King Intermediate School

Building N (Library) Improvements and Covered Bus Stop

Draft Environmental Assessment

DOE Job Nos.:
P00056-06 &
P00156-06

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

February 2010

Table of Contents

Section Page

EXECUTIVE SUMMARY

1 PROJECT DESCRIPTION
1.1 Introduction 1-2
1.2 Background and Need for Project 1-2
1.3 Project Overview 1-4
1.4 Possible Environmental Permits and Approvals 1-6

2 ALTERNATIVES INCLUDING THE PROPOSED ACTION

2.1 No-Action Alternative 2-1
2.2 Repair Roof-Top Air Conditioning Equipment 2-1
2.3 Alternatives to the "Repair and Maintenance" Approach 2-2
2.3.1 Alternate A-High Slope Metal Roof 2-2
2.3.2 Alternate B-Relocate Existing Package Air Conditioning Units to Grade 2-2
2.3.3 Alternate C-Split Condenser/Air Handler Units 2-2
2.3.4 Alternate D-Central Air Handlers with Chiller and New Mechanical Equipment Room (Preferred Alternative) 2-3
2.4 Proposed Action 2-4
2.4.1 New Mechanical Room 2-4
2.4.2 Existing Library Building 2-4
2.4.3 Parking, Bus Shelter, and Bus Lane 2-6

3 AFFECTED ENVIRONMENT, IMPACTS AND MITIGATION

3.1 Introduction 3-1
3.2 Physical Environment 3-1
3.2.1 Location 3-1
3.2.2 Topography and Soils 3-1
3.2.3 Climate and Air Quality 3-3
3.2.4 Natural Hazards 3-5
3.2.5 Hydrology 3-5
3.2.6 Noise 3-7
3.3 Biological Environment 3-8
3.3.1 Botanical Resources 3-8
3.3.2 Terrestrial Fauna and Avifauna 3-9
3.4 Socio-Economic Environment 3-9
3.4.1 Demographic Characteristics 3-9
3.4.2 Archaeological, Historic, and Cultural Resources 3-11

Section Page

3.5 Utilities and Infrastructure 3-13
3.5.1 Potable Water 3-13
3.5.2 Sanitary Sewer 3-14
3.5.3 Electrical, Telephone, Cable 3-14
3.5.4 Drainage 3-15
3.5.5 Solid and Hazardous Wastes 3-16
3.6 Traffic 3-16
3.6.1 Existing Conditions 3-16
3.6.2 Impacts and Mitigation 3-17
3.7 Public Services and Facilities 3-18
3.7.1 Police, Fire and Emergency Medical 3-18
3.7.2 Schools 3-18

4 CONSISTENCY WITH EXISTING PLANS, POLICIES AND CONTROLS

4.1 State of Hawai‘i 4-1
4.1.1 Hawai‘i State Plan 4-1
4.1.2 State Land Use Classification 4-1
4.1.3 Coastal Zone Management 4-1
4.2 City and County of Honolulu 4-4
4.2.1 County General Plan 4-4
4.2.2 Ko‘olaupoko Sustainable Communities Plan 4-4
4.2.3 County Zoning 4-6
4.2.4 Special Management Area 4-6
4.3 Other Considerations 4-9
4.3.1 Unavoidable Adverse Effects 4-9
4.3.2 Energy Requirements and Conservation Potential of Various Alternatives and Mitigation Measures 4-9
4.3.3 Relationship of Short-Term Uses and Long-Term Productivity 4-9
4.3.4 Irretrievable and Irreversible Resource Commitments 4-9

5 DETERMINATION, FINDINGS AND REASONS FOR SUPPORTING THE CHAPTER 343 HRS DETERMINATION

5.1 Chapter 343 HRS Determination 5-1
5.2 Chapter 343 Hawai‘i Revised Statutes Significance Criteria 5-1

6 REFERENCES

7 PERSONS AND AGENCIES INVOLVED IN THE PREPARATION OF THE ENVIRONMENTAL ASSESSMENT
7.1 Agencies and Organizations Contacted 7-1
7.2 Comments Received During Pre-Assessment Consultation 7-3

APPENDIX

Archaeological Monitoring Plan for King Intermediate School at Kalimaloa, He‘eia Ahupua‘a, Ko‘olaupoko District, O‘ahu Island, TMK [1] 4-6-004:002 (por), Cultural Surveys Hawai‘i, June 2009

Letter from SHPD to Mr. David Shideler, Cultural Surveys Hawai‘i, dated July 14, 2009, LOG NO: 2009.2710, DOC NO: 0907NM21, Subject: 6E8 Historic Preservation Review-AMP, for the proposed King Intermediate School

Cultural Impact Assessment for King Intermediate School at Kalimaloa, He‘eia Ahupua ‘a, Ko‘olaupoko District, O‘ahu Island, TMK [1] 4-6-004:002 (por), Cultural Surveys Hawai‘i, November 2009

LIST OF FIGURES

Figure Page

1 Location 1-3
2 Project Area 1-5
3 Site Plan 2-5
4 Covered Bus Stop 2-7
5 Soils 3-2
6 Flood Insurance Rate Map (FIRM) 3-6
7 Ko‘olaupoko Sustainable Communities Plan 4-5
8 Zoning and Special Management Area 4-7

LIST OF TABLES

Table Page

1-1 Possible Environmental Permits and Approvals 1-6
3-1 Demographic Information for the He‘eia Kea Census Tract 3-10
7-1 Summary of Comments Received During Pre-Assessment Consultation 7-3

LIST OF ACRONYMS

ADA	Americans with Disabilities Act
BMP	Best Management Practices
BWP	Board of Water Supply
CZM	Coastal Zone Management
dB	decibels
dBA	A-weighted sound level
DLNR	Department of Land & Natural Resources
DOE	Department of Education
DOH	Department of Health
DP	Development Plan
DPP	Department of Planning and Permitting
EA	Environmental Assessment
EIS	Environmental Impact Statement
EMS	Emergency Medical Services
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Map
FONSI	Finding of No Significant Impact
HAR	Hawai‘i Administrative Rules
HECO	Hawaiian Electric Company
HPD	Honolulu Police Department
HRS	Hawai‘i Revised Statutes
LCA	Land Commission Award
Leq	Equivalent Sound Level
Ldn	Day-Night Equivalent Sound Level
LUO	Land Use Ordinance
mgd	million gallons per day
NAAQS	National Ambient Air Quality Standards
NPDES	National Pollutant Discharge Elimination System
OHA	Office of Hawaiian Affairs
OIBC	O‘ahu Island Burial Council
PACU	packaged air conditioning equipment
ROH	revised ordinances of Honolulu
SCP	Sustainable Communities Plan
SHPD	State Historic Preservation Division
SMA	Special Management Area
TMK	tax map key

Project Summary

Item	Description
Project Name	**King Intermediate School, Building N Improvements and Covered Bus Stop** DOE Job No. P00056-06 and Job No. P00156-06
Proposing Agency	State of Hawaiʻi, Department of Education (DOE)
Accepting Agency	State of Hawaiʻi, Department of Education (DOE)
Anticipated Determination	Finding of No Significant Impact
Location	46-155 Kamehameha Hwy, Kāneʻohe, Koʻolaupoko District, Oʻahu
Tax Map Key	TMK [1] 4-6-004:002
Existing Uses	Intermediate school
Landowner	State of Hawaiʻi
Need for Project	Aging roof-top air conditioning equipment on the school library Building N is causing continual roof leaks that are costly and inefficient to repair. Replacement of equipment in a ground-level mechanical and chiller room would be a more cost effective solution, and is consistent with current policy to replace roof-top mechanical equipment on State-owned facilities. A covered bus shelter and dedicated loading and unloading area are needed for students who take the bus to and from school daily. At present, bus loading and unloading occurs in a small parking lot on the side of the gymnasium, which presents a safety hazard and does not provide shelter from the sun and rain.
Project Description	Replace roof-top air conditioning equipment on the library Building N with equipment in a new ground level mechanical room. Construct a covered school bus shelter and designated bus drop off/pick up lane along the main school access road. Provide other minor improvements.
Flood Insurance Rate Map	Zone X, area determined to be outside the 1% and 0.2% annual chance floodplains
State Land Use	Urban
Zoning	R-5, Residential
Special Management Area (SMA)	Project is within the SMA, and a SMA Use Permit is required from the City and County of Honolulu, Department of Planning and Permitting

1 PROJECT DESCRIPTION

1.1 INTRODUCTION

The State of Hawaii Department of Education (DOE), Windward School District is proposing improvements at S.W. King Intermediate School, located at 46-155 Kamehameha Hwy, Kāneʻohe, Oʻahu. The project site is located in the Koʻolaupoko District, and is identified as TMK [1] 4-6-004:002 (Figure 1).

The project is referred to as King Intermediate School, Building N Improvements and Covered Bus Stop (DOE Job No's. P00056-06 and P00156-06). The project will construct a new mechanical and chiller room addition to the school library to replace roof-top air conditioning equipment. A new covered school bus shelter and bus drop off/pick up lane will also be built along the main school access road.

The EA is being prepared in accordance with State of Hawaiʻi (Hawaiʻi Revised Statutes Chapter 343) environmental guidelines and requirements.

This EA meets the requirements of Chapter 343, Hawaiʻi Revised Statutes (HRS), Act 241, Session Laws of Hawaiʻi (SLH) 1992, and Chapter 200 of Title 11, Department of Health (DOH) Administrative rules, "Environmental Impact Statement Rules."

1.2 BACKGROUND AND NEED FOR PROJECT

Samuel Wilder King Intermediate School is a public school operated by the State of Hawaii Department of Education. The school is located in Kāneʻohe, on the Windward side of Oʻahu, and covers 28 acres of scenic waterfront property adjacent to Kāneʻohe Bay. Current enrollment is approximately 700 students, in grades 7 and 8.

The school library, Building N, was constructed in 1977, and in recent years has experienced continual roof leaks throughout the building. In 2006, a project was initiated to remedy this problem. An inspection of the mechanical equipment and air conditioning ducts on the roof revealed that continuing to maintain the roof-top equipment was both expensive and inefficient. An alternatives analysis was conducted, and a decision was made to remove the roof-top air conditioning units and replace them in a new mechanical and chiller room at ground level.

Over one-half of the school population, or more than 300 students, ride privately-contracted school buses to and from school daily. School buses currently enter the school through the main entry, turn right behind the gym and head back toward Kamehameha Highway on a secondary entry road. School buses are loaded and unloaded at a sidewalk adjacent to the basketball courts. The area does not provide protection from the sun and rain, areas for student seating, or a pull-out space for bus queuing and loading. A dedicated and sheltered bus loading area is needed.

North

0 1000 2000 3000 4000

Scale in Feet

Figure **1**

LOCATION

1.3 PROJECT OVERVIEW

Figure 2 shows the location of the proposed project improvements. The project will replace two existing roof-top packaged air conditioning units and associated duct work with a new, ground level mechanical equipment room at the King Intermediate School Library, Building N. The project also includes the re-roofing the library, exterior duct enclosure soffit, acoustic tile ceiling and lighting within the existing library. The project will construct additional parking staff near the library.

A covered bus shelter and bus drop-off and pick-up lane will be constructed along the north side of the main school driveway adjacent to the playing field. The new bus shelter will include lighting and seating for approximately 250 students. The bus lanes will be able to accommodate up to five school buses. Several trees will need to be removed to accommodate the bus lanes and shelter, and a retaining wall will be constructed between the bus stops and the field, which is at a higher elevation than the entry road.

Other project improvements include replacement of the gate near the gymnasium and construction of an ADA-accessible route between the gymnasium and the football field.

The project is described in more detail in Chapter 2.

LEGEND

Existing Bus Route

Proposed Bus Route

North

0 100 200 300 400

Scale in Feet

Figure **2**

PROJECT AREA

1.4 POSSIBLE ENVIRONMENTAL PERMITS AND APPROVALS

The following is a summary of environmental approvals and consultations that may be required for the proposed action. Chapter 4 includes a more detailed discussion of the project's consistency with federal, State and local land use plans, policies and controls.

Table 1-1: Possible Environmental Permits and Approvals

Approval/Consultation	Agency
State of Hawai'i	
Chapter 343 Hawai'i Revised Statutes (*Environmental Assessment)*	Office of Environmental Quality Control
HRS Chapter 6E review (*Historic*) Archaeological monitoring plan approval	Department of Land and Natural Resources, State Historic Preservation Division
Community noise permit and noise variance	Department of Health
Construction plan approval	Department of Health
Use and Occupancy Agreement	Department of Transportation
Construction plans approval	Disability Communication Access Board
City and County of Honolulu	
Special Management Area (SMA) Use Permit	Department of Planning & Permitting
Construction, grading, and trenching permits	Department of Planning & Permitting
Construction plan approval	Department of Planning & Permitting Department of Design and Construction Department of Environmental Services

2 ALTERNATIVES INCLUDING THE PROPOSED ACTION

2.1 NO-ACTION ALTERNATIVE

The No-Action alternative would not address the ongoing roof leaks at the library building. Over time, the leaks would get worse, causing inconvenience and possible damage to library interiors, furnishing, and materials. Left untreated, the water penetration could cause severe structural damage to the roof, possibly resulting in ceiling collapse, and increasing the possibility of mold. Ceiling collapse would cause extensive damage to the library interior and materials, and poses a safety risk to students and staff. Mold infestation due to damp roof conditions would also pose a threat to library furnishings and materials, as well as a human health risk.

Under this alternative, there would be no new bus shelter and students would continue to wait for school buses on an uncovered sidewalk near the outdoor basketball courts.

The no action alternative is clearly unacceptable and was dismissed.

2.2 REPAIR ROOF-TOP AIR CONDITIONING EQUIPMENT

This alternative would retain the existing roof-top equipment and continue to repair the leaks, and/or re-roof the building. This alternative continues the repair and maintenance approach that has existed since the library was constructed in 1977, and was the option initially considered to address the situation.

DOE investigation has shown that the library roof leaks are due to the presence of air conditioning ducts which penetrate the roof at 27 locations. The ducts and equipment are supported by steel pipe posts and angles, each penetrating the roofing, resulting in over 300 penetrations.

When a re-roofing project was proposed in 2006, the low bid received was $875,500, which was over $313,000 higher than the State's initial estimate. This high cost was attributed partially to the bidding climate at the time, but mostly to the extremely high number of roof penetrations that will need to be inspected and repaired.

Overall, repair of the existing equipment would result in high maintenance costs for the State. It should also be noted that the DOE has initiated a State-wide effort to remove roof-top mechanical equipment from its facilities, and relocate these units to on-grade locations. This initiative was intended to address the ongoing difficulty and high costs of maintaining roof-top equipment. Therefore, in September 2006, the DOE elected not to proceed with its original re-roofing project, and began looking into alternate solutions.

2.3 ALTERNATIVES TO THE "REPAIR AND MAINTENANCE" APPROACH

The following alternatives to the standard repair and maintenance approach were considered and evaluated for library Building N.

2.3.1 Alternate A – High Slope Metal Roof

While it did not address all concerns, this alternative was to keep the existing mechanical equipment and ducts and span a new high slope metal roof over the existing equipment, ducts and roof. By providing added moisture protection with the new metal roof, the various roof penetrations would not require detailing.

This alternate was rejected for the following reasons:

1. Packaged air conditioning equipment (PACU) is designed to stand unenclosed. The intake and outlet of the existing packaged mechanical equipment did not allow practical enclosure with the new high slope roof.
2. The maintenance and future replacement of these units did not allow the existing roof around the PACU to be protected by the new roof.
3. With the existing packaged air conditioning units raised substantially above the existing roof surface, the height and volume of the new high slope metal roof would be disproportionately high and large.

2.3.2 Alternate B – Relocate Existing Package Air Conditioning Units to Grade

At the time of the alternatives study, the packaged air conditioning units were recently replaced and the option of re-locating these units on grade and connecting them to new duct work in the library ceiling was discussed and studied.

This alternate was rejected for the following reasons:

1. The existing PACUs were located at the relative center of the building to efficiently deliver conditioned air to the space they served. With the PACU on the ground, it was determined that 3 smaller units would be required to efficiently serve the library.
2. The existing PACU are side discharge type units and at the location considered acceptable by the school, the units could not be oriented to align with acceptable ductwork layout within the building.

2.3.3 Alternate C – Split Condenser/Air Handler Units

This option utilizes a series of small condenser/air handler units, located around the building perimeter replacing the 2 large PACU.

This alternate was rejected for the following reasons:

1. The condenser, which is the outside component of the system and the primary noise source, would be located along the main drive of the school. This would bring the noise source closer to the classrooms on campus.
2. There was concern that the air-handling component would not meet the noise level criteria set by the DOE for classrooms.
3. In the past, DOE has not accepted ceiling mounted air handling units, due maintenance concerns.
4. Maintaining numerous air handlers and condensers instead of a more centralized system were noted as a concern.
5. The aesthetics of having numerous condenser units along the main campus drive was noted as a concern.

2.3.4 Alternate D – Central Air Handlers with Chiller and New Mechanical Equipment Room (Preferred Alternative)

This option entails the removal of the two roof-top PACU, and construction of a new mechanical room to house mechanical equipment, installation of new ductwork to serve the library, new acoustic suspended lay-in ceiling, new exterior soffit at building perimeter and the re-roofing of the existing library.

This alternative was deemed to be the preferred alternative for the following reasons:

1. This option locates all the mechanical equipment in a centralized, on grade location.
2. The addition is sited at the southeast corner of the library, away from the center of the school campus and sufficiently away from neighboring properties.
3. This area has already been disturbed by an existing driveway and car turn around area to the rear door to the library.
4. The new mechanical room can be sited with minimal effect to the existing surface drainage patterns.
5. The new mechanical room will house three air handlers, mitigating noise generated by the new air handlers.
6. This option optimizes the air distribution by employing 3 air handlers units configured in the proper orientation with the library.
7. With the new ductwork for the existing reading room under the exterior perimeter roof eave of the library reading room, the ceiling height within the existing reading room is preserved.

2.4 PROPOSED ACTION

The proposed action implements Alternative D above, replacing the roof-top mechanical equipment with a including a central air handler with chiller and new mechanical equipment room at ground level.

In addition to the library building improvements, the proposed action includes construction of a parking area adjacent to the library and a covered bus shelter and bus lanes. The project site plan is shown in Figure 3 and the improvements are described below.

2.4.1 New Mechanical Room

The project will construct a 1,150 square foot (SF) mechanical room and associated chiller equipment enclosure on the southeast corner of the Library Bldg. N. The mechanical room will house 3 new air handlers and associated mechanical and electrical controls and power equipment.

The new mechanical room will be composed of a concrete slab on grade, masonry wall with concrete parapet wall and a metal deck supported by steel beam roof structure. The metal deck and beams will be protected with spray-on fireproofing. The associated chiller enclosure will be a masonry wall structure with a vandal deterrent chain link fabric covering. The structure will meet the 2003 International Building Code Type II-A building type classification.

Aluminum louvers will be installed on the west facing walls. Exterior steel door and frames serving the mechanical room and another serving the rear exit doors of the library reading room would be located on the south wall.

The interior of the mechanical room will include a drywall on metal stud demising wall to create an exit way for the reading room and to form an acoustic buffer to the reading room. Acoustic wall treatment will be applied to the mechanical room walls.

2.4.2 Existing Library Building

The project involves incidental remodeling and repairs to the existing library roof, ceiling and walls. At the south and east walls of the library, a new exterior finish system clad soffit will be installed to house the new mechanical ductwork to serve the reading room. New windows will be installed at these walls to replace the windows displaced by the new ductwork and ductwork enclosure.

At the non-public rooms, new lay-in suspended acoustical ceilings will be installed to conceal the new ductwork serving these rooms. New lighting will be installed in these rooms.

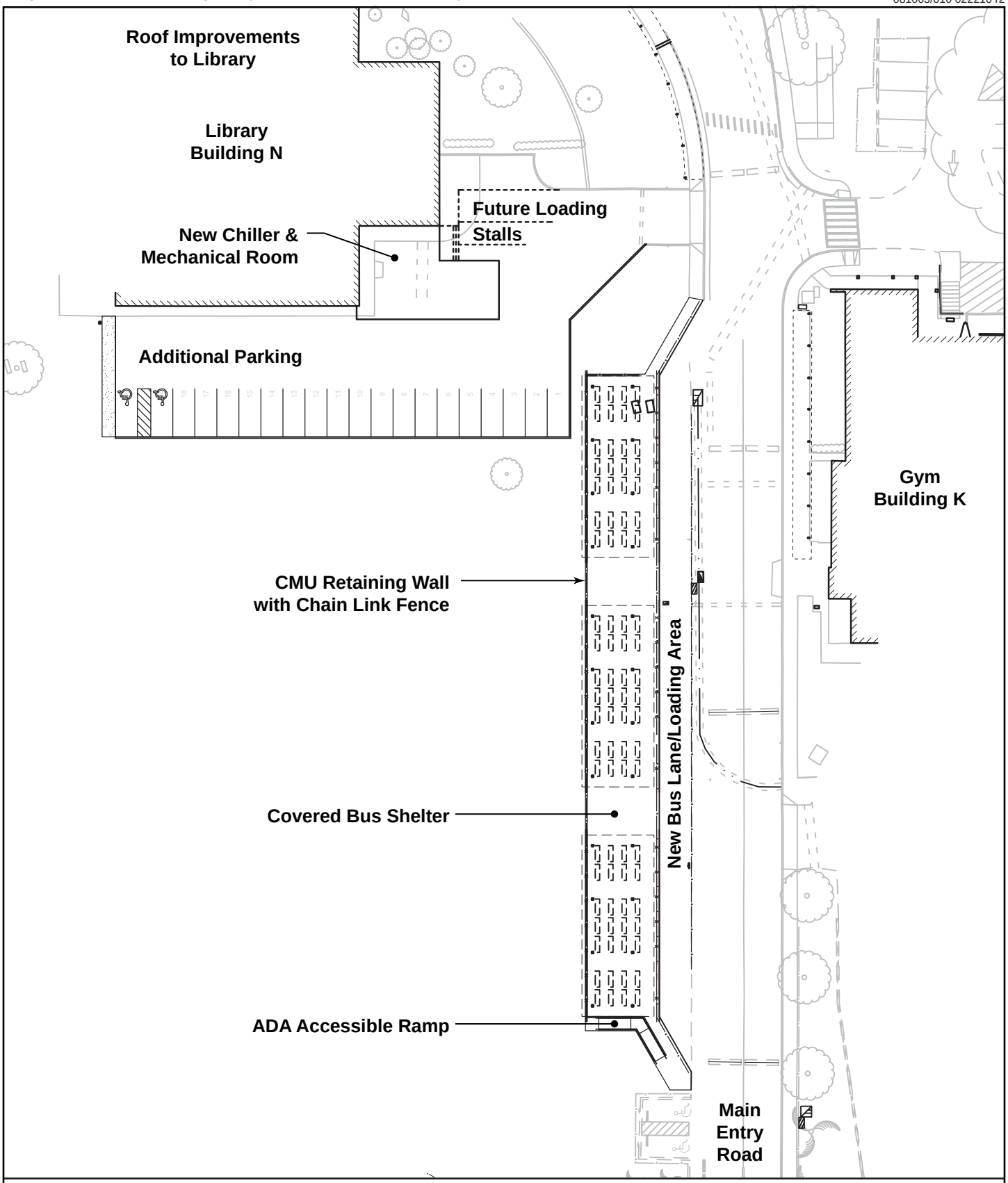


Figure **3**

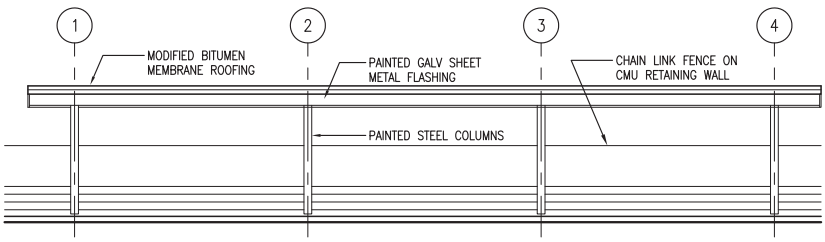
SITE PLAN

On the building roof, the existing PACU and associated ducts, curbs and associated supports will be removed along with the existing roofing. The existing roof will then be replaced with a new single-ply thermoplastic polyolefin (TPO) roofing over new rigid insulation. This type of roofing consists of a single-ply membrane which is durable, heat-reflective and energy efficient.

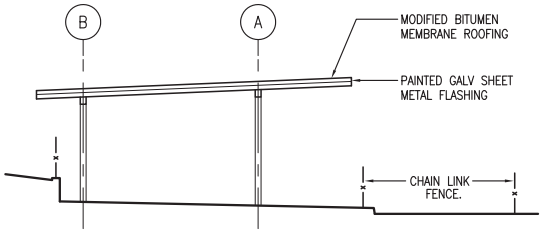
2.4.3 Parking, Bus Shelter and Bus Lane

The project will construct additional parking adjacent to the library building, and a covered bus shelter on the west side of the main school access road, adjacent to the playing field. The bus shelter will having lighting and include seating for approximately 250 students. A drop-off and pick-up lane will be able to accommodate five buses. The new bus shelter and bus lane will require the removal of four existing trees. A retaining wall approximately 100 to 200 feet in length and two to four feet in height will be constructed along the playing field, behind the covered bus shelter. The retaining wall will be topped by a chain link fence. Elevations for the bus shelter are shown in Figure 4.

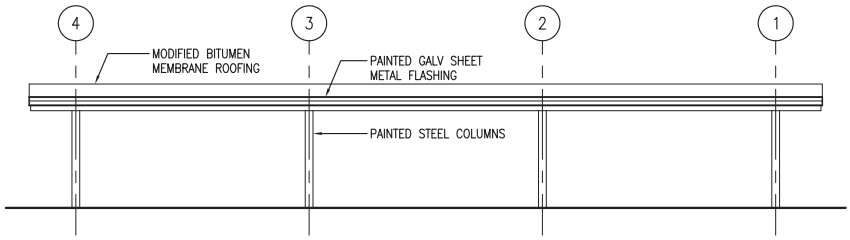
Other minor improvements include construction of a handicap accessible route from the gym to the football field, repairing the pavement behind the gymnasium near the culvert, and relocating or replacing the cattle gate near the gym.



