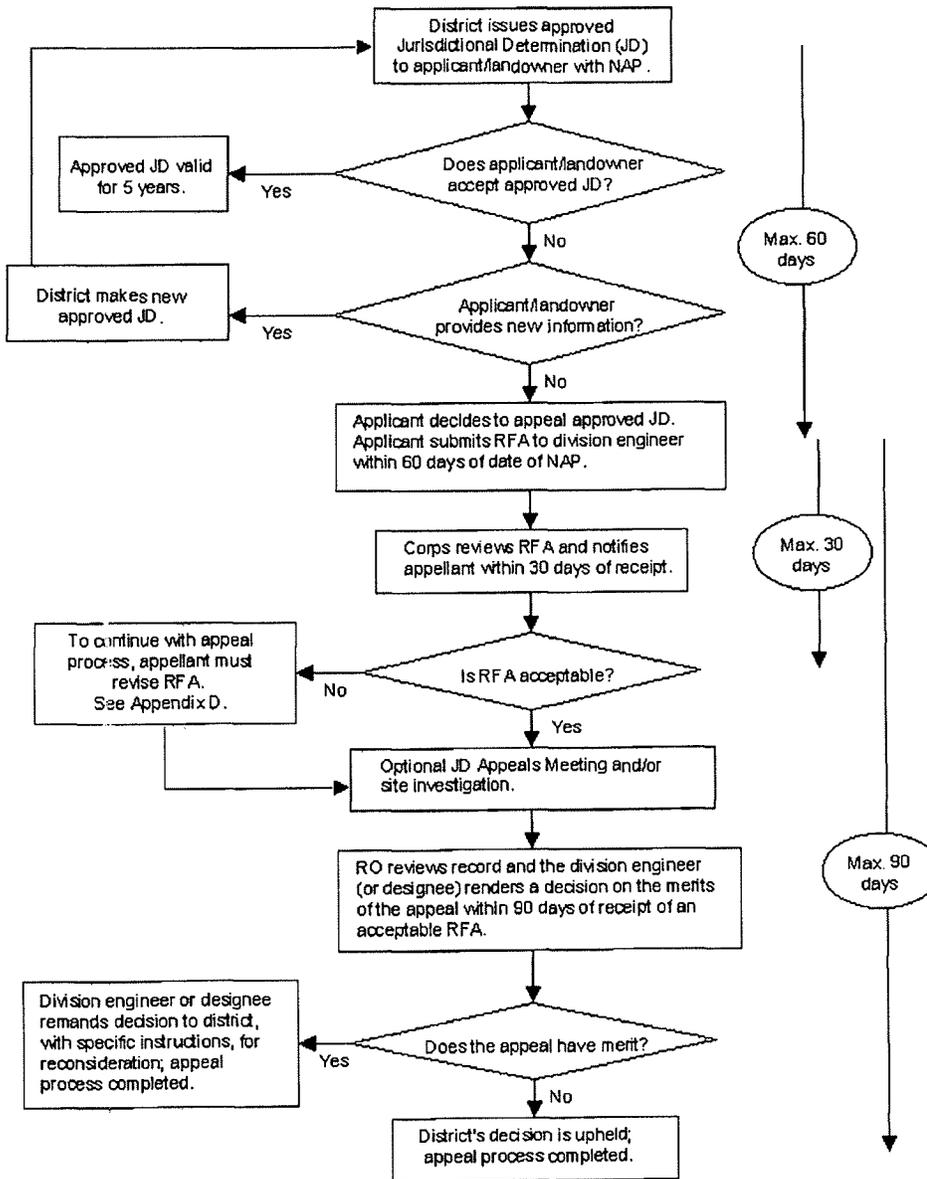
Reopen Options

Reopen as New Version - Please Select -

Commands

Reopen Return to List

Administrative Appeal Process for Approved Jurisdictional Determinations



NOTIFICATION OF PERMIT DECISION, PROCESS AND

Applicant: DOE, Maui District		File Number: POH-2009-00289	Date: 6 Jan 2010
Attached is:			See Section below
	INITIAL PROFFERED PERMIT (Standard Permit or Letter of permission)		A
	PROFFERED PERMIT (Standard Permit or Letter of permission)		B
	PERMIT DENIAL		C
XX	APPROVED JURISDICTIONAL DETERMINATION		D
	PRELIMINARY JURISDICTIONAL DETERMINATION		E

SECTION I - The following identifies your rights and options regarding an administrative appeal of the above decision. Additional information may be found at <http://usace.army.mil/inet/functions/cw/cecwo/reg> or Corps regulations at 33 CFR Part 331.

A: INITIAL PROFFERED PERMIT: You may accept or object to the permit.

- **ACCEPT:** If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- **OBJECT:** If you object to the permit (Standard or LOP) because of certain terms and conditions therein, you may request that the permit be modified accordingly. You must complete Section II of this form and return the form to the district engineer. Your objections must be received by the district engineer within 60 days of the date of this notice, or you will forfeit your right to appeal the permit in the future. Upon receipt of your letter, the district engineer will evaluate your objections and may: (a) modify the permit to address all of your concerns, (b) modify the permit to address some of your objections, or (c) not modify the permit having determined that the permit should be issued as previously written. After evaluating your objections, the district engineer will send you a proffered permit for your reconsideration, as indicated in Section B below.

B: PROFFERED PERMIT: You may accept or appeal the permit

- **ACCEPT:** If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- **APPEAL:** If you choose to decline the proffered permit (Standard or LOP) because of certain terms and conditions therein, you may appeal the declined permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

C: PERMIT DENIAL: You may appeal the denial of a permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

D: APPROVED JURISDICTIONAL DETERMINATION: You may accept or appeal the approved JD or provide new information.

- **ACCEPT:** You do not need to notify the Corps to accept an approved JD. Failure to notify the Corps within 60 days of the date of this notice, means that you accept the approved JD in its entirety, and waive all rights to appeal the approved JD.
- **APPEAL:** If you disagree with the approved JD, you may appeal the approved JD under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

E: PRELIMINARY JURISDICTIONAL DETERMINATION: You do not need to respond to the Corps regarding the preliminary JD. The Preliminary JD is not appealable. If you wish, you may request an approved JD (which may be appealed), by contacting the Corps district for further instruction. Also you may provide new information for further consideration by the Corps to reevaluate the JD.

REASONS FOR APPEAL OR OBJECTIONS: (Describe your reasons for appealing the decision or your objections to an initial proffered permit in clear concise statements. You may attach additional information to this form to clarify where your reasons or objections are addressed in the administrative record.)

ADDITIONAL INFORMATION: The appeal is limited to a review of the administrative record, the Corps memorandum for the record of the appeal conference or meeting, and any supplemental information that the review officer has determined is needed to clarify the administrative record. Neither the appellant nor the Corps may add new information or analyses to the record. However, you may provide additional information to clarify the location of information that is already in the administrative record.

POINT OF CONTACT FOR QUESTIONS OR INFORMATION

If you have questions regarding this decision and/or the appeal process you may contact:

Farley K. Watanabe, (808) 438-7701
Farley.K.Watanabe@usace.army.mil

If you only have questions regarding the appeal process you may also contact:

Thom Lichte (808) 438-0397

RIGHT OF ENTRY: Your signature below grants the right of entry to Corps of Engineers personnel, and any government consultants, to conduct investigations of the project site during the course of the appeal process. You will be provided a 15 day notice of any site investigation, and will have the opportunity to participate in all site investigations.

Signature of appellant or agent.

Date:

Telephone number:

LINDA LINGLE
GOVERNOR



RUSS K. SAITO
COMPTROLLER
SANDI YAHIRO
DEPUTY COMPTROLLER

STATE OF HAWAII
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
P.O. BOX 119, HONOLULU, HAWAII 96810-0119

(P)1284.9

OCT - 8 2009

Ms. Carol Matasci
Munekiyo & Hiraga, Inc.
305 High Street, Suite 104
Wailuku, Maui, Hawaii 96793

Dear Ms. Matasci:

Subject: Early Consultation Request for
Proposed Kualapuu School Waterline Project
(DOE Job No: Q57001-07)

Thank you for the opportunity to provide comments on the proposed Kualapuu School Waterline Project. The project does not impact any of the Department of Accounting and General Services' projects or existing facilities. We have no comments to offer at this time.

If you have any question, please call me at 586-0400 or have your staff call Mr. Clarence Kubo of the Public Works Division at 586-0488.

Sincerely,

A handwritten signature in black ink that reads "Russ K. Saito".

RUSS K. SAITO
State Comptroller

SEP 28 2009

LINDA LINGLE
GOVERNOR OF HAWAII



CHIYOME L. FUKINO, M.D.
DIRECTOR OF HEALTH

STATE OF HAWAII
DEPARTMENT OF HEALTH
P.O. BOX 3378
HONOLULU, HAWAII 96801-3378

In reply, please refer to:
EMD / CWB

09076PJF.09

September 24, 2009

Ms. Carol Matasci
Planner
Munekiyo & Hiraga, Inc.
305 High Street, Suite 104
Wailuku, Hawaii 96793

Dear Ms. Matasci:

**SUBJECT: Early Consultation Request for Proposed
Kualapu`u School Waterline Project (DOE Job No: Q57001-07)
Kualapu`u, Island of Molokai, Hawaii**

The Department of Health, Clean Water Branch (CWB), has reviewed the subject document and offers these comments on your project.

Please note that our review is based solely on the information provided in the subject document and its compliance with the Hawaii Administrative Rules (HAR), Chapters 11-54 and 11-55. You may be responsible for fulfilling additional requirements related to our program. We recommend that you also read our standard comments on our website at:
<http://www.hawaii.gov/health/environmental/env-planning/landuse/CWB-standardcomment.pdf>.

1. Any project and its potential impacts to State waters must meet the following criteria:
 - a. Antidegradation policy (HAR, Section 11-54-1.1), which requires that the existing uses and the level of water quality necessary to protect the existing uses of the receiving State water be maintained and protected.
 - b. Designated uses (HAR, Section 11-54-3), as determined by the classification of the receiving State waters.
 - c. Water quality criteria (HAR, Sections 11-54-4 through 11-54-8).

2. You are required to obtain a National Pollutant Discharge Elimination System (NPDES) permit for discharges of wastewater, including storm water runoff, into State surface waters (HAR, Chapter 11-55). For the following types of discharges into Class A or Class 2 State waters, you may apply for an NPDES general permit coverage by submitting a Notice of Intent (NOI) form:

- a. Storm water associated with construction activities, including clearing, grading, and excavation, that result in the disturbance of equal to or greater than one (1) acre of total land area. The total land area includes a contiguous area where multiple separate and distinct construction activities may be taking place at different times on different schedules under a larger common plan of development or sale. An NPDES permit is required before the start of the construction activities.
- b. Hydrotesting water.
- c. Construction dewatering effluent.

You must submit a separate NOI form for each type of discharge at least 30 calendar days prior to the start of the discharge activity, except when applying for coverage for discharges of storm water associated with construction activity. For this type of discharge, the NOI must be submitted 30 calendar days before to the start of construction activities. The NOI forms may be picked up at our office or downloaded from our website at:

<http://www.hawaii.gov/health/environmental/water/cleanwater/forms/genl-index.html>.

3. For types of wastewater not listed in Item No. 2 above or wastewater discharging into Class 1 or Class AA waters, you may need an NPDES individual permit. An application for an NPDES individual permit must be submitted at least 180 calendar days before the commencement of the discharge. The NPDES application forms may be picked up at our office or downloaded from our website at:

<http://www.hawaii.gov/health/environmental/water/cleanwater/forms/indiv-index.html>.

4. Please note that all discharges related to the project construction or operation activities, whether or not NPDES permit coverage and/or Section 401 Water Quality Certification are required, must comply with the State's Water Quality Standards. Noncompliance with water quality requirements contained in HAR, Chapter 11-54, and/or permitting requirements, specified in HAR, Chapter 11-55, may be subject to penalties of \$25,000 per day per violation.

Ms. Carol Matasci
September 24, 2009
Page 3

09076PJF.09

If you have any questions, please visit our website at:
<http://www.hawaii.gov/health/environmental/water/cleanwater/index.html>, or contact the
Engineering Section, CWB, at (808) 586-4309.

Sincerely,


ALEC WONG, P.E., CHIEF
Clean Water Branch

JF:rg



MICHAEL T. MUNEKIYO
GWEN OHASHI HIRAGA
MITSURU "MICH" HIRANO
KARLYNN FUKUDA

MARK ALEXANDER ROY

March 18, 2010

Alec Wong, P.E.
Chief, Clean Water Branch
State of Hawaii
Department of Health
P.O. Box 3378
Honolulu, Hawaii 96801-3378

**SUBJECT: Early Consultation for the Proposed Kualapu`u School Waterline at
TMK (2) 5-2-013:027, Kualapuu, Molokai, Hawaii (DOE Job No:
Q57001-07), Reference No: EMD/CWB 09076PJF.09**

Dear Mr. Wong:

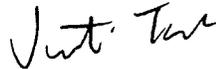
Thank you for your letter of September 24, 2009 in response to the early consultation letter for the proposed Kualapu`u School Waterline on Molokai. On behalf of the applicant, the State of Hawaii, Department of Education, we offer the following information in response to your comments, in the order they were presented.

1. The applicant acknowledges that any project and its potential impacts to State waters must meet the criteria of the antidegradation policy, designated uses, and water quality criteria, pursuant to Hawaii Administrative Rules (HAR), Sections 11-54-1.1, 11-54-3, and 11-54-4 through 11-54-8, respectively.
2. A National Pollutant Discharge Elimination System (NPDES) permit will be obtained, as applicable.
3. As the proposed project does not entail any discharges of wastewater, a NPDES individual permit is not anticipated to be required.
4. The applicant notes that the project will comply with the Water Quality Standards, pursuant to HAR, Chapter 11-54 and HAR, Chapter 11-55.

Alec Wong, P.E.
Page 2
March 18, 2010

We will provide your office with a copy of the Draft Environmental Assessment when it is available for your review and comment. Thank you again for your input on the Kualapu`u School Waterline project.

Very truly yours,



Justin Tanaka, Planner

JT:tn

Cc: Jake Freeman, Ronald M. Fukumoto Engineering, Inc.
Bob Purdie, Jr., Department of Education

F:\DATA\IRFE\Kualapu\WL\DOHCWB\response.ltr.doc

LINDA LINGLE
GOVERNOR OF HAWAII



CHIYOME L. FUKINO, M. D.
DIRECTOR OF HEALTH

LORRIN W. PANG, M. D., M. P. H.
DISTRICT HEALTH OFFICER

STATE OF HAWAII
DEPARTMENT OF HEALTH
MAUI DISTRICT HEALTH OFFICE
54 HIGH STREET
WAILUKU, MAUI, HAWAII 96793-2102

September 22, 2009

Ms. Carol Matasci
Planner
Munekiyo & Hiraga, Inc.
305 High Street, Suite 104
Wailuku, Hawai'i 96793

Dear Ms. Matasci:

Subject: Early Consultation Request for Proposed Kualapu'u
School Waterline Project (DOE Job No. Q57001-07)
Applicant: Munekiyo & Hiraga, Inc.
Location: Farrington Avenue, Molokai
Description: Connect 12 inch waterline

Thank you for giving us the opportunity to review and comment on this project. The following comments are offered:

1. National Pollutant Discharge Elimination System (NPDES) permit coverage may be required for this project. The Clean Water Branch should be contacted at 808 586-4309.
2. Waterline improvements must be reviewed and approved by the Department of Health's Safe Drinking Water Branch. Please contact Stuart Yamada, Safe Drinking Water Branch Chief, at 808 586-4258.

Ms. Carol Matasci
September 22, 2009
Page 2

3. The noise created during the construction phase of the project may exceed the maximum allowable levels as set forth in Hawaii Administrative Rules, Chapter 11-46 "Community Noise Control". A noise permit may be required and should be obtained before the commencement of this project.

Should you have any questions, please call me at 808 984-8230 or e-mail me at patricia.kitkowski@doh.hawaii.gov.

Sincerely,



Patti Kitkowski
Acting District Environmental Health Program Chief

March 18, 2010

Patti Kitkowski
Acting District Environmental Health Program Chief
State of Hawaii
Department of Health
Maui District Health Office
54 High Street
Wailuku, Hawaii 96793-2102

SUBJECT: Early Consultation for the Proposed Kualapu`u School Waterline at
TMK (2) 5-2-013:027, Kualapuu, Molokai, Hawaii (DOE Job No:
Q57001-07)

Dear Ms. Kitkowski:

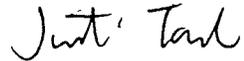
Thank you for your letter of September 22, 2009 in response to the early consultation letter for the proposed Kualapu`u School Waterline on Molokai. On behalf of the applicant, the State of Hawaii, Department of Education, we offer the following information in response to your comments, in the order they were presented.