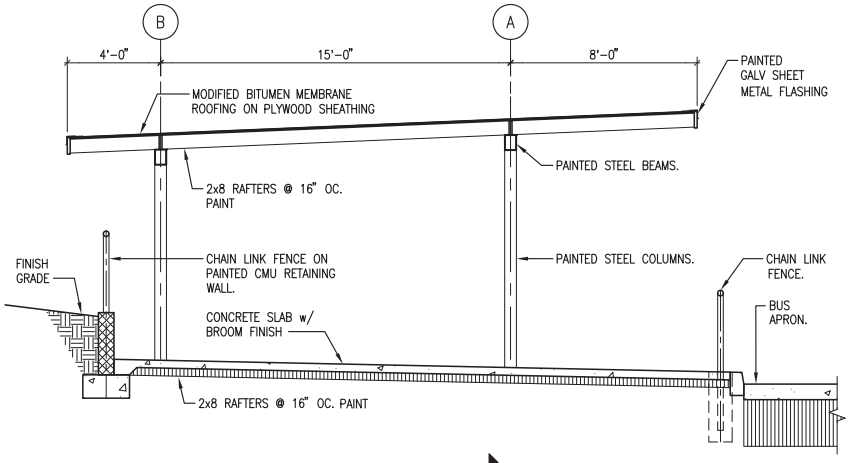
3 FRONT ELEVATION



5 SIDE ELEVATION



4 REAR ELEVATION



6 CROSS SECTION

COVERED BUS STOP SITE PLAN

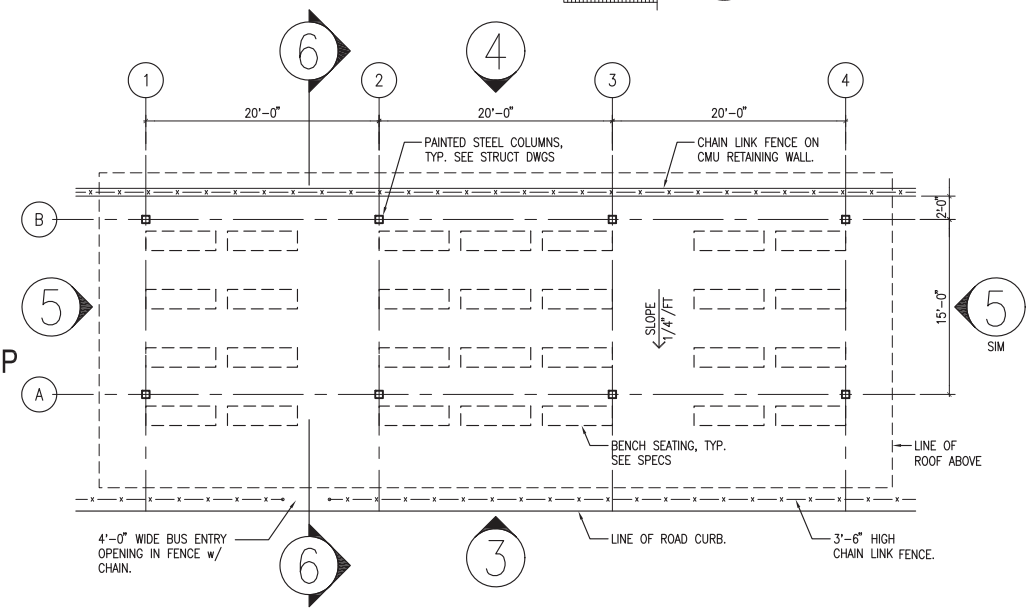


Figure **4**

COVERED BUS STOP

3 AFFECTED ENVIRONMENT, IMPACTS AND MITIGATION

3.1 INTRODUCTION

This chapter describes the existing environment, potential project impacts and proposed mitigation. This chapter is organized by resource area, and is generally divided into: 1) physical environment, 2) biological environment, 3) socio-economic environment, 4) utilities and infrastructure, 5) traffic, and 6) public services and facilities.

The discussion of environmental impacts includes both direct and indirect impacts. Direct impacts are those caused by the action and occur at the same place and time. Indirect effects may occur later in time or farther in distance, but are still reasonably foreseeable. The analysis in this chapter also identifies possible cumulative environmental impacts. Cumulative impacts are defined as the results from the incremental impact of the action when added to other past, present and reasonably foreseeable future actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.

3.2 PHYSICAL ENVIRONMENT

3.2.1 Location

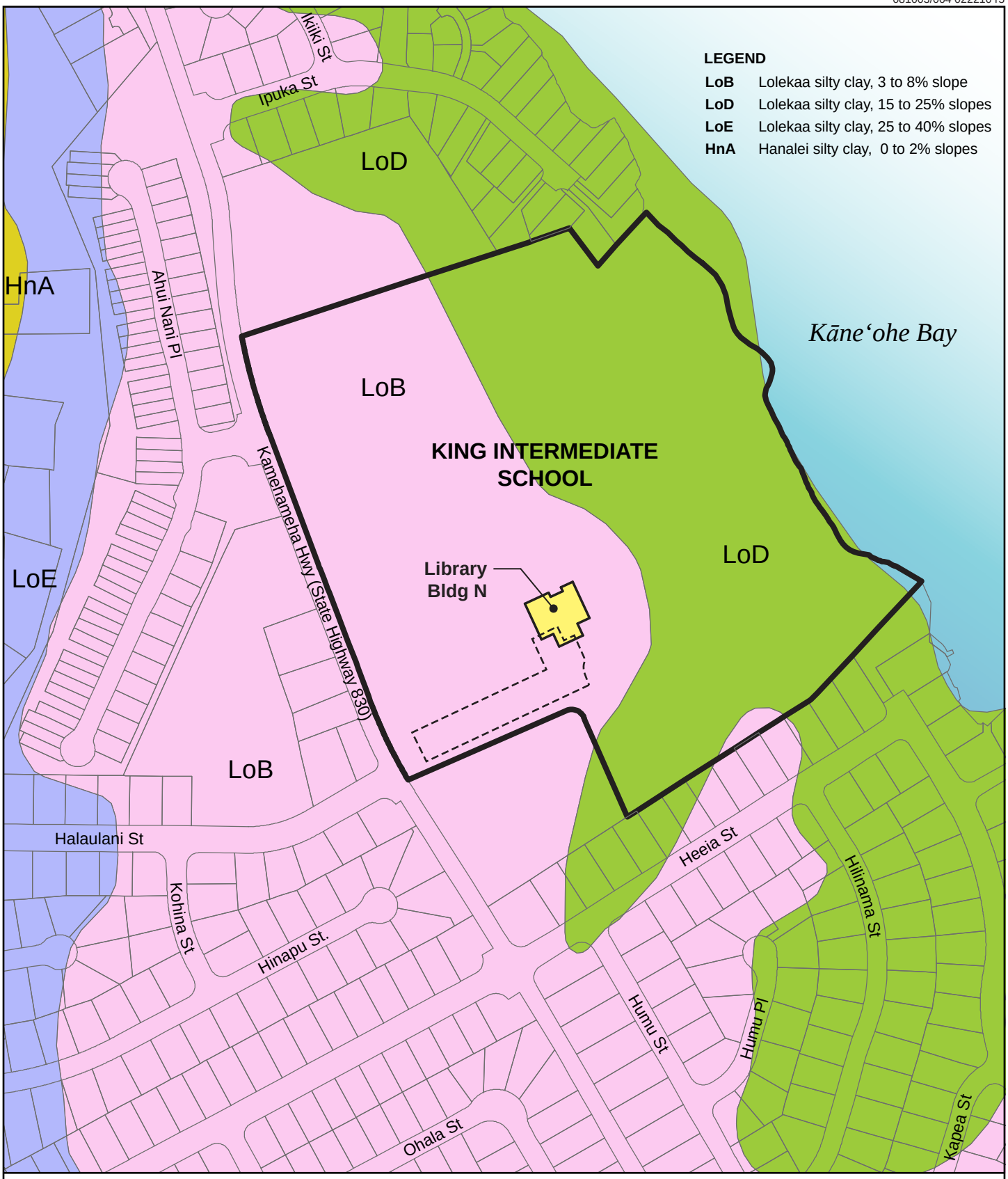
The project area is an approximately one-acre portion of the southwest corner of King Intermediate School in Kāneʻohe, on the windward side of Oʻahu. The school lies between Kamehameha Highway and the shallow reef flats of Kāneʻohe Bay, and, the project area is immediately east of Kamehameha Highway. The project area is located on the lowland flats and is approximately 50 to 80 feet above mean sea level. The school property is surrounded by single family residential uses on three sides, and by the bay on the makai side.

The project area includes the vicinity of the library, Building N, and the area along the main entry road from Kamehameha Highway to the library.

3.2.2 Topography and Soils

Existing Conditions

The topography of the King Intermediate School property slopes downward from Kamehameha Highway toward Kāneʻohe Bay, going from an elevation of 85 feet at the highway to sea level at the bay. In the immediate project area, elevations range from about 80 to 65 feet. The library and playing field sit at a slightly higher elevation (about 6-7 feet higher) than the main access road, and the topography slopes downward from the field and library toward the access road, gym, and classroom buildings.



North

0 100 200 300
Scale in Feet

Figure **5**
SOILS

Soils in the project area are Loleka‘a silty clay, 3 to 8 percent slopes (Figure 5). The Loleka‘a series consists of very deep, well drained soils that formed in alluvium and colluvium. Loleka‘a soils are found on terraces and fans at elevations from near sea level to 500 feet, with slopes of 3 to 70 percent. Soil permeability is moderately rapid, runoff is slow, and erosion hazard is slight.

Impacts and Mitigation

Construction of the chiller and mechanical room will require site preparation and some grading, but there will be no major modification to the topography of the site. For the building addition, there will be approximately 63 cubic yards of fill to raise the floor elevation to meet the existing library floor. The finish grade around the new addition will be restored to match the existing elevations.

Site work for the bus shelters will include grading and construction of a retaining wall, pavement for the bus turnout and parking, construction of sidewalks, ramps, curbs and headers, and repair of existing pavement. The drainage system may also be extended.

The retaining wall will be constructed behind the shelters and along the existing field, which is at a higher elevation than the road. The retaining wall will be approximately 100 to 200 feet in length, and from two to four feet in height.

Construction activities will employ best management practices to prevent soil loss and erosion. Any impact of construction activities on soils will be mitigated by measures outlined in the following regulations:

- Chapter 14, Articles 13-16 as related to Grading, Soil Erosion and Sediment Control, of the Revised Ordinance of Honolulu, 1990, as amended.
- Department of Planning and Permitting, Rules relating to Soil Erosion Standards and Guidelines, (1999);
- USDA Soil Conservation Services Erosion and Sediment Control Guide for Hawai‘i, (1968).

3.2.3 Climate and Air Quality

Existing Conditions

Climate

Climate on the Island of O‘ahu is influenced by its subtropical location, topography, and the surrounding Pacific Ocean. Precipitation is primarily associated with the prevailing northeasterly trade winds that are intercepted and forced upwards at the Ko‘olau Mountain range. Prevailing winds are northeasterly trade winds, which occur approximately 70 percent of the time. Trade wind frequency ranges from about 45 percent in January to more than 90 percent in July. Normal trade winds tend to break down in the fall, giving way to light, variable wind conditions through the winter and early spring. Annual rainfall in the project area is about 60 inches per year.

Air Quality

National Ambient Air Quality Standards (NAAQS) have been established for seven major air pollutants: carbon monoxide (CO), nitrogen oxides (NO_x), ozone (O_3), particulate matter smaller than 10 microns (PM_{10}), particulate matter smaller than 2.5 microns ($PM_{2.5}$), sulfur oxides (SO_x), and lead. Air pollutant levels are monitored by the State Department of Health (DOH) at a network of sampling stations statewide, although there are no sampling stations in windward O‘ahu. Based on ambient air monitoring data, the U.S. Environmental Protection Agency has classified the island of O‘ahu and the entire State of Hawai‘i as being in attainment of the federal standards.

Air quality within the project area is good, as the surrounding general area is primarily residential in nature and its location near the ocean results in continuous on-shore breezes. There are no major sources of air pollution in the area.

Impacts and Mitigation

Construction and demolition activities will generate some dust in the immediate area which may impact students and faculty in the library, gymnasium, and playing fields. For this reason, construction will be scheduled during the summer months to the extent possible, to minimize impacts to the school. The primary construction area is about 200 feet away from the closest classroom building. The construction contractor will employ fugitive dust emission control measures in compliance with provisions of the State DOH Rules and Regulations (Chapter 43, Section 10) and Hawai‘i Administrative Rules (HAR) Chapter 11-60.1, “Air Pollution Control,” Section 11-60.1-33 on Fugitive Dust.

During excavation, the contractor will sprinkle water, as necessary to control dust. In addition, the following measures will be implemented to minimize dust and air quality impacts:

- Provide an adequate water source at the site prior to start-up of construction activities;
- Pave or revegetate work areas cleared of vegetation as soon as possible to reduce dust;
- Provide adequate dust control measures during weekends, after hours, and prior to daily start-up of construction activities
- Control dust from debris being hauled away from the project site;
- Move construction equipment to and from the work sites during non-peak traffic periods, to the extent possible, in order to minimize disruption to area traffic.

Overall, air quality impacts during construction will be temporary in duration.

Long-Term Impacts

The project will not have a long-term adverse affect on air quality.

3.2.4 Natural Hazards

Existing Conditions

According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM), King Intermediate School is in Zone X, outside the flood prone areas (Figure 6).

Based on evacuation maps prepared for the Oʻahu Civil Defense Agency, the project site is outside the tsunami evacuation area. King Intermediate School is a designated public emergency shelter for the area.

Impacts and Mitigation

The project will not increase the risk of human health or property damage due to natural hazards. The project is not within a flood prone area or the tsunami evacuation area. All proposed improvements will conform to applicable seismic standards for construction.

3.2.5 Hydrology

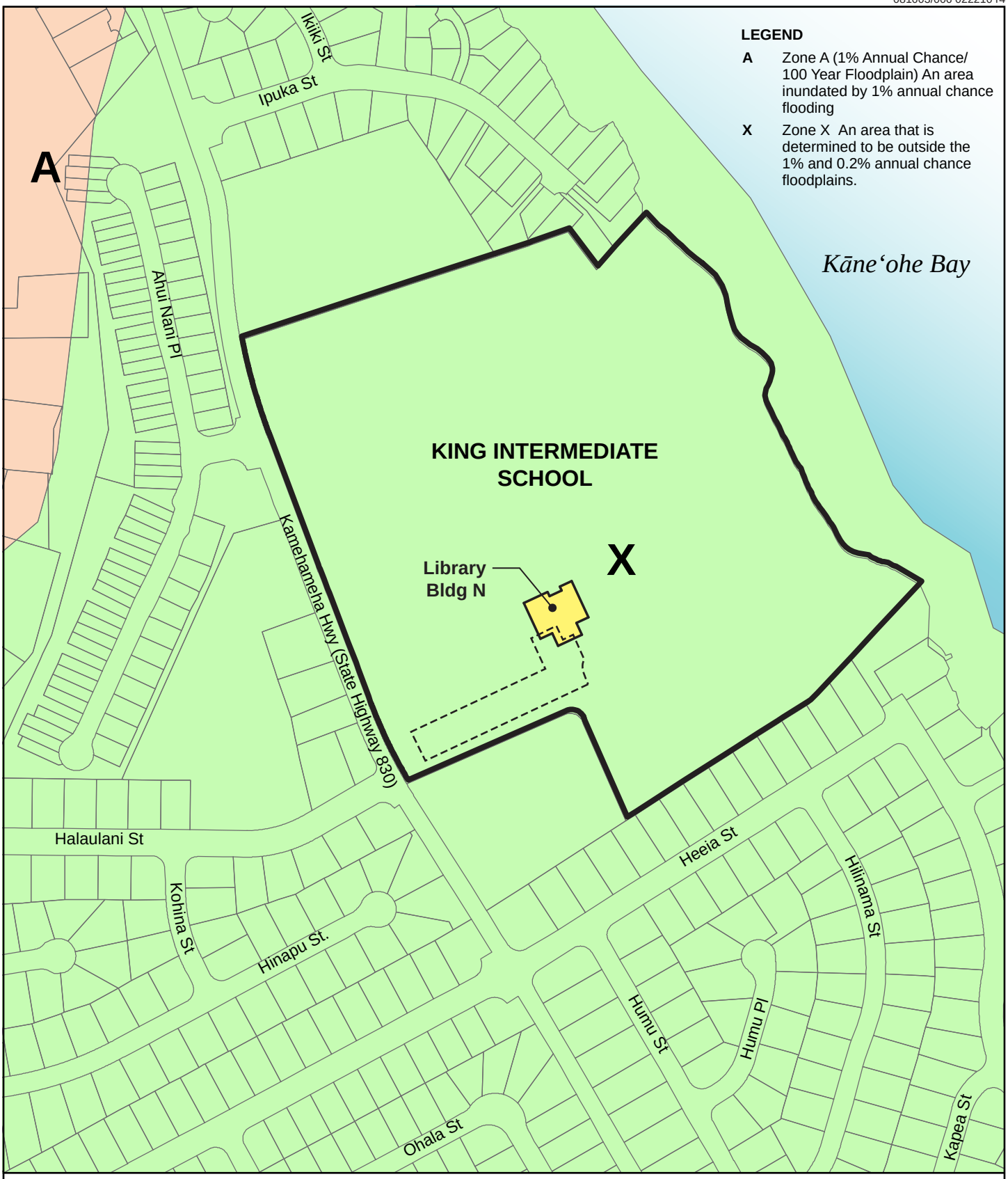
Existing Conditions

There are no streams or wetlands within or near the project site. The project site is located about 600 feet, or 200 yards from the waters of Kāneʻohe Bay, the largest embayment in the State with a surface area of 18 square miles.

The State of Hawaiʻi Department of Health (DOH) has identified Water Quality Limited Segments (WQLS) around the State, in accordance with Section 303(d) of the Clean Water Act. WQLS are defined as water bodies within the State, which without additional action to control non-point sources of pollution, cannot reasonably be expected to attain or maintain State Water Quality Standards. Primary pollutants identified by the DOH include nutrients, suspended solids and sediment, turbidity, polychlorinated biphenyls (PCBs), bacteria, and phosphorus. The Final 2004 List of Impaired Waters of Hawaiʻi lists Kāneʻohe Bay as a “Category 5 waterbody,” indicating that the water is impaired or threatened. The DOH has identified pollutants of concern for Kāneʻohe Bay as pathogens, nutrients, and nitrogen.

Impacts and Mitigation

The proposed improvements will have no impact on surface or groundwater resources. The construction of a new mechanical room, parking area and bus lanes will slightly increase the amount of impervious surface in the project vicinity. However, there will not be an increase in runoff from the school property, as runoff will be absorbed by the lawn surrounding the project areas. Best management practices will be followed during construction to minimize erosion and runoff, and construction will be scheduled during dry summer months to the extent possible. There will be no adverse water quality impact on Kāneʻohe Bay due to the proposed project improvements.



North

0 100 200 300
Scale in Feet

Figure **6**

FLOOD INSURANCE RATE MAP (FIRM)

The contractors will obtain National Pollutant Discharge Elimination System (NPDES) general permit coverage from the DOH for construction activities and for construction dewatering, if required. Discharge pollution controls will be required to be monitored and maintained by the contractor on a routine basis and immediately (within 24 hours) after each significant rain event (half-inch or greater rainfall within a 24-hour period). The contractor will be required to curtail work and take action as necessary to protect the work site and stored materials from storm damage and erosion.

3.2.6 Noise

Existing Conditions

Noise levels in the vicinity of the project site are relatively low, consistent with the character of the school and surrounding residential uses. The primary source of noise at the project site is associated with school activities, use of the adjacent playing fields, maintenance equipment, and vehicular traffic within the campus and along Kamehameha Highway.

Noise is regulated by the DOH under HAR Chapter 11-42, "Vehicular Noise Control for O‘ahu," and Chapter 46, "Community Noise Control." The current allowable noise limits for residential, apartment, and community business properties on O‘ahu are as follows:

Zoning	Daytime 7:00 AM to 10:00 PM	Nighttime 10:00 PM to 7:00 AM
Residential	55 dBA	45 dBA
Apartment	60 dBA	50 dBA
Community Business	60 dBA	50 dBA

Impacts and Mitigation

Short-Term Construction Impacts

Construction activities will generate noise that may have short-term impact on some school activities and adjacent land uses. Construction of the mechanical room, roof and interior improvements, bus shelter, new driveway and parking area will generate noise. The library building, in particular, will be affected by the construction of the new mechanical room and roof repairs. These noise impacts are unavoidable but will be temporary. To the extent possible, noisy construction will be scheduled during the summer months to minimize impact on students. However, due to the anticipated construction duration (3 months), some work will inevitably occur during the school year.

All construction activities will comply with the DOH Administrative Rules Chapter 11-46 on Community Noise Control. In cases where construction noise exceeds, or is expected to exceed the DOH's "maximum permissible" noise levels at the school property line, a permit will be

obtained from the DOH to operate vehicles, construction equipment, power tools, etc. that emit noise levels in excess of "maximum permissible" levels. To reduce the noise impact of construction activities, the contractor will try to limit high noise level work to before and after school hours.

The State Department of Health (DOH) currently regulates construction noise under a permit system. Under current procedures, noisy construction activities are restricted to hours between 7:00 AM and 6:00 PM, Monday through Friday, excluding certain holidays, and 9:00 AM and 6:00 PM on Saturdays. Construction is not permitted on Sundays. The majority of construction work will be performed during the day to ensure minimal nighttime noise impacts on existing residences.

Operational Noise

The operation of the new mechanical equipment next to the library will generate noise. However, impacts are not expected to be significant. Noise generated will be less than the existing roof-top air conditioning equipment which is completely exposed to the exterior. By comparison, the air handler in the new system will be completely enclosed inside a new structure, with concrete masonry walls and acoustic insulation. The chiller component will be surrounded by a masonry wall which will reduce noise, but it cannot be totally enclosed, since free air flow is required for heat exchange.

Overall, the new equipment enclosure will substantially eliminate the noise from the air handler and the masonry wall will reduce noise from the chiller.

There will be no noise impacts on surrounding residents. The library building is also more than 500 feet from the closest residential properties. In between are other noise sources including the existing gymnasium, classroom buildings, and Kamehameha Highway.

The road and parking improvements will not increase traffic or vehicles at the school, and are intended to support existing car and bus traffic. During periods when school buses are arriving and departing, there may be more bus-related noise along the main campus access road near the proposed bus shelter. This will be comparable to the bus-related noise that occurs in the parking lot where buses currently queue and load passengers.

3.3 BIOLOGICAL ENVIRONMENT

3.3.1 Botanical Resources

King Intermediate School is a highly altered urban environment. Most of the vegetation in the project area consists of landscaping or non-native species. The vegetation in the area next to the library includes hibiscus (*Hisbiscus clayi*), plumeria (*R. rubra*) and lawn grasses. (CSH 2009). No endangered plants are known to exist within the project area or within the school property.

Four trees along the access road will be removed to make way for the new bus shelter. There are no plans to replace or replant these trees.

3.3.2 Terrestrial Fauna and Avifauna

Fauna that would likely be found within the project area include mammals that typically inhabit urban residential areas in this region of O‘ahu, including feral cats (*Felis catus*) rats (Rattus sp), house mouse (Mus musculus) and Indian mongoose (*Herpestes a. auropunctatus*).

Avifauna found on the project site would include alien species common to urban environments, such as the Common Mynah (*Acridotheres tristis*), Red crested Cardinal (*Paroaria coronata*), Northern Cardinal (*Cardinalis cardinalis*), House Finch (*Carpodacus mexicanus*), Java Sparrow (*Padda oryzivora*), Rock Pigeon (*Columba livia*), Spotted Dove (*Streptopelia chenensis*), Zebra Dove (*Geopelia striata*), Red-vented Bulbuls (*Pycnonotus cafer*), and Japanese White-eye (*Zosterops japonicus*).

Native waterbirds including the Black-crowned Night Heron (*Nycticorax nycticorax*) and the Black-necked Stilt (*Himantopus mexicanus knudseni*) have been reported at the nearby He‘eia Fishpond, and seabirds such as the Black Noddy (*Anous minutus*) and Great Frigatebird (*Fregata minor*) occur in the region.

The Pacific Golden Plover (*Pluvialis fulva*) is a migratory shorebird that could use the nearby grassy sports field as foraging and loafing habitat, particularly during the late summer and winter months. The Hawaiian hoary bat (*Lasiurus cinereus semotus*) is known to forage over ponds and bays and roost in dense forests similar to hau and mangrove, and may occur in the heavily vegetated areas along the makai boundary of the school property, as well as in the area around Heeia Pond. The project will not impact these vegetated areas.

Overall, the project improvements will take place within already developed areas of the school campus, and will not result in significant impact to terrestrial or avifauna or their habitat. There are no known threatened or endangered species inhabiting the areas where improvements are proposed.

3.4 SOCIO-ECONOMIC ENVIRONMENT

3.4.1 Demographic Characteristics

Existing Conditions

King Intermediate School is located within U.S. Census Tract 105.05, Heeia Kea, encompassing the area bounded by He‘eia Sream to its intersection with Kahekili Highway, Haiku road and Lilipuna Road.

In 2000, the population of this census tract was 3,512 persons, with ethnic breakdown of 43% Asian, 21% white, and 9% native Hawaiian or other Pacific Islander. The overall population in this census tract decreased by almost 3% between 1990 and 2000, while the population of the City and County of Honolulu increased by almost 5% during this same period. The median age in the He‘eia Kea census tract was 43.7 in 2000, compared to the islandwide median of 35.5

years. Between 1990 and 2000, the population in the He‘eia Kea tract showed the greatest change in persons over the age of 65 (+103%) and those between the ages of 20 and 34 (-38%). By contrast, Honolulu County as a whole showed a 28% increase in those of 65 years and older, and only a 16% decrease in those between 20 and 34 years of age. This indicates that the population in He‘eia Kea is aging or “graying” at a faster rate than the County as a whole.

In 2000, the median household income in the City and County of Honolulu was $51,914, compared to a median income of $76,626 in the He‘eia Kea tract.

Table 3-1: Demographic Information for He ‘eia Kea Census Tract

	He‘eia Kea Census Tract 105.05		Honolulu County	
	1990	2000	1990	2000
Population	3,612	3,512 (-2.8%)	836,231	876,156 (+4.7%)
Race				
White	1,006 *(27.8%)*	740 *(21.1%)*	264,372 *(31.6%)*	186,484 *(21.3%)*
Black/African American	23 *(0.6%)*	11 *(0.3%)*	25,875 *(3.1%)*	20,619 *(2.4%)*
Amer Indian/Alaskan Native	9 *(0.2%)*	2 *(0.1%)*	3,532 *(0.4%)*	2,178 *(0.2%)*
Asian	2,543 *(70.4%)*	1,504 *(42.8%)*	413,349 *(49.4%)*	403,371 *(46.0%)*
Nat Hawn/Other Pac Islander	N/A	320 *(9.1%)*	113,110 *(13.5%)*	77,680 *(8.9%)*
Other race	40 *(1.1%)*	26 *(0.7%)*	15,993 *(1.9%)*	11,200 *(1.3%)*
Two or more Races	N/A	909 *(25.9%)*	N/A	174,624 *(19.9%)*
Sex and age				
Male	1,767 *(48.9%)*	1,752 *(49.6%)*	425,994 *(50.9%)*	440,518 *(50.3%)*
Female	1845 *(51.1%)*	1,770 *(50.4%)*	410,237 *(49.1%)*	435,638 *(49.7%)*
Median Age (years)	--	43.7	32.2	35.7
≤19	875 *(24.2%)*	808 *(23.0%)*	228,672 *(27.3%)*	232,024 *(26.5%)*
20-34	839 *(23.2%)*	518 *(14.8%)*	232,037 *(33.9%)*	196,000 *(22.4%)*
35-64	1,594 *(44.2%)*	1,575 *(44.8%)*	283,690 *(33.9%)*	330,395 *(37.7%)*
≥65	301 *(8.3%)*	611 *(17.4%)*	91,832 *(11.0%)*	117,737 *(13.4%)*
Total Households	1,056	1,067	265,304	286,450
Avg household size	3.42	3.28	3.02	2.95
Median household income	$64,886	$76,626	$40,581	$51,914

Impacts and Mitigation

The proposed project will not affect area population or demographics. The improvements are intended to serve the existing school community, and will not affect school enrollment or school capacity. The project will not significantly affect the local economy, other than some minor short-term economic benefits resulting from public construction activity.

3.4.2 Archaeological, Historic, and Cultural Resources

Based on an informal consultation with the State Historic Preservation Division (SHPD) in early 2009, an archaeological monitoring plan was prepared for the project by Cultural Surveys Hawai‘i (June 2009). The monitoring plan was submitted to and approved by the SHPD in a letter dated August 25, 2009. Both the monitoring plan and the SHPD letter are included in the Appendix.

Existing Conditions

The immediate project area is heavily developed and landscaped as part of the King Intermediate School grounds. Paved parking lots, above ground and surface utilities, crosswalks, and concrete curbs are common in the area.

King Intermediate School is located about 1,500 feet south of He‘eia Pond, one of the last Hawaiian coastal fishponds on Oahu. This semi-circular fishpond encompasses about 88 acres along the shoreline, and is surrounded by a wall 5,000 feet in length. The fishpond is listed on the National Register of Historic Places and is owned by Kamehameha Schools, which has plans to restore and preserve the fishpond for educational and cultural use.

Impacts and Mitigation

Construction of the new chiller and mechanical room, new parking areas, covered bus shelter and bus lane will entail excavation and grading.

Consultation with the SHPD determined that an archaeological monitoring program is warranted as an historic preservation mitigation measure for the proposed construction activities. During the consultation, the SHPD indicated that because the project area is small and construction impacts are expected to be minimal, a monitoring program will be sufficient to meet state requirements for historic preservation. The document was prepared to support the project’s historic preservation review under HRS Chapter 6E-8 and HAR Chapter 13-275. It addresses the eight specific items that must be addressed in archaeological monitoring plans, per HAR Chapter 13-279-4.

The monitoring plan notes that the King Intermediate School project area has the potential for pre-contact and historical cultural deposits as well as human burials. These historic properties may be encountered anywhere within the project area. On-site monitoring is recommended for all initial ground disturbing activities and for any excavation below 12 inches in depth. A qualified archaeologist will monitor all initial ground disturbance associated with the project’s

construction. Any departure from this will only follow consultation with and written concurrence from the DLNR SHPD.

Before work commences on the project, the on-site archaeologist will hold a coordination meeting to orient the construction crew on the requirements of the archaeological monitoring program. It will be made clear that the archaeologist must be on site during all subsurface excavations.

If human remains are identified, no further work will take place until consultation with and approval of the SHPD. All human skeletal remains will be handled in compliance with HRS Chapter 6E-43 and HAR Chapter 13-300 and in consultation with the SHPD.

Lab analysis of non-burial related finds will be documented. A monitoring report will be prepared presenting a stratigraphic overview of the project area which will allow for predictive assessments of adjacent properties which may be the subject of future development.

HRS Chapter 6E Consultation

The Archaeological Monitoring Plan (CSH, June 2009) has been reviewed and approved by the SHPD, in accordance with HRS Chapter 6E, Hawai‘i’s Historic Preservation Law. In a letter dated August 25, 2009, the SHPD approved the monitoring plan for the project (see Appendix).

The construction contractors will be required to comply with the provisions of the approved monitoring plan, which includes on-site archaeological monitoring for all initial ground disturbing activities or land alteration deeper than 12 inches below the current land surface.

Cultural Impact Assessment

A Cultural Impact Assessment (CIA) was prepared (Cultural Surveys Hawai‘i, November 2009), in compliance with HRS Chapter 343 which requires consideration of a proposed project’s effect on cultural practices and resources. The CIA was prepared in accordance with the Office of Environmental Quality Control (OEQC) Guidelines for Assessing Cultural Impacts, and is included in the Appendix.

As part of the CIA, Cultural Surveys Hawai‘i contacted Hawaiian organizations, agencies and community members in order to identify individuals with cultural expertise and/or knowledge about the project area and vicinity. The organizations consulted included the SHPD, the Office of Hawaiian Affairs (OHA), the O‘ahu Island Burial Council (OIBC). Various community and cultural organizations were also contacted, and formal interviews were held with three individuals.

The results of the background research indicated that the He‘eia *ahupua‘a* is rich in cultural and historic resources and heritage. It is rich in *mo‘olelo* (stories) associated with *wahi pana* (storied places), *akua mo ‘o* (guardians), demi-gods, and goddesses. The area surrounding Kealohi Point in He‘eia was a *leiana ‘uhane*, a place where the souls of the dead leap into the sea.

Previous archaeological studies within the *ahupua‘a* have documented multiple pre-contact habitation sites, several religious structures such as *heiau, kuahu* (family shrine or altar), multiple burial sites and skeletal remains, agricultural sites and activity areas, and World War II remnants. Burials sites at Mokapu, part of the He‘eia *ahupua‘a*, are among the largest known burial sites in Hawai‘i.

During the community consultation, participants noted that the project area is located in an *ahupua‘a* of considerable cultural significance to Hawai‘i and native Hawaiians. They indicated that the area was used extensively for farming and fishing. None of the respondents had specific objections to the proposed project unless cultural features were found during the excavation phase. Respondents seemed to be in support of the purpose of the project, as it is meant to benefit students of the school.

Participants made several recommendations for the project, including the need for monitoring by a qualified archaeologist during all initial ground disturbing activities, and educating construction personnel about the possibility of inadvertent cultural finds, including human remains. Study participants also recommended that consultation with community participants continue. Participants also made several recommendations to improve project logistics and traffic flow at the school during construction.

3.5 UTILITIES AND INFRASTRUCTURE

3.5.1 Potable Water

Existing Conditions

Water service to the project area is provided by the City and County of Honolulu’s Board of Water Supply (BWS). The water system within the project area consists of underground lines. Water service to the library Bldg. N is minimal. The building houses one staff toilet with a single lavatory and water closet, a service sink in the Janitor’s closet and two two-compartment sinks in the Workroom. There are 5 hose bibbs at the building exterior.

Impacts and Mitigation

The proposed mechanical room will include one new hose bibb for maintenance purposes. No new fixtures are planned for the new mechanical room. After the initial chill water is filled into the mechanical equipment (estimated at 30 to 50 gallons), no new water demand is required except during equipment maintenance.

According to a letter from the BWS dated July 15, 2009 (Chapter 7), the existing water system is presently adequate to accommodate the proposed development. The BWS indicated that the final decision on the availability of water will be confirmed when the building permit application is submitted for approval. The project will not increase water demand, and there will be no impact to water service during construction.

3.5.2 Sanitary Sewer

Existing Conditions

Sewer service to the school is provided through the City and County of Honolulu. Existing sewer service to the library is minimal. The building houses one staff toilet with a single lavatory and water closet, a service sink in the Janitor's closet and two two-compartment sinks in the Workroom.

Impacts and Mitigation

No new fixtures impacting the sewer system are planned for the mechanical room. No mitigation is required.

3.5.3 Electrical, Telephone, Cable

Existing Conditions

Electrical service within the project area is provided by Hawaiian Electric Company, Inc. (HECO), which has existing 12.47 kV underground facilities and equipment within the project area. Electrical service to Building N, Library, is via a 2" conduit originating at the main campus drive and terminating at the Storage Room at the center of the existing library. The power to the main building panel is 480/277 volt, 3-phase service to satisfy 135.4 KVA demand load. The main panel primarily serves light fixtures and the two roof-top PACU and distributes power via a transformer to a sub-panel. The sub-panel is 120/240 volt, single-phase service primarily supplying power to the building receptacles.

Telephone service in the area is provided by Hawaiian Telcom, which has noted they have underground facilities in the vicinity of the project site. Above-ground lines are located along Kamehameha Highway, with most of the surrounding residential areas having underground electrical and telephone lines. Cable TV service in the area is provided by Oceanic Time Warner Cable (Oceanic).

Gas service within the project area is provided by The Gas Company. The Gas Company maintains underground utility gas mains serving residential and commercial customers, and are interconnected with the utility network in Honolulu.

Impacts and Mitigation

The proposed project will entail the following electrical work:

- Disconnect and remove power serving the roof-top mechanical equipment.
- Provide power to the new air handlers, chillers, associated mechanical equipment and light fixture within the new mechanical room.

- Remove existing light fixtures at the library support space where the new ductwork will be routed.
- Install new light fixtures at the library support spaces on new lay-in acoustic tile suspended ceiling system.

No additional demand to building service is anticipated. The proposed project will replace the existing mechanical and light fixtures with new equipment. There is no increase in the area served by the new mechanical equipment and the new light fixtures serves the same space the old fixture served.

Any additional power requirement for illuminating the mechanical room should be offset with new energy efficient light fixtures planned for the lights within the library.

An early consultation letter from Hawaiian Telcom dated July 2, 2009 (Chapter 7) indicates that Hawaiian Telcom has underground facilities in the vicinity of the project site. Coordination with Hawaiian Telcom will continue throughout the design stages of the project to ensure that there are no adverse impacts to these facilities.

During project design, project plans will be submitted to HECO, Hawaiian Telcom and Oceanic Time Warner for review and comment and to insure adequate service to mitigate any impacts to utility facilities or service.

3.5.4 Drainage

Existing Conditions

Stormwater from the library building site sheet flows down slope to the main campus roadway, where it enters the campus storm drainage system, which includes a network of catch basins. The area surrounding the new mechanical room is positively sloped for surface drainage, with a 7 to 8 foot grade differential in approximately 90’ between the mechanical room and the campus drive.

Water from the existing library roof drains down rain leaders which discharges on grade and sheet flows down the existing asphalt driveway, and down to the main campus drive.

Impacts and Mitigation

The proposed mechanical and chiller room next to the library will maintain the existing surface sheet flow drainage pattern. The new roof drain rain leaders will be discharged at grade and follow the current drainage pattern to the main campus drive. Here, stormwater will enter the campus storm drainage system. No additional drainage improvements are planned.

The condensate water from the air handler will be connected to a 4’ diameter drywell, located east of the new addition.

Drainage patterns along the main access road will remain unchanged with the addition of the bus shelter and bus lane.

During construction, appropriate measures will be implemented to prevent pollutants from entering the storm drain system. These measures include installing sediment barriers and filters at storm drain inlets, and repaving and revegetating areas as soon as practicable. Additionally, a National Pollutant Discharge Elimination System (NPDES) permit for storm water discharge associated with construction will be obtained. The contractor will be required to comply with all conditions associated with this permit.

The proposed mechanical room addition to the library will maintain the existing surface sheet flow drainage pattern. The new roof drain rain leaders will be discharged at grade and follow the existing drainage pattern to the main campus drive. By maintaining the existing site drainage patterns, no additional mitigation measures are planned or required.

The construction of the new bus shelter and bus loading will increase the amount of impervious surface in the area and slightly increase runoff. Additional drainage inlets will be constructed to accommodate this. The runoff will be channeled into the existing storm drain system, which ultimately empties into Kāneʻohe Bay. There will not be an adverse impact to bay water quality as a result of the project improvements.

3.5.5 Solid and Hazardous Wastes

The City and County of Honolulu's Department of Environmental Service is responsible for refuse pick up, hauling and disposal from the surrounding residential areas. The school, as well as commercial establishments and multi-family residential developments contract with private haulers. Refuse is disposed at the City's H-POWER refuse to energy plant located at Campbell Industrial Park and the Waimanalo Gulch Landfill in leeward Oʻahu.

The project will not have short or long-term impacts due to hazardous materials, waste or petroleum products. Construction of the new mechanical room and bus shelter will utilize typical construction materials including adhesives, paints, sealants, roofing, etc. Parking and road work will utilize standard paving materials including tar, resins, petroleum products and cleaners. All construction materials will be properly used, transported, stored and disposed by the construction contractor. All construction debris and waste will be removed from the project area. The construction contractor will dispose of all debris at DOH-approved City and County disposal or recycling facilities, and in accordance with applicable City, State, and Federal requirements.

3.6 TRAFFIC

3.6.1 Existing Conditions

The school is located on Kamehameha Highway (State Route 830), which is two lanes in this area, and provides primary access from Kāneʻohe Town north to Kahaluu, Hauula and beyond to the north shore.

Kamehameha Highway in this area is also served by major public bus routes including Route 55 Kāneʻohe Circle Island, Route 65 Kāneʻohe -Kahaluʻu and Route 86A Kāneʻohe-Kahaluʻu-Pearl Harbor Express.

The main school entry drive is a signalized intersection on Kamehameha Highway. The two-lane entry road provides access to the gymnasium, library, and school office. More than one-half of King Intermediate School students, or over 300 students, take a privately-contracted (Gomes School Bus Services) bus to and from school. The existing bus loading and unloading area is a sidewalk on the south side of the basketball courts. School buses enter at the signalized intersection, turn right between the gym and cafeteria, and circle around behind the gym to pick up and drop off students, as shown previously in Figure 2.

3.6.2 Impacts and Mitigation

The project will have short-term construction impacts on local school traffic. During construction of the new mechanical room and library parking areas, the small roadway to the library from the main access road will be closed, and parking around the library will be temporarily eliminated. The school plans to temporarily close the library when the mechanical room addition is being constructed.

Construction of the new bus lane and shelters along the main entry road may reduce through traffic to one lane. To the extent possible, construction is being scheduled for the summer months to minimize impact to students and staff. However, because the improvements are expected to take about 3 months, some work is likely to be ongoing when school is in session.

Construction along the entry road will not be allowed during the busy morning drop-off and afternoon pick-up times. During the day when construction is ongoing, internal traffic will be slowed and work areas coned off. The entry road will remain open at all times, but vehicles will need to be directed through the area. The sidewalk closest to the ballfield will be closed throughout construction of the bus shelter, and pedestrians will need to walk on the opposite (gymnasium) side of the entry road, or cut through the ballfield area.

There will be no impact to traffic on Kamehameha Highway. No street or sidewalk closures are planned for Kamehameha Highway or off the school property. There will be no long-term increase in traffic due to the project improvements. When the new bus shelters are complete, all school bus loading and unloading will take place at this location. School buses will enter the campus through the secondary entry on Kamehameha Highway (i.e., the unsignalized intersection), circle behind the gym, and turn left onto the main entry road, as shown in Figure 2.

3.7 PUBLIC SERVICES AND FACILITIES

3.7.1 Police, Fire and Emergency Services

Existing Conditions

Police, fire and emergency services are provided through the City and County of Honolulu. The project is within Honolulu Police Department's District 4, Kāneʻohe/Kailua/Kahuku. District 4 is HPD's largest patrol area, and extends from Makapuʻu Point to Kawela Bay on the windward side of Oʻahu.

The project area is served by the Honolulu Fire Department's Battalion 3, which serves windward Oʻahu. Kāneʻohe Fire Station Number 17 is located in Kāneʻohe Town, just over one mile from King Intermediate School. Station 17 is also the headquarters for Battalion 3, and is equipped with an engine company and a ladder company.

The City and County of Honolulu Department of Emergency Services provides emergency medical services on Oʻahu. The ambulance unit closest to the project site is based at the Kāneʻohe Fire Station.

Impacts and Mitigation

The project will not have an impact on the need for fire, police or emergency services, on facilities or operations. Early consultation letters from the Honolulu Fire Department and Honolulu Police Department are included in Chapter 7.

3.7.2 Schools

Existing Conditions

Samuel Wilder King Intermediate School, where the project is proposed, was named after Samuel Wilder King the 11th governor of the State of Hawaiʻi. The school was established in 1964, and opened with an enrollment of 475 students in grade seven. Classes were located on three separate locations - He'eia Elementary, Kāneʻohe Elementary and Benjamin Parker Methodist Church. In September 1965, 950 seventh, eighth and ninth graders moved to the permanent school site. In September 1985, all the ninth graders were placed at Castle High School, making King Intermediate a school for seventh and eighth graders only. Current enrollment is approximately 700 students.

Eight elementary schools feed into King Intermediate--Ahuimanu, Benjamin Parker, Heʻeia, Kahaluʻu, Kāneʻohe, Kapunahala, Puʻohala and Waiahole Elementary Schools. After completing their education at King Intermediate, students will continue to Castle High School.

Impacts and Mitigation

The project will improve facilities at King Intermediate School by correcting an ongoing roof leakage problem at the library, replacing outdated mechanical equipment, and by providing a new covered bus shelter and loading area for students. Although construction activities will cause noise, dust and traffic impacts, the long-term benefits of the project far outweigh these temporary inconveniences.

4 CONSISTENCY WITH EXISTING PLANS, POLICIES AND CONTROLS

4.1 STATE OF HAWAII

4.1.1 Hawaii State Plan

The 1996 Hawai‘i State Plan (Chapter 226, HRS) is the umbrella document in the statewide planning system. It serves as a written guide for the future long-range development of the state by describing a desired future for the residents of Hawai‘i and providing a set of goals, objectives, and policies that are intended to shape the general direction of public and private development.

The project, to improve the operation of the school library building, is consistent with the State plan objectives and policies for socio-cultural advancement—education,

> “(b) To achieve the educational objective, it shall be the policy of this State to: (1) Support educational programs and activities that enhance personal development, physical fitness, recreation, and cultural pursuits of all groups…(2) Ensure that the provision of adequate and accessible educational services and facilities that are designed to meet individual and community needs…” (Section 226-21, HRS).

The project is consistent with the State Functional Plan for Education. Section A(4): Services and Facilities notes a stated policy to “Ensure the provision of adequate and accessible educational services and facilities are designed to meet individual and community needs.” The goal for this policy is, “Provide facilities that are sufficient in number, functional, well-paced and compatible with the physical surroundings.”

4.1.2 State Land Use Classification

The State Land Use Commission, pursuant to Chapter 205 and 205A, HRS and Chapter 15-15, Hawaii Administrative rules, is empowered to classify all lands in the State into one of four land use districts: urban, rural, agricultural and conservation. All of King Intermediate School is located within the Urban district. Activities or uses within the Urban district are regulated by the City and County of Honolulu.

4.1.3 Coastal Zone Management

Coastal Zone Management (“CZM”) objectives and policies (Section 205A-2, HRS) and the Special Management Area (“SMA”) guidelines (Section 25-3.2 ROH) have been developed to preserve, protect, and where possible, to restore the natural resources of the coastal zone of Hawaii. All lands in the State of Hawaii and the area extending seaward from the shoreline are classified as valuable coastal resources within the State’s CZM area.

Part II of Chapter 205A, HRS contains the general objectives and policies upon which all counties have established Special Management Areas (SMA). The project site is within the City

and County of Honolulu's SMA, and is therefore subject to the City's SMA requirements, Chapter 25, ROH.

The following discusses the project's conformance with the objectives of the State's CZM program:

Recreational Resources
CZM Objective: *Provide coastal recreational opportunities accessible to the public.*

> **Discussion:** The proposed improvements are limited to the King Intermediate School campus, and will not affect existing fishing, surfing or other coastal recreational opportunities accessible to the public.

Historic Resources
CZM 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.*

> **Discussion:** The construction of building footings near the library, expansion of the parking lot and bus stops will involve ground disturbance which could impact subsurface resources. There is a possibility that subsurface deposits associated with taro/rice terraces and pre-contact deposits or burials may be encountered. An archaeological monitoring plan has been developed and has been approved by the SHPD. On-site archaeological monitoring will be conducted for all initial ground disturbing activities, defined as excavation or land alteration deeper than 12-inches below current land surface.

Scenic and Open Space Resources
CZM Objective: *Protect, preserve, and where desirable, restore and improve the quality of coastal scenic and open space resources.*

> **Discussion:** The Project will not impact coastal scenic and open space resources from Kamehameha Highway or surrounding areas.

Coastal Ecosystems
CZM Objective: *Protect valuable coastal ecosystems, including reefs, from disruption and minimize adverse impacts on all coastal ecosystems.*

> **Discussion:** The Project will not adversely impact coastal ecosystems or water quality. Best management practices and erosion control measures will be employed during construction of the structures and during grading associated with the parking lot and bus stops to minimize soil loss and control erosion and discharge from the site. The nominal increase in impermeable surfaces and runoff will be absorbed by adjacent lawns and landscaped areas. There will not be an increase in discharge into the bay.

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

> **Discussion:** The project will repair and improve public school facilities including its library building, which directly supporting the State's educational system. An investment in the education of Hawaii's children demonstrates an investment in the overall economic future of the State.

Coastal Hazards
CZM Objective: *Reduce hazard to life and property from tsunami, storm waves, stream flooding, erosion, subsidence, and pollution.*

> **Discussion:** The Project will not affect the occurrence or likelihood of damage from tsunami, storm waves, flooding, erosion, or subsidence.

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

> **Discussion:** The Project has no impact on this CZM objective.

Public Participation
CZM Objective: *Stimulate public awareness, education, and participation in coastal management.*

> **Discussion:** The Project has no impact on this specific CZM objective. An early consultation notice was sent to a number of federal, State and City and County agencies and community organizations. The Draft EA will be distributed to these same agencies and groups, and the 30-day public review period allows for public participation and input regarding the proposed school improvement project.

Beach Protection
CZM Objective: *Protect beaches for public use and recreation.*

> **Discussion:** The Project will not impact public beaches in the area. All improvements are limited to the King Intermediate School property.

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

> **Discussion:** The Project will not impact the protection or use of marine and coastal resources. During construction, best management practices will mitigate erosion and runoff to prevent impacts to coastal water quality and marine resources.

4.2 CITY AND COUNTY OF HONOLULU

4.2.1 County General Plan

General Plan Objectives and Policies

The project is in conformance with the following policies and guidelines of the City and County of Honolulu's *1992 General Plan Objectives and Policies.*

Chapter V. Transportation and Utilities

Objective C: To maintain a high level of service for all utilities.
Policy 1: Maintain existing utility systems in order to avoid major breakdowns.

Chapter VI. Energy

Objective B: To conserve energy through the more efficient management of its use.
Policy 3: Carry out public, and promote private programs to more efficiently use energy in existing buildings and outdoor facilities.

Chapter IX, Health and Education

Objective B: To provide a wide range of educational opportunities for the people of Oahu.
Policy 4: Encourage the construction of school facilities that are designed for flexibility and high levels of use.

4.2.2 Koʻolaupoko Sustainable Communities Plan

The City and County of Honolulu's Development Plan (DP) program provides a relatively detailed framework for implementing General Plan objectives and policies for the growth and development of Oʻahu at a regional level.

The project site is located in the Koʻolaupoko Sustainable Communities Plan (SCP) area. The Koʻolaupoko SCP area includes windward Oahu from Makapuʻu point to Kaʻoʻio Point at the northern end of Kāneʻohe Bay.

The Koʻolaupoko SCP emphasizes two vision concepts: 1) protection of the community's natural, scenic, cultural, historical and agricultural resources and the residential environment of existing neighborhoods; and 2) improvement and replacement, as necessary, of the region's aging infrastructure systems.

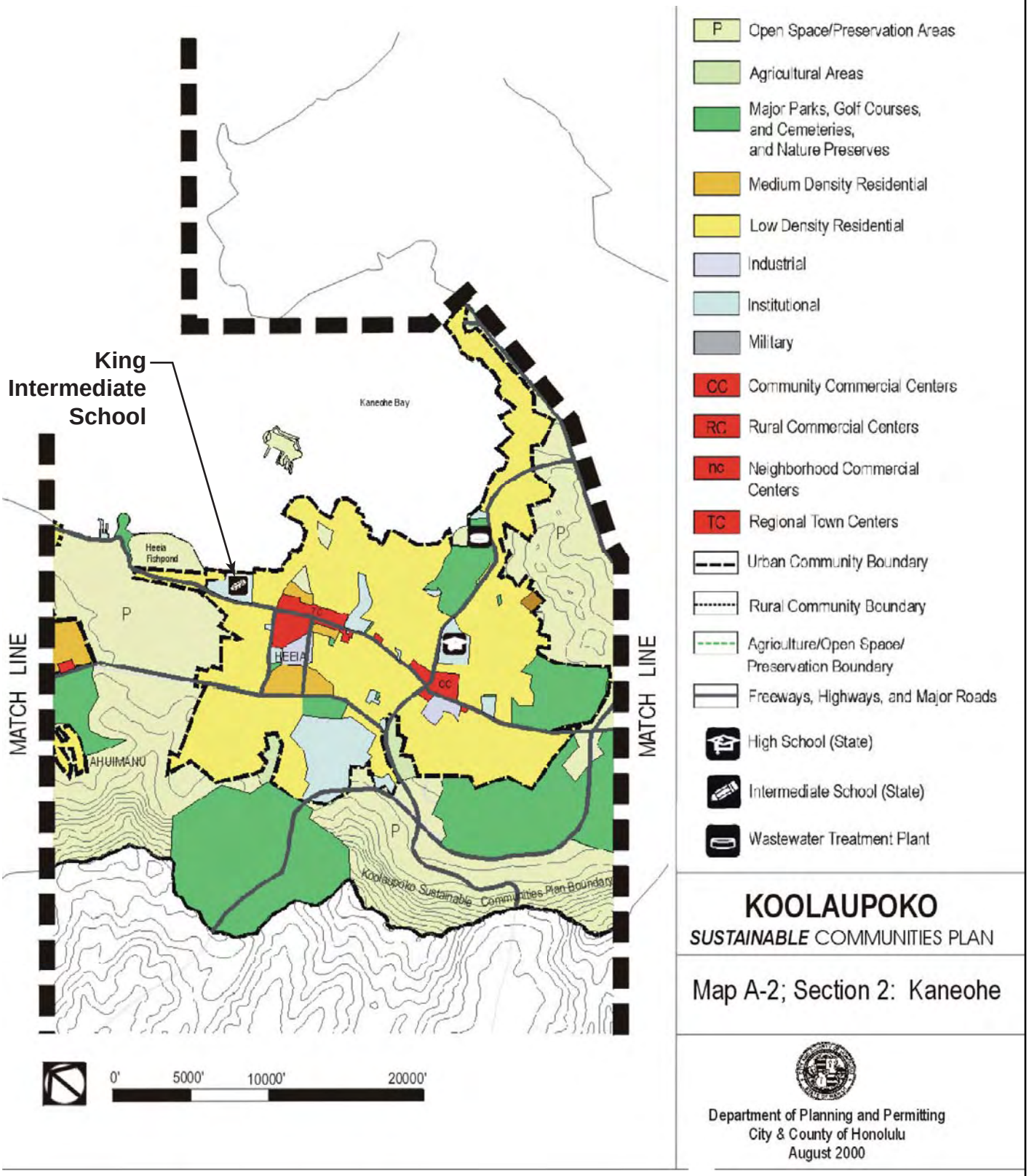


Figure **7**

KO'OLAUPOKO SUSTAINABLE COMMUNITIES PLAN

The SCP land use map (Figure 5) shows the King Intermediate School site is designated "Institutional" and notes the presence of the school. The proposed project will improve the aging infrastructure at the school by upgrading the library air conditioning system, and improving the parking and bus loading area. These improvements are consistent and in direct support of the overall SCP vision.