1. The applicant notes that a National Pollutant Discharge Elimination System (NPDES) permit will be filed, as applicable.
2. The applicant understands that the waterline improvements must be reviewed and approved by the Department of Health's Safe Drinking Water Branch. The applicant is in consultation with the Safe Drinking Water Branch and will submit the construction documents for review.
3. The applicant confirms that a noise permit may be required before the commencement of the Kualapu`u School Waterline improvements project, as applicable.

Patti Kitkowski
Page 2
March 18, 2010

We will provide your office with a copy of the Draft Environmental Assessment when it is available for your review and comment. Thank you again for your input on the Kualapu`u School Waterline project.

Very truly yours,



Justin Tanaka, Planner

JT:tn

Cc: Jake Freeman, Ronald M. Fukumoto Engineering, Inc.
Bob Purdie, Jr., Department of Education

F:\DATA\RF\Kualapuu\WLD\DOH\Mauiresponse.ltr.doc

SEP 17 2009

LINDA LINGLE
GOVERNOR OF HAWAII



CHYOME L. FUKINO, M.D.
DIRECTOR OF HEALTH

STATE OF HAWAII
DEPARTMENT OF HEALTH
P.O. BOX 3378
HONOLULU, HAWAII 96801-3378

In reply, please refer to:
EMD/SDWB

September 15, 2009

Ms. Carol Matasci
Munekiyo & Hiraga, Inc.
305 High Street, Suite 104
Wailuku, Hawaii 96793

Dear Ms. Matasci:

SUBJECT: EARLY CONSULTATION REQUEST FOR PROPOSED KUALAPU`U
SCHOOL WATERLINE PROJECT (DOE JOB NO. Q57001-07)

We are in receipt of the above referenced request and offer the following comments:

1. This project proposes a substantial modification to the existing Hoolehua public water system (PWS), PWS No. 230, and must receive approval by the Director of Health prior to construction of the proposed modification in accordance with Hawaii Administrative Rules, Title 11, Chapter 20, Section 30, entitled "New and modified public water systems." Please submit construction plans for the project to the Safe Drinking Water Branch for review and approval.

Should you have any questions, please contact Jennifer Nikaido of the Safe Drinking Water Branch, Engineering Section, at 586-4258.

Sincerely,

A handwritten signature in cursive script, likely belonging to Stuart Yamada.

STUART YAMADA, P.E., CHIEF
Safe Drinking Water Branch
Environmental Management Division

JN:cb

c: Gordon Muraoka, Maui Sanitarian



MICHAEL T. MUNEKIYO
GWEN OHASHI HIRAGA
MITSURU "MICH" HIRANO
KARLYNN FUKUDA

MARK ALEXANDER ROY

March 17, 2010

Stuart Yamada, P.E., Chief
State of Hawaii
Department of Health
Safe Drinking Water Branch
P.O. Box 3378
Honolulu, Hawaii 96801-3378

**SUBJECT: Early Consultation for the Proposed Kualapu`u School Waterline at
TMK (2) 5-2-013:027, Kualapuu, Molokai, Hawaii (DOE Job No:
Q57001-07), Reference: EMD/SDWB**

Dear Mr. Yamada:

Thank you for your letter of September 15, 2009 in response to the early consultation letter for the proposed Kualapu`u School Waterline on Molokai. On behalf of the applicant, the State of Hawaii, Department of Education, we offer the following information in response to your comments.

The applicant acknowledges that the project must receive approval by the Director of Health prior to construction, in accordance with Hawaii Administrative Rules (HAR), Title 11, Chapter 20, Section 30. The project engineer will submit construction plans for the project to the Safe Drinking Water Branch for review and approval.

We will provide your office with a copy of the Draft Environmental Assessment when it is available for your review and comment. Thank you again for your input on the Kualapu`u School Waterline project.

Very truly yours,

Justin Tanaka, Planner

JT:tn

Cc: Jake Freeman, Ronald M. Fukumoto Engineering, Inc.
Bob Purdie, Jr., Department of Education

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LINDA LINGLE
GOVERNOR OF HAWAII



LAURA H. THIELEN
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

October 1, 2009

Munekiyo & Hiraga, Inc.
305 High Street Suite 104
Wailuku, Hawaii 96793

Attention: Ms. Carol Matasci, Planner

Ladies and Gentlemen:

Subject: Early Consultation for proposed Kualapu'u School Waterline Project
(DOE Job No: Q57001-07)

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

Other than the comments from Engineering Division, Division of Forestry & Wildlife, Division of Boating & Ocean Recreation, the Department of Land and Natural Resources has no other comments to offer on the subject matter. Should you have any questions, please feel free to call our office at 587-0433. Thank you.

Sincerely,

Charlene E. Under
for Morris M. Atta
Administrator

LINDA LINGLE
GOVERNOR OF HAWAII



LAURA H. THIELEN
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

09 SEP 15 AM 10:43 ENGINEERING



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

September 14, 2009

DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

2009 SEP 28 P 3: 02

RECEIVED
LAND DIVISION

MEMORANDUM

- TO: **DLNR Agencies:**
- Div. of Aquatic Resources
 - Div. of Boating & Ocean Recreation
 - Engineering Division
 - Div. of Forestry & Wildlife
 - Div. of State Parks
 - Commission on Water Resource Management
 - Office of Conservation & Coastal Lands
 - Land Division –Maui District
 - Historic Preservation

FROM: *Morris M. Atta*
 SUBJECT: Early Consultation for Proposed Kualapu'u School Waterline Project
 LOCATION: Island of Molokai
 APPLICANT: Munekiyo & Hiraga, Inc. on behalf of Department of Education

Transmitted for your review and comment on the above referenced document. We would appreciate your comments on this document. Please submit any comments by September 28, 2009.

If no response is received by this date, we will assume your agency has no comments. If you have any questions about this request, please contact my office at 587-0433. Thank you.

Attachments

- We have no objections.
- We have no comments.
- Comments are attached.

Signed: *Laura H. Thielen*
 Date: 9/27/09

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

LD/MorrisAtta

RE: PreConsultationKualapuuSchoolWaterline

Maui.479

COMMENTS

- () We confirm that the project site, according to the Flood Insurance Rate Map (FIRM), is located in Flood Zone ____.
- (X) **Please take note that the project site, according to the Flood Insurance Rate Map (FIRM), is located in Flood Zone C. The Flood Insurance Program does not have any regulations for developments within Flood Zone C.**
- () Please note that the correct Flood Zone Designation for the project site according to the Flood Insurance Rate Map (FIRM) is ____.
- () Please note that the project must comply with the rules and regulations of the National Flood Insurance Program (NFIP) presented in Title 44 of the Code of Federal Regulations (44CFR), whenever development within a Special Flood Hazard Area is undertaken. If there are any questions, please contact the State NFIP Coordinator, Ms. Carol Tyau-Beam, of the Department of Land and Natural Resources, Engineering Division at (808) 587-0267.

Please be advised that 44CFR indicates the minimum standards set forth by the NFIP. Your Community's local flood ordinance may prove to be more restrictive and thus take precedence over the minimum NFIP standards. If there are questions regarding the local flood ordinances, please contact the applicable County NFIP Coordinators below:

- () Mr. Robert Sumitomo at (808) 768-8097 or Mr. Mario Siu Li at (808) 768-8098 of the City and County of Honolulu, Department of Planning and Permitting.
 - () Mr. Frank DeMarco at (808) 961-8042 of the County of Hawaii, Department of Public Works.
 - () Mr. Francis Cerizo at (808) 270-7771 of the County of Maui, Department of Planning.
 - () Mr. Mario Antonio at (808) 241-6620 of the County of Kauai, Department of Public Works.
-
- () The applicant should include project water demands and infrastructure required to meet water demands. Please note that the implementation of any State-sponsored projects requiring water service from the Honolulu Board of Water Supply system must first obtain water allocation credits from the Engineering Division before it can receive a building permit and/or water meter.
 - (X) **The applicant should provide the water demands and calculations to the Engineering Division so it can be included in the State Water Projects Plan Update.**

- () Additional Comments: _____

- () Other: _____

Should you have any questions, please call Ms. Suzie S. Agraan of the Planning Branch at 587-0258.

Signed: 
ERIC T. HIRANO, CHIEF ENGINEER

Date: 9/27/09



RECEIVED
LAND DIVISION

2009 SEP 21 A 10:18



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION
POST OFFICE BOX 621
HONOLULU, HAWAII 96809

September 14, 2009

MEMORANDUM

TO:

DLNR Agencies:

- Div. of Aquatic Resources
- Div. of Boating & Ocean Recreation
- Engineering Division
- Div. of Forestry & Wildlife
- Div. of State Parks
- Commission on Water Resource Management
- Office of Conservation & Coastal Lands
- Land Division –Maui District
- Historic Preservation

FROM:

Morris M. Atta

SUBJECT: Early Consultation for Proposed Kualapu'u School Waterline Project
LOCATION: Island of Molokai
APPLICANT: Munekiyo & Hiraga, Inc. on behalf of Department of Education

Transmitted for your review and comment on the above referenced document. We would appreciate your comments on this document. Please submit any comments by September 28, 2009.

If no response is received by this date, we will assume your agency has no comments. If you have any questions about this request, please contact my office at 587-0433. Thank you.

Attachments

- We have no objections.
- We have no comments.
- Comments are attached.

Signed:

Edward R. Lowe

Date:

9/18/09



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

September 14, 2009

MEMORANDUM

TO:

DLNR Agencies:

- Div. of Aquatic Resources
- Div. of Boating & Ocean Recreation
- Engineering Division
- Div. of Forestry & Wildlife
- Div. of State Parks
- Commission on Water Resource Management
- Office of Conservation & Coastal Lands
- Land Division –Maui District
- Historic Preservation

RECEIVED
 LAND DIVISION
 2009 SEP 17 P 2:13
 DEPARTMENT OF LAND AND NATURAL RESOURCES
 STATE OF HAWAII

FROM:

for Morris M. Atta *Chaulene*

SUBJECT: Early Consultation for Proposed Kualapu'u School Waterline Project

LOCATION: Island of Molokai

APPLICANT: Munekiyo & Hiraga, Inc. on behalf of Department of Education

Transmitted for your review and comment on the above referenced document. We would appreciate your comments on this document. Please submit any comments by September 28, 2009.

If no response is received by this date, we will assume your agency has no comments. If you have any questions about this request, please contact my office at 587-0433. Thank you.

Attachments

- We have no objections.
- We have no comments.
- Comments are attached.

Signed: *Paul J. Conry*

Date: SEP 16 2009

for PAUL J. CONRY, ADMINISTRATOR
DIVISION OF FORESTRY AND WILDLIFE



MICHAEL T. MUNEKIYDO
GWEN OHASHI HIRAGA
MITSURU "MICH" HIRANO
KARLYNN FUKUDA

MARK ALEXANDER ROY

March 17, 2010

Morris M. Atta
Administrator
Department of Land and Natural Resources
P.O. Box 621
Honolulu, Hawaii 96809

SUBJECT: Early Consultation for the Proposed Kualapu`u School Waterline at
TMK (2) 5-2-013:027, Kualapuu, Molokai, Hawaii (DOE Job No:
Q57001-07)

Dear Mr. Atta:

Thank you for your letter of October 1, 2009 in response to the Early Consultation Letter for the proposed Kualapu`u School Waterline on Molokai. On behalf of the applicant, the State of Hawaii, Department of Education, we offer the following information in response to your comments.

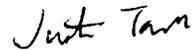
The applicant notes that the project site is in Flood Zone C, and that there are no regulations for developments within this zone.

The applicant also acknowledges the request to provide water demands and calculations to the Department of Land and Natural Resources Engineering Division for inclusion in the State Water Projects Plan Update. A copy of your letter has been forwarded to the project engineer to facilitate this submittal.

Morris M. Atta, Administrator
Page 2
March 17, 2010

We will provide your office with a copy of the Draft Environmental Assessment when it is available for your review and comment. Thank you again for your input on the Kualapu`u School Waterline project.

Very truly yours,



Justin Tanaka, Planner

JT:tn

Cc: Jake Freeman, Ronald M. Fukumoto Engineering, Inc.
Bob Purdie, Jr., Department of Education

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NOV 09 2009

LINDA LINGLE
GOVERNOR OF HAWAII



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

STATE HISTORIC PRESERVATION DIVISION
601 KAMOKILA BOULEVARD, ROOM 555
KAPOLEI, HAWAII 96707

Laura H. Thiele
Chairperson
Board of Land and Natural Resources
Commission on Water Resource Management

Russell Y. Tsuji
First Deputy

Ken C. Kawahara
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

November 4, 2009

Ms. Carol Matasci
Munekiyo & Hiraga, Inc.
305 High Street, Suite 104
Wailuku, Hawai'i 96793
planning@mhplanning.com

LOG NO: 2009.3903
DOC NO: 0911PC12
Archaeology

SUBJECT: Chapter 6E-8 Historic Preservation Review – Request for Comments for the Proposed Kualapu'u School Waterline Project, DOE Job No: Q57001-07 Kualapu'u Ahupua'a, Kona (Moloka'i) District, Island of Moloka'i
TMK: (2) 5-2-013:010 and (2) 5-2-013:999

Thank you for the opportunity to comment on the aforementioned project, correspondence which we received on September 10, 2009. Please accept our apologies for the delay in responding.

Based on the submitted document, the project involves the replacement of an existing waterline to service Kualapu'u School. A new 12 inch waterline will be constructed off-site and connected to the on-site system, along with improvements to on-site domestic and irrigation water service and fire protection lines. It is understood that the proposed work involves existing infrastructure, which would make anything other than precautionary archaeological monitoring during ground altering disturbance impractical.

Because we believe archaeological sites may be present in subsurface deposits exposed during the proposed work, upon review of any permit application forwarded to us by the County of Maui, we will likely recommend the following:

A qualified archaeological monitor shall be present during all ground altering disturbance within the subject parcels for the proposed project in order to document any historic properties which may be encountered and to provide mitigation measures as necessary.

As per Hawai'i Administrative Rules (HAR) §13-279, this means that prior to the commencement of ground altering disturbance associated with the proposed project, an appropriately prepared *monitoring plan* must be submitted to this office for review and acceptance. The plan must contain the following provisions:

- 1) Specify the kinds of historically or culturally significant sites or remains of sites anticipated and where in the construction area they are likely to be found;
- 2) Specify how such sites or remains of sites will be documented;
- 3) Specify how such sites or remains of sites will be treated;

- 4) Specify that the archaeologist (s) conducting the monitoring has (have) the authority to halt construction in the immediate area of the find in order to carry out the plan;
- 5) Specify that coordination between the archaeologist and construction crew has been scheduled so that all involved parties are aware of the plan and what it means;
- 6) Specify what laboratory work will be performed on any cultural sites or remains of sites that might be found in the project area;
- 7) Specify details concerning the archiving of any collections that are made;
- 8) Specify a schedule of report preparation and that the report will be submitted within the required 180 days after completion of the proposed undertaking.

A list of those meeting the requirements to perform such work can be obtained on the SHPD's website at <http://hawaii.gov/dlnr/hpd/pdfs/2009-Permittee.pdf> or by contacting our main office at (808) 692-8015.

Please note that if any of the buildings to be affected by the proposed work are in excess of 50 years in age, our architecture branch staff may offer additional comments under separate cover.

If you have any questions or comments regarding this letter, please contact the SHPD's Lead Maui Archaeologist, Ms. Patty Conte (Patty.J.Conte@hawaii.gov).

Aloha,



Nancy McMahon, Deputy SHPO/State Archaeologist
State Historic Preservation Division

c: Susan Tasaki: susan.y.tasaki@hawaii.gov
Jeff Hunt, Director, Dept. of Planning, FAX (808) 270-7634



MICHAEL T. MUNEKIYO
GWEN OHASHI HIRAGA
MITSURU "MICH" HIRANO
KARLYNN FUKUDA

MARK ALEXANDER ROY

March 18, 2010

Nancy McMahan
Deputy SHPO/State Archaeologist
Department of Land and Natural Resources
State Historic Preservation Division
601 Kamokila Boulevard, Room 555
Kapolei, Hawaii 96707

SUBJECT: Early Consultation for the Proposed Kualapu`u School Waterline at
TMK (2) 5-2-013:027, Kualapuu, Molokai, Hawaii (DOE Job No:
Q57001-07)

Dear Ms. McMahan:

Thank you for your letter of November 4, 2009 in response to the Early Consultation Letter for the proposed Kualapu`u School Waterline on Molokai. On behalf of the applicant, the State of Hawaii, Department of Education, we offer the following information in response to your comments.

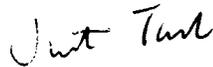
The project scope includes both onsite and offsite improvements. A new waterline will be constructed along Farrington Avenue to replace the existing waterline which is located behind the school. There is no existing waterline in this location along Farrington Avenue; however, the new waterline will be constructed within the previously disturbed and developed right-of-way.