4.2.3 County Zoning

The City and County of Honolulu's Land Use Ordinance (Section 21, ROH) is its zoning ordinance, which regulates land use in a manner that will encourage orderly development in accordance with adopted land use policies.

As shown in Figure 6, the project site is zoned R-5 Residential, and is surrounded by single family residential use on three sides. The current school use and project improvements are consistent with this zoning designation.

4.2.4 Special Management Area

Coastal Zone Management objectives and policies (Section 205A-2, HRS) and the Special Management Area (SMA) guidelines (Section 25-3.2 ROH) have been developed to preserve, protect, and where possible, to restore the natural resources of the coastal zone of Hawai‘i. As shown in Figure 6, all of King Intermediate School is within the County's SMA, requiring compliance with the County's SMA requirements.

A Major Special Management Area Use Permit (SMP) is required for development valued at over $125,000, which includes the proposed project improvements.

Section 25-3.2, ROH, includes guidelines which are used by the Honolulu City Council to review development within the SMA. The relationship between the proposed action and the SMA review guidelines in Section 25-3.2 ROH are discussed below:

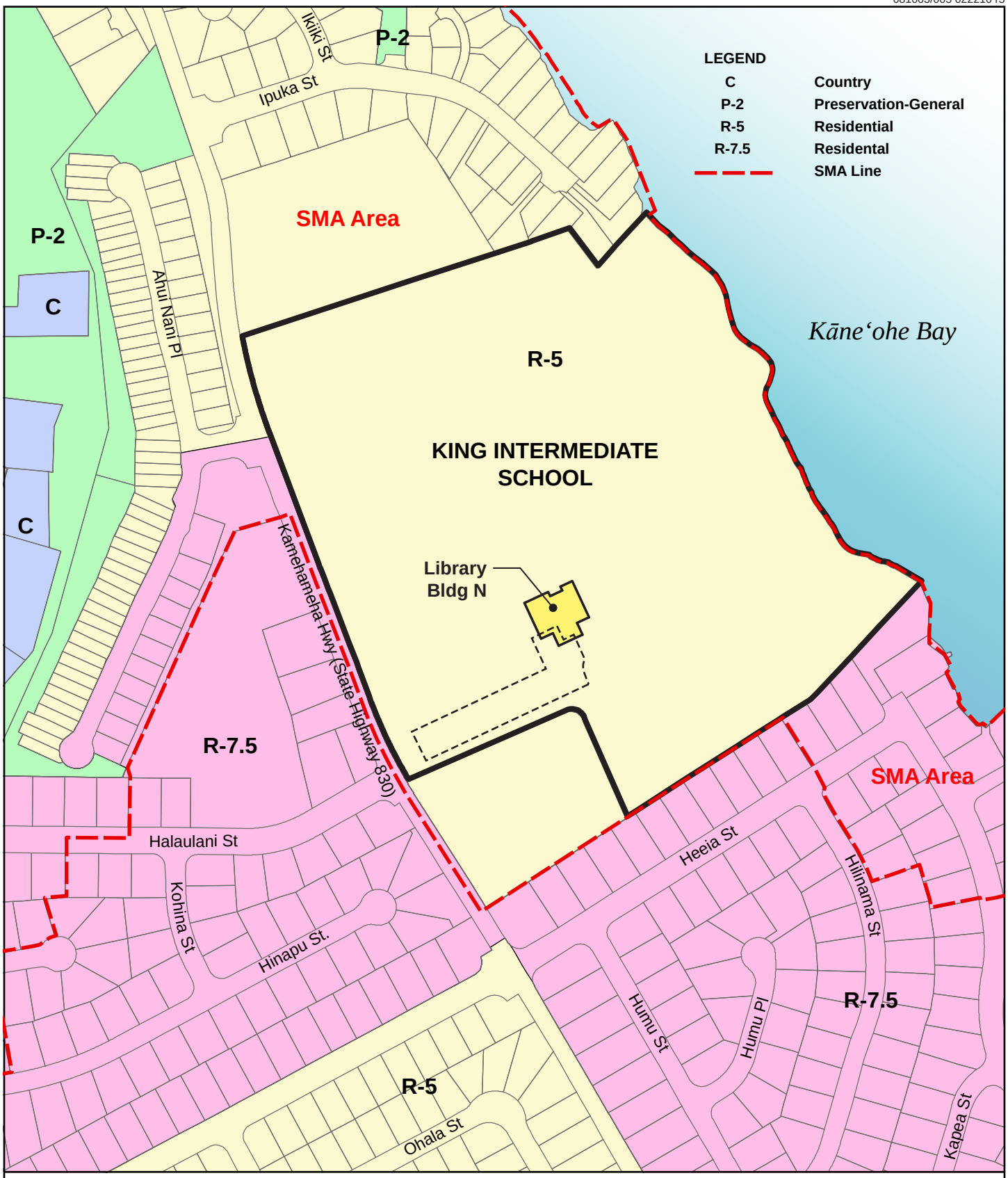
(a) All development in the special management area shall be subject to reasonable terms and conditions set by the council to ensure that:

(1) Adequate access, by dedication or other means, to publicly owned or used beaches, recreation areas and natural reserves is provided to the extent consistent with sound conservation principles;

(2) Adequate and properly located public recreation areas and wildlife preserves are reserved;

(3) Provisions are made for solid and liquid waste treatment, disposition and management which will minimize adverse effects upon special management area resources; and

(4) Alterations to existing land forms and vegetation; except crops, and construction of structures shall cause minimum adverse effect to water resources and scenic and recreational amenities and minimum danger of floods, landslides, erosion, siltation or failure in the event of earthquake.



North

0 100 200 300
Scale in Feet

Figure **8**

ZONING and SPECIAL MANAGEMENT AREA

Discussion: The project improvements are limited to the King Intermediate School campus, and do not affect any beaches or public recreation areas. The improvements will not increase demand for water, sewer or electrical utilities. Appropriate utility connections will be provided. The improvements will not involve extensive grading or ground disturbance. The site is in an area of minimal flood risk.

(b) No development shall be approved unless the [Honolulu City] council has first found that:

(1) The development will not have any substantial, adverse environmental or ecological effect except as such adverse effect is minimized to the extent practicable and clearly outweighed by public health and safety, or compelling public interest. Such adverse effect shall include, but not be limited to, the potential cumulative impact of individual developments, each one of which taken in itself might not have a substantial adverse effect and the elimination of planning options;
(2) The development is consistent with the objectives and policies set forth in Section 25-3.1 and area guidelines contained in HRS Section 205A-26;
(3) The development is consistent with the county general plan, development plans and zoning. Such a finding of consistency does not preclude concurrent processing where a development plan amendment or zone change may also be required.

Discussion: The analysis provided in this chapter (Chapter 4) of the Environmental Assessment demonstrates the proposed action's consistency with the objectives and policies contained in Chapter 205A-26, the City and County of Honolulu General Plan, the Ko'olaupoko SCP, and the County zoning regulations. As discussed in Chapter 3, there are no substantial adverse environmental impacts anticipated as a result of the project. In order to address archaeological and cultural resource concerns, an archaeological monitoring program will be implemented during all initial ground disturbing activity. Construction staff will be briefed on the archaeological monitoring program prior to commencement of work. On-site monitoring will be conducted by a qualified archaeologist. Any cultural resources encountered will be recorded. If human remains are identified, work will cease until consultation with the SHPD. All human skeletal remains will be handled in compliance with HRS Chapter 6E-43 and HAR Chapter 13-300 in consultation with the SHPD.

(c) The [Honolulu City] council shall seek to minimize, where reasonable:

(1) Dredging, filling or otherwise altering any bay, estuary, salt marsh, river mouth, slough or lagoon;
(2) Any development which would reduce the size of any beach or other area usable for public recreation;
(3) Any development which would reduce or impose restrictions upon public access to tidal and submerged lands, beaches, portions of rivers and streams

within the special management area and the mean high tide line where there is no beach;
(4) Any development which would substantially interfere with or detract from the line of sight toward the sea from the state highway nearest the coast; and
(5) Any development which would adversely affect water quality, existing areas of open water free of visible structures, existing and potential fisheries and fishing grounds, wildlife habitats, or potential or existing agricultural uses of land.

Discussion: The proposed project does not include dredging or filling, will not impact any beach or public recreation area, or affect any water bodies. The improvements are within an existing school campus, and are consistent with its current use. The project will not interfere with or detract from the line of sight from Kamehameha Highway. There are no views of Kāneʻohe Bay from this area. Construction will comply with State and County development standards to ensure there are no adverse impacts to water quality, fishing areas, wildlife habitats, or agricultural areas.

4.3 OTHER CONSIDERATIONS

4.3.1 Unavoidable Adverse Effects

All potential environmental impacts discussed in Chapter 3 can either be avoided or mitigated to an extent that they would not be significant.

4.3.2 Energy Requirements and Conservation Potential of Various Alternatives and Mitigation Measures

The project improvements will have a positive long-term impact on energy efficiency and use at the library. The new mechanical room and chiller will be more energy efficient, and require fewer roof leak repairs over the long-run.

4.3.3 Relationship of Short-Term uses and Long-Term Productivity

In the short-term, the project will have temporary construction-related impacts such as noise, dust, and traffic congestion on the surrounding areas. The improvements will require a commitment of public construction funds. However, in the long term, the library's cooling system will function more efficiently, reducing ongoing maintenance costs and minimizing the need for future roof repairs. The project will increase parking and efficiency in the school bus loading area. The increase in long-term productivity far outweighs the short-term tradeoffs.

4.3.4 Irretrievable and Irreversible Resource Commitments

Resources that are committed irreversibly or irretrievably are those that cannot be recovered if the project is implemented. The proposed project will involve the commitment of capital, labor, fuels and equipment. General industrial resources will be spent during project construction and for long-term operation and maintenance of the mechanical room. The site adjacent to the library

will be occupied by a new structure, and the parking and bus stop areas will be committed to these uses. However, these improvements are consistent with the existing uses of the site as a school campus, and irretrievable resource commitment are minor.

5 DETERMINATION, FINDINGS AND REASONS SUPPORTING THE CHAPTER 343 HRS DETERMINATION

5.1 CHAPTER 343 HRS DETERMINATION

Based on the information and analysis in this Environmental Assessment, the State of Hawaii Department of Education has determined that the project will not result in a significant impact on the environment. As such, it is issuing a Finding of No Significant Impact (FONSI), pursuant to the State of Hawai‘i HRS Chapter 343, and an Environmental Impact Statement (EIS) is not required.

5.2 CHAPTER 343 HAWAI‘I REVISED STATUTES (HRS) SIGNIFICANCE CRITERIA

In determining whether an action may have significant impact on the environment, the applicant or agency must consider all phases of the project, its expected consequences both primary and secondary, its cumulative impact with other projects, and its short and long-term effects. The State of Hawai‘i Department of Health Rules Section 11-200-12 (Hawai‘i Administrative Rules, revised 1996) establish 13 “Significance Criteria” to be used as a basis for identifying whether significant environmental impact will occur.

An agency will determine an action may have a significant impact on the environment if it meets any of the following criteria:

1. Involves an irrevocable commitment to loss or destruction of any natural or cultural resources;

The project will not result in an irrevocable commitment to loss of destruction of any natural or cultural resources. The construction of the mechanical and chiller building and parking and bus shelter will take place within the already developed school property, and will not affect any significant biological resources. There is a possibility of encountering subsurface archaeological resources during project-related excavation. As specified in the archaeological monitoring plan for the project, an on-site archaeologist will monitor all initial ground disturbing activity and all excavation below 12 inches in depth. The monitoring plan has been reviewed and approved by the SHPD.

2. Curtails the range of beneficial uses of the environment;

The proposed project does not curtail the range of beneficial uses of the environment. The project improvements will occur within a developed school property, and there are few, if any, alternative beneficial uses.

3. Conflicts with the State's long-term environmental policies or goals and guidelines as expressed in Chapter 344, HRS; and any revisions thereof and amendments thereto, court decisions, or executive orders;

The proposed project is consistent with the environmental policies in Chapter 344, HRS, which establishes a state policy to encourage productive and enjoyable harmony between people and their environment promotes efforts to prevent or eliminate damage to the environment and stimulate community health and welfare.

The primary purpose of the project is to provide a more efficient cooling system for the school library building and reduce long-term maintenance costs. As such, it is consistent with the energy policy to enhance the quality of life by "Establishing a commitment on the part of each person to protect and enhance Hawaii's environment and reduce the drain on nonrenewable resources" [§344-3(2)(D)]. It is also consistent with the stated guideline to *"Encourage the efficient use of energy resources"* [§344-4 (7)(A)].

4. Substantially affects the economic or social welfare of the community or state;

The proposed project will not substantially affect the economic or social welfare of the community or State. Construction will have minor, short-term air and noise impacts. However, the project will have beneficial long-term impacts to the economic status of the state by improving energy efficiency and reducing facility maintenance costs.

5. Substantially affects public health;

Resolution of the ongoing roof leak problems will reduce the chance of structural damage or mold infestation at the library, a positive public health impact. The temporary construction-period noise and dust impacts will be minor and short-term, and are insignificant when weighed against the project's overall, long-term positive impacts.

6. Involves secondary impacts such as population changes or effects on public facilities;

The proposed project will not result in a population increase, generate additional vehicle traffic, or affect demand for public facilities or utilities. The improvements are intended to serve the existing school population.

7. Involves a substantial degradation of environmental quality;

Construction period impacts related to noise and air quality will be temporary and short-term. In order to minimize impacts to students, work will be conducted during the summer months to the extent possible. Short-term impacts will be mitigated through equipment noise attenuation, and use of best management practices to control erosion and runoff. The new mechanical room will include noise attenuating feature to minimize noise on the library, enhancing environmental quality.

8. Is individually limited but cumulatively has considerable effect upon the environment or involves a commitment for larger actions;

The proposed project is limited to repair and improvements at an existing school, and does not have a cumulative effect or commitment for larger action. However, the elimination of the roof-top mechanical equipment is part of a Department of Education policy to upgrade its facilities statewide.

9. Substantially affects a rare, threatened or endangered species, or its habitat;

No rare, threatened or endangered species or its habitat will be impacted by the project. The project area is an urbanized and developed site, and there are no significant biological resources located where improvements are proposed.

10. Detrimentally affects air or water quality or ambient noise levels;

The project will result in short-term construction period increases in fugitive dust and noise that will inconvenience students and faculty. These impacts will be mitigated to the extent possible by scheduling noisy construction before and after school hours. There will be no long term impacts to air or water quality or noise.

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

The areas where the improvements are proposed are not environmentally sensitive. Best management practices will be used during construction to prevent adverse impacts to coastal water quality.

12. Substantially affects scenic vistas and viewplanes identified in county or state plans or studies; or

The project will not impact scenic vistas or viewplanes identified in county or state plans or studies. There are no views of Kāneʻohe Bay from Kamehameha Highway in this area or from the project site.

13. Requires substantial energy consumption.

The project will not require substantial energy consumption. Energy resources will be consumed during project construction. In the long-term, the project improvements will increase energy efficiency and reduce the State's ongoing maintenance and repair of the existing roof top air conditioning system.

6 REFERENCES

City and County of Honolulu, Department of General Planning. *General Plan Objectives and Policies*. 1992.

City and County of Honolulu, Department of Planning and Permitting. *Koolaupoko Sustainable Communities Plan*. August 2000.

_____. Land Use Ordinance. May 1999.

Cultural Surveys Hawai‘i, Inc. *Final Archaeological Monitoring Plan for King Intermediate School at Kalimaloa, He‘eia Ahupua‘a, Ko‘olaupoko District, O‘ahu Island.* June 2009

_____. *Draft Cultural Impact Assessment for King Intermediate School at Kalimaloa, He‘eia Ahupua‘a, Ko‘olaupoko District, O‘ahu Island.* November 2009

Helber Hastert & Fee, Planners. *He‘eia Fishpond Aquaculture Support Facilities Final Enviornmental Assessment.* Prepared for Kamehameha Schools. February 2007.

State of Hawai‘i, Department of Business, Economic Development and Tourism. *State Data Book 2005*. *http://www.hawaii.gov/dbedt/info/economic/databook/db2005/*

State of Hawai‘i, Office of the Governor, Office of State Planning. The *Hawaii State Plan*, Chapter 226, Hawai‘i Revised Statutes, 1991.

_____, The Hawai‘i State Plan, *Education Functional Plan*, 1989.

U.S. Department of Agriculture, Soil Conservation Service, In Cooperation with the University of Hawai‘i Agriculture Experiment Station. August 1972. *Soil Survey of Kaua‘i, O‘ahu, Maui, Moloka‘i and Lana‘i, State of Hawai‘i.*

U.S. Census Bureau, 2000 Census Data. http://factfinder.census.gov. Census 2000 Summary File 1 (SF1) 100 Percent Data, and Summary File 3 (SF)-Sample Data.

7 PERSONS AND AGENCIES INVOLVED IN THE PREPARATION OF THE ENVIRONMENTAL ASSESSMENT

7.1 AGENCIES AND ORGANIZATIONS CONSULTED

The following agencies and organizations were contacted during the early consultation for the Draft EA. The comments received during the early consultation are summarized in Section 7.2 and copies of the letters are included at the end of this chapter.

Federal

U.S. Army Engineer Division
- Civil Works Technical Branch
- Regulatory Branch

State

Department of Business, Economic Development & Tourism, Office of Planning
Department of Hawaiian Home Lands
Department of Land and Natural Resources
- Land Division
- State Historic Preservation Division

Department of Education
- Planning Section
- King Intermediate School

Department of Health
- Environmental Planning Office
- Office of Environmental Quality Control

Office of Hawaiian Affairs

City and County of Honolulu

Department of Design and Construction
Department of Environmental Services
Department of Facility Maintenance
Fire Department
Department of Planning & Permitting
Department of Parks and Recreation
Police Department
Department of Transportation Services
Board of Water Supply

Other Organizations

Neighborhood Board #30, Kaneohe

Hawaiian Electric Company
Hawaiian TelCom
Oceanic Time Warner Cable

Elected Officials

City Councilmember Ikaika Anderson, Honolulu City Council District 5
Senator Clayton Hee, 23rd Senatorial District
Representative Pono Chong, 49th Representative District

7.2 COMMENTS RECEIVED DURING PRE-ASSESSMENT CONSULTATION

Letters soliciting comments were sent to the agencies and organizations listed above in June 2009, and a total of 13 written responses were received. A summary of the comments is included in the table below, and copies of the letters are included at the end of this chapter.

Table 7-1: Summary of Comments Received During Pre-Assessment Consultation

Agency or Individual	Format/Date/Reference	Comments	Action/Response
Federal			
Department of the Army, Corps of Engineers, Regulatory Branch	July 7, 2009	EA should provide detailed description of all ground disturbing activities on and in immediate vicinity, identify all streams and wetlands in vicinity	Information included in EA.
State of Hawaii			
Department of Land & Natural Resources, Land Division	Letter dated June 29, 2009	No comment	No action required.
DLNR State Historic Preservation Division	Letter dated August 25, 2009, LOG#2009.2795, DOC# 0908PA10	Suggest that EA address whether or not King Intermediate meets any criteria for the national or State registers. Archaeological inventory survey should address whether there is a cultural layer, with test trenches in the areas proposed for excavation **Note***: in subsequent e-mail on October 7, 2009, Nancy*	No action required.

Agency or Individual	Format/Date/Reference	Comments	Action/Response
		McMahon confirmed that SHPD had recently approved a monitoring plan for the project prepared by Cultural Surveys Hawaii, and that an archaeological inventory survey was not required.	
Office of Hawaiian Affairs	Letter dated July 7, 2008, HRD09/4535	Requests assurance that work will cease if iwi kupuna or Native Hawaiian cultural or traditional deposits found during construction. Recommends use of native vegetation.	Addressed in EA.
City & County of Honolulu			
Dept. of Design and Construction	Letter dated July 13, 2009	No comments	No action required.
Department of Facility Maintenance	Letter dated July 17, 2009	No comments. Remove them from consultation list.	No action required.
Honolulu Fire Department	Letter dated July 10, 2009	No objections to the project.	Added information to EA.
Dept. of Parks & Recreation	Letter dated June 30, 2009	No comment. Project will not impact any DPR program or facility. You may remove us as consulted party.	Added information to EA.
Police Department	Letter dated June 29, 2009	Project should have no significant impact on HPD facilities or operations.	Added information to EA.
Dept. of Transportation Services	Letter dated July 16, 2009, TP6/09-320496R	Since project will affect bus routes, bus stops, and paratransit operations, contractor to notify DTS of scope of work, location, proposed closure of any street, traffic lane, sidewalk, or bus stop at last two weeks prior to construction. Recommend EA include traffic impact assessment identifying short-term construction impacts and proposed mitigation.	Added information to EA.
Board of Water	Letter dated July 15,	Existing water system is	Added

Agency or Individual	Format/Date/Reference	Comments	Action/Response
Supply	2009	adequate to accommodate proposed development.	information to EA.
Other			
Hawaiian Electric Company	Letter date July 28, 2009	HECO has 12.47 kV underground facilities and equipment within the parcel being developed; keep us apprised of planning process. Request that development plans show all affected HECO facilities. Forward pre-final plans to HECO for review.	Added information to EA.
Hawaiian Telcom	Letter dated July 2, 2009	Hawaiian Telcom has underground facilities in the vicinity of the subject project. Please include us during design stages of project.	Added information to EA.

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

REPLY TO ATTENTION OF:

July 7, 2009

Regulatory Branch

File Number: POH-2009-0222

RECEIVED JUL 09 2009

Glenn T. Kimura, President
Kimura International, Inc.
1600 Kapiolani Blvd., Suite 1610
Honolulu, HI 96814

Dear Mr. Kimura:

This letter is in response to your request, dated June 24, 2009, for early consultation comments for the proposed **King Intermediate School, Building N Improvements** located at 46-155 Kamehameha Highway, Kaneohe, Oahu, Hawai'i (TMK 146004002).

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 10 waters are those subject to the ebb and flow of the tide extending shoreward to the mean high water mark. 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.

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.

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-2009-222 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

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

June 29, 2009

RECEIVED JUN 30 2009

Kimura International Inc.
1600 Kapiolani Blvd Suite 1610
Honolulu, Hawaii 96814

Attention: Mr. Leslie Kurisaki

Ladies and Gentlemen:

Subject: Early Consultation for King Intermediate School, Building N Improvements

Thank you for the opportunity to review and comment on the subject matter. The Department of Land and Natural Resources' (DLNR) has no 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 P. Unoki
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

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

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

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

RECEIVED AUG 28 2009

August 25, 2009

Glenn T. Kimura, President
Kimura International
1600 Kapiolani Blvd, Ste 1610
Honolulu, HI 96814

LOG# 2009.2795
DOC# 0908PA10
HP 14230

Dear Mr. Kimura:

RE: Environmental Assessment—Early Consultation
King Intermediate School, Building N Improvements
Koolaupoko District, Island of Oahu
TMK: (1) 4-6-004:002

Thank you for the opportunity for early consultation on the above referenced project, which we received on June 25, 2009. We apologize for our delayed response.

The project involves roof improvements to the existing library (Building N), including constructing a new chiller and mechanical roof additions to the building. Additional parking, covered bus stops and a new retaining wall will also be constructed.

King Intermediate is not listed on the Hawaii or National Registers of Historic Places although we presume it is over 50 years old and therefore qualifies as a historic property under 6E-2 (HAR). We suggest that the EA address the whether or not King Intermediate meets any criteria for the National or State registers.

King Intermediate is along the Kaneohe shoreline in an area of jaucus sand. An archaeological inventory survey that builds on studies done in the area should address whether or not there is a cultural layer on the King Intermediate property. Test trenches in the areas proposed for excavation should be part of the AIS.

Please call me or Pua Aiu at 692-8015 if you have further questions.

Sincerely,

Nancy A. McMahon

Nancy McMahon
Deputy SHPO

Follow up clarification re SHPD's Aug. 25, 2009 letter

Leslie Kurisaki

From: Nancy.A.McMahon@hawaii.gov

Sent: Wednesday, October 07, 2009 7:43 AM

To: Leslie Kurisaki

Cc: Pua.Aiu@hawaii.gov; Nancy.A.McMahon@hawaii.gov; 'Glenn Kimura'; dshideler@culturalsurveys.com

Subject: Re: King Intermediate School, Building N Improvements

Sorry about this Pua forgot to do you her background research. She was helping me get reviews out in a timely manner. I did see the letter before it came out as I was on Kauai and had a few letters that needed to go out. If I had I might have remembered I just approved the monitoring plan.

You are correct Monitoring is fine.

Nancy McMahon, Deputy State Historic Preservation Officer
Archaeology and Historic Preservation Manager
State Historic Preservation Division
Department of Land and Natural Resources
Kakuhihewa Building
601 Kamokila Blvd., Suite 555
Kapolei, Hawai`i 96707

Ph: (808) 692-8015
Fax: (808) 692-8020
Cell: (808) 652-1510
nancy.a.mcmahon@hawaii.gov

Confidentiality Notice: This e-
mail message, including any attachments, is for the sole use of the intended recipient
(s) and may contain confidential and/or privileged information. Any review, use, disclosure, or distrib
-mail and destroy all copies of the original message.

"I don't know what your destiny will be, but one thing I know: the only ones among you who will be r
-Albert Schweitzer

-----"Leslie Kurisaki" <lkurisaki@kimurainternational.com> wrote: -----

To: <Pua.Aiu@hawaii.gov>, <Nancy.A.McMahon@hawaii.gov>, <Lauren.M.Morawski@hawaii.gov>
From: "Leslie Kurisaki" <lkurisaki@kimurainternational.com>
Date: 10/01/2009 09:40AM
cc: "'Glenn Kimura'" <glennk@kimurainternational.com>, "'David Shideler'" <dshideler@culturalsurveys.com>
Subject: King Intermediate School, Building N Improvements

Hi Nancy and Pua,

Following up on this e-mail sent last month...

PHONE (808) 594-1888

FAX (808) 594-1865

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

RECEIVED JUL 15 2009

HRD09/4535

July 7, 2009

Glenn T. Kimura
President
Kimura International, Inc
1600 Kapi'olani Blvd.
Suite 1610
Honolulu, HI 96814

RE: Pre-Draft Environmental Assessment Consultation for King Intermediate School, Building N Improvements; Ko'olaupoko, O'ahu; TMK: (1) 4-6-004:002.

Aloha e Glenn T. Kimura,

The Office of Hawaiian Affairs (OHA) is in receipt of the above-mentioned letter, dated June 24, 2009. According to the request for comments, the State Department of Education, Windward School District proposes improvements at S.W. King Intermediate School at 46-155 Kamehameha Hwy, Kāne'ohe. Such improvements would include roof work on the library, a new chiller, mechanical room additions, additional parking near the library, and a retaining wall and covered bus stops along the driveway near the field. OHA offers the following comments.

OHA requests 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. This request holds true even if most of the proposed ground-disturbing activity would be done over previously disturbed lands, because past disturbance does not negate the possibility of future finds.

In addition, OHA recommends that the applicant use native vegetation in its landscaping plan for the subject parcel. Landscaping with native plants furthers the traditional Hawaiian concept of mālama 'āina and creates a more Hawaiian sense of place, as well as generally requires less water and other natural resources to maintain.

Thank you for the opportunity to comment. We look forward to providing a more thorough review of your forthcoming Draft Environmental Assessment and its requisite Cultural

Impact Assessment. If you have further questions, please contact Heidi Guth by phone at (808) 594-1962, or e-mail her at heidig@oha.org.

'O wau iho nō me ka 'oia'i'o,

Clyde W. Nāmu'o
Administrator

DEPARTMENT OF DESIGN AND CONSTRUCTION
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET, 11TH FLOOR
HONOLULU, HAWAII 96813
Phone: (808) 768-8480 • Fax: (808) 768-4567
Web site: www.honolulu.gov

MUFI HANNEMANN
MAYOR

CRAIG I. NISHIMURA, P.E.
DIRECTOR

COLLINS D. LAM, P.E.
DEPUTY DIRECTOR

July 13, 2009

RECEIVED JUL 15 2009

Mr. Glenn T. Kimura
Kimura International
1600 Kapiolani Boulevard Suite, 1610
Honolulu, Hawaii 96814

Dear Mr. Kimura:

Subject: King Intermediate School, Building N Improvements
Ko'olaupoko District, Oahu
TMK (1) 4-6-004:002
Environmental Assessment – Early Consultation

Thank you for inviting us to review the above Environmental Assessment. The Department of Design and Construction does not have any comments to offer at this time.

Should you have any questions, please contact Craig Nishimura, Director, at 768-8480.

Very truly yours,

Collins D. Lam

FOR Craig I. Nishimura, P.E.
Director

CN.pg(320601)

DEPARTMENT OF FACILITY MAINTENANCE

CITY AND COUNTY OF HONOLULU

1000 Uluohia Street, Suite 215, Kapolei, Hawaii 96707
Phone: (808) 768-3343 • Fax: (808) 768 -3381
Website: www.honolulu.gov

MUFI HANNEMANN
MAYOR

JEOFFREY S. CUDIAMAT, P.E.
DIRECTOR AND CHIEF ENGINEER

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

IN REPLY REFER TO:
DRM 09-710

July 17, 2009

RECEIVED JUL 16 2009

Mr. Glenn T. Kimura, President
Kimura International, Inc.
1600 Kapiolani Boulevard, Suite 1610
Honolulu, Hawaii 96814

Dear Mr. Kimura:

Subject: King Intermediate School, Building N Improvements
Koolaupoko District, Oahu, TMK(1) 4-6-004:002
Environmental Assessment – Early Consultation

Thank you for the opportunity to review and comment on the early consultation to the environmental assessment for the proposed improvements at King Intermediate School in Kaneohe, Hawaii.

We have no comments to offer as the proposed improvements will be within properties under the jurisdiction of the State Department of Education (DOE), and will have negligible impact on our facilities and operations. It is our understanding that the proposed parking and bus shelter improvements will be maintained by DOE.

Since the proposed improvements will not affect our facilities or operations, we request the Department of Facility Maintenance be removed from the environmental assessment review process for this project.

Should you have any questions, please call Charles Pignataro of the Division of Road Maintenance, at 768-3697.

Sincerely,

Jeffrey Cudiamat

Jeoffrey S. Cudiamat, P.E.
Director and Chief Engineer

HONOLULU FIRE DEPARTMENT

CITY AND COUNTY OF HONOLULU

636 South Street
Honolulu, Hawaii 96813-5007
Phone: 808-723-7139 Fax: 808-723-7111 Internet: www.honolulu.gov/hfd

MUFI HANNEMANN
MAYOR

KENNETH G. SILVA
FIRE CHIEF

ALVIN K. TOMITA
DEPUTY FIRE CHIEF

July 10, 2009

RECEIVED JUL 15 2009

Mr. Glenn Kimura, President
Kimura International Inc.
1600 Kapiolani Boulevard, Suite 1610
Honolulu, Hawaii 96814

Dear Mr. Kimura:

Subject: Environmental Assessment - Early Consultation
King Intermediate School, Building N Improvements
Koolaupoko, Oahu, Hawaii
Tax Map Key: 4-6-004: 002

In response to your letter dated June 24, 2009, regarding the above-mentioned subject, the Honolulu Fire Department (HFD) reviewed the information provided and has no objections to the project.

Should you have any questions, please call Battalion Chief Socrates Bratakos of our Fire Prevention Bureau at 723-7151.

Sincerely,

KENNETH G. SILVA
Fire Chief

KGS/SY:bh

DEPARTMENT OF PARKS AND RECREATION
CITY AND COUNTY OF HONOLULU
KAPOLEI HALE • 1000 ULUOHIA STREET, SUITE 309 • KAPOLEI, HAWAII 96707
TELEPHONE: (808) 768-3003 • FAX: (808) 768-7053 • INTERNET: www.honolulu.gov

MUFI HANNEMANN
MAYOR

LESTER K.C. CHANG
DIRECTOR

GAIL Y. HARAGUCHI
DEPUTY DIRECTOR

June 30, 2009

RECEIVED JUL 01 2009

Mr. Glenn T. Kimura, President
Kimura International, Inc.
1600 Kapiolani Blvd., Suite 1610
Honolulu, Hawaii 96813

Dear Mr. Kimura:

Subject: Environmental Assessment-Early Consultation
King Intermediate School, Building N Improvements
TMK: [1] 4-6-004:002
Koolaupoko District, Oahu

Thank you for the opportunity to review and comment at Early-Consultation Stage of Environmental Assessment for the King Intermediate School Building N Improvements.

The Department of Parks and Recreation has no comment as the proposed project will not impact any program or facility of the department. You may remove us as a consulted party to the balance of the EIS process.

Should you have any questions, please contact Mr. John Reid, Planner, at 768-3017.

Sincerely,

LESTER K. C. CHANG
Director

LKCC:jr
(320541)

POLICE DEPARTMENT

CITY AND COUNTY OF HONOLULU

801 SOUTH BERETANIA STREET · HONOLULU, HAWAII 96813
TELEPHONE: (808) 529-3111 · INTERNET: www.honolulupd.org

MUFI HANNEMANN
MAYOR

BOISSE P. CORREA
CHIEF

PAUL D. PUTZULU
KARL A. GODSEY
DEPUTY CHIEFS

OUR REFERENCE BS-DK

June 29, 2009

RECEIVED JUL 02 2009

Mr. Glenn T. Kimura, President
Kimura International, Inc.
1600 Kapiolani Boulevard, Suite 1610
Honolulu, Hawaii 96814-3806

Dear Mr. Kimura:

This is in response to your letter of June 24, 2009, requesting comments on an Early Consultation, Environmental Assessment, for the King Intermediate School's Building N Improvements project in Ko`olaupoko.

This project should have no significant impact on the facilities or operations of the Honolulu Police Department.

If there are any questions, please call Major Kenneth Simmons of District 4 at 247-2166 or Mr. Brandon Stone of the Executive Bureau at 529-3644.

Sincerely,

BOISSE P. CORREA
Chief of Police

A/AC J. THOMPSON
FOR

By

DEBORA A. TANDAL
Assistant Chief of Police
Support Services Bureau

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET, 3RD FLOOR
HONOLULU, HAWAII 96813
Phone: (808) 768-8305 • Fax: (808) 523-4730 • Internet: www.honolulu.gov

MUFI HANNEMANN
MAYOR

WAYNE YOSHIOKA
DIRECTOR

SHARON ANN THOM
DEPUTY DIRECTOR

TP6/09-320496R

July 16, 2009

RECEIVED JUL 20 2009

Mr. Glenn T. Kimura
1600 Kapiolani Boulevard, Suite 1610
Honolulu, Hawaii 96814

Dear Mr. Kimura:

Subject: King Intermediate School Pre-Assessment Consultation

This responds to your letter of June 24, 2009, requesting consultation and comments in preparing an Environmental Assessment for the subject project.

Since the project will affect bus routes, bus stops, and para-transit operations, the Contractor shall notify the Department of Transportation Services, Public Transit Division at 768-8396 and Oahu Transit Services, Inc. (bus operations: 848-4578 or 848-6016 and para-transit operations: 454-5041 or 454-5020) of the scope of work, location, proposed closure of any street, traffic lane, sidewalk, or bus stop and duration of project at least two weeks prior to construction.

We recommend that the draft environmental assessment include a traffic impact assessment report identifing short-term impacts during construction, and proposed mitigation measures. We request that you continue to keep us, as well as area residents, neighborhood boards, and civic personnel, apprised of the project.

Very truly yours,

WAYNE Y. YOSHIOKA
Director

cc: Office of Environmental Quality Control

BOARD OF WATER SUPPLY

CITY AND COUNTY OF HONOLULU
630 SOUTH BERETANIA STREET
HONOLULU, HI 96843

MUFI HANNEMANN, Mayor

RANDALL Y. S. CHUNG, Chairman
SAMUEL T. HATA
ALLY J. PARK
ROBERT K. CUNDIFF
WILLIAM K. MAHOE

JEOFFREY S. CUDIAMAT, Ex-Officio
BRENNON T. MORIOKA, Ex-Officio

WAYNE M. HASHIRO, P.E.
Manager and Chief Engineer

DEAN A. NAKANO
Deputy Manager and Chief Engineer

July 15, 2009

RECEIVED JUL 20 2009

Mr. Glenn T. Kimura, President
Kimura International, Incorporated
1600 Kapiolani Boulevard, Suite 1610
Honolulu, Hawaii 96814

Dear Mr. Kimura:

Subject: Letter Dated June 24, 2009 Requesting Comments on the Environmental Assessment for King Intermediate School, Building N Improvements
TMK: 4-6-004:002

Thank you for the opportunity to comment on the proposed project.

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

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

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

If you have any questions, please contact Robert Chun at 748-5443.

Very truly yours,

for KEITH S. SHIDA
Program Administrator
Customer Care Division

Hawaiian Telcom

RECEIVED JUL 03 2009

July 2, 2009

Kimura International, Inc.
1600 Kapiolani Boulevard, Suite 1610
Honolulu, Hawaii 96814
Attention: Mr. Glenn T. Kimura

Dear Mr. Kimura:

Subject: **King Intermediate School, Building N Improvements Environmental Assessment - Early Consultation**

Thank you for the opportunity to review and comment on the subject project in preparation of the Environmental Assessment.

Hawaiian Telcom has underground facilities in the vicinity of the project site. Please continue to include us during the design stages of the project.

If you have any questions or require assistance in the future on this project, please call Les Loo at 546-7761.

Sincerely,

Lynette Yoshida
Senior Manager - OSP Engineering
Network Engineering & Planning

cc: File [Kaneohe]

PO Box 2200 • Honolulu • Hi 96841

Hawaiian Electric Company, Inc. • PO Box 2750 • Honolulu, HI 96840-0001

EIS

July 28, 2009

RECEIVED JUL 30 2009

Mr. Glenn T. Kimura, President
Kimura International, Inc.
1600 Kapiolani Blvd. - Suite 1610
Honolulu, HI 96814

Dear Mr. Kimura:

Re: King Intermediate School - Bldg. N Improvements
Koolaupoko District, Oahu
TMK (1) 4-6-004:001

Thank you for the opportunity to review and comment on the pre-assessment materials prepared for the above-referenced project. The following comments were received from the Transmission & Distribution Division of our Engineering Department:

HECO has existing 12.47kV underground facilities and equipment within the parcel being developed for the project. We would appreciate your continuing efforts to keep us apprised of the planning process. As the construction plans are developed, please continue to keep us informed. We will be better able to evaluate any effects on our system facilities further along in the project's development. We request that development plans show all affected HECO facilities, and address any conflicts between the proposed plans and HECO's existing facilities. Please forward the pre-final development plans to HECO for review.

Should it become necessary to relocate HECO's facilities, please immediately submit a request in writing and we will work with you so that construction of the project may proceed as smoothly as possible. Please note that there may be costs associated with any relocation work, and that such costs may be borne by the requestor. Because any redesign or relocation of HECO's facilities may cause lengthy delays, upon determination that HECO facilities will need to be relocated, HECO should be notified immediately in order to minimize any delays in or impacts on the project schedule.

Our point of contact for this project is Kristin Inouye (543-7219). I suggest dealing directly with her to coordinate HECO's continuing input in this project. Thank you again for the opportunity to comment.

Sincerely,

Kirk S. Tomita
Senior Environmental Scientist

cc: Ms. Katherine P. Kealoha (OEQC)
Mr. Glen T. Kimura (Kimura Int'l)
K. Inouye/M. Lum/I. Lee

Appendix

Archaeological Monitoring Plan for King Intermediate School at Kalimaloa, He‘eia Ahupua‘a, Ko‘olaupoko District, O‘ahu Island, TMK [1] 4-6-004:002 (por), Cultural Surveys Hawai‘i, June 2009

Letter from SHPD to Mr. David Shideler, Cultural Surveys Hawai‘i, dated July 14, 2009, LOG NO: 2009.2710, DOC NO: 0907NM21, Subject: 6E8 Historic Preservation Review-AMP, for the proposed King Intermediate School

Cultural Impact Assessment for King Intermediate School at Kalimaloa, He‘eia Ahupua ‘a, Ko‘olaupoko District, O‘ahu Island, TMK [1] 4-6-004:002 (por), Cultural Surveys Hawai‘i, November 2009

Final
Archaeological Monitoring Plan for King Intermediate School at Kalimaloa, He‘eia Ahupua‘a, Ko‘olaupoko District, O‘ahu Island
TMK: [1] 4-6-004: 002

Prepared for

Kimura International, Inc.

Prepared by

Kendy Altizer, B.A.,

David Shideler, M.A.,

and

Hallett H. Hammatt, Ph.D.

Cultural Surveys Hawai‘i, Inc.

Kailua, Hawai‘i

(Job Code: HEEIA 4)

June 2009

O‘ahu Office
P.O. Box 1114
Kailua, Hawai‘i 96734
Ph.: (808) 262-9972
Fax: (808) 262-4950

www.culturalsurveys.com

Maui Office
16 S. Market Street, Suite 2N
Wailuku, Hawai‘i 96793
Ph: (808) 242-9882
Fax: (808) 244-1994

Management Summary

Reference	Archaeological Monitoring Plan King Intermediate School at Kalimaloa, He‘eia Ahupua‘a, Ko‘olaupoko District, O‘ahu Island TMK: [1] 4-6-004: 002 (Altizer, Shideler, and Hammatt 2009)
Date	June 2009
Project Number (s)	Cultural Surveys Hawai‘i Inc. (CSH) Job Code: HEEIA 4
Investigation Permit Number	The archaeological monitoring fieldwork associated with the King Intermediate School improvements will most likely be completed under CSH’s annual archaeological fieldwork permit No. 09-20, issued by SHPD per Hawai‘i Administrative Rules (HAR) Chapter 13-282.
Agencies	State of Hawai‘i Department of Land and Natural Resources/State Historic Preservation Division (DLNR/SHPD), City and County of Honolulu (City)
Project Location	A portion of King Intermediate School at Kalimaloa, He‘eia, Ko‘olaupoko, Windward O‘ahu. The project area is on the *makai* (seaward) side of Kamehemeha Highway, at its intersection with Hālaulani Street, and encompasses a portion of the schools driveway, parking lot, and library. This area is depicted in the 1998 Kāne‘ohe U.S. Geological Survey (USGS) 7.5-minute topographical quadrangle map.
Land Jurisdiction	State of Hawai‘i
Project Description	The proposed project will include the addition of covered bus stops along the existing driveway, parking lot improvements, improvements to the existing library roof, and construction of a new chiller and mechanical room next to the library.
Project Acreage	Approximately one acre
Project Related Ground Disturbance	The project will involve minor ground disturbance related to the addition of covered bus stops and parking lot expansion and improvements. A retaining wall may need to be constructed at an earthen bank between the new bus stops and an athletic field at a higher level. Construction of building footings related to the new chiller and mechanical room will be a more significant impact, however, still relatively minor.
Historic Preservation Regulatory Context	In consultation with SHPD, this monitoring plan is designed to fulfill the state requirements for monitoring plans [HAR Chapter 13-279-4]. This document was prepared to support the proposed project’s historic preservation review under Hawai‘i Revised Statutes (HRS) Chapter 6E-8 and HAR Chapter 13-275.
Historic Properties Potentially Affected	There is a possibility that subsurface deposits associated with taro/rice terraces and historic military use may be encountered below modern fill layers during excavations in the project area. The project area also has the potential for pre-contact and historic cultural deposits as well as human burials.

Recommended Monitoring	On site archaeological monitoring is recommended for all initial ground disturbing activities. A qualified archaeologist will monitor all initial ground disturbance associated with the project’s construction. For the purposes of this project, ground disturbance is defined as all excavation or land alteration deeper than 12-inches below the current land surface. Any departure from this will only follow consultation with, and written concurrence from, the SHPD.

Table of Contents

Management Summary ..... **i**

Section 1 Introduction **1**

1.1 Project Background 1
1.2 Project Description 1
1.3 Environmental Setting 1
1.3.1 Natural Environment 1
1.3.2 Built Environment 6

Section 2 Historical Background **8**

2.1 Folklore and Mythological Traditions Pertaining to He‘eia 8
2.2 Early Historical Period 1770-1840 9
2.3 Mid 1800s 9
2.3.1 Land Commission Awards in the Vicinity of the Project Area 10
2.3.2 Saint Ann’s Catholic Church and Schoolhouse 12
2.4 Rice and Sugar Cane (1870s - 1920s) 17

Section 3 Previous Archaeological Research **22**

3.1 Background Summary and Predictive Model 30

Section 4 Archaeological Monitoring Provisions **31**

Section 5 References Cited **33**

Appendix A Land Commission Awards **A-1**

List of Figures

Figure 1. Portion of a 1998 Kāne‘ohe U.S. Geological Survey 7.5-minute topographic quadrangle map showing the project area.....2
Figure 2. TMK [1] 4-6-004: 002 plat map showing project area.....3
Figure 3. Construction plan for King Intermediate School (City and County of Honolulu, Building Department 1996). 4
Figure 4. Portion of a 2005 U.S. Geological Survey orthophoto, Kāne‘ohe Quadrangle, aerial photo showing the project area. 5
Figure 5. Portion of a 1998 Kāne‘ohe U.S. Geological Survey 7.5-minute topographic quadrangle map showing project area soils (Foote et. al 1972; U.S. Department of Agriculture 2001).....7
Figure 6. Composite of Tax Map Plats showing Land Commission Awards in the vicinity of the project area.....11
Figure 7. 1881 Government Survey map showing project area and surrounding land claims (note: the location of St. Ann’s church south of the project area) 13
Figure 8. A portion of the 1913 Baldwin and Alexander Map of LCAs within the project area and vicinity. 14
Figure 9. 1918 W.E. Wall map showing LCA’s, and the sugar cane plantation, in the project vicinity. 15
Figure 10. 1919 War map showing roads and buildings in vicinity of the project area. 16
Figure 11. A portion of the 1912 Rea Map of pineapple fields in He‘eia Ahupua‘a.....19
Figure 12. 1954 Army Map Service map showing the project area as a Naval Reservation.....20
Figure 13. Portion of 1977-78 aerial photo showing development around the project area. Note the school library has not yet been built at the time of this photo 21
Figure 14. McAllister’s 1904 map of archaeological sites in the vicinity of Kāne‘ohe and Kailua (project area marked in red).....23
Figure 15. Portion of 1998 Kāne‘ohe U.S. Geological Survey 7.5-minute topographic quadrangle showing the project area and previous archaeological studies in the vicinity 27

List of Tables

Table 1. Land Commission Awards (LCAs) in Project Vicinity.....12
Table 2. Previous Archaeological Studies in He‘eia Ahupua‘a.....24

Section 1 Introduction

1.1 Project Background

At the request of Kimura International, Inc., Cultural Surveys Hawai‘i, Inc. (CSH) has prepared this archaeological monitoring plan for the review of the State Historic Preservation Division (SHPD) in support of improvements to King Intermediate School at Kalimaloa in He‘eia Ahupua‘a, Ko‘olaupoko District, island of O‘ahu (TMK [1] 4-6-004: 002). The project area is depicted in Figure 1 (1998 Kāne‘ohe USGS 7.5-minute topographic quadrangle), Figure 2 (O’ahu TMK: [1] 4-6-004:002), Figure 3 (the construction plan for the school), and Figure 4 (aerial photograph of project area).

The SHPD has determined that, because the project area is small and construction impacts are expected to be minimal, a monitoring program will be sufficient to meet state requirements for historic preservation. In consultation with the SHPD, this monitoring plan is designed to fulfill state requirements for monitoring plans [HAR Chapter 13-279-4]. This document was prepared to support the proposed project’s historic preservation review under Hawai‘i Revised Statutes (HRS) Chapter 6E-8 and HAR Chapter 13-275. The planned archaeological monitoring fieldwork likely will be carried out under archaeological permit number 09-20 issued to CSH by the Hawai‘i State Historic Preservation Division/Department of Land and Natural Resources (SHPD/DLNR).

1.2 Project Description

Construction activities related to the King Intermediate School project will include the addition of covered bus stops along the existing driveway, parking lot expansion and, improvements to the existing library roof, and construction of a new chiller and mechanical room next to the library (Figure 3). Impacts to the current ground surface are expected to be minimal and will involve minor ground disturbance associated with the construction of the covered bus stop(s), probable construction of a retaining wall at an earthen bank between the new bus stops and an athletic field at a higher level, and parking lot improvements. Ground disturbance will be greater during construction of the new chiller and mechanical room; however, overall subsurface impacts should still be minimal.

1.3 Environmental Setting

1.3.1 Natural Environment

The project area is an approximately 1-acre portion of the southwest corner of King Intermediate School, situated on the windward side of the island of O‘ahu, in coastal He‘eia Ahupua‘a. He‘eia is a relatively large *ahupua‘a* of approximately 4,200 acres and includes the northwestern portion of Mōkapu Peninsula (Kaneohe Marine Corps Air Station) as well as Moku o Lo‘e or Coconut Island. He‘eia is one of eleven *ahupua‘a* that make up the district of Ko‘olaupoko, and is one of the nine *ahupua‘a* of the district bordering Kāne‘ohe Bay.

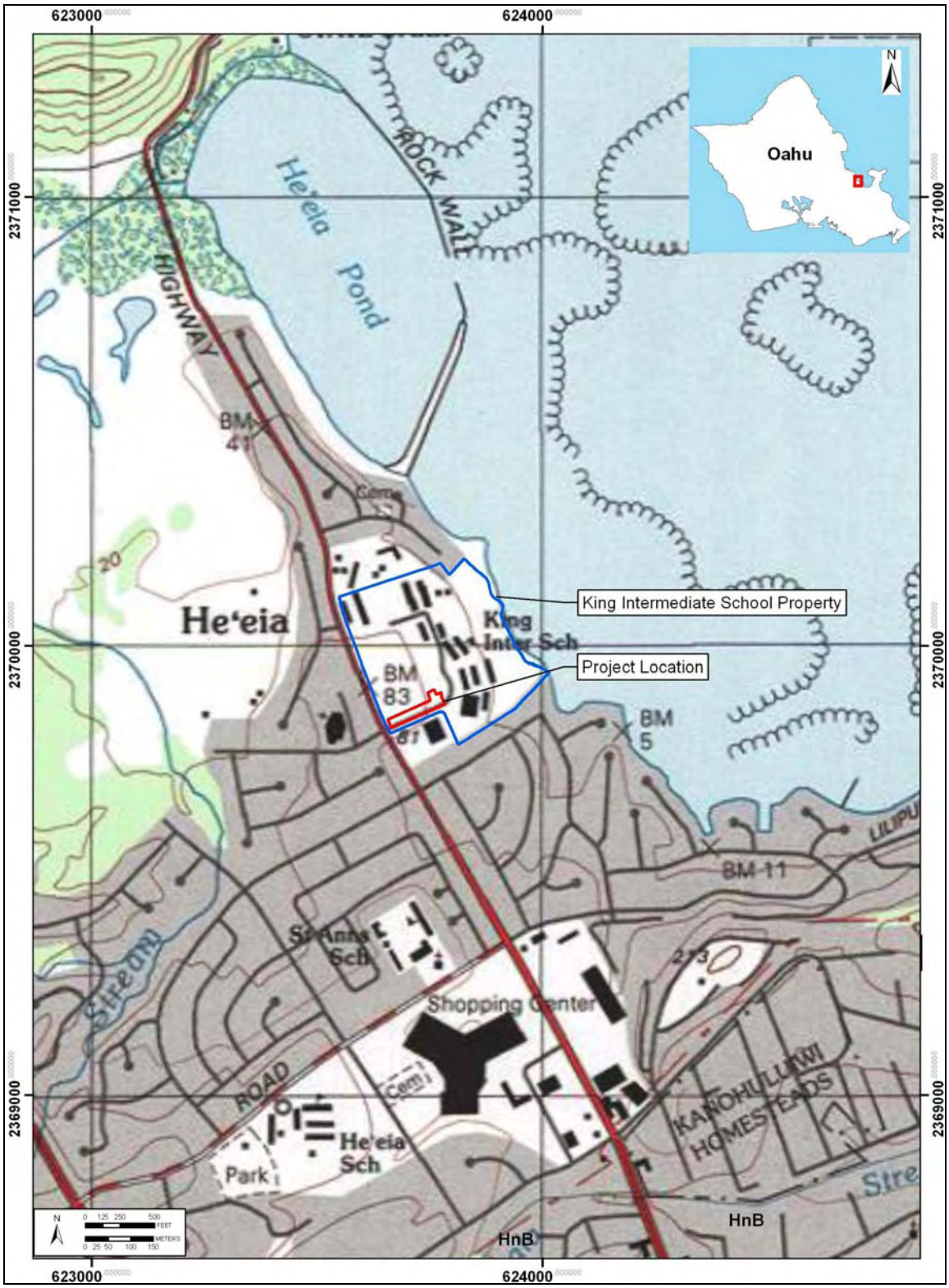


Figure 1. Portion of a 1998 Kāne‘ohe U.S. Geological Survey 7.5-minute topographic quadrangle map showing the project area.