A final Archaeological Monitoring Plan (AMP) by Xamanek Researches, LLC was approved by the State Historic Preservation Division (SHPD) on December 18, 2009. This AMP stipulates that a qualified archaeological monitor be present during all subsurface earthmoving activities scheduled for this water system improvement project. A copy of the AMP will be included in the Draft Environmental Assessment.

Nancy McMahon
Page 2
March 18, 2010

We will provide your office with a copy of the Draft Environmental Assessment when it is available for your review and comment. Thank you again for your input on the Kualapu`u School Waterline project.

Very truly yours,



Justin Tanaka
Planner

JT:tn

cc: Jake Freeman, Ronald M. Fukumoto Engineering, Inc.
Bob Purdie, Jr., Department of Education

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OCT 0 2 2009

LINDA LINGLE
GOVERNOR



BRENNON T. MORIOKA
DIRECTOR

Deputy Directors
MICHAEL D. FORMBY
FRANCIS PAUL KEENO
BRIAN H. SEKIGUCHI
JIRO A. SUMADA

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
869 PUNCHBOWL STREET
HONOLULU, HAWAII 96813-5097

IN REPLY REFER TO:

STP 8.3418

September 29, 2009

Ms. Carol Matasci
Planner
Munekiyo & Hiraga, Inc.
305 High Street, Suite 104
Wailuku, Hawaii 96793

Dear Ms. Matasci:

Subject: Kualapuu School Waterline Project
Pre-Consultation for Draft Environmental Assessment (DEA)

Thank you for providing the subject project for the State Department of Transportation's (DOT) review and comments. DOT understands that the subject project consists of an existing waterline's (4-inch) replacement by a new waterline (12-inch) along Farrington Avenue. The new waterline will connect to an existing waterline (20-inch).

1. DOT recommends that the DEA discuss and evaluate project impacts to the State highway (Farrington Avenue) facilities, such as, but not limited to: inconvenience to the public; types of construction vehicles and equipment used at the job site; construction hours; and compliance with DOT's "Pipeline Removal Policy."
2. Please note that the applicant should work with the DOT Highways Division, Maui District Office regarding permits for oversized equipment/overweight loads and submission of construction plans for any work done within the State highway right-of-way, which must conform to nationally accepted design standards and completed at no cost to the State.

Ms. Carol Matasci
September 29, 2009
Page 2

STP 8.3418

Four copies of the DEA should be provided to DOT to facilitate review by the Highways Division. If there are any questions, please contact Mr. David Shimokawa of the DOT Statewide Transportation Planning Office at telephone number (808) 587-2356.

Very truly yours,

Francis Paul Keeno

for BRENNON T. MORIOKA, Ph.D., P.E.
Director of Transportation

c: Katherine Kealoha, Office of Environmental Quality Control



MICHAEL T. MUNEKIYO
GWEN OHASHI HIRAGA
MITSURU "MICH" HIRANO
KARLYNN FUKUDA

MARK ALEXANDER ROY

March 17, 2010

Brennon T. Morioka, Ph.D., P.E., Director
Department of Transportation
869 Punchbowl Street
Honolulu, Hawaii 96813-5097

SUBJECT: Early Consultation for the Proposed Kualapu`u School Waterline at
TMK (2) 5-2-013:027, Kualapuu, Molokai, Hawaii (DOE Job No:
Q57001-07), Reference No: STP 8.3418

Dear Mr. Morioka:

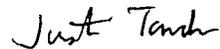
Thank you for your letter of September 29, 2009 in response to the early consultation letter for the proposed Kualapu`u School Waterline on Molokai. On behalf of the applicant, the State of Hawaii, Department of Education, we offer the following information in response to your comments, in the order they were presented.

1. The Draft Environmental Assessment (EA) will discuss project impacts to Farrington Avenue facilities.
2. The applicant will coordinate with the DOT Highways Division, Maui District Office regarding permits for oversized equipment and overweight loads, as applicable. Additionally, construction plans for any work done within the State highway right-of-way will be submitted to the Maui District Office for review.

Brennon T. Morioka, Ph.D., P.E.
Page 2
March 17, 2010

We will provide your office with four (4) copies of the Draft Environmental Assessment, as requested, when it is available for your review and comment. Thank you again for your input on the Kualapu'u School Waterline project.

Very truly yours,



Justin Tanaka, Planner

JT:tn

Cc: Jake Freeman, Ronald M. Fukumoto Engineering, Inc.
Bob Purdie, Jr., Department of Education

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LINDA LINGLE
GOVERNOR



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
869 PUNCHBOWL STREET
HONOLULU, HAWAII 96813-5097

October 16, 2009

BRENNON T. MORIOKA
DIRECTOR

Deputy Directors
MICHAEL D. FORMBY
FRANCIS PAUL KEENO
BRIAN H. SEKIGUCHI
JIRO A. SUMADA

IN REPLY REFER TO:

STP 8.3430

Ms. Carol Matasci
Planner
Munekiyo & Hiraga, Inc.
305 High Street, Suite 104
Wailuku, Hawaii 96793

Dear Ms. Matasci:

Subject: Kualapuu School Waterline Project
Pre-Consultation for Draft Environmental Assessment (DEA)

The State Department of Transportation (DOT) provided comments on the subject project in letter STP 8.3418, dated September 29, 2009, and now offers the following supplemental comments by the DOT Highways Division:

1. The applicant must install the new waterline outside the travel lane, close to the State highway right-of-way line. Farrington Avenue is scheduled for resurfacing soon and the DOT Highways Division will not approve an alignment for the waterline that will involve major excavation of a newly resurfaced/paved road.
2. It is very important that the applicant process/secure an approved Use and Occupancy Agreement (U&OA) from the DOT Highways Division, together with approved construction plans/permits for all work done within the Farrington Avenue right-of-way line, prior to waterline installation.
3. The installation of the new 12-inch waterline should not result in additional discharge of surface water runoff onto Farrington Avenue.
4. The applicant is advised to coordinate early with the DOT Highways Division, Maui District Office to schedule their construction activity and avoid possible conflicts with DOT's scheduled construction/maintenance projects.

Ms. Carol Matasci, Planner
Page 2
October 16, 2009

STP 8.3430

DOT appreciates the opportunity to provide comments. If there are any questions, please contact Mr. David Shimokawa of the Statewide Transportation Planning Office at telephone number (808) 587-2356.

Very truly yours,

A handwritten signature in black ink, appearing to read 'BM', with a long horizontal flourish extending to the right.

BRENNON T. MORIOKA, Ph.D., P.E.
Director of Transportation

c: Katherine Kealoha, Office of Environmental Quality Control



MICHAEL T. MUNEKIYO
GWEN OHASHI HIRAGA
MITSURU "MICH" HIRANO
KARLYNN FUKUDA

MARK ALEXANDER ROY

March 17, 2010

Brennon T. Morioka, Ph.D., P.E., Director
Department of Transportation
869 Punchbowl Street
Honolulu, Hawaii 96813-5097

SUBJECT: Early Consultation for the Proposed Kualapu`u School Waterline at
TMK (2) 5-2-013:027, Kualapuu, Molokai, Hawaii (DOE Job No:
Q57001-07), Reference No: STP 8.3418

Dear Mr. Morioka:

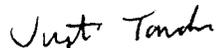
Thank you for your letter of October 16, 2009 in response to the early consultation letter for the proposed Kualapu`u School Waterline on Molokai. On behalf of the applicant, the State of Hawaii, Department of Education, we offer the following information in response to your comments, in the order they were presented.

1. The new waterline will be installed outside the travel lane, close to the State highway right-of-way line.
2. The applicant will process and secure an approved Use and Occupancy Agreement (U&OA) from the DOT Highways Division, together with approved construction plans and permits, for all work done within the Farrington Avenue right-of-way line, prior to waterline installation.
3. The installation of the new 12-inch waterline will not result in additional discharge of surface water runoff onto Farrington Avenue. The proposed project will not increase impervious surface area along Farrington Avenue.
4. The applicant will coordinate with the DOH Highways Division, Maui District Office, to schedule construction activity and avoid possible conflicts.

Brennon T. Morioka, Ph.D., P.E.
Page 2
March 17, 2010

We will provide your office with a copy of the Draft Environmental Assessment when it is available for your review and comment. Thank you again for your input on the Kualapu`u School Waterline project.

Very truly yours,



Justin Tanaka, Planner

JT:tn

Cc: Jake Freeman, Ronald M. Fukumoto Engineering, Inc.
Bob Purdie, Jr., Department of Education

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STATE OF HAWAII
OFFICE OF HAWAIIAN AFFAIRS
711 KAPI'OLANI BOULEVARD, SUITE 500
HONOLULU, HAWAII 96813

HRD09/4658

October 8, 2009

Carol Matasci
Munekiyo & Hiraga, Inc.
305 High Street, Suite 104
Wailuku, HI 96793

RE: Early consultation for the proposed Kualapu'u School Waterline, Kualapu'u, Moloka'i.

Aloha e Carol Matasci,

The Office of Hawaiian Affairs (OHA) is in receipt of your letter requesting comments on the above-mentioned project. The state Department of Education proposes to replace the existing waterline service to Kualapu'u School. The new 12-inch waterline would be constructed along Farrington Avenue. The project is estimated to take six months. OHA has reviewed the project and offers the following comments.

The Draft Environmental Assessment should include a Cultural Impact Assessment (CIA), in accordance with Chapter 343 of the Hawaii Revised Statutes (HRS). The CIA should include information relating to the Native Hawaiian practices and beliefs associated with the general area of the project site, and it is recommended that the community be involved in this assessment. Consideration must also be afforded to any individuals accessing the project area for constitutionally protected traditional and customary purposes, in accordance with the Hawai'i State Constitution, Article XII, Section 7.

OHA requests clarification whether an archaeological inventory survey for the project will be submitted to the State Historic Preservation Division for review and approval. If so, OHA should be allowed the opportunity to comment on the criteria assigned to any cultural or archaeological sites identified within the archaeological inventory survey. In addition, we request the applicant's assurances that should iwi kūpuna or Native Hawaiian cultural or traditional deposits be found during the construction of the project, work will cease, and the appropriate agencies will be contacted pursuant to applicable law.

Carol Matasci
October 8, 2009
Page 2

Thank you for the opportunity to comment. If you have further questions, please contact Sterling Wong by phone at (808) 594-0248 or e-mail him at sterlingw@oha.org.

‘O wau iho nō me ka ‘oia‘i‘o,



Clyde W. Nāmu‘o
Administrator

C: OHA Hilo and Kona CRC Office



MICHAEL T. MUNEKIYO
GWEN OHASHI HIRAGA
MITSURU "MICH" HIRANO
KARLYNN FUKUDA

MARK ALEXANDER ROY

March 17, 2010

Clyde W. Nāmu`o, Administrator
State of Hawaii
Office of Hawaiian Affairs
711 Kapiolani Boulevard, Suite 500
Honolulu, Hawaii 96816

SUBJECT: Early Consultation for the Proposed Kualapu`u School Waterline at
TMK (2) 5-2-013:027, Kualapuu, Molokai, Hawaii (DOE Job No:
Q57001-07), Reference No. HRD09/4658

Dear Mr. Nāmu`o:

Thank you for your letter of October 8, 2009 in response to the early consultation letter for the proposed Kualapu`u School Waterline on Molokai. On behalf of the applicant, the State of Hawaii, Department of Education, we offer the following information in response to your comments.

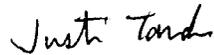
The Draft Environmental Assessment (EA) will include a Cultural Impact Assessment (CIA), including information from interviews with individuals who have ties to the area.

As the site has been previously developed, rather than conducting an archaeological inventory survey, a final Archaeological Monitoring Plan (AMP) has been prepared and was approved by the State Historic Preservation Division (SHPD) on December 18, 2009. Furthermore, in the event iwi kūpuna or Native Hawaiian cultural or traditional deposits are found during construction, work will cease in the vicinity of the find and the appropriate agencies will be contacted.

Clyde W. Nāmu`o, Administrator
Page 2
March 17, 2010

We will provide your office with a copy of the Draft Environmental Assessment when it is available for your review and comment. Thank you again for your input on the Kualapu`u School Waterline project.

Very truly yours,



Justin Tanaka, Planner

JT:tn

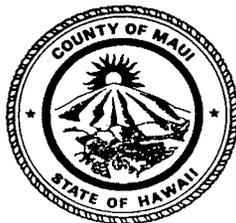
Cc: Jake Freeman, Ronald M. Fukumoto Engineering
Bob Purdie, Jr., Department of Education

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CHARMAINE TAVARES
Mayor

CHERYL K. OKUMA, Esq.
Director

GREGG KRESGE
Deputy Director



TRACY TAKAMINE, P.E.
Solid Waste Division

DAVID TAYLOR, P.E.
Wastewater Reclamation
Division

**COUNTY OF MAUI
DEPARTMENT OF
ENVIRONMENTAL MANAGEMENT**

2200 MAIN STREET, SUITE 100
WAILUKU, MAUI, HAWAII 96793

October 30, 2009

Ms. Carol Matasci
Munekiyo & Hiraga, Inc.
305 High Street, Suite 104
Wailuku, Hawaii 96793

**SUBJECT: KUALAPUU SCHOOL WATERLINE PROJECT
EARLY CONSULTATION
TMK (2) 5-2-013:027, MOLOKAI**

We reviewed the subject project as a pre-application consultation and have the following comments:

1. Solid Waste Division comments:
 - a. None.
2. Wastewater Reclamation Division (WWRD) comments:
 - a. None. There is no County sewer system in the immediate vicinity of the subject project.

If you have any questions regarding this memorandum, please contact Gregg Kresge at 270-8230.

Sincerely,

Cheryl K. Okuma, Director



DEPARTMENT OF
HOUSING AND HUMAN CONCERNS
COUNTY OF MAUI

JEFF L & LUUJ
CHARMAINE TAVARES
Mayor

LORI TSUHAKO
Director

JO-ANN T. RIDAO
Deputy Director

2200 MAIN STREET • SUITE 546 • WAILUKU, HAWAII 96793 • PHONE (808) 270-7805 • FAX (808) 270-7165
MAILING ADDRESS: 200 SOUTH HIGH STREET • WAILUKU, HAWAII 96793 • EMAIL director.hhc@mauicounty.gov

September 24, 2009

Ms. Carol Matasci
Planner
Munekiyo & Hiraga, Inc.
305 High Street, Suite 104
Wailuku, Hawaii 96793

Dear Ms. Matasci:

**Subject: Early Consultation Request for the Proposed Kualapu'u
School Waterline Project (DOE Job No: Q57001-07)**

The Department has reviewed the Early Consultation Request for the above subject project. Based on our review, we have determined that the above project is not subject to Chapter 2.96, Maui County Code. At the present time, the department has no additional comments to offer.

Please call Mr. Wayde Oshiro of our Housing Division at 270-7355 if you have any questions.

Sincerely,

LORI TSUHAKO, LSW, ACSW
Director of Housing and Human Concerns

cc: Housing Division

66



MICHAEL T. MUNEKIYO
GWEN OHASHI HIRAGA
MITSURU "MICH" HIRANO
KARLYNN FUKUDA

MARK ALEXANDER ROY

March 17, 2010

Lori Tsuhako, LSW, ACSW, Director
**Department of Housing and
Human Concerns**
200 South High Street
Wailuku, Hawaii 96793

SUBJECT: Early Consultation for the Proposed Kualapu`u School Waterline at
TMK (2) 5-2-013:027, Kualapuu, Molokai, Hawaii (DOE Job No:
Q57001-07)

Dear Ms. Tsuhako:

Thank you for your letter of September 24, 2009 in response to the early consultation letter for the proposed Kualapu`u School Waterline on Molokai. On behalf of the applicant, the State of Hawaii, Department of Education, we offer the following information in response to your comments.

The applicant acknowledges your determination that the project is not subject to Chapter 2.96, Maui County Code.

Thank you again for your input on the Kualapu`u School Waterline project.

Very truly yours,

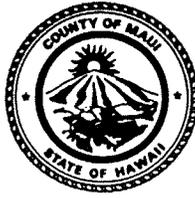
Justin Tanaka, Planner

JT:tn

Cc: Jake Freeman, Ronald M. Fukumoto Engineering, Inc.
Bob Purdie, Jr., Department of Education

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CHARMAINE TAVARES
Mayor



TAMARA HORCAJO
Director

ZACHARY Z. HELM
Deputy Director

(808) 270-7230
FAX (808) 270-7934

DEPARTMENT OF PARKS & RECREATION
700 Hali'a Nako'a Street, Unit 2, Wailuku, Hawaii 96793

September 21, 2009

MEMO TO: Munekiyo & Hiraga, Inc.
Carol Matasci, Planner

FROM: TAMARA HORCAJO, Director

SUBJECT: **Kualapu'u School Waterline Project**
TMK: (2) 5-5-013:027
DOE Job number Q57100-07

Our department has reviewed the proposed project. We have no comment or objection at this time.