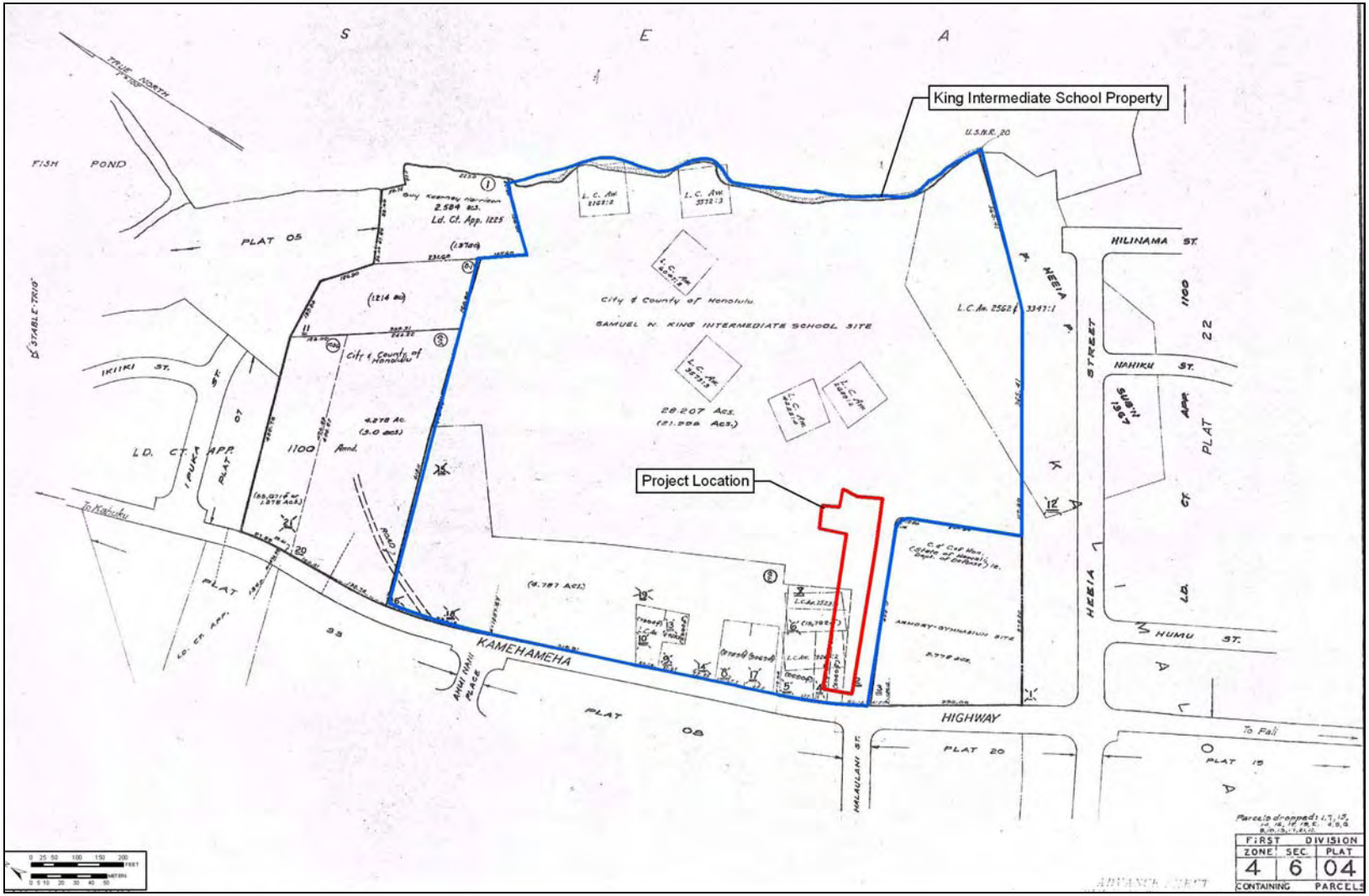


Figure 2. TMK [1] 4-6-004: 002 plat map showing project area

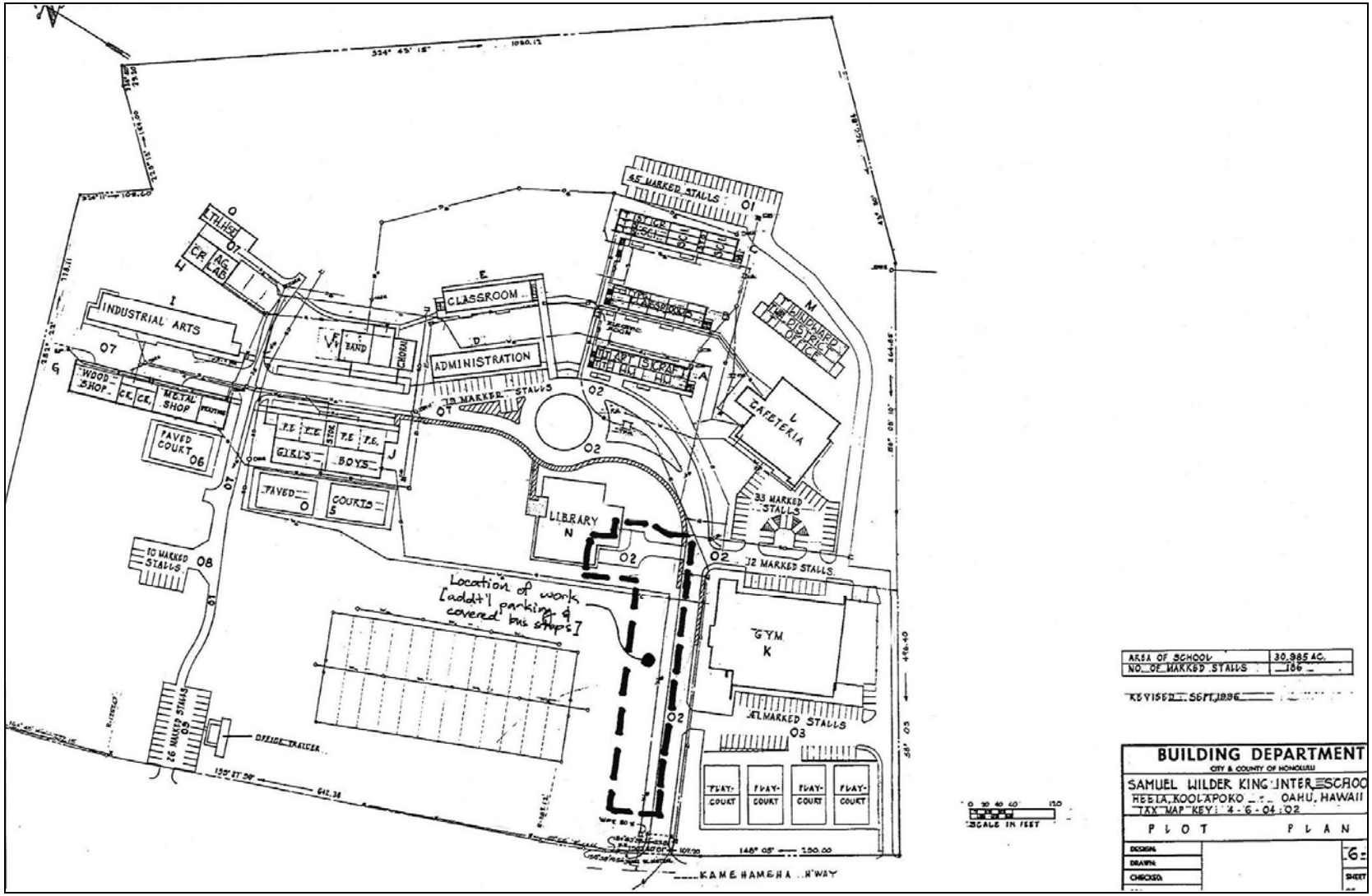


Figure 3. Construction plan for King Intermediate School (City and County of Honolulu, Building Department 1996).

Figure 4. Portion of a 2005 U.S. Geological Survey orthophoto, Kāne‘ohe Quadrangle, aerial photo showing the project area.

Located on lowland flats, the project area is approximately 50 to 80 feet above mean sea level (AMSL). King Intermediate School lies between Kamehameha Highway and the shallow reef flats of Kāne‘ohe Bay, however the project area itself is immediately east of Kamehameha Highway. Annual rainfall in the area is about 1500 mm (60 inches per year) (Giambelluca et al. 1986). He‘eia Stream lies approximately 450 m inland (west) of the school but the stream takes a virtual right angle turn to the northwest through a wetlands area entering the sea approximately 800 m north of the school (north of He‘eia fishpond). The project area is situated in Lolekaa silty clay (3 to 8 percent slopes) (Foote et. al 1972) (Figure 5). Soil permeability is moderately rapid, runoff is slow, and the erosion hazard is slight. The soils in the vicinity of the project area developed in old, gravelly colluvium and alluvium, therefore, soft, weathered gravel is common through the subsoil (Foote et. al 1972). According to Foote, in a representative profile the surface layer is dark brown silty clay about 10 inches thick with subangular blocky structure, the subsoil is dark yellowish-brown loam, approximately 46 to more than 70 inches thick with subangular blocky structure, and the substratum is strongly weathered gravel (Foote et. al 1972).

1.3.2 Built Environment

The southwest end of the project area is immediately northeast of Kamehameha Highway. The vicinity of the project area has been heavily developed and landscaped as part of the King Intermediate School grounds. The project area includes the south portion of the schools athletic fields and abuts the south side of the school library. Residential neighborhoods border the project area (see Figure 4). Paved parking lots, above ground and subsurface utilities, crosswalks, and concrete curbs are common in the area. Vegetation consists largely of landscaping of hibiscus (*Hibiscus clayi*), plumeria (*P. rubra)*, and lawn.

The project area location is approximately 500 m south of He‘eia fishpond.

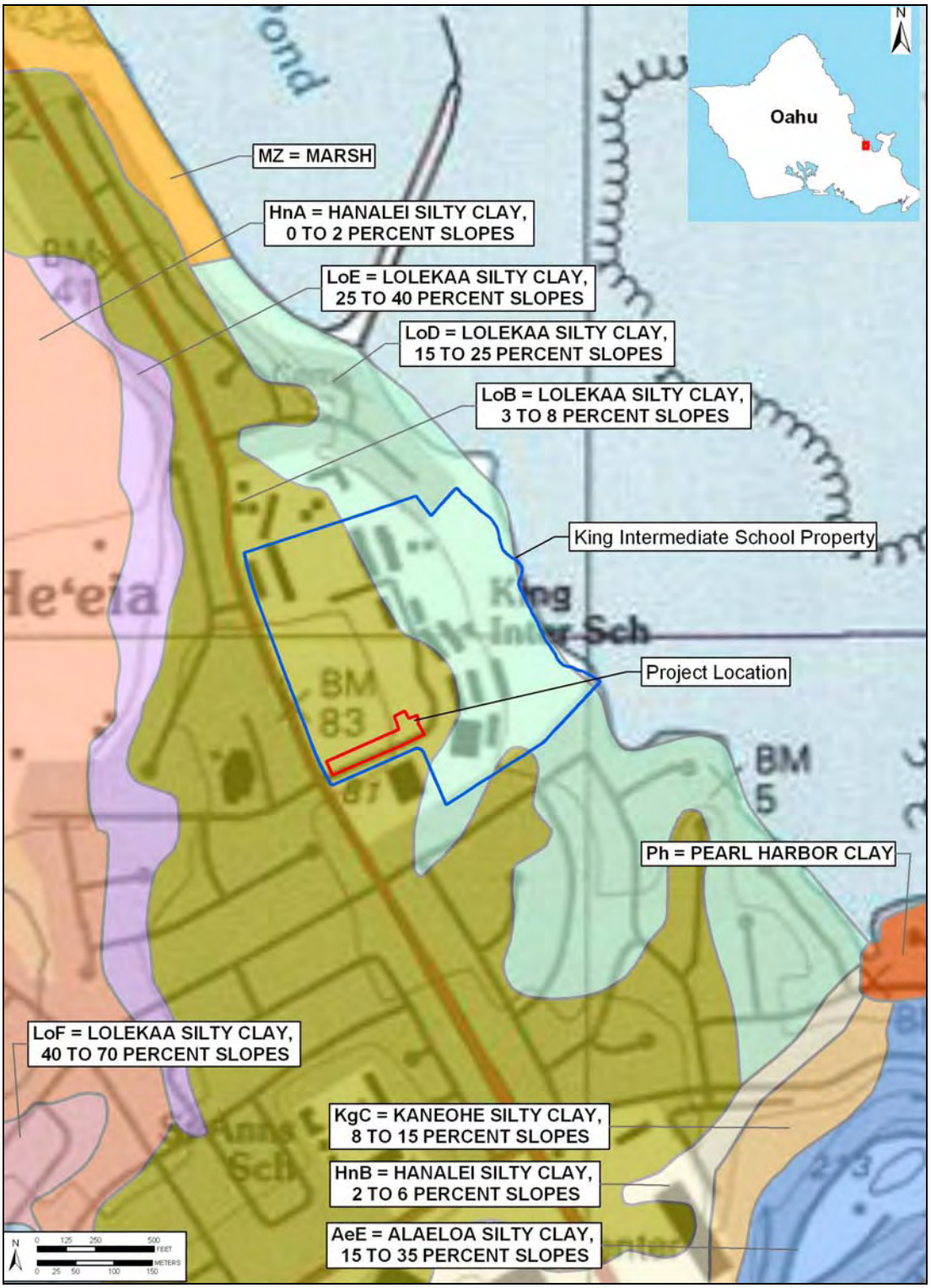


Figure 5. Portion of a 1998 Kāne‘ohe U.S. Geological Survey 7.5-minute topographic quadrangle map showing project area soils (Foote et. al 1972; U.S. Department of Agriculture 2001)

Section 2 Historical Background

2.1 Folklore and Mythological Traditions Pertaining to He‘eia

He‘eia is best known for its large, approximately 88-acre, He‘eia fishpond (approximately 500 m north of the project area) with an enclosing wall measuring almost 5,000 feet long (McAllister 1933:173). There are a number of legendary references regarding the fishpond and the naming of the entire *ahupua‘a* that indicate the relative antiquity and importance of He‘eia.

> The history of He‘eia Fishpond goes far back into the depths of Hawaiian legendary times as do many of the sites of Ko‘olau, O‘ahu. The *ahupua‘a* itself was named for He‘eia, who was said to have been the foster son of the goddess Haumea, and the grandson of the demigod ‘Olopana, an uncle of Kamapua‘a. (Pukui et al. 1974:44)

The goddess Haumea, in battle with Kumuhonua, a Kona O‘ahu chiefess, is caught in a tidal wave and washed out to sea. She is then washed back to shore and is victorious, naming her foster son He‘eia after this event (“*he‘e ‘ia* – washed out to sea and back; (Pukui et al. 1974:44). He‘eia also figures into at least one of the numerous accounts concerning the goddess Pele. “The handsome He‘eia fell in love with Ka‘ohelo, a younger sister of Pele and Hi‘iaka. They met in Ko‘olau on O‘ahu. When Ka‘ohelo died, parts of her body were distributed among the volcano areas of the islands and became the *‘ohelo* plant, the fruit of which is sacred to Pele [Kahele 1918 - 1919, 5:576-582] (cited in Kelly 1975:2).

The fishpond at He‘eia was said to have been “guarded” by a traditional water spirit (*akua mo‘o*). The *akua mo‘o* “were guardians (*kia‘i*) of walled fishponds, and the people nearby depended on them to assure an abundance of fish” (Kelly 1975:2). Meheanu was the *mo‘o* of He‘eia Fishpond and she lived at “…Luamo‘o, a small land adjacent to the pond” (Kelly 1975:2). This corresponds to McAllister’s Site 326.

Another guardian of the fishpond, the super stingray (*Lupe-kia‘i-nui*) is described by Lehman “Bud” Henry (1993:38):

> The *konohiki* (overseer) of He‘eia Fishpond knew that he needed to solicit the help of a squadron of sting rays (*hīhīmanu*) that lived at Kekepa Island, near Mōkapu, to watch over his pond. He paddled his canoe out to the island and prayed to the god of the *hīhīmanu*, “Oh, *hīhīmanu akua*, I need your guardian services. I need you to help save my crop of *‘ama‘ama*. The *kākū* (barracuda) and *‘aihue loko* (pond robbers) are stealing me blind! I will do anything to get your help.”

Since He‘eia Fishpond was one of the largest ponds along the shore, the god of the *hīhīmanu* assigned a special stingray--*Lupe-kia‘i-nui*, the super stingray--to protect it, but only after the overseer of the fishpond made a promise that the fishpond would forever remain a fishpond. According to Henry (1993:39), “…to this day, the word of the *konohiki* has been kept to the *hīhīmanu akua*. He‘eia Fishpond is still a fishpond.”

Portions of He‘eia are also associated with traditional Hawaiian death and burial practices. Kealohi Point, which separates He‘eia Kea and He‘eia (He‘eia Uli) to the south, was a Soul’s Leap or *leina ‘uhane*, “…a place where the souls of the dead leap into the sea” (Raphaelson 1929:22) (cited in Sterling and Summers 1978:197). On the peninsula of Mōkapu, east of the project area, within the sand dunes near Pyramid Rock, hundreds of Hawaiian burials have been removed beginning around 1912. This is just a portion of extensive Mōkapu sand dune burials, one of the largest known Hawaiian burial sites.

Traditional accounts and former *heiau* indicate the *ahupua‘a* of He‘eia was a favored and important place in traditional times. Accounts concerning the name of He‘eia relating to demi-gods and goddesses suggest relative antiquity. M. Kelly states “He‘eia Fishpond is probably a very old pond, as it has the ancient and traditional *akua mo‘o* (water spirit), Meheanu, the pond's caretaker (*kia‘i loko*), as part of its lore, and because the name of its builder has been lost in time” (Kelly 1975:47). The fact that He‘eia was also a traditional place of *leina ‘uhane* or Soul’s Leap and a portion of He‘eia on Mōkapu was used extensively for sand dune burials also attest to its importance.

2.2 Early Historical Period 1770-1840

The importance of He‘eia, according to traditional accounts, Souls’ Leap, burial grounds, and *heiau*, is directly related to the productivity of the *ahupua‘a* including both terrestrial and marine resources. Early historical accounts also indicate the desirability of He‘eia because of this high productivity.

The earliest historic accounts relate major battles of conquest during the late 1700s. The feeding of such amassed armies necessitated procuring valuable food supplies and highly productive locales. In the 1780s, Kahekili, King of Maui fought for control of O‘ahu from Kahahana, King of O‘ahu. Kahahana, who sometimes lived in the Kāne‘ohe/He‘eia area (Devaney et al. 1976:5), was in Nu‘uanu when Kahekili defeated his forces and took control of O‘ahu. However, prior to Kahekili's O‘ahu landing, his fleet had “sailed to Moloka‘i to secure fish from the walled fishponds” (Kamakau 1961:135). After the battle Kahekili lived at Kailua, O‘ahu with most of his chiefs and followers staying at Kāne‘ohe and He‘eia (Kamakau 1961:138).

Kamehameha followed much the same route as Kahekili some 10 years later. After Kamehameha had conquered O‘ahu, he kept the *ahupua‘a* of Kāne‘ohe as his personal property with He‘eia also retained as Kamehameha lands. Obviously many *ahupua‘a* of Ko‘olaupoko were highly desirable because of the valuable food resources. The large walled fishponds, of which He‘eia is the largest, and the expansive taro lands of Kawainui, Kāne‘ohe, and He‘eia, were at times the wealth to be won or lost.

2.3 Mid 1800s

He‘eia remained under direct control of the Kamehameha dynasty until the Māhele (1848). From 1816 to 1829 Chief Boki was Governor of O‘ahu and was in charge of Liholiho’s (Kamehameha II) and then Kauikeaouli’s (Kamehameha III) O‘ahu lands (Kelly 1975:6). His wife, Liliha, succeeded him in the office of Governor (1829-1831) of O‘ahu. In 1831 Liliha was

involved in an attempt to take over O‘ahu, however, the rebellion (*Pahi kaua*) failed (Kelly 1975:7). As a result, Liliha was removed from power and lost official control of most of Kamehameha III’s lands. However, Liliha maintained some of her lands and “continued to play a governess role in Pali Ko‘olau (Ko‘olaupoko) into the mid-1830s” (Kelly 1975:6).

During Boki and Liliha’s tenure (ca. 1830) Chief Abner Pākī was appointed *konohiki* (land agent/overseer) of He‘eia. Abner Pākī was Liliha’s cousin but he also had ties to He‘eia prior to the Kamehameha family. These “ties” are attributed to Kahekili’s (1785) conquest of O‘ahu, as Abner Pākī’s uncles were prominent Maui Chief Warriors. “At least part of Paki’s connection with the land at He‘eia may stem from his uncle(s) earlier residence in that land, and may have been the reason why Paki was made *konohiki* of He‘eia” (Kelly 1975:5). Abner Pākī acted in the capacity of *konohiki* until 1848. In 1848, as part of the Māhele, Abner Pākī, received the *ahupua‘a* of He‘eia (4,100+ acres) as his personal property (LCA 10613). The award included the He‘eia portion of Mōkapu peninsula and the sea fisheries of Kāne‘ohe Bay (Indices 1929). The Catholic Mission also received relatively large tracts of land within He‘eia (LCA 43, 260+ acres), which was initially a gift to the Mission by Kamehameha III in 1845.

2.3.1 Land Commission Awards in the Vicinity of the Project Area

The Kuleana Act of 1850 allowed for private ownership of lands to “commoners,” the persons or families actually living and working on the land. “As a result of the Kuleana Act of 1850, there were 93 *kuleana* awards in He‘eia which totaled 203 acres of land; they averaged 2.18 acres per award” (Kelly 1975:9). Figure 6 is a composite tax map of the project parcel and vicinity, which shows known LCAs in the area. Table 1 is a list of *kuleana* awards, for which information is available, that are located within, or near, the project parcel. Appendix A provides details of those 15 LCAs.

The early historic accounts and land records of the mid-1800s indicate the *ahupua‘a* of He‘eia was very productive in terms of both marine and terrestrial food resources. These included the fisheries of the shoreline ponds and Kāne‘ohe Bay and the extensive taro (*lo‘i*) lands which extended up to the base of the Ko‘olau mountain range (i.e. Ha‘ikū Valley). Because of this high productivity, lands of He‘eia Ahupua‘a were considered very valuable.

LCA claims within the project area indicate the land, at the time of the Kuleana Act, was used primarily for *lo‘i* cultivation and house lots. For LCA claims with multiple parcels (*‘āpana*) it is often difficult to be certain which claims were *lo‘i* and which were house lots on the landscape, however, the combination of historic maps referenced in this document provide a good overview of how the landscape was likely utilized during the mid 1800s and possibly for centuries previously. Figure 7 is an early map of He‘eia Ahupua‘a showing some land claims in the area. The composite tax map and the 1913 Baldwin and Alexander map (Figure 6 and Figure 8) provide detailed information on LCAs in and around the project area; note LCAs 4266 and 7523 within the project area, and 3573, 4222, 2689, 3572, 6047, 2162, and a portion of 2562 and 3347 all within the project parcel. The 1918 W. E. Wall map (Figure 9) also represents LCAs within He‘eia Ahupua‘a; note the *kuleana* claims within the project area. The 1919 War Department map (Figure 10) shows structures located within the project area and parcel. House lots and other structures appear to be clustered close to what was likely a coastal trail that became the present day Kamehameha Highway.

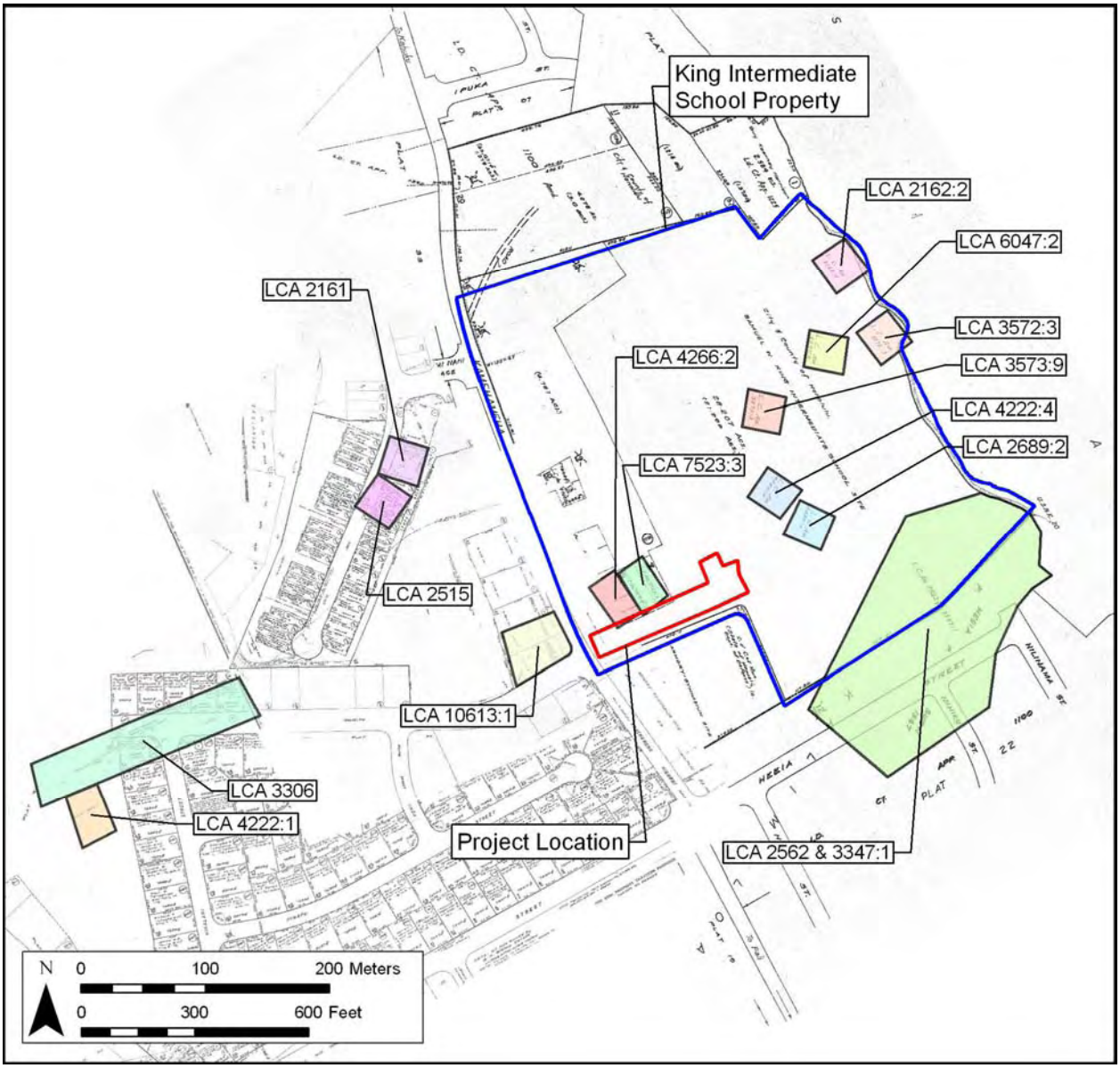


Figure 6. Composite of Tax Map Plats showing Land Commission Awards in the vicinity of the project area.