Should you have any questions or concerns, please feel free to contact me or Steve Grogan, Project Coordinator, at 270- 6158.

c: Patrick Matsui, Chief of Planning and Development Division

TH:PTM:sg
S:\PLANNING\Steve G\No Objections - Kualapuu School Waterline Project.doc

CHARMAINE TAVARES
Mayor

JEFFREY S. HUNT
Director

KATHLEEN ROSS AOKI
Deputy Director

OCT 09 2009



COUNTY OF MAUI
DEPARTMENT OF PLANNING

October 6, 2009

Ms. Carol Matasci
Munekiyo & Hiraga, Inc.
305 High Street, Suite 104
Wailuku, Hawaii 96793

Dear Ms. Matasci:

**SUBJECT: ENVIRONMENTAL PRE-ASSESSMENT CONSULTATION
COMMENTS REGARDING THE PROPOSED KUALAPU'U
SCHOOL WATERLINE INSTALLATION PROJECT, TO OCCUR
ALONG FARRINGTON AVENUE, KUALAPU'U, ISLAND OF
MOLOKAI, HAWAII (EAC 2009/0035)**

The Department of Planning (Department) is in receipt of the above-referenced request for the proposed Kualapu'u School Waterline maintenance and upgrade project. The Department understands the proposed action includes the following:

1. Replacement of existing waterlines to the Kualapu'u School;
2. Install approximately 2,600 lineal feet of 12-inch (12") waterline along Farrington Avenue to connect with an existing 20-inch (20") Department of Hawaiian Home Lands waterline to the school;
3. Installation of two (2) fire hydrants, a 2-inch (2") meter and manhole, and an irrigation meter and manhole;
4. It is anticipated that the Draft Environmental Assessment (EA) is proposed by and will be accepted by the State of Hawaii Department of Education; and
5. The Department is a commenting agency on this project.

Based on the foregoing, the Department provides the following comments on the Draft EA:

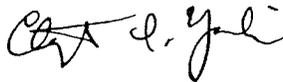
1. The early consultation request letter did not include a Tax Map Key (TMK) of the property; therefore, the land use designations of the property(s) involved could not be verified by the Department's Zoning Administration & Enforcement Division (ZAED). Please submit a Zoning and Flood Confirmation Form to ZAED for land use designation clarification;

Ms. Carol Matasci
October 6, 2009
Page 2

2. The Department concurs that the use of State or County lands or funds is a "trigger" that requires compliance with Chapter 343, Hawaii Revised Statutes;
3. The Department concurs that the State of Hawaii Department of Education will most likely be the Accepting Authority for the Draft EA; and
4. Given the information provided, the Department does not anticipate the need for any special land use permits from the Department. Although unlikely, this may change upon verification of the land use designations of the property(s) involved.

Thank you for the opportunity to comment. Should you require further clarification, please contact Staff Planner Danny Dias at danny.dias@mauicounty.gov or at 270-7557.

Sincerely,



CLAYTON I. YOSHIDA, AICP
Planning Program Administrator

for JEFFREY S. HUNT, AICP
Planning Director

xc: Danny A. Dias, Staff Planner
State Land Use Commission
2009 EAC File
General File

JSH:CIY:DAD:vb
K:\WP_DOCS\PLANNING\EAC\2009\0035_KualapuuSchool\CommentLtr.doc



MICHAEL T. MUNEKIYO
GWEN OHASHI HIRAGA
MITSURU "MICH" HIRANO
KARLYNN FUKUDA

MARK ALEXANDER ROY

March 17, 2010

Jeffrey S. Hunt, Director
Department of Planning
250 South High Street
Wailuku, Hawaii 96793

**SUBJECT: Early Consultation for the Proposed Kualapu`u School Waterline at
TMK (2) 5-2-013:027, Kualapuu, Molokai, Hawaii (DOE Job No:
Q57001-07) (EAC 2009/0035)**

Dear Mr. Hunt:

Thank you for your Department's letter of October 6, 2009 in response to the early consultation letter for the proposed Kualapu`u School Waterline on Molokai. On behalf of the applicant, the State of Hawaii, Department of Education, we offer the following information in response to your comments in the order they were presented.

We would like to clarify that the scope of the project covered by the Draft Environmental Assessment (EA) encompasses both offsite and onsite improvements. Offsite improvements include the construction of a new 12-inch waterline connecting Kualapu`u School to an existing 20-inch Department of Hawaiian Home Lands waterline, two (2) fire hydrants, a 2-inch water meter and manhole, and an irrigation meter and manhole. The onsite improvements include the upgrade of the domestic distribution system, a new 12-inch fire protection line, the upgrade of the irrigation system, a new fire access road, and four (4) fire hydrants.

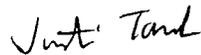
1. The Tax Map Key (TMK) number identifying the Kualapu`u School property is (2) 5-2-013:027. A Zoning and Flood Confirmation Form for this property, completed by ZAED, is attached as Exhibit "A".
2. The applicant acknowledges the Department of Planning's (Department) concurrence that the use of State or County lands or funds triggers compliance with Chapter 343, Hawaii Revised Statutes.
3. The applicant acknowledges the Department's concurrence that the State of Hawaii, Department of Education will be the approving agency for the EA.

Clayton I. Yoshida, AICP
Page 2
March 17, 2010

4. The applicant acknowledges that the Department does not anticipate the need for any special land use permits from the Department.

We will provide your office with a copy of the Draft Environmental Assessment when it is available for your review and comment. Thank you again for your input on the Kualapu`u School Waterline project.

Very truly yours,



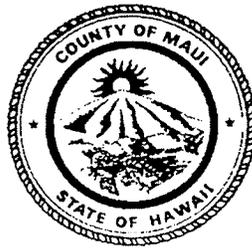
Justin Tanaka, Planner

JT:tn

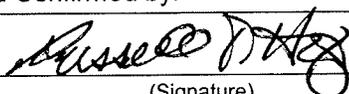
Attachment

Cc: Jake Freeman, Ronald M. Fukumoto Engineering, Inc. (w/attachment)
Bob Purdie, Jr., Department of Education (w/attachment)

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ZONING AND FLOOD CONFIRMATION FORM

APPLICANT INFORMATION <i>(To be completed by Applicant)</i>			
APPLICANT	Munekiyo and Hiraga, Inc.		
TELEPHONE	(808) 244-2015	E-MAIL	carol@mhplanning.com
PROJECT NAME	Proposed Kualapu'u Elementary School Waterline		
ADDRESS/LOCATION	260 Farrington Avenue, Kualapu'u, Molokai, Hawaii 96757		
TAX MAP KEY NO(S)	(2) 5-2-013:027		
ZONING INFORMATION <i>(To be completed by ZAED)</i>			
COMMUNITY PLAN DESIGNATION(S)	Public/Quasi-Public		
COUNTY ZONING(S)	P-1 Public/Quasi-Public		
STATE LAND USE DISTRICT(S)	Urban		
SPECIAL DISTRICT(S)	N.A.		
FLOOD INFORMATION <i>(To be completed by ZAED)</i>			
FLOOD HAZARD AREA ZONE(S)	C		
BASE FLOOD ELEVATION(S)	N.A.	mean sea level, 1929 National Geodetic Vertical Datum; or	
For Flood Zone AO, FLOOD DEPTH	N.A.		
FLOODWAY	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
FLOOD DEVELOPMENT PERMIT REQUIRED	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
<p><small>*For flood hazard area zones B or C; a flood development permit would be required if any work is done in any drainage facility or stream area that would reduce the capacity of the drainage facility, river, or stream, or adversely affect downstream property.</small></p> <p>Be advised that with the September 2009 adoption of FEMA's (Federal Emergency Management Agency) Digital Flood Insurance Rate Maps (DFIRM s) the property's flood zone designation will be changed to _____ with a base flood elevation of _____ feet mean sea level, 1929 NGVD. FEMA's new DFIRM will impact the property's flood risk designation and consequently, require federally-mandated flood insurance for federally-backed mortgages. Properties affected by the change in the FEMA flood zone maps will face increases to their flood insurance when the maps go into effect on September 25, 2009. Some properties will see a significant increase in insurance rates. Properties that are currently in Zone C may secure flood insurance at a discounted rate if obtained prior to 9/25/2009. You may learn more on insurance costs at www.floodsmart.gov/floodsmart/.</p>			
For Flood Zone AO, FLOOD DEPTH			Effective 9/25/2009
FLOODWAY	<input type="checkbox"/> Yes	<input type="checkbox"/> No	Effective 9/25/2009
FLOOD DEVELOPMENT PERMIT REQUIRED	<input type="checkbox"/> Yes	<input type="checkbox"/> No	Effective 9/25/2009
FOR COUNTY USE ONLY			
REMARKS/COMMENTS:			
<input type="checkbox"/> Additional information required <input type="checkbox"/> Required for Agricultural Subdivisions Agricultural Assessment RFS No:		<input type="checkbox"/> Information submitted is correct <input type="checkbox"/> Correction has been made and initialed	
Reviewed and Confirmed by:			
 (Signature)		06/19/09 (Date)	
For: AARON SHINMOTO, Planning Program Administrator Zoning Administration and Enforcement Division			

CHARMAINE TAVARES
Mayor

MILTON M. ARAKAWA, A.I.C.P.
Director

MICHAEL M. MIYAMOTO
Deputy Director

Telephone: (808) 270-7845
Fax: (808) 270-7955



OCT 02 2009
RALPH NAGAMINE, L.S., P.E.
Development Services Administration

CARY YAMASHITA, P.E.
Engineering Division

BRIAN HASHIRO, P.E.
Highways Division

COUNTY OF MAUI
DEPARTMENT OF PUBLIC WORKS
200 SOUTH HIGH STREET, ROOM NO. 434
WAILUKU, MAUI, HAWAII 96793

September 30, 2009

Ms. Carol Matasci, Planner
MUNEKIYO & HIRAGA, INC.
305 High Street, Suite 104
Wailuku, Maui, Hawaii 96793

Dear Ms. Matasci:

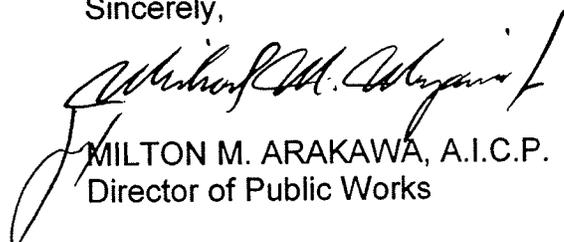
**SUBJECT: EARLY CONSULTATION REQUEST FOR PROPOSED
KUALAPUU SCHOOL WATERLINE PROJECT (DOE JOB
NO. Q57001-07)**

We reviewed your early consultation request and offer the following comment:

1. Tax map records indicate that the County of Maui owns the land on which Kualapuu School is on. Should ownership be transferred to the State?

Please call Michael Miyamoto at 270-7845 if you have any questions regarding this letter.

Sincerely,



MILTON M. ARAKAWA, A.I.C.P.
Director of Public Works

MMA:MMM:ls

xc: Highways Division
Engineering Division

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MICHAEL T. MUNEKIYO
GWEN OHASHI HIRAGA
MITSURU "MICH" HIRANO
KARLYNN FUKUDA

MARK ALEXANDER ROY

March 17, 2010

Milton M. Arakawa, AICP
Director of Public Works
Department of Public Works
200 South High Street, Room No. 434
Wailuku, Hawaii 96793

**SUBJECT: Early Consultation for the Proposed Kualapu`u School Waterline at
TMK (2) 5-2-013:027, Kualapuu, Molokai, Hawaii (DOE Job No:
Q57001-07)**

Dear Mr. Arakawa:

Thank you for your letter of September 30, 2009 in response to the Early Consultation Letter for the proposed Kualapu`u School Waterline on Molokai. On behalf of the applicant, the State of Hawaii, Department of Education, we offer the following information in response to your comment.

The applicant acknowledges your comment regarding County of Maui ownership of the Kualapu`u School property. A copy of your letter will be forwarded to the Department of Education for their consideration.

We will provide your office with copies of the Draft Environmental Assessment when it is available for your review and comment. Thank you again for your input on the Kualapu`u School Waterline project.

Very truly yours,

Justin Tanaka, Planner

JT:tn

Cc: Jake Freeman, Ronald M. Fukumoto Engineering, Inc.
Bob Purdie, Jr., Department of Education

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SEP 30 2009

CHARMAINE TAVARES
MAYOR



DON A. MEDEIROS
Director
WAYNE A. BOTEILHO
Deputy Director
Telephone (808) 270-7511
Facsimile (808) 270-7505

DEPARTMENT OF TRANSPORTATION

COUNTY OF MAUI
200 South High Street
Wailuku, Hawaii, USA 96793-2155

September 23, 2009

Ms. Carol Matasci
Munekiyo & Hiraga Inc.
305 High Street, Suite 104
Wailuku, Maui, Hawaii 96793

Subject: Proposed Kualapu'u School Waterline Project

Dear Ms. Matasci,

Thank you for the opportunity to comment on this project. We have no comments to make at this time.

Please feel free to contact me if you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "Don Medeiros".

Don Medeiros
Director



September 11, 2009

Ms. Carol Matasci, Planner
Munekiyo & Hiraga, Inc.
305 High Street, Suite 104
Wailuku, Maui, Hawaii, 96793

Subject: Early Consultation Request for Proposed Kualapu'u School Waterline Project
(DOE Job No: Q57001-07)
Tax Map Key: (2) 5-2-013:027
Farrington Avenue
Kualapu'u, Molokai, Hawaii

Dear Ms. Matasci,

Thank you for allowing us to comment on the Early Consultation Request for the subject project.

In reviewing our records and the information received, Maui Electric Company (MECO) has no objection to the subject project at this time. If the customer seeks an electric service upgrade to accommodate the booster pump station, we highly encourage the customer to submit an electrical service request so that service can be provided on a timely basis.

Should you have any questions or concerns, please call me at 871-2340.

Sincerely,

A handwritten signature in black ink that reads "Ray Okazaki". The signature is written in a cursive, flowing style.

Ray Okazaki
Staff Engineer



MICHAEL T. MUNEKIYO
GWEN OHASHI HIRAGA
MITSURU "MICH" HIRANO
KARLYNN FUKUDA

MARK ALEXANDER ROY

March 17, 2010

Ray Okazaki
Staff Engineer
Maui Electric Company, Ltd.
P.O. Box 398
Kahului, Hawaii 96733-6898

SUBJECT: Early Consultation for the Proposed Kualapu`u School Waterline at
TMK (2) 5-2-013:027, Kualapuu, Molokai, Hawaii (DOE Job No:
Q57001-07)

Dear Mr. Okazaki:

Thank you for your letter of September 11, 2009 in response to the Early Consultation Letter for the proposed Kualapu`u School Waterline on Molokai. On behalf of the applicant, the State of Hawaii, Department of Education, we offer the following information in response to your comment.

Coordination with MECO will be undertaken if the project requires an electric service upgrade. A copy of your letter has been provided to the project engineer to facilitate this process.

We will provide your office with a copy of the Draft Environmental Assessment when it is available for your review and comment. Thank you again for your input on the Kualapu`u School Waterline project.

Very truly yours,

Justin Tanaka, Planner

JT:tn

Cc: Jake Freeman, Ronald M. Fukumoto Engineering, Inc.
Bob Purdie, Jr., Department of Education

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IX. REFERENCES

IX. REFERENCES

- Chinen, Jon, The Great Mahele: Hawaii's Land Division of 1848, Honolulu: University of Hawaii P, 1958.
- Community Resources, Inc., Maui Community Plan Update Program Socio-Economic Forecast Report, January 1994.
- County of Maui, Molokai Community Plan, 2001.
- County of Maui, Office of Economic Development, 2008 Maui County Data Book, December 2008.
- County of Maui, The General Plan of the County of Maui, 1990 Update.
- De Loach, Lucile, Land and People on Molokai: An Overview, Master's Thesis, 1975.
- Department of Hawaiian Home Lands, Island of Molokai Regional Plan, October 2007.
- Federal Emergency Management Agency, Flood Insurance Rate Map Community Panel 15003 0050C, 1989.
- Fornander, Abraham, Hawaiian Antiquities and Folk-Lore, P.B. Bishop Museum Memoirs, vol. 4, Honolulu: Bishop Museum, 1916-17.
- KN Consulting Services, Inc. Kualapuu Elementary School Campus Water System Improvements: Engineering Evaluation. January 2001.
- MacKenzie, Melody Kapiliaoloha, ed., Native Hawaiian Rights Handbook, Honolulu: Native Hawaiian Legal Corporation, 1991.
- Maui County Planning Department, Socio-Economic Forecast: The Economic Projections for the Maui County General Plan 2030, June 2006.
- Minerbi, Luciano et. al., Native Hawaiian and Local Cultural Assessment Project, Honolulu: University of Hawaii at Manoa, 1993.
- Munekiyo & Hiraga, Inc. Draft Environmental Assessment for the Proposed Kawela Bridge Replacement, Molokai, Hawaii, February 2009.
- Munekiyo & Hiraga, Inc., Final Environmental Assessment, Proposed Kaunakakai Fire Station, November 2006.

Scientific Consultant Services, Inc., Archaeological Inventory Report for the Kawela Bridge Replacement, Kawela Ahupuaa, Kona District, Molokai Island, Hawaii, August 2006.

State of Hawaii, Department of Labor & Industrial Relations, Hawaii Workforce Informer, March 2010.

Summers, Catherine C., Molokai: A Site Survey, Pacific Archaeological Records No.14, Honolulu: Bishop Museum, 1971.

United States Department of Agriculture, Soil Conservation Service, Soil Survey of the Islands of Kauai, Oahu, Maui, Molokai & Lanai, August 1972.

University of Hawaii Press, Atlas of Hawaii - 2nd Edition, 1983.

Weisler, Marshall and P.V. Kirch, The Archaeological Resources of Kawela, Moloka'i: their nature, significance, and management, Honolulu: Bishop Museum, 1982.

APPENDIX A.

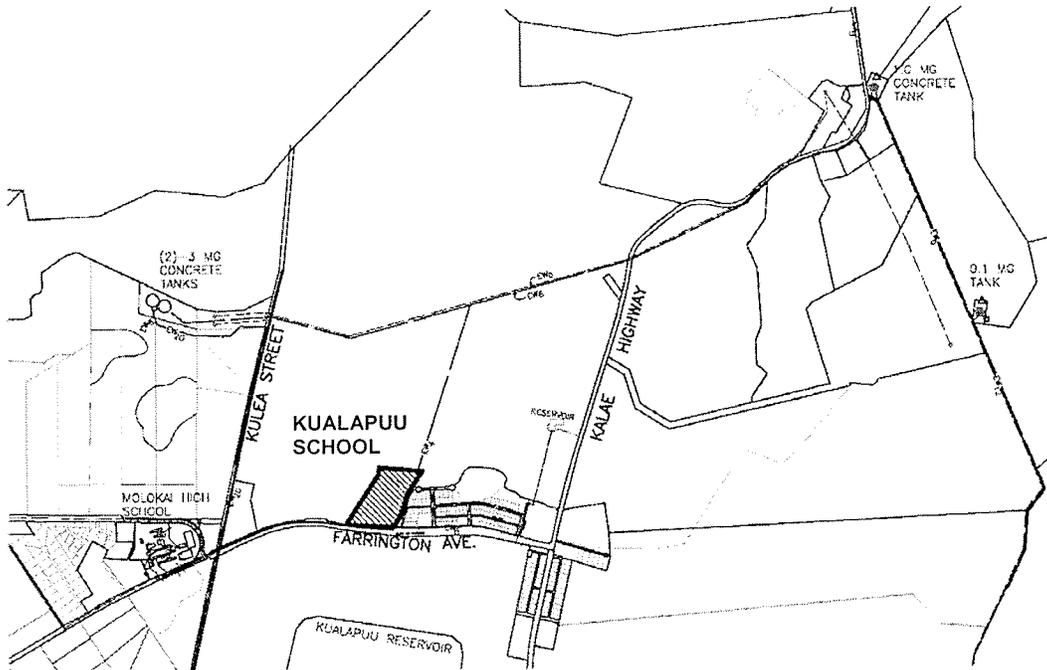
Preliminary Engineering Report for Kualapu`u School Waterline

Preliminary Engineering Report for Kualapuu School Waterline

DOE Job No. Q57001-07

Kualapuu, Molokai, Hawaii

Tax Map Key (2) 5-2-013:027



Owner:

**Department of Education
State of Hawaii**

P.O. Box 2360

Honolulu, Hawaii 96804

Phone: (808) 586-0408

Fax: (808) 586-0532

This work was prepared by me
or under my supervision.

Consultant: **RFE**

Ronald M. Fukumoto Engineering, Inc.

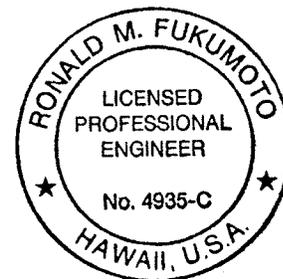
1721 Wili Pa Loop, Suite 203

Wailuku, Hawaii 96793

Phone: (808) 242-8611

Fax: (808) 244-7510

E-Mail: office@rfemaui.com



Ronald M. Fukumoto

Date: October 9, 2009

License Expires 4/30/10

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Preliminary Schedule.....	A-4

I. PURPOSE

The purpose of this outline report is to present preliminary engineering data for implementing the water system improvements. The purpose of the project is to provide reliable and code-compliant potable, irrigation, and fire protection water service to Kualapuu School.

II. BACKGROUND

Water service problems at the school include inconsistent water pressure and lack of fire protection water service. Other difficulties include lack of easements across private land for existing waterlines serving the school, undocumented locations of these waterlines, and overgrown maintenance trails. These problems were identified in a previous engineering report, *Kualapuu Elementary School Campus Water System Improvements Engineering Evaluation*, dated January 2001, prepared by KN Consulting Services, Inc.

A meeting and site visit was held in late 2007 to initiate the project. Approximate elevation data using GPS equipment was collected during the site visit to confirm information on reference construction plans and to provide a reliable method of computing system pressures.

III. WATER SYSTEM ANALYSIS

A. Design Standards

The following design standards will be adopted for the project: (1) Water System Standards, Department of Water Supply, County of Maui, dated 2002, and (2) American Water Works Association Standards, dated 1978.

B. Existing System

The attached Figure 1, "Preliminary Off-Site Water Plan," shows the existing Department of Hawaiian Home Lands (DHHL) distribution system in the vicinity of the project. The plan includes approximate elevations of various sites based on the data collected during the initial site visit.

As shown on Figure 1, the off-site system consists of a 1.0 million gallon (MG) reservoir along Kalae Highway at an elevation of 1,413 feet above mean sea level (MSL), an off-site 6-inch transmission line that connects the 1.0 MG reservoir to two 3.5 MG reservoirs (more commonly known as the 7.0 MG reservoir) at an elevation of 1,017 feet MSL, and an off-site 4-inch waterline that conveys water from the 6-inch transmission line to the school. There is a 2-inch water meter on the 4-inch waterline where it connects to the 6-inch transmission line. Also in the area is a 20-inch waterline along Kulea Street that conveys water from the 7.0 MG reservoir to the Molokai High and Intermediate School, and nearby residential and agricultural areas.

Figure 2, "Existing On-Site Water System," shows the existing distribution system

within the school site. The distribution system includes a 4-inch line that runs along the southerly boundary of the site and bends into the school's central core. As shown, various laterals branch off of the 4-inch line and serve individual buildings. In addition to these laterals, there are fire protection branches to the building (called out as wet standpipe lines) or to site standpipes. These existing fire protection improvements do not meet current standards.

C. Proposed Improvements

The previous engineering report investigated options for serving the school more reliably. The preferred option was a new 12-inch waterline that would be connected to the 20-inch Kulea Street waterline and installed along Farrington Avenue to the school. (See Figure 1 for location of new 12-inch waterline.) The domestic water service, irrigation, and fire protection lines for the school would be connected to the new 12-inch line, and the 4-inch waterline serving the school would be abandoned.

Our preliminary analysis indicates that the preferred option identified above is a viable solution. With this solution, the 7.0 MG reservoir would serve as the source reservoir for the school site instead of the 1.0 MG reservoir along Kalae Highway. Based on the elevation data collected, the resulting static pressure at the school site would range between 54 psi and 69 psi. This range of static pressures is acceptable. This compares to a much higher range of static pressures (226 psi to 241 psi) on the current system which required the installation of pressure reducers throughout the site.

The following computations will confirm the adequacy of the new off-site waterline, confirm the reservoir storage requirements, and provide design information for the on-site water system improvements.

D. Average Daily Demand

Table 100-18, Domestic Consumption Guidelines, of the *Water System Standards*, provides average daily demand figures for various types of land use. For Maui County, the table lists average daily demands of 1,700 gallons per acre or 60 gallons per student for schools and parks. The average daily demand figure of 60 gallons per student will be used for this project. With a student population of 379, the average daily demand is 22,740 gallons per day (gpd) or 16 gallons per minute (gpm).

This average daily demand figure is higher than previously computed and higher than the actual usage. The previous engineering report used a figure of 1,700 gallons per acre. With an area of 12.004 acres, the average daily demand was 20,407 gpd or 14 gpm. Actual water use records show that the average daily demand is about 12,900 gpd or 9 gpm. The higher design value will be used to allow for future expansion potential.

E. Maximum Daily Demand (MDD)

MDD is 1.5 times the average daily demand or 24 gpm. ($1.5 \times 16 \text{ gpm} = 24 \text{ gpm}$)

F. Fire Flow (FF) Requirements

Table 100-19, Fire Flow Requirements, of the *Water System Standards*, provides required flow rates and durations. For Maui County, the table lists flow rates and durations of 2,000 gpm for 2 hours for schools.

Fire Flow (school) = 2,000 gallons/minute x 2 hours x 60 minutes/hour = 240,000 gallons

MDD + FF = 24 + 2,000 = 2,024 gpm

Length of 20-inch line from reservoir to Farrington Avenue connection = 5,285 feet

Length of 12-inch line from connection to Kualapuu Elementary School = 2,600 feet

Hazen-Williams C for 8-inch through 12-inch lines = 110

Hazen-Williams C for 16-inch through 20-inch lines = 120

Head Loss for 2,024 gpm through 12-inch line = 14.4 psi

Head Loss for 2,024 gpm through 20-inch line = 2.1 psi

Static pressure at meter = (1,017 feet - 857 feet) x 0.433 psi/foot = 69 psi

Length of on-site 12-inch line to last fire hydrant = 1,140 feet

Head loss for 2,000 gpm through 12-inch line = 6.2 psi

Head loss through double check detector assembly = 5 psi

Additional head loss due to elevation difference = (867 - 857) x 0.433 = 4.3 psi

Pressure at critical fire hydrant = 69 - 14.4 - 2.1 - 6.2 - 5 - 4.3 = 37.0 psi > 20 psi

The system can deliver required fire flow of 2,000 gpm at critical fire hydrant on site with at least 20 psi residual pressure with new 12-inch waterline installed.

G. Reservoir Capacity

Section 111.07, Reservoir Capacity, of the *Water System Standards*, provides the following criteria for reservoir sizing.

MDD + FF = 24 + 2,000 = 2,024 gpm

Duration of fire = 2 hours

Storage = 2,024 gpm x 2 hours x 60 minutes/hour = 242,880 gallons

Available storage = 7,000,000 gallons

The existing 7.0 MG reservoir can deliver the required fire flow capacity and does comply with the Water System Standards for capacity.

H. Pipeline Sizing

Section 111.06, Pipeline Sizing, of the *Water System Standards*, provides the following criteria for pipeline sizing. For preliminary sizing purposes, use the maximum velocity criteria of 10 feet per second for distribution mains with fire flow. Based on 10 feet per second maximum velocity, the capacities of 6-inch, 8-inch, and 12-inch pipes are 880 gpm, 1,570 gpm, and 3,530 gpm respectively. Note that 10-inch pipe is not readily available.

Therefore, use 12-inch pipe to meet the 2,000 gpm fire flow rate in the distribution main.

I. Water Meter Sizing

The attached Water Meter Sizing Data spreadsheet accounts for all plumbing fixtures on the site. The total fixture unit count is 412.4, resulting in a peak flow rate of 128 gpm. Section C700-77, AWWA Standard for Cold-Water Meters-Displacement Type, provides criteria sizing water meters. According to Table 1 of the AWWA Standard, a 2-inch water meter with a rated capacity of 160 gpm is required.

The County of Maui Department of Water Supply requires that peak irrigation flows be added to peak domestic flows to determine the recommended meter size. The peak irrigation flow is estimated at 150 gpm. The total peak flow of 278 gpm can be met with a single 3-inch water meter with a rated capacity of 300 gpm or two 2-inch water meters with a combined rated capacity of 320 gpm.

To allow for monitoring of irrigation water and for ease of construction, a separate 2-inch water meter will be installed for irrigation purposes. The existing irrigation system is currently connected to the domestic water service line and will be abandoned. The new irrigation system can be easily connected to a separate source as shown in Figure 4, "Preliminary On-Site Water Plan."

IV. IRRIGATION SYSTEM ANALYSIS

A. Existing System

There are two separate irrigation systems at the school: (1) the manually operated playfield area system and (2) the automated Building "G" system. The playfield area, as well as the southerly side of the property adjacent to the roadway, has galvanized steel waterlines and quick couplings for manual operation of agricultural grade impact sprinklers. The school's maintenance staff installs the sprinklers, turns them on and off, and removes them. Standard operational procedures call for having each sprinkler in operation for one continuous hour per week. The Building "G" system is an automated system consisting of "pop-up" sprinkler heads that irrigate the area surrounding Building "G" only.

The maintenance staff also manually irrigates other areas on campus. Such manual irrigation methods include hand watering with a hose, connecting a lawn type sprinkler to nearby hose bib, or using mechanical clocks attached to hose bibs and sprinklers in areas with landscape planters.

Manual irrigation of large areas requires a considerable amount of staff time, and generally results in excessive water use and poor coverage. The 12-acre campus includes about 8 acres of planted area. About 0.5 acre of the planted area receives water from the automated system and about 7.5 acres, a relatively large area, receives water by manual methods. In addition to higher manpower requirements, manual irrigation may waste water when there is more evaporation due to higher

temperatures and wind speeds during the day.

Installation of an automated irrigation system will reduce manpower requirements and will reduce water usage. The automated irrigation system, consisting of distribution pipes, irrigation controllers, control valves, and sprinkler heads, will deliver an optimum amount of water to the planted areas. Nighttime operation of the system will reduce water usage by irrigating when there is less evaporation due to lower temperatures and wind speeds at night.

B. Proposed Improvements

Due to construction funding limitations, the irrigation system improvements will be limited to the playfield in the upper part of the campus. The playfield includes an area of about 6.0 acres. Future projects will incorporate irrigation for the areas between the buildings on the campus.

1. Mains and Branches

The option of using the existing galvanized steel pipe irrigation lines was considered; however, it was determined that this option was not feasible because of limited operational life and potential high maintenance costs of the existing lines. New Schedule 40 PVC pipe will therefore be used. The mains will consist of 4-inch diameter pipe and the branches will vary in size. The use of new pipe will assure that pressure losses in the lines are minimized and that working pressures are maintained for proper operation of the sprinklers.

2. Irrigation Controllers

Irrigation controllers will control the duration and sequence of the irrigation circuits. The controllers will be located close to a power source in an area where the valves being controlled by the controller can be seen when in the open position (sprinkler heads in operation). A minimum of two controllers are needed for the project.

3. Control Valves

Control valves will be installed on the irrigation line branches and will be connected to the irrigation controllers for automated operation. Multi-strand wire will run along the new irrigation main to each valve from the irrigation controller.

4. Sprinkler Heads

The sprinkler heads will cover a minimum 38-foot radius. The sprinkler heads will have interchangeable nozzles for calibrating working pressure, coverage, and flow rate. Installation of "rain curtain" type nozzles will allow for efficient, equal coverage from each sprinkler head.

V. SUMMARY OF IMPROVEMENTS

As previously mentioned, Figure 1, "Preliminary Off-Site Water Plan," shows the new 12-inch waterline along Farrington Avenue. A portion of the off-site waterline is also shown on Figure 4, "Preliminary On-Site Water Plan." These off-site improvements consist of a connection to the existing 20-inch waterline, installation of 2,600 lineal feet of 12-inch ductile iron pipe, two fire hydrants along the street, and two 2-inch water meters and manholes.

The off-site improvements will be dedicated to the DHHL for operations and maintenance. DHHL must approve all of the improvements prior to commencement of construction.

The attached Figure 3, "Preliminary On-Site Water Demolition Plan," and Figure 4, "Preliminary On-Site Water Plan," show proposed on-site work. The demolition work involves cutting and plugging lines, removing obsolete fire protection improvements, and removing pressure reducing valves. The on-site improvements consist of about 1,100 lineal feet of 12-inch ductile iron pipe for the fire protection line, and 230 lineal feet of 4-inch ductile iron pipe and smaller copper lines for the domestic distribution system. Fire protection improvements include a 10-inch fire protection double check detector assembly with concrete manhole, 4 fire hydrants, and about 1,200 lineal feet of a 20-foot wide fire access road.

The attached Figure 5, "Preliminary Irrigation Plan" shows the proposed irrigation system. Irrigation system improvements include about 400 lineal feet of 4-inch ductile iron pipe, 2,200 lineal feet of 4-inch PVC pipe, and other related improvements including branches, irrigation controllers, control valves, and sprinkler heads.