Table 1. Land Commission Awards (LCAs) in Project Vicinity.

LCA #	Awardee	Land Use	Comments
2161	Kaiewewena	6 *lo‘i* and 1 house lot	*Mauka* of Kamehameha Hwy.
2162	Kalei	6 *lo‘i* and 1 house lot	Within the project parcel
2515	Makuahine	6 *lo‘i* and 1 house lot	Contested by Kalunaaina; decision postponed pending further investigation –no further documentation available
2562	Nauka	14 *lo‘i* and 1 house lot	Partially within project parcel
2689	Lapahuila	5 *lo‘i*	Within the project parcel
3306	Makahelu	1 *mo‘o* and 1 *kula*	*Mauka* of Kamehameha Hwy.
3347	Nauka	1 *kula* and 1 house lot	Partially within project parcel –not awarded
3572	Kaniaa	9 *lo‘i* and 1 house lot	Within the project parcel
3573	Kailaa	4 *lo‘i* and 1 house lot	Within the project parcel
4222	Kohai	12 *lo‘i* and 1 house lot	Within the project parcel
4266B	Pau	3 *lo‘i* and 1 house lot	Within the project area
6047	Wahine	10 *lo‘i* and 1 house lot	Within the project parcel
7523	Kalaau	8 *lo‘i* and 1 house lot	Within the project area
10613	Abner Pākī	43 *lo‘i*	*Mauka* of Kamehameha Hwy.

2.3.2 Saint Ann’s Catholic Church and Schoolhouse

Saint Ann’s Catholic Church and schoolhouse, located west of the project area, was founded in the 1840’s (Schoofs 1978). The church grounds included “a large priest house, comprising 13 small rooms, a kitchen, a dining room and a community room” (Schoofs 1978:103). It is also noted, “… the little monastery was ideally situated in a large French garden replete with flowers, green shrubbery, and a great variety of trees …” (Schoofs 1978:103). The schoolhouse was built near the church:

> On the outskirts of the five acre property …Catholic Hawaiians had dug four large ponds in which taro was raised in sufficient quantity to feed the 150 schoolchildren and a number of women occupied in the workshop. Father Martial’s first work was to build a school, native style, and also a hall 70 feet long, which he opened as a workshop for women…The success of the womens workshop was very encouraging for Father Martial, so much …(he) planned a similar shop for men and boys.” (Schoofs 1978:103)

A new schoolhouse was built in 1871 close to St. Ann’s Catholic Church. The new St. Ann school became “the best school in Koolau District” (Schoofs 1978:103). After 1927, five

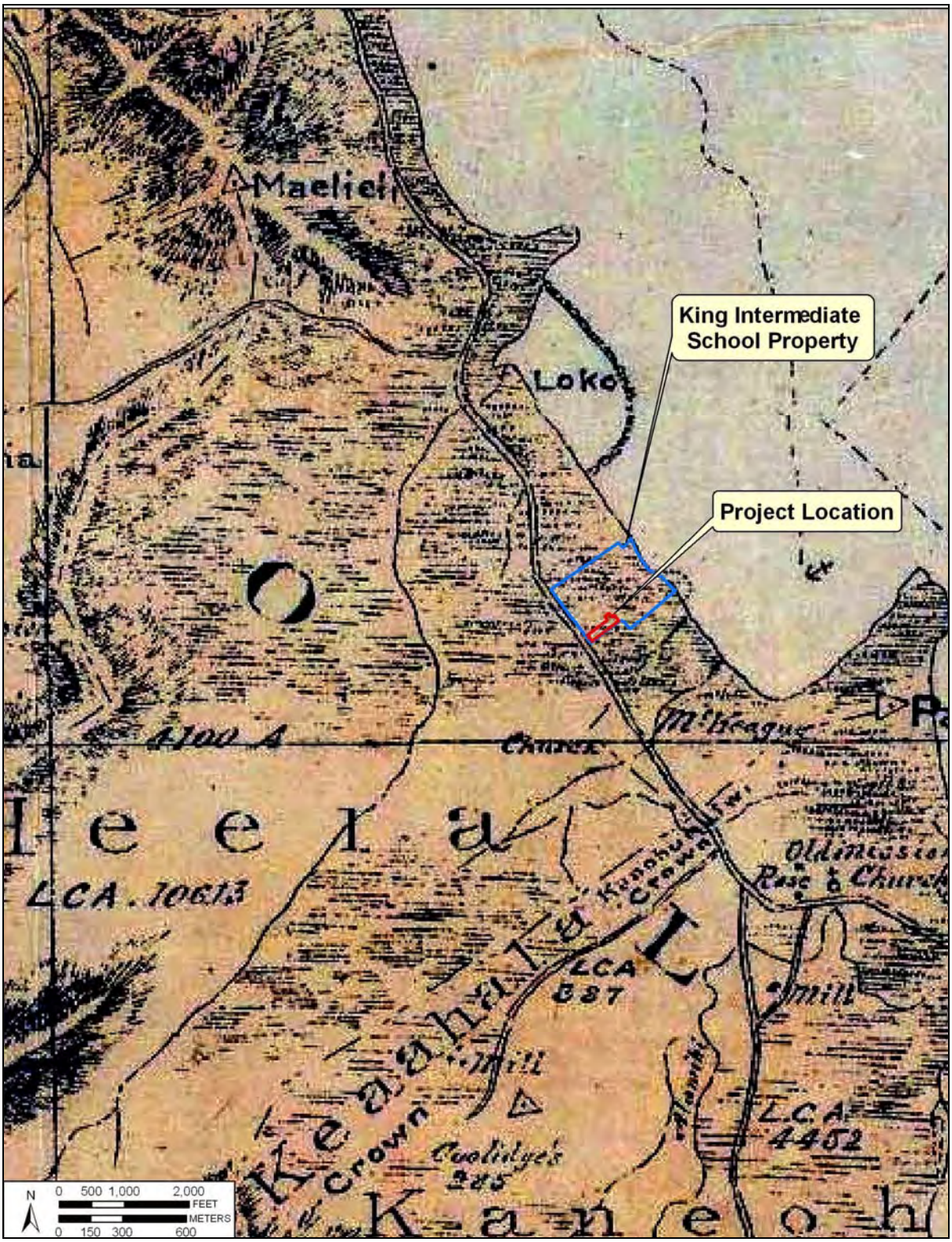


Figure 7. 1881 Government Survey map showing project area and surrounding land claims (note: the location of St. Ann’s church south of the project area)

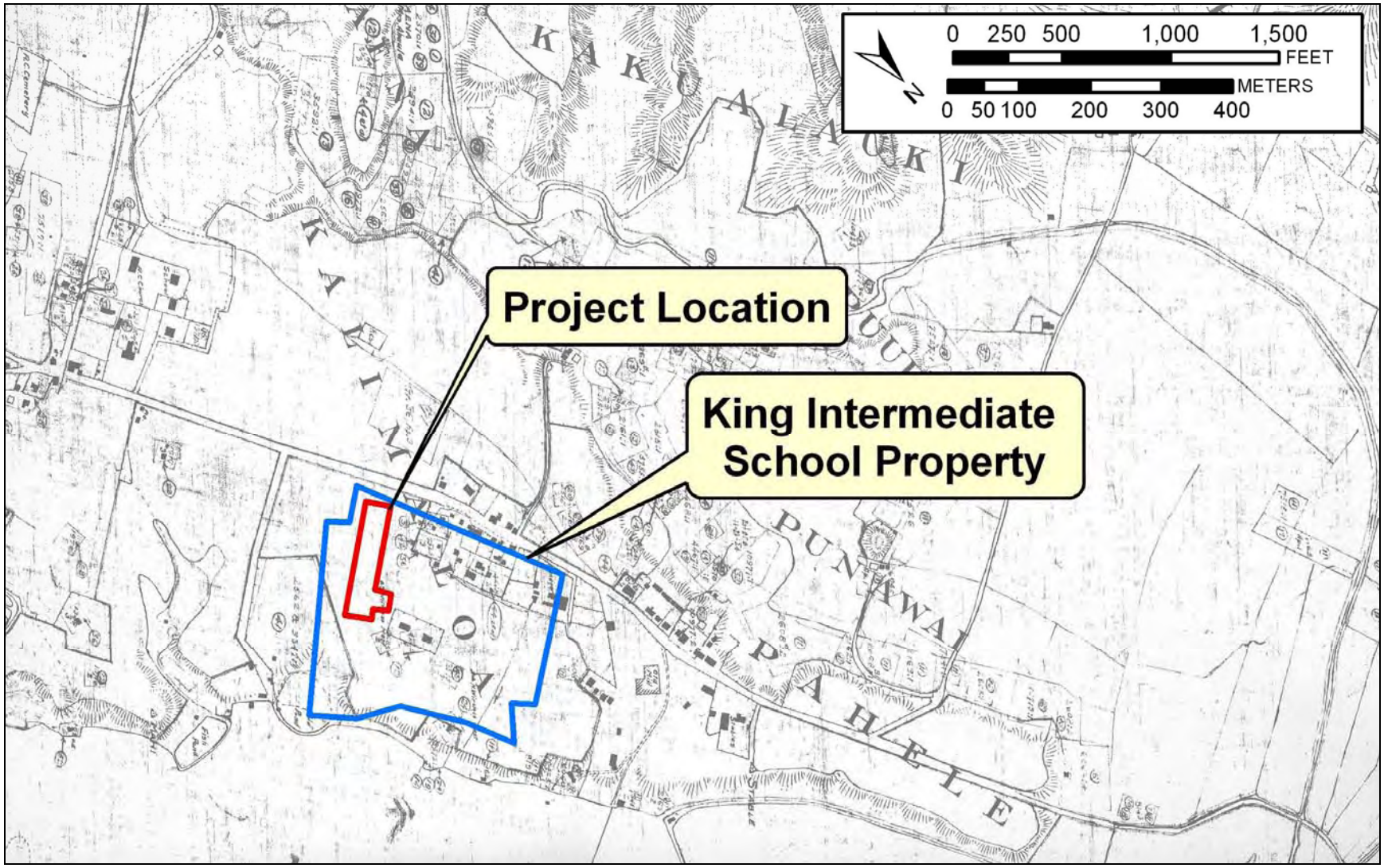


Figure 8. A portion of the 1913 Baldwin and Alexander Map of LCAs within the project area and vicinity.

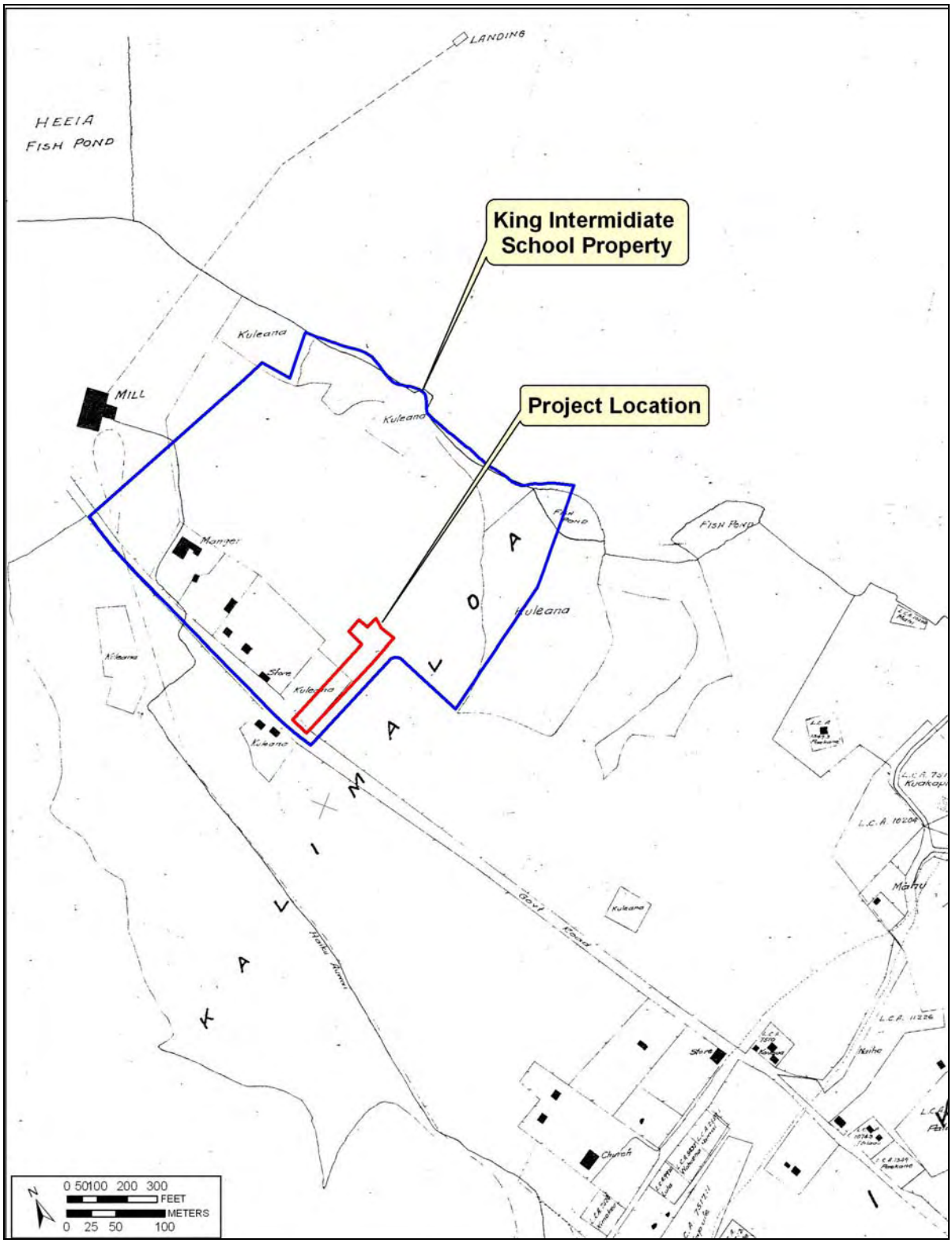


Figure 9. 1918 W.E. Wall map showing LCA’s, and the sugar cane plantation, in the project vicinity.

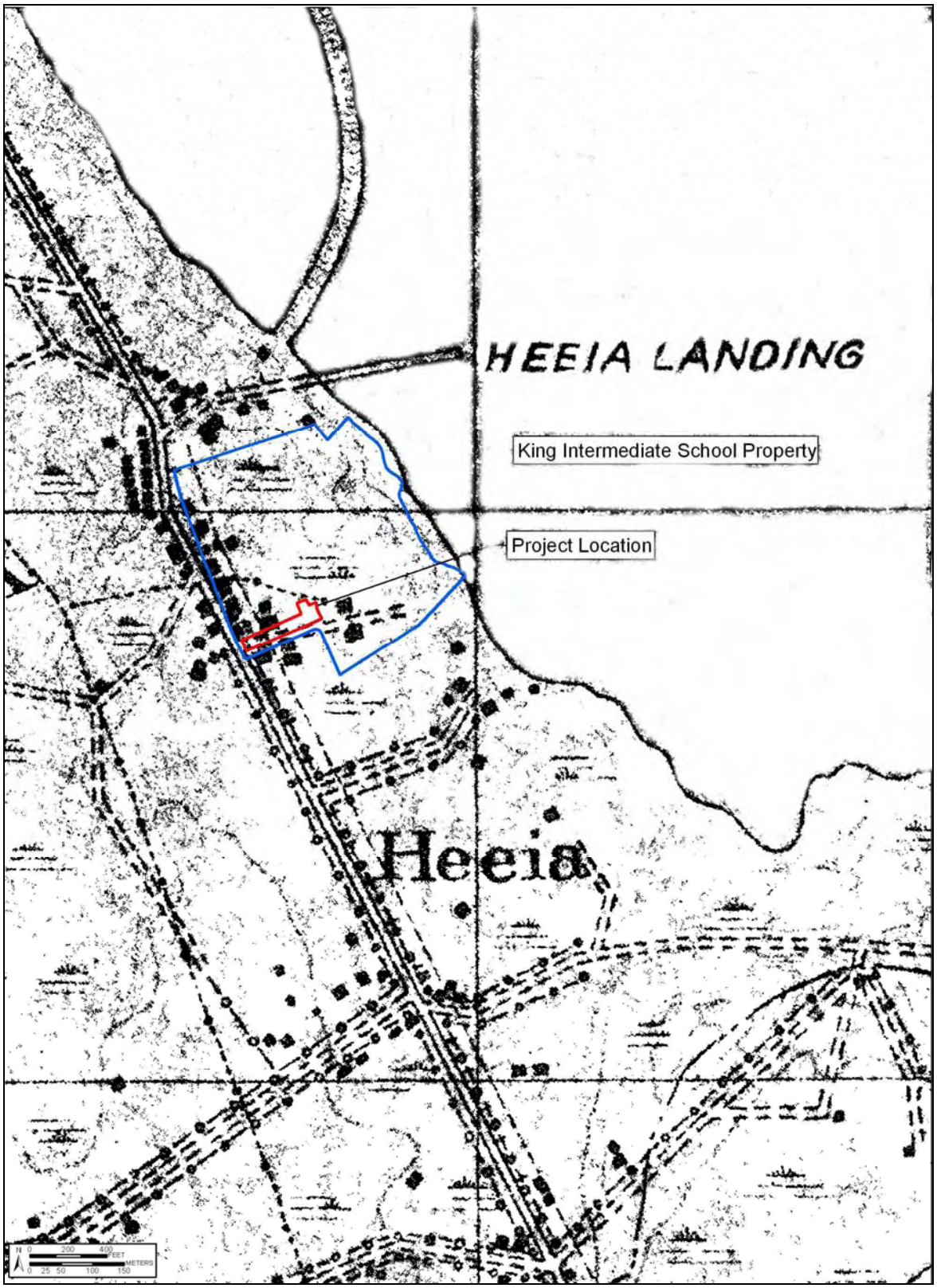


Figure 10. 1919 War map showing roads and buildings in vicinity of the project area.

classrooms were added to the schoolhouse, which had consisted of two classrooms plus one small building, (Schoofs 1978:104).

2.4 Rice and Sugar Cane (1870s - 1920s)

Taro remained the dominant crop surrounding the project area until the 1870s. The influx of Chinese and the decline of the Native Hawaiian population in the 1850s - 1870s caused a changeover to rice cultivation. In 1871 Bernice Pauahi Bishop, the daughter of Abner Pākī and Chiefess Konia, signed a lease with Chinese rice farmers in He‘eia (Kanahele 1986:157), which she had inherited from her father. Individual *kuleana* were also being leased to Chinese rice farmers during the 1870s. The Wing Wo Tai Company had the lease on a number of *kuleana* and was also growing rice on “Bishop Estate” land. In the 1880s there was also a rice mill within the leased Bishop Land. Rice was shipped to Honolulu as well as used for local consumption. The He‘eia Rice Plantation of the 1880s was under the operation of Ma Ah Kau and described as “one of the most complete and well cared for [plantations]” (Bowser 1881).

Coinciding with the increase in rice production was the advent of commercial sugar cane production in He‘eia. He‘eia Sugar Plantation had a 200 ton crop in 1871 (Jarves 1872:205-cited in Kelly 1975:42). However, it was not until 1878 that the sugar mill was completed. The plantation rented or leased most of its land, including some of the *kuleana* lands for growing rice and taro for its laborers. The plantation completed rail lines and a wharf allowing for cane from Kāne‘ohe to be milled at He‘eia and then shipped to Honolulu. The plantation had some 250 laborers by the 1880s. A few years of bad crops eventually led to changes in plantation ownership, and the He‘eia Sugar Plantation ceased operations in 1903 (Condé and Best 1973:295-296; Devaney et al. 1976:44). A later account of He‘eia describes the area as, “where the Catholic Church stands and where the old mill of Heeia sugar plantation stood” (Hiiaka-I-ka-poli-o-Pele 1926: 1 -cited in Sterling and Summers 1978:197). The 1918 W.E. Wall LCA map (Figure 9) shows the project area as just southeast of the sugar mill, and several outbuildings likely related to the sugar plantation are present within the parcel boundaries, as well as some *kuleana* lands.

The commercial cultivation of pineapple began in the 1890s and the first decade of the 1900s in Kāne‘ohe. From approximately 1910 to 1925, pineapple cultivation was a major industry in this area. At its peak, 2,500 acres were under cultivation on Windward O‘ahu (Harper 1972), and of this a large percentage was in the Kāne‘ohe Bay region. Figure 11 shows pineapple fields under cultivation in project area and vicinity. It is likely there was a mix of sugar cane and pineapple fields in this area.

Taro made a comeback between the 1920s and 1940s coinciding with the decline in rice; and much of the former *lo‘i* land was returned to taro production. The extensive salt marshes of He‘eia inland of the fishpond (*loko*) were not suitable for cultivation, but fringing them to the southward, flanking both sides of He‘eia Stream from which they are irrigated, lie the vast terraced lowland flats of this *ahupua‘a*, which were in 1935 still largely planted in commercial taro (Handy and Handy 1972:454-55).

Post-war military measures filled in six fish ponds in Kāne‘ohe Bay and provided for 107 residential lots. The Ali‘i Shores subdivision, adjacent south of the project area, replaced a traditional fish camp (Dorrance 1998:95). A Naval Reservation supporting He‘eia Radio Station

occupied what is now King Intermediate School from June 1933 until just after the bombing of Pearl Harbor in December 1941. The radio station was moved to Wahiawā in December 1941 and the reservation was closed around this time, though it is still present on the 1954 Army Service map (Figure 12) (Stinnett 2001: 93). It is likely that the Naval Reservation passed into state ownership in 1959 when statehood forced reorganization of federal and state lands.

Kāne‘ohe developed from a rural area into a suburban community, after World War II, during the Honolulu residential housing shortage of the 1950s (Figure 13). The housing demand of this time period also placed pressure on the infrastructure development of Windward O‘ahu (Johnson 1991:359-361). These population pressures likely facilitated the eventual conversion of the Naval Reservation, in the early 1960s, into what is now King Intermediate School.

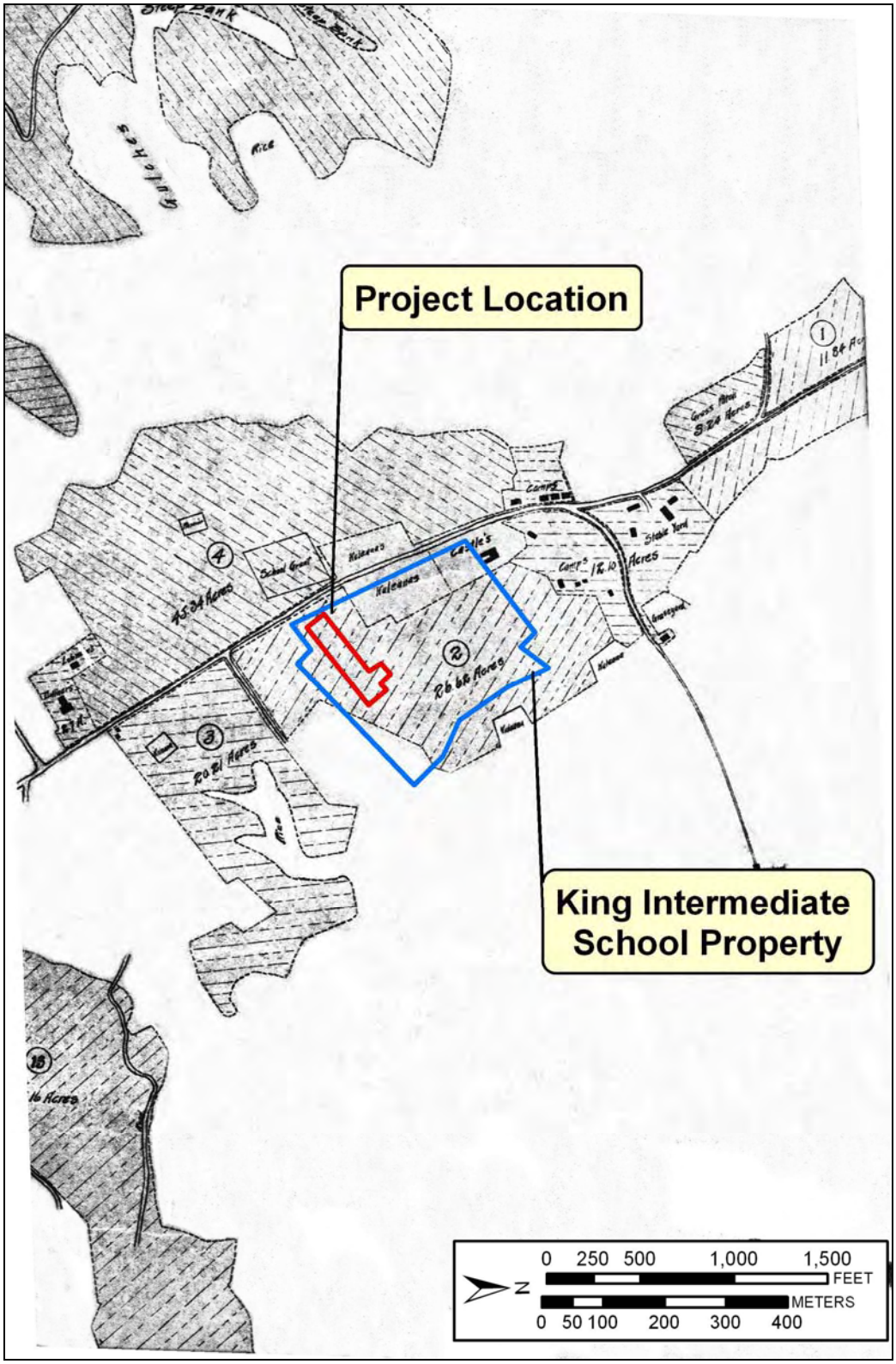


Figure 11. A portion of the 1912 Rea Map of pineapple fields in He‘eia Ahupua‘a.