VI. AFFECTED PROPERTIES

The overall work consists of on-site and off-site activities within the lands of Manowai-nui and Naiwa, Moloka'i. These activities will affect the land and facilities of various governmental agencies. The school site is owned by the County of Maui, but the property is under the jurisdiction of the State of Hawaii Department of Education. The State of Hawaii Department of Hawaiian Home Lands owns and operates the existing water system. Proposed off-site waterline improvements will affect the rights-of-way of the State of Hawaii Department of Transportation and the County of Maui.

On-site activities involve trenching and grading on the campus. These activities include about 1,900 feet of trenching for new fire protection and domestic waterlines, about 8,000 feet of trenching for new irrigation waterlines, and about 1,200 feet of grading for a new fire access road.

Off-site activities consist of about 2,620 feet of trenching for a new 12-inch waterline within the Farrington Avenue right-of-way, and cutting and plugging an existing 4-inch supply lateral that currently serves the school. The work within Farrington Avenue affects about 2,040 feet of the State of Hawaii Department of Transportation right-of-way and about 580 feet of the County of Maui right-of-way adjoining the school site.

VII. CONSTRUCTION COSTS

Attached is a preliminary opinion of probable construction costs broken down into off-site work and on-site work. The costs of the off-site work and on-site work are \$944,000 and \$1,049,000, respectively. The total cost of \$1.993 million is under the target budget of \$2.0 million established for the project.

VIII. SCHEDULE

Attached is a preliminary schedule including general tasks for design and construction, and detailed tasks for environmental assessment preparation. Note that the duration column in the schedule is in work days. As noted in the schedule, preparation of the environmental assessment can proceed upon completion of the pre-final construction documents. The schedule is dependent on the allotment of construction funding for the project and resolution of the DOE agreement with the DHHL for the waterline extension.

Key milestone dates for design and construction include: (1) initiating land surveys on June 1, 2009, (2) completing construction documents on October 16, 2009, (3) receiving construction documents approval on May 17, 2010, (4) soliciting bids on May 18, 2010, and (5) starting construction on August 10, 2010, and (6) completing construction on February 14, 2011.

Key milestone dates for the environmental assessment include: (1) initiating EA preparation on December 1, 2009, (2) filing of the draft EA with the Office of Environmental Quality Control on February 9, 2010, (3) filing of the final EA on May 21, 2010, and (4) receiving the findings of no significant impact on July 13, 2010.

IX. APPROVALS & PERMITS

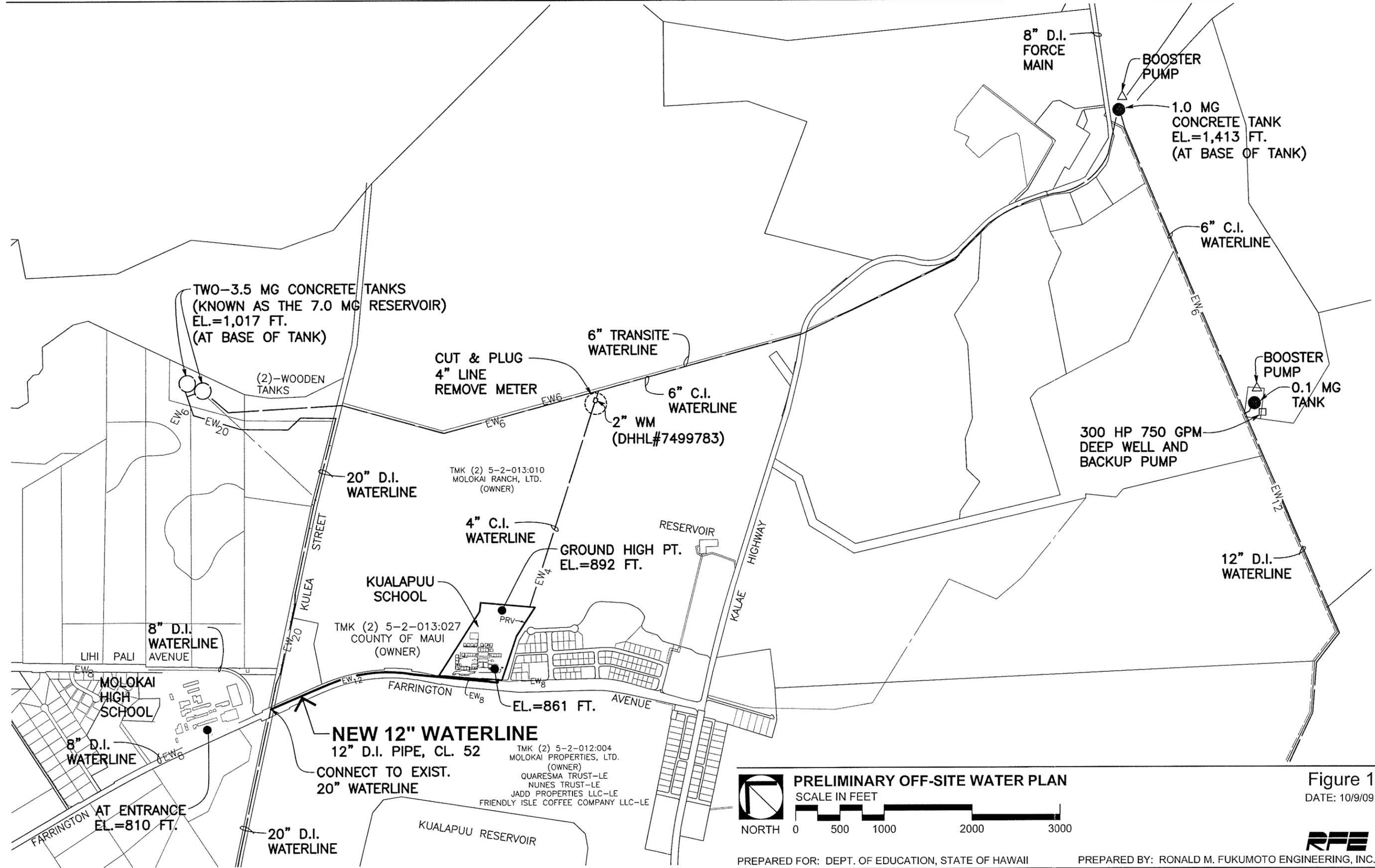
The following is a list of probable approvals and permits from various agencies. To prepare the list we contacted the Department of Education, engineering consultant for the Department of Hawaiian Home Lands, Department of Transportation, Department of Fire and Public Safety, Department of Water Supply, and our environmental assessment consultant.

- A. Department of Education, State of Hawaii: Approval of preliminary engineering report, environmental assessment (EA), including cultural assessment, and construction documents; approval of construction.
- B. Department of Hawaiian Home Lands, State of Hawaii: Approval of construction documents for connection and extension of DHHL water system.
- C. Department of Transportation, State of Hawaii: Approval of construction documents for work within the State highway right-of-way, including Use and Occupancy Agreement for water system within the right-of-way; approval of construction.
- D. Department of Fire and Public Safety, County of Maui: Review of fire protection water system.

- E. Department of Public Works, County of Maui: Approval of construction documents for work within the County right-of-way fronting the school site; approval of grading and grubbing permit; approval of plumbing permit; approval of construction under respective County permits.
- F. State Historic Preservation Division: Approval of archaeological monitoring plan prior to construction and approval of archaeological monitoring report after construction. (To be determined during EA preparation.)
- G. Department of Health, State of Hawaii: Approval of National Pollutant Discharge Elimination System (NPDES) permit for discharge of stormwater during construction.

X. REFERENCES

- A. KN Consulting Services, Inc., *Kualapuu Elementary School Campus Water System Improvements Engineering Evaluation*, prepared for Design Branch, Public Works Division, Department of Accounting and General Services, State of Hawaii, January 2001.
- B. Various construction plans of Kualapuu Elementary School and Department of Hawaiian Home Lands water system.

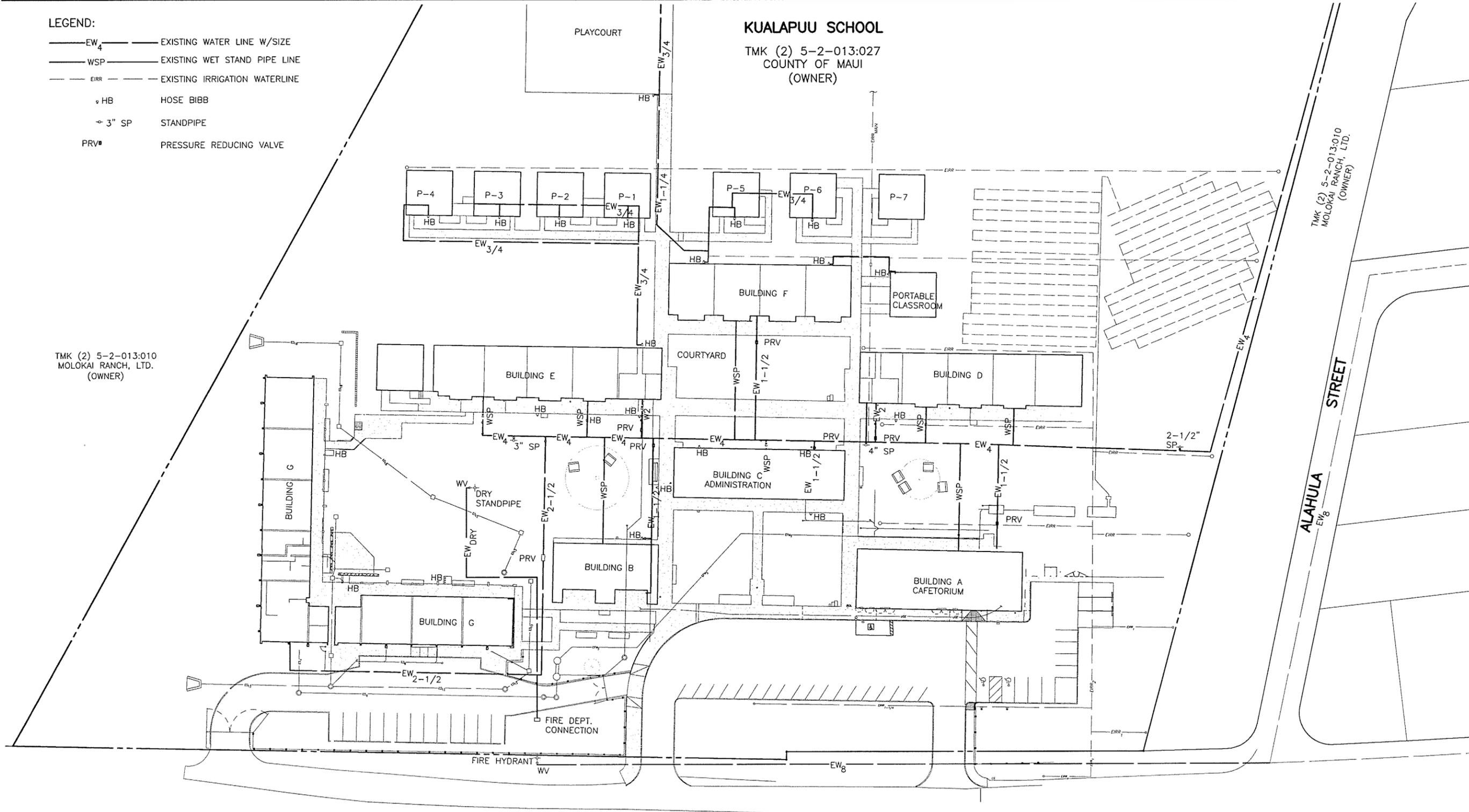


PRELIMINARY OFF-SITE WATER PLAN
 SCALE IN FEET
 NORTH 0 500 1000 2000 3000

Figure 1
 DATE: 10/9/09



- LEGEND:**
- EW₄— EXISTING WATER LINE W/SIZE
 - WSP— EXISTING WET STAND PIPE LINE
 - - -EIRR - - - EXISTING IRRIGATION WATERLINE
 - ◊ HB HOSE BIBB
 - ⊖ 3" SP STANDPIPE
 - PRV■ PRESSURE REDUCING VALVE



TMK (2) 5-2-013:010
 MOLOKAI RANCH, LTD.
 (OWNER)

TMK (2) 5-2-013:010
 MOLOKAI RANCH, LTD.
 (OWNER)



EXISTING ON-SITE WATER SYSTEM

SCALE IN FEET



Figure 2

DATE: 10/9/09



PREPARED FOR: DEPT. OF EDUCATION, STATE OF HAWAII

PREPARED BY: RONALD M. FUKUMOTO ENGINEERING, INC.

PRELIMINARY ENGINEERING REPORT FOR KUALAPUU SCHOOL WATERLINE

LEGEND:

- EW₄— EXISTING WATER LINE W/SIZE
- WSP— EXISTING WET STAND PIPE LINE
- ° HB HOSE BIBB
- ~ 3" SP STANDPIPE
- PRV# PRESSURE REDUCING VALVE

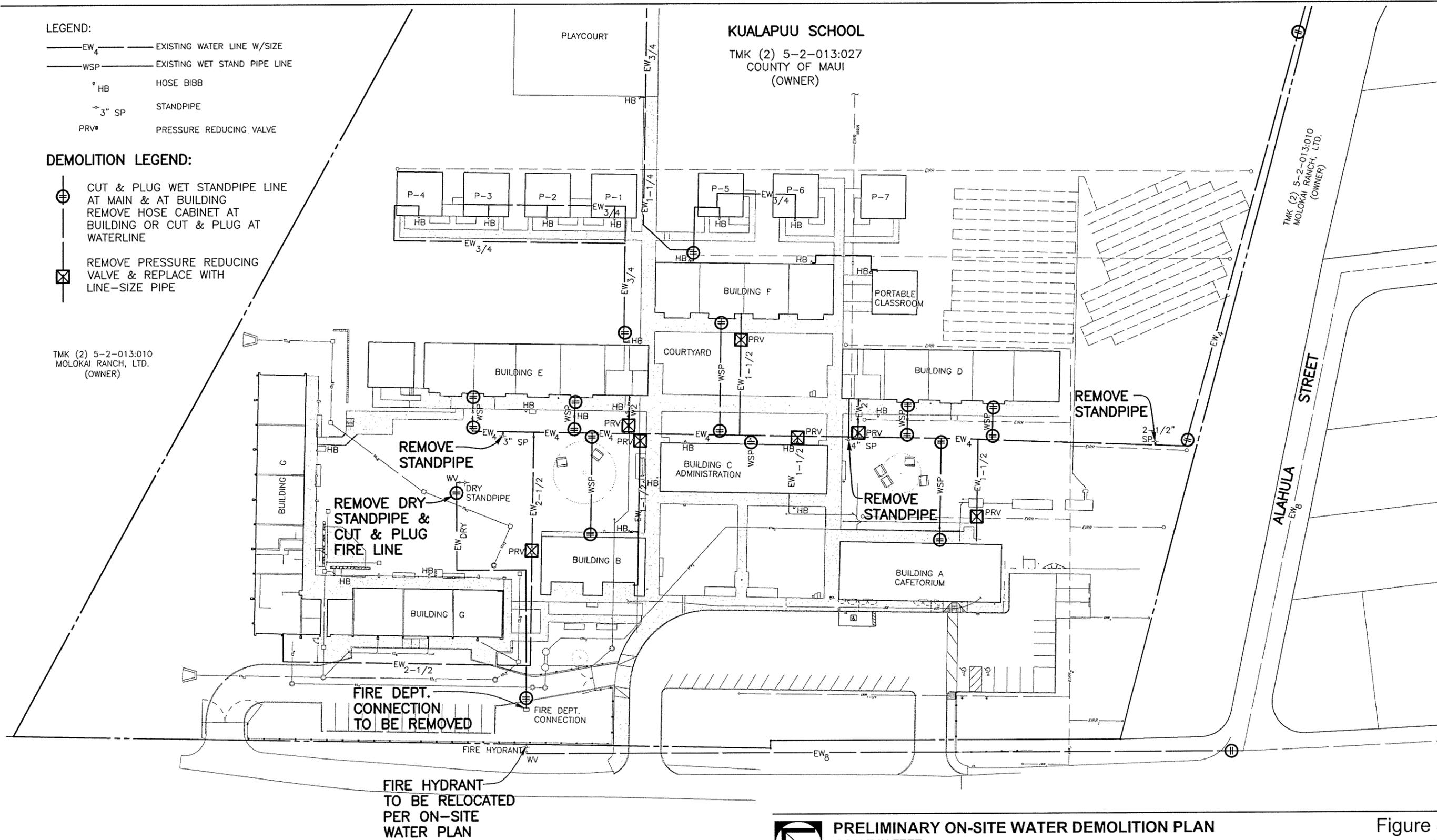
DEMOLITION LEGEND:

- ⊕ CUT & PLUG WET STANDPIPE LINE AT MAIN & AT BUILDING REMOVE HOSE CABINET AT BUILDING OR CUT & PLUG AT WATERLINE
- ⊗ REMOVE PRESSURE REDUCING VALVE & REPLACE WITH LINE-SIZE PIPE

TMK (2) 5-2-013:010 MOLOKAI RANCH, LTD. (OWNER)

KUALAPUU SCHOOL
TMK (2) 5-2-013:027
COUNTY OF MAUI
(OWNER)

TMK (2) 5-2-013:010 MOLOKAI RANCH, LTD. (OWNER)



FARRINGTON AVENUE (F.A.S.P. NO. S-0480(1))



PRELIMINARY ON-SITE WATER DEMOLITION PLAN

SCALE IN FEET

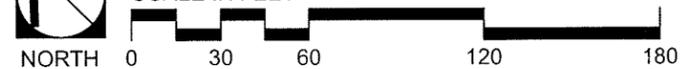


Figure 3

DATE: 10/9/09

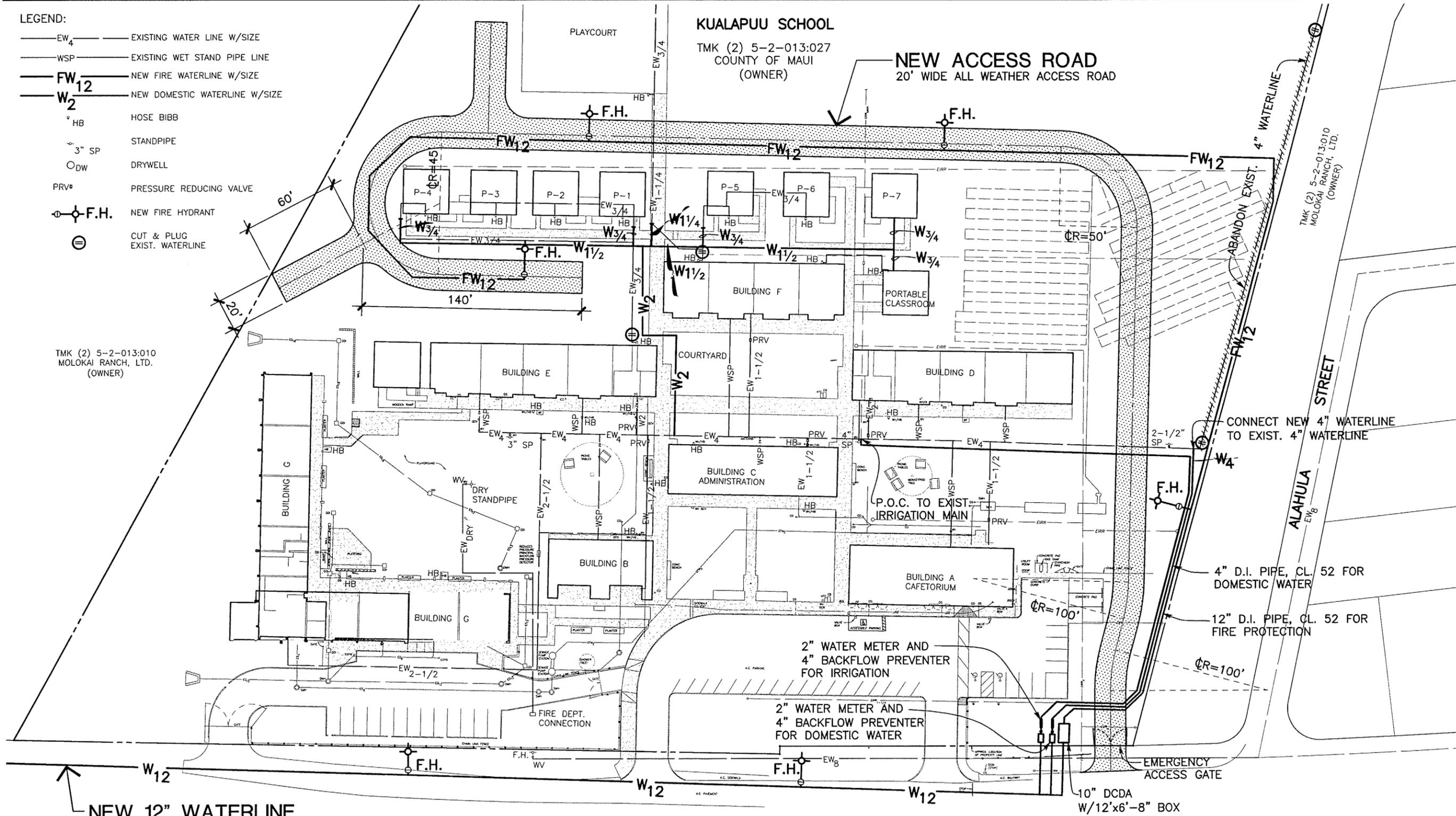


PREPARED FOR: DEPT. OF EDUCATION, STATE OF HAWAII

PREPARED BY: RONALD M. FUKUMOTO ENGINEERING, INC.

PRELIMINARY ENGINEERING REPORT FOR KUALAPUU SCHOOL WATERLINE

- LEGEND:**
- EW₄— EXISTING WATER LINE W/SIZE
 - WSP— EXISTING WET STAND PIPE LINE
 - FW₁₂— NEW FIRE WATERLINE W/SIZE
 - W₂— NEW DOMESTIC WATERLINE W/SIZE
 - ° HB HOSE BIBB
 - ~ 3" SP STANDPIPE
 - DW DRYWELL
 - PRV[®] PRESSURE REDUCING VALVE
 - ⊕ F.H. NEW FIRE HYDRANT
 - ⊖ CUT & PLUG EXIST. WATERLINE



NEW 12" WATERLINE
12" D.I. PIPE, CL. 52

FARRINGTON AVENUE (F.A.S.P. NO. S-0480(1))

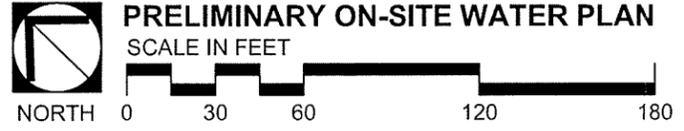
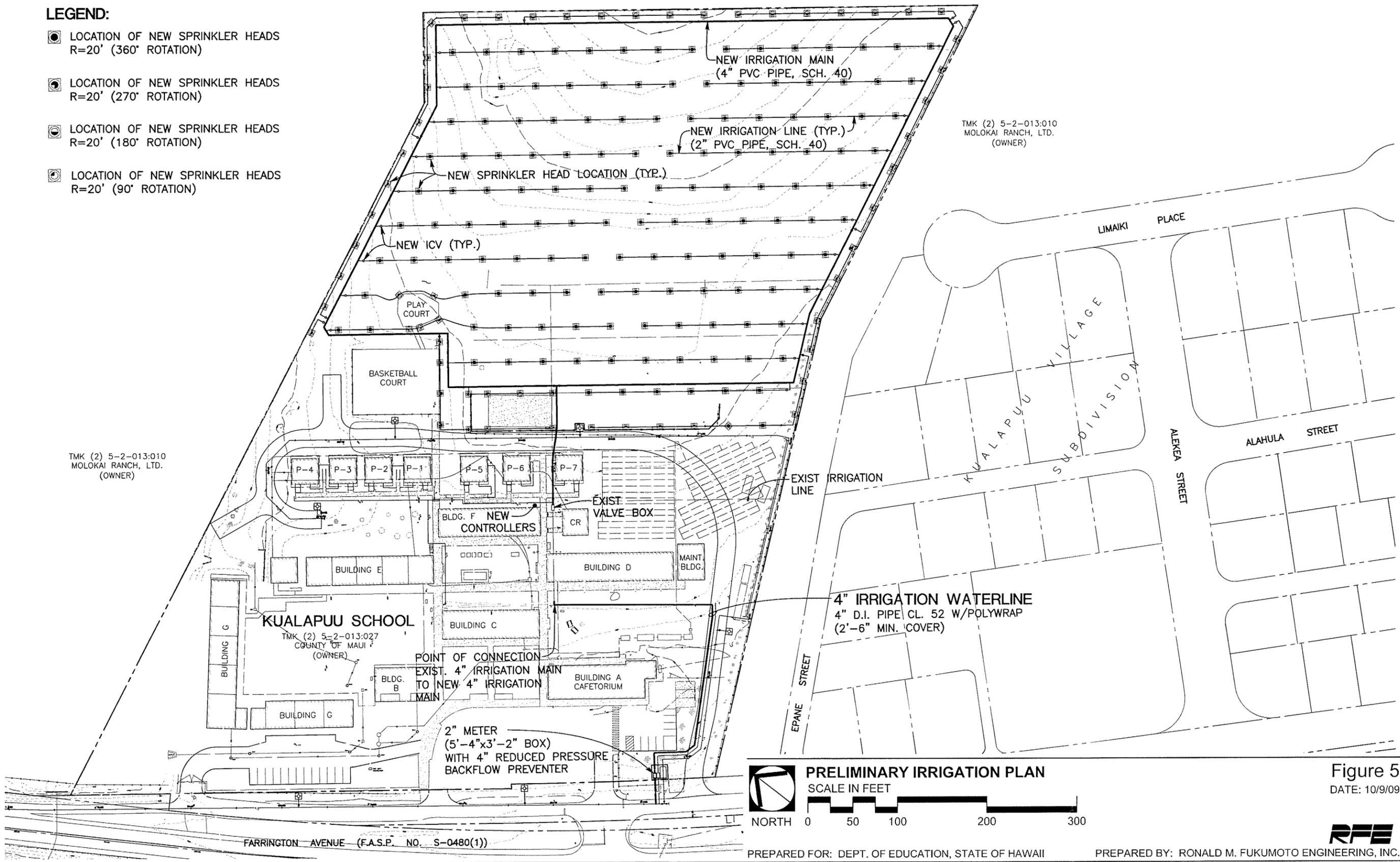


Figure 4
DATE: 10/9/09



LEGEND:

- LOCATION OF NEW SPRINKLER HEADS
R=20' (360° ROTATION)
- ◐ LOCATION OF NEW SPRINKLER HEADS
R=20' (270° ROTATION)
- ◑ LOCATION OF NEW SPRINKLER HEADS
R=20' (180° ROTATION)
- ◒ LOCATION OF NEW SPRINKLER HEADS
R=20' (90° ROTATION)



PRELIMINARY IRRIGATION PLAN
SCALE IN FEET

NORTH 0 50 100 200 300

Figure 5
DATE: 10/9/09



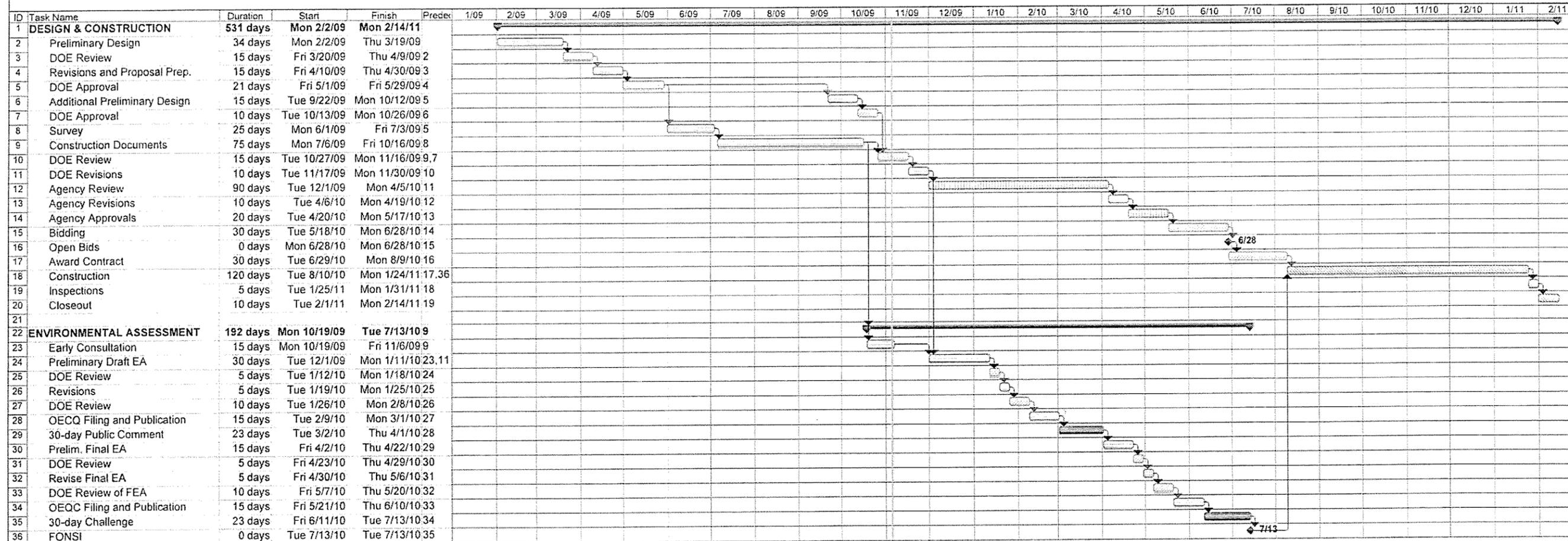
PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COSTS					October 9, 2009	
KUALAPUU SCHOOL WATERLINE / DOE Job No. Q57001-07						
Kualapuu, Molokai, Hawaii						
Prepared for: Department of Education, State of Hawaii						
Prepared by: Ronald M. Fukumoto Engineering, Inc.						
Item	Description	Quantity	Unit	Unit Price	Total	
OFF-SITE						
1	12" D.I. Pipe, Class 52 w/polywrap including trench excavation, backfill, compaction, pavement restoration and marking	2,600	LF	\$ 300	\$ 780,000	
2	Connection to existing line	1	LS	5,000	5,000	
3	Fire Hydrant Assembly including trench excavation, backfill, fire hydrant assembly, 42" sq. concrete slab, reflector posts, traffic marker	2	EA	6,000	12,000	
4	Type "D", 2" Meter Single Service Lateral with Backflow Preventer	2	EA	8,000	16,000	
5	Traffic Control	1	LS	15,000	15,000	
6	Testing and Chlorination	1	LS	10,000	10,000	
7	Archaeological Monitoring	1	LS	20,000	20,000	
	Subtotal Off-Site				858,000	
	Contingencies @10%±				86,000	
	Total Off-Site				\$ 944,000	
ON-SITE						
8	Work Shown on Preliminary On-Site Water Demolition Plan including cutting and plugging of lines, and removing obsolete items	1	LS	14,000	14,000	
9	12" D.I. Pipe, Class 52 w/polywrap including trench excavation, backfill, compaction, and surface restoration	1,140	LF	250	285,000	
10	4" D.I. Pipe, Class 52 w/polywrap including trench excavation, backfill, compaction, and surface restoration	630	LF	150	94,500	
11	2" Copper Tube including trench excavation, backfill, compaction, and surface restoration	140	LF	140	19,600	
12	1-1/2" Copper Tube including trench excavation, backfill, compaction, and surface restoration	310	LF	130	40,300	
13	1-1/4" Copper Tube including trench excavation, backfill, compaction, and surface restoration	20	LF	130	2,600	

PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COSTS					October 9, 2009	
KUALAPUU SCHOOL WATERLINE / DOE Job No. Q57001-07						
Kualapuu, Molokai, Hawaii						
Prepared for: Department of Education, State of Hawaii						
Prepared by: Ronald M. Fukumoto Engineering, Inc.						
Item	Description	Quantity	Unit	Unit Price	Total	
14	3/4" Copper Tube including trench excavation, backfill, compaction, and surface restoration	60	LF	100	6,000	
15	Fire Hydrant Assembly including trench excavation, backfill, fire hydrant assembly, 42" sq. concrete slab	4	EA	6,000	24,000	
16	10" Double-Check Detector Assembly with manhole	1	EA	40,000	40,000	
17	20' Fire Access Road	1,160	LF	150	174,000	
18	Emergency Access Gate	1	EA	6,000	6,000	
19	Testing and Chlorination	1	LS	8,000	8,000	
20	Archaeological Monitoring	1	LS	10,000	10,000	
21	4" Sch. 40 PVC Pipe, including trench excavation, backfill, compaction, and surface restoration	2,200	LF	60	132,000	
22	Irrigation system including branch trench excavation, installation, backfill, compaction, surface restoration, sprinkler head installation, control wire installation, valves, valve boxes, and timers	1	LS	98,000	98,000	
	Subtotal				954,000	
	Contingencies @ 10%±				95,000	
	Total On-Site				\$ 1,049,000	
	Total Construction Cost				\$ 1,993,000	

PRELIMINARY SCHEDULE
 KUALAPUU SCHOOL WATERLINE
 DOE Job No. Q57001-07

A-4

October 9, 2009



Project: Kualapuu
 Date: 4/30/09

Task Progress Summary External Tasks Split

Split Milestone Project Summary External MileTask

APPENDIX B.