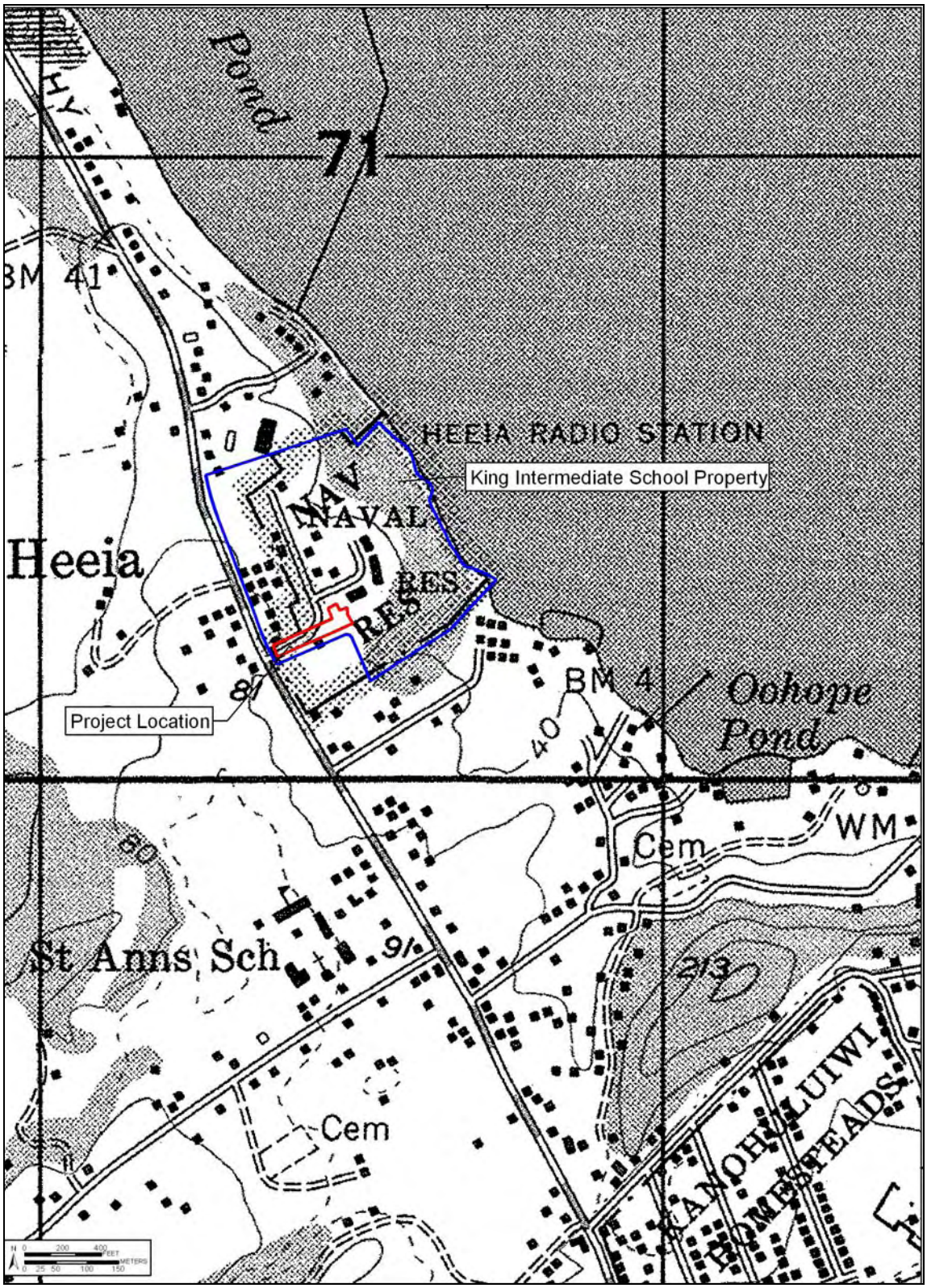


Figure 12. 1954 Army Map Service map showing the project area as a Naval Reservation.

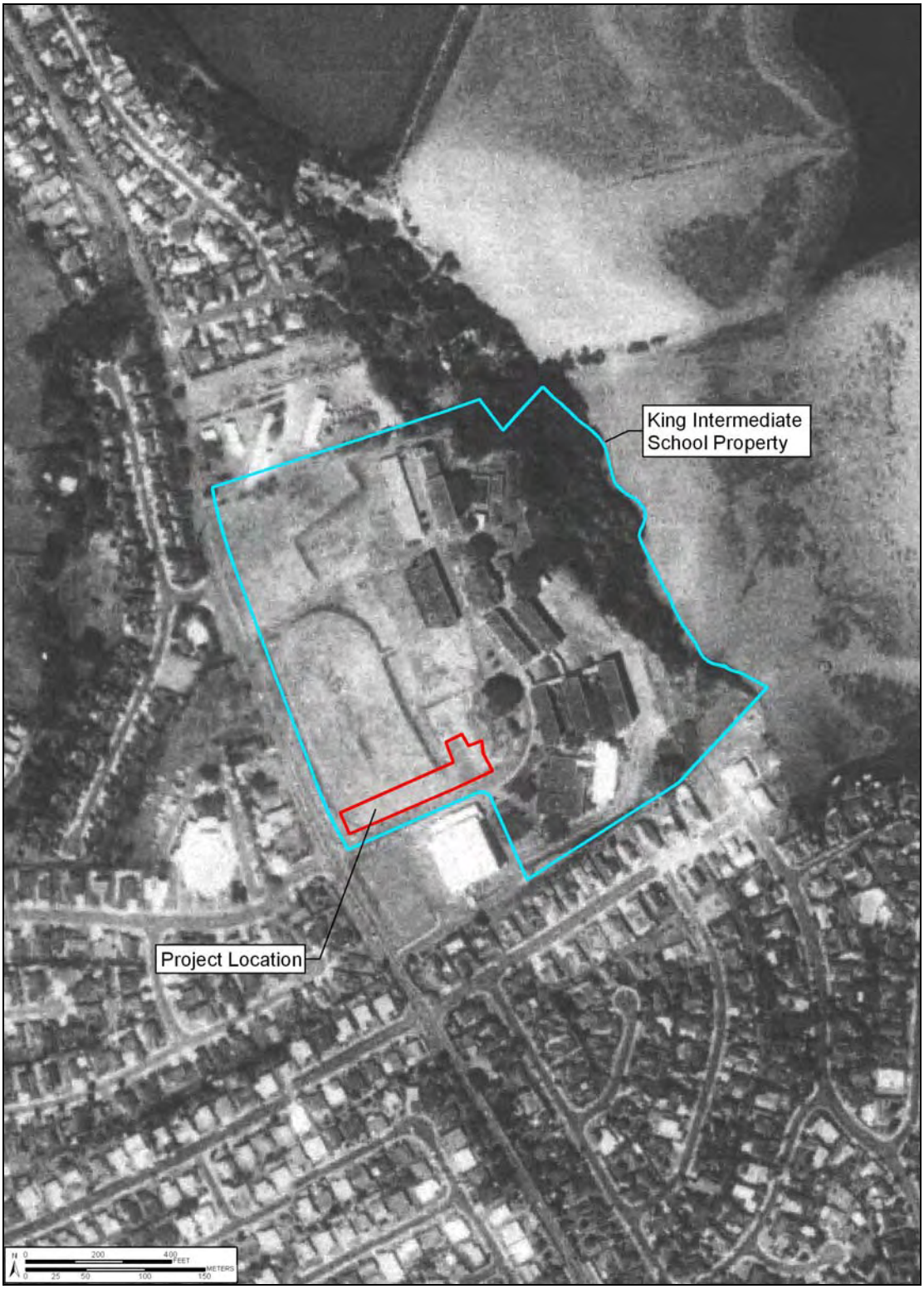


Figure 13. Portion of 1977-78 aerial photo showing development around the project area. Note the school library has not yet been built at the time of this photo

Section 3 Previous Archaeological Research

J. Gilbert McAllister (1933) conducted the earliest archaeological research in He‘eia Ahupua‘a in the 1930s (Figure 14). McAllister reported some 17 major sites, three of which (365, 366, 367) are on the Mōkapu Peninsula. Of the twelve sites not on Mōkapu, six were *heiau*, of which five had been destroyed prior to 1930. The sixth is the remains of Kaualauki Heiau (Site 50-80-10-328) located well inland of Kamehameha Highway.

McAllister’s sites that are in the vicinity of the current project area are He‘eia fishpond (Site 327), the remains of Kaualauki Heiau (Site 328), two adjacent unnamed fishponds (collectively Site 336), O‘ohope fishpond (Site 337) and the destroyed Pu‘upahu Heiau (Site 342). McAllister’s Site 336, the two unnamed fishponds, appears to be in the vicinity of the current project parcel (Figure 14); therefore it is possible that subsurface cultural material related to the ponds is present in the southeast corner of the King IntermediateSchool lands.

Beginning in the 1970s, a number of archaeological investigations have been conducted in He‘eia Ahupua‘a (Table 2). Figure 15 shows previous archaeological studies in the vicinity of the present project area.

Yent (1977) performed an archaeological field survey of the He‘eia-Matson Point State Park but discovered no archaeological or historical remains.

Kennedy (Archaeological Consultants of Hawai‘i) conducted archaeological surveys and excavations in the He‘eia area in 1982, “…of just under a hundred acres of property at He‘eia Kea. A total of five sites were located, including three terraces and two religious structures,” (Kennedy 1982:2). The terraces (HK 1-3) were agricultural in function and the religious structures were likely small family shrines (Kennedy 1982:2). This survey was on Bishop Estate land, north of Kealohi Point (He‘eia Kea), much of which was subject to commercial pineapple cultivation. Kennedy also discusses U.S. Military WWII impact on lands at He‘eia Kea. Because of the historic land modification all sites were “…located along the edges of the property line, and away from the thrust of the pineapple, military, and contemporary settlement activities” (Kennedy 1982:2).

Clark and Riford (1986) conducted archaeological salvage excavations at a prehistoric habitation site in the proposed Nani Pua Gardens II subdivision in Kāne‘ohe. Based on radiocarbon dates this site was settled between. A.D. 1070-1405. Skeletal remains of at least three adult individuals were identified, and 12,618 artifacts were recovered. A total of 12,288 of these were basalt artifacts; Clark and Riford concluded that this site housed craftsmen specializing in the production of stone tools, primarily adzes (1986:110).

In 1989 and 1990 Cultural Surveys Hawai‘i conducted Archaeological Reconnaissance Surveys and literature searches for proposed improvements to a portion of the He‘eia wastewater collection system (Borthwick 1989; Hammatt and Borthwick 1990). During the archaeological survey, former taro and rice features, including terraces and an *‘auwai*, were located in the He‘eia Marsh Zone. Their literature search indicated extensive wetland taro cultivation (*lo‘i*) where fields were watered from the permanently flowing He‘eia Stream and a network of *‘auwai*. During the late 1800s, until the 1900s, the *lo‘i* system was converted for rice cultivation.

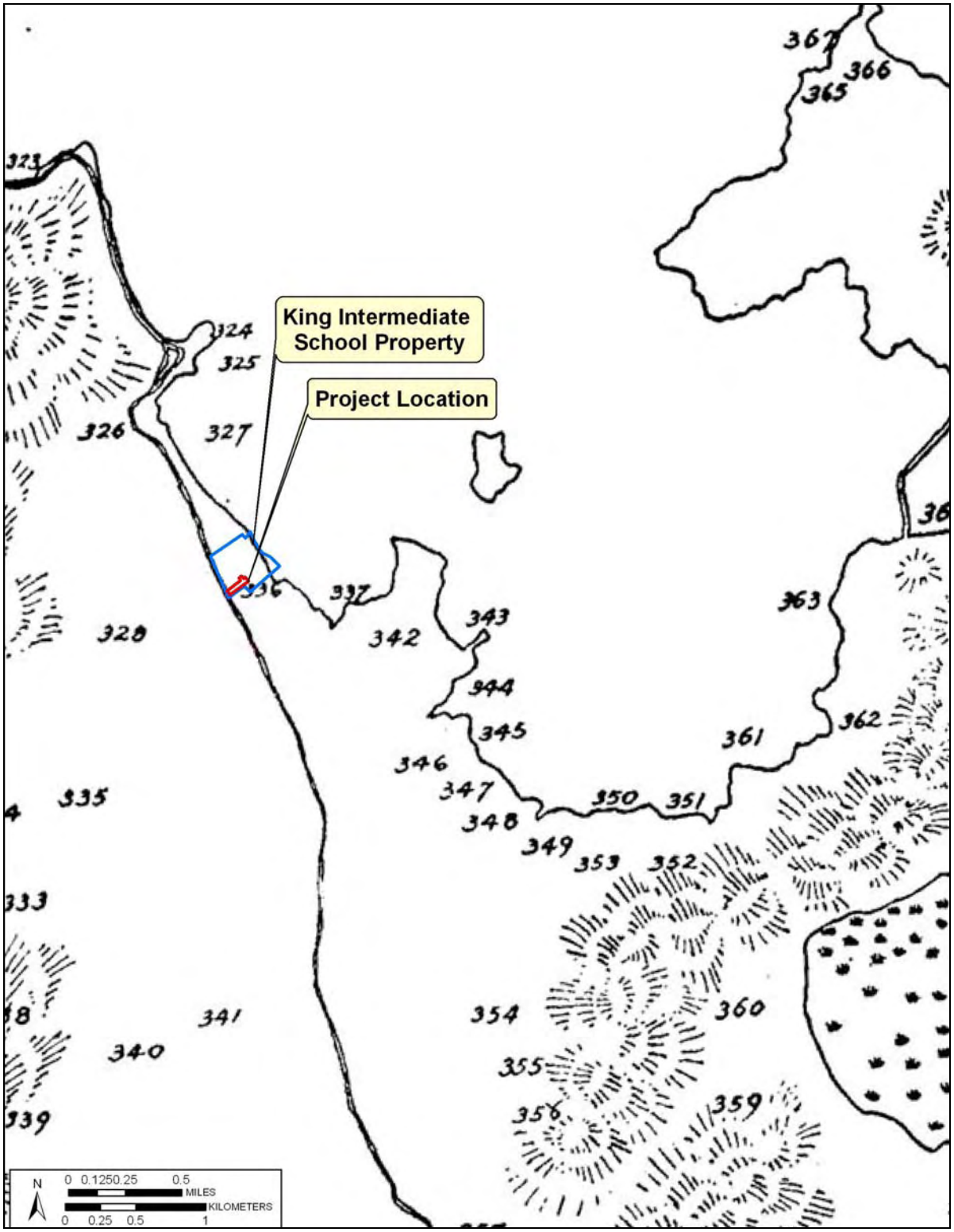


Figure 14. McAllister’s 1904 map of archaeological sites in the vicinity of Kāne‘ohe and Kailua (project area marked in red).

Table 2. Previous Archaeological Studies in He‘eia Ahupua‘a.

Reference	Nature of Study	General Location	Findings
McAllister 1933	Island-wide survey	Island wide	Identifies 15 major sites in He‘eia Ahupua‘a, 5 of which were *heiau.*
Yent 1977	Archaeological surface survey and subsurface investigation (2 test cores)	TMK 1-4-6-05:04, He‘eia-Matson Point State Park	No finds of archaeological significance, however, the authors suggest archaeological monitoring when development and excavations begin.
Kennedy 1982	Archaeological reconnaissance survey	TMK 1-4-6-06: 1, 2, 4, 7-16, 22-51; 1-4-6-16:32	Located five sites: three terraces (agricultural in function) and two religious structures--1 family shrine (*kuahu*) and 1 small altar.
Clark and Riford 1986	Archaeological salvage excavations	TMK 1-4-5-30:59	Salvage excavation of Site 50-0a-G5-101, a prehistoric habitation site. Skeletal remains from at least three adult individuals were identified, and 12,618 artifacts were recovered.
Kennedy 1987	Surface survey and subsurface testing	TMK 1-4-6-04:11 and 1-4-6-05:05	Surface survey revealed one site, the Japanese Cemetery; subsurface testing revealed no buried cultural material.
Borthwick 1989	Archaeological reconnaissance and literature review	TMK 1-4-6-04, 07. 08, 16, 18-20, 22, and 23	Former taro and rice features, including terraces and an *‘auwai,* were located in the He‘eia Marsh zone. The literature search indicated extensive wetland taro cultivation (*lo‘i*) where the fields were watered from the permanently flowing He‘eia Stream and a network of *‘auwai*.
Carlson and Haun 1989	Archaeological inventory survey	TMK 1-4-6-06: 1, 2, 4, 7-16, 22-51; 4-6-16:32	Relocated, recorded, and assigned state site numbers to Kennedy’s (1982) previous 5 sites. Also located a site complex with three temporal components (pre-contact habitation and tool manufacture, historic agriculture, and modern habitation and agriculture); several retaining walls; terraces and mounds; 2 WWII bunkers; and 1 shrine/possible burial.

Reference	Nature of Study	General Location	Findings
Borthwick and Hammatt 1990	Archaeological reconnaissance survey and literature search	TMK 1-4-6-04, 07, 08, 16, 18-20, 22, 33	Located former taro and rice features including terraces and an *‘auwai* in the He‘eia Marsh zone. Literature search indicated extensive wetland taro cultivation (*lo‘i*) where fields were watered from the permanently flowing He‘eia Stream and a network of *‘auwai*.
Department of the Army 1991	Field investigation	TMK 1-4-5-23:1, 8, 9, 10, por.2	No historic properties observed
Hammatt et al. 1992	Archaeological inventory survey	TMK 1-4-5-23:3	No historic properties observed
Kawachi 1990	Archaeological reconnaissance survey	TMK 1-4-6-16:10, 01(por.)	No historic properties observed
Nagata 1992	Surface survey and subsurface trenching, coring	TMK 1-4-6-05:09	Identified 3 burials eroding out of the bank facing Kāne‘ohe Bay near the He‘eia Stream mouth; noted that there have been 5 burials encountered in this area since 1982.
Pfeffer and Hammatt 1992	Archaeological assessment	TMK 1-4-5-34, 42, 60, 61, and 84	No prehistoric or historic features were encountered.
Schmeding 1992	Geological study of subsurface stratigraphy	TMK 1-4-6-05:09	Identified four distinct stratigraphic layers (A, B, C, and D); two (A and B) are cultural depositions, one mixed cultural and natural (C), and one natural deposition (D).
Duncan and Hammatt 1993	Archaeological monitoring	TMK 1-4-5-23:5	Identified one site (a historic trash pit) of two features.
Moore and Kennedy 1995	Archaeological data recovery plan	TMK 1-4-6-16:32	Determined that State Site # -4142 (previously recorded by Kennedy 1982; and Haun & Carlson 1989) is located within boundary of development for proposed Malulani Woodlands Subdivision; plan details recommendations for data recovery at the five features within the limits of development

Reference	Nature of Study	General Location	Findings
Stride and Hammatt 1995	Archaeological inventory survey and literature review	TMK 1-4-6-14:5	One historic site identified -Kaualauki Heiau, McAllister Site 328 (State Site 50-80-10-328).
Hammatt et. al. 1997	Archaeological inventory survey and limited subsurface testing	TMK 1-4-6-14:05	Observed the remains of Kaualauki Heiau (McAllister’s Site 328, State Site 50-80-10-328) and recommend that a minimum 100 foot buffer zone from any ground disturbance be afforded the *heia*u structure.
Perzinski and Hammatt 2000	Archaeological inventory survey	TMK 1-4-5-18:por.2, 52	No historic properties observed
Carson 2006	Archaeological Assessment	TMK 1-4-6-5:01	No significant archaeological resources observed in the project area, though it is within Site 50-80-10-0327 –He‘eia Fishpond.
Tulchin, O’Hare, and McDermott 2006	Phase I cultural investigation	TMK 1-4-6-14:1, 6	Nine historic properties were identified including two ditches, three terrace complexes, two road remnants, a garden planter, and two charcoal kilns.
Tulchin, McDermott, and O’Leary 2006	Phase II cultural investigation	TMK 1-4-6-16;1, 6	Nine historic properties were identified including two ditches, three terrace complexes, two road remnants, a garden planter, and a pair of charcoal kilns
Runyon and Hammatt 2007	Monitoring	Kamehameha Highway and Ha‘ikū Road	No historic properties observed

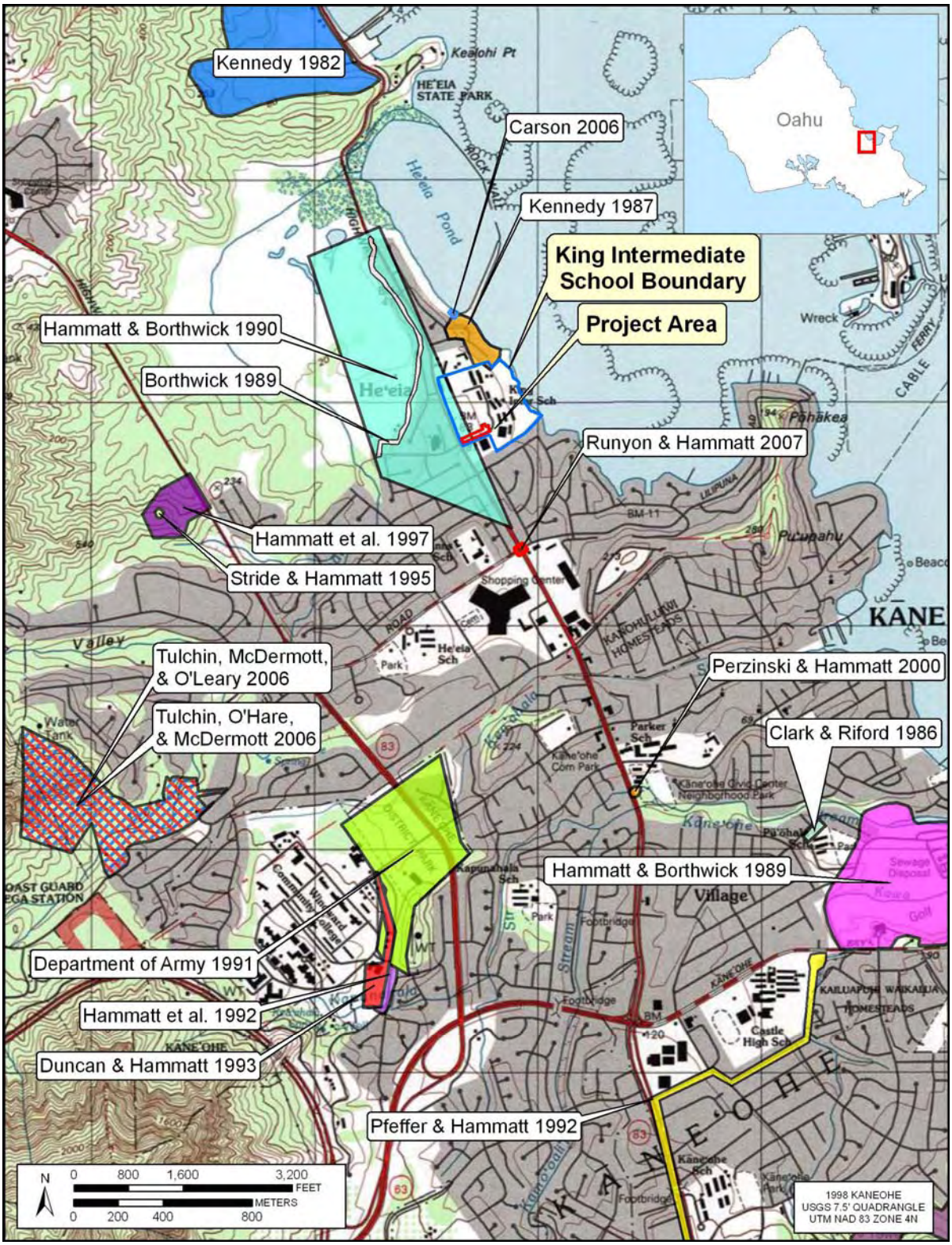


Figure 15. Portion of 1998 Kāne‘ohe U.S. Geological Survey 7.5-minute topographic quadrangle showing the project area and previous archaeological studies in the vicinity

Taro made a short-lived comeback ca. 1930s to 1950s, however the *lo‘i* is utilized for pasture at present.

In 1987, Archaeological Consultants conducted work for Ali‘i Landing Subdivision (TMK 1-4-6-04:11, 1-4-6-04:5), which consisted of a two-part investigation involving a surface survey, excavations of a series of backhoe trenches, and two hand excavated test pits (Kennedy 1987). Ali‘i Landing Subdivision “is located on the southeast corner of the He‘eia Fishpond” on the *makai* or Kāne‘ohe Bay side of Kamehameha Highway. This report includes location maps, a historic background section, excavation data, and historic (Japanese) burial(s) relocation information. The surface survey revealed only one site, the Japanese Cemetery. “The earliest grave dated to the 1870s and the last to the 1930s” (Kennedy 1987:9). Some of the burials had been previously removed, and the landowner decided to relocate the remaining burials to the Valley of the Temples cemetery. No subsurface cultural material was observed.

Kennedy indicates that negative excavation results were expected as “…the notion that habitation sites and fishponds are not associated with pre-contact items has been put forth by other archaeologists and this seems to be true, at least for this small southeast corner of the He‘eia Fishpond”(Kennedy 1987:9).

In 1989, Carlson and Haun performed an archaeological inventory survey of the Malulani Sports Complex. They identified and recorded ten archaeological sites (50-80-10-4135 to 4144) containing 48 components, including a site complex (Site –4142) with 3 temporal components including pre-contact habitation and tool manufacture, historic agriculture, and modern habitation and agriculture; a site complex with 2 retaining walls (Site -4138); several terraces (Sites –4135, -4140, and –4141); a lithic