Final Archaeological Monitoring Plan

**AN ARCHAEOLOGICAL MONITORING PLAN FOR
SCHEDULED IMPROVEMENTS FOR THE
KUALAPU'U SCHOOL WATERLINE PROJECT,
LANDS OF MANOWAINUI AND NAIWA,
MOLOKA'I ISLAND
DOE Job No: Q57001-07
(TMK: [2] 5-2-013: 027, TMK: [2] 5-2-013)**

Prepared on behalf of:

**State of Hawaii
Department of Education
Honolulu, Hawaii**

Prepared by:

**Xamanek Researches, LLC
Pukalani, Maui
Erik Fredericksen**

*12 November 2009 ~ Draft
20 December 2009 ~ Final*

INTRODUCTION

Mr. Ronald Fukumoto, Ronald M. Fukumoto Engineering, Inc. contacted Xamanek Researches, LLC in late the summer of 2009 about a proposed archaeological monitoring project in Kualapu`u, Moloka`i (Figures 1-4). This project consisted of off-site and on-site water system improvements for the Kualapu`u School campus (TMK: (2) 5-2-013: 027). Given that previously disturbed areas would be impacted by this project, it was determined that precautionary archaeological monitoring was needed for this project.

The overall scope of work consists of on-site and off-site earth disturbance activities within the lands of Manowainui and Naiwa, Moloka`i. These activities will affect land and facilities of various governmental agencies. The school site is owned by the County of Maui, but the property is under the jurisdiction of the State of Hawai`i Department of Education. The State of Hawaii Department of Hawaiian Home Lands owns and operates the existing water system. Proposed off-site waterline improvements will affect the rights-of-way of the State of Hawaii Department of Transportation and the County of Maui.

On-site earth disturbance activities involve trenching and grading on the school campus. These activities include about 1,900 feet (579 meters) of trenching for new fire protection and domestic waterlines, about 8,000 feet (2,438 meters) of trenching for new irrigation lines, and about 1,200 feet (366 meters) of grading for a new fire access road.

Off-site activities consist of about 2,620 feet (799 meters) of trenching for a new 12-inch diameter waterline within Farrington Avenue right-of-way, and cutting and plugging an existing 4-inch diameter supply lateral that currently serves the school. The work within Farrington Avenue affects about 2,040 feet (622 meters) of the State of Hawaii Department of transportation right-of-way, and about 580 feet (177 meters) of the County of Maui right-of-way adjoining the school site. The new waterline will convey water from an existing 20-inch diameter waterline to the campus.

Anticipated subsurface disturbance activities will include trench excavation for water system improvements both on campus and off-site. The following archaeological monitoring plan has been prepared in order to meet the requirements of the SHPD. This plan has been prepared at the direction of Mr. Ronald Fukumoto of Ronald M. Fukumoto Engineering, Inc., Wailuku. The plan is prepared on behalf of the State of Hawaii Department of Education.



Figure 1: Topographic map of the project area.

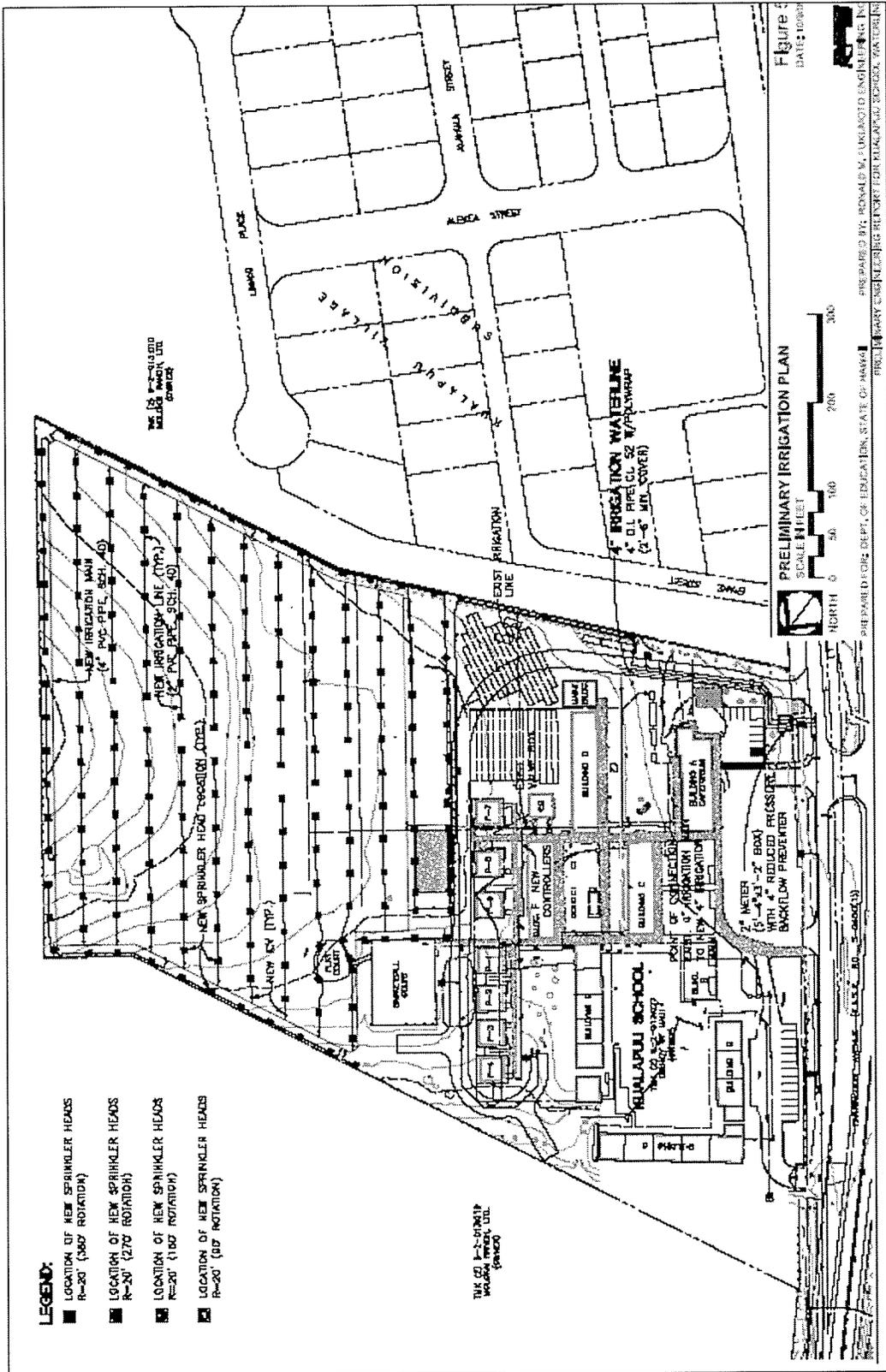


Figure 5: Plan view of preliminary on-site irrigation plan.

PROJECT AREA

Project area

The project area lies in Kualapu`u on the leeward side of Moloka`i. Vegetation in the general vicinity of the project area includes alien weeds and grasses, along with *kiawe* (*Prosopis pallida*) trees and landscaping plants outside of the right-of-way. The project area lies an estimated 850-920 ft AMSL. This portion of the Moloka`i receives between 30 and 40 inches of annual rainfall. Both the Kualapu`u School campus and Farrington Avenue have been previously impacted by construction and related activities in the past.

ARCHAEOLOGICAL MONITORING PLAN

Scope of monitoring

The scope of this monitoring plan includes having an archaeological monitor present during all subsurface earthmoving activities scheduled for this water system improvement project. Actual on-site time and specific actions to be followed in the event of inadvertent discoveries will be discussed and agreed upon by the general contractor and the archaeological consultant at a pre-construction meeting/phone conference held for this purpose. Additional meetings may be called, if either the monitoring archaeologist or contractor believes that other relevant information should be disseminated. This monitoring plan covers the current project area on campus (TMK [2] 5-2-013: 027) as well as any off-site improvements within the State and County right-of-way along Farrington Avenue.

Monitoring methodology

Given the location of the project area, there is a possibility that significant material culture remains may be inadvertently disturbed during earthmoving activities in this portion of Kualapu`u. Possible cultural materials could include remnants of subsurface agricultural and/or habitation sites, human burials and/or human skeletal remains, and/or remnants of post-contact sites such as old roadways, railroads, and building foundations.

Close cooperation between the monitoring archaeologist and construction personnel is important to a successful monitoring program. The monitoring program will follow the 12 conditions listed below:

- 1) The contractor shall be responsible for ensuring that the archaeological consultant is aware of all pertinent construction schedules and that the monitor is present for all subsurface excavation activities on this coastal parcel.
- 2) Both the archaeological consultant and the contractor are responsible for ensuring that on-site work is halted in an area of significant findings and to protect any such find from any further damage (i.e., construction fencing, protective covering, etc.). The State Historic Preservation Division will recommend appropriate mitigation actions. The SHPD Burial Sites Program, the SHPD office, and the Moloka'i Island Burial Council (MIBC) will be consulted in the event that human remains are found.
- 3) In the event of the discovery of human remains, work shall cease in the immediate find area. *In situ* human remains will be left in place, and any disturbed human remains will only be removed after written notification from the SHPD. If at all possible, provisions for secure on-site storage of inadvertently disturbed human remains will be made. The monitoring archaeologist will be responsible for notifying the SHPD Maui office (including the Cultural Historian), and the Historic Preservation Division Burial Sites Program, which, in consultation with the Moloka'i Island Burial Council, shall determine appropriate mitigation measures. This notification will include accurate information regarding the context and composition of the find.
- 4) The archaeological consultant will work in compliance with Hawai'i Revised Statutes Chapter 6E (procedures Relating to Inadvertent Discoveries).
- 5) The monitoring archaeologist will have the authority to suspend construction activities in areas where potentially significant discoveries have been made until they have been properly evaluated. Normally, construction activities may continue in unaffected portions of the project area.
- 6) Field procedures to be followed for documentation of discovered cultural features or human skeletal remains: a) standard field methods including recordation of profiles showing stratigraphy, cultural layers, etc.; b) mapping and photographing of finds other than human remains; c) and excavation of cultural materials and/or exposed features.
- 7) The appropriate SHPD archaeologist shall be notified and consulted with regarding treatment of identified features such as cultural layers, artifact or

midden concentrations, structural remains, etc., considered to be of significance under S13-279-2 (definitions).

- 8) The contractor shall take into account the necessity for machine excavation at a speed slow enough to allow for reasonable visual inspection of the work. The monitoring archaeologist must make a “best effort” to search for significant material culture remains (i.e. artifacts, features, midden, skeletal remains, etc.). Machine excavation speed shall be slowed in an area where significant material culture remains have been identified.
- 9) Significant archaeological discoveries, if they occur, shall be protected and identified by construction “caution” tape, fencing, or other reasonable means, until the SHPD and the archaeological consultant decide appropriate mitigation actions. All recovered non-burial material culture remains—with the possible exception of charcoal samples for radiometric analysis—will remain on Moloka`i. Standard laboratory methods shall be utilized by the archaeological consultant in the event that cultural materials are recovered during monitoring and/or mitigation work. Cultural materials will be curated by the archaeological consultant until other arrangements are made.
- 10) One monitor in most instances will carry out the necessary fieldwork. Tasks will include observation of grubbing and earth-moving activities. However, the SHPD and the MIBC require that one archaeological monitor be assigned to each piece of major earth-moving equipment in sand dune areas or other culturally sensitive locations. If more than one piece of machinery is to be utilized, additional archaeological monitors will be required.
- 11) In the event of night work, the general contractor shall supply adequate lighting for the onsite monitor.
- 12) Chapter 6E-11 (a) specifies the following “It shall be unlawful for any person, natural or corporate, to take, appropriate, excavate, injure, destroy, or alter any historic property or aviation artifact located on the private lands of any owner thereof without the owner’s written permission being first obtained. It shall be unlawful for any person, natural or corporate, to take, appropriate, excavate, injure, destroy, or alter any historic property or aviation artifact located upon lands owned or controlled by the State or any of its political subdivisions, except as permitted by the department.”

Field methods utilized shall include photographic recordation (where appropriate), artifact excavation (recovery and recordation), profile documentation of cultural layers and stratigraphy, excavation and recordation of exposed features, and mapping of all pertinent features on an appropriate site map. A daily log (field notes) of activities and findings will also be kept. Gathered information shall be utilized in the preparation of the monitoring report to be submitted to the SHPD.

In the event human skeletal remains are inadvertently disturbed, the SHPD office, the Historic Preservation Division Burial Sites Program, and the Moloka'i Island Burial Council shall be notified, and appropriate mitigation actions determined (photographs of human skeletal remains will not be taken).

A supervisory archaeologist may periodically visit the monitoring site as often as is necessitated by the nature of the construction activities and archaeological findings. If significant discoveries are made, appropriate mitigation measures will be discussed with the SHPD. Given that the area has been previously disturbed, full-time monitoring will take place for an initial period of one week, with reevaluation to occur after consultation with the SHPD.

The retained archaeological consultant firm shall curate all cultural materials recovered from this monitoring project on Moloka'i (or other approved location), with the exception of human remains and any associated artifacts. These remains, should any be found, will be curated in a location mutually agreed upon by the MIBC and the SHPD Burial Sites Program. When analysis is completed, recovered material culture remains will be turned over to the appropriate parties. Long-term curation arrangements of significant material culture remains will be approved by the SHPD and the Department of Education.

A draft monitoring report detailing the results of this monitoring program will be prepared. This draft report shall be submitted to the State Historic Preservation Division within 180 days of the completion of fieldwork, for comment and approval. Any recommended changes and/or corrections will be incorporated in the final monitoring report for this waterline upgrade project for Kualapu'u School on Moloka'i.

APPENDIX B-1.

State Historic Preservation Division Approval Letter

LINDA LINGLE
GOVERNOR OF HAWAII



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

STATE HISTORIC PRESERVATION DIVISION
691 KAMOKILA BOULEVARD, ROOM 555
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CONSERVATION AND COASTAL LANDS
CONSERVATION AND RESOURCE MANAGEMENT
ENGINEERING
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
KAIHOLOLAWI ISLAND RESERVE COMMISSION
LAND
STATE PARKS

December 18, 2009

Erik M. Fredericksen, M.A.
Xamanek Researches, LLC
P.O. Box 880131
Pukalani, Hawai'i 96788
xamanekresearchesllc@hawaii.rr.com

LOG NO: 2009.4564
DOC NO: 0912PC64
Archaeology

**SUBJECT: Chapter 6E-8 Historic Preservation Review –
Archaeological Monitoring Plan for On- and Off-Site Work for the Kualapu'u
School Waterline Project, DOE Job No: Q57001-07
Manowainui/Naiwa Ahupua'a, Kona (Moloka'i) District, Island of Moloka'i
TMK: (2) 5-3-013:027 and (2) 5-3-013:999 [Farrington Avenue right of way]**

Thank you for the opportunity to review this plan, which our staff received in hardcopy format on November 16 (Fredericksen 2009): *An Archaeological Monitoring Plan for Scheduled Improvements*...Xamanek Researches, LLC.

The monitoring plan was prepared upon the recommendation of this office after review of the project because we believe it is possible that archaeological sites from the pre- and/or post-Contact periods are present in subsurface deposits exposed during associated ground altering disturbance (SHPD LOG NO: 2009.3903; DOC NO: 0911PC12).

As specified in the monitoring plan, there will be one archaeological monitor on site during for each piece of ground altering machinery in operation. A coordination meeting with the construction crew and all other pertinent parties to explain monitoring procedures and that the monitoring archaeologist has the authority to halt work in the vicinity of a culturally significant find will be undertaken, and should anything of cultural significance be identified, the SHPD will be consulted for mitigation recommendations. The plan further states that in the event human remains are inadvertently exposed, both the SHPD and Moloka'i Island Burial Council (MIBC) will be notified and appropriate burial protocol followed once jurisdictional determination has been made. *No human remains will be collected or removed from the project area unless specifically authorized by the SHPD.* A report detailing the findings of the monitoring activity will be prepared and submitted to our office for review within 180 days after the completion of the project.

The plan contains the required information as specified in IAR §13-279-4(a) regarding the contents of monitoring plans in general and is acceptable.

Erik M. Fredericksen, M.A.

TMK: (2) 5-2-013:027 and (2) 5-2-013:999 Kualapu'u School Waterline Archaeological Monitoring Plan

Page 2 of 2

If you have any questions or comments regarding this letter, please contact the SHPD's Lead Maui Archaeologist, Ms. Patty Conte (Patty.J.Conte@hawaii.gov).

Aloha,

A handwritten signature in cursive script that reads "Nancy A. McMahon". The signature is written in black ink and is positioned above the typed name.

Nancy McMahon, Deputy SHPO/State Archaeologist
State Historic Preservation Division

c: Jeff Hunt, Director, Dept. of Planning, FAX (808) 270-7634
Maui CRC, Dept. of Planning, 250 S. High Street, Wailuku, Hawai'i 96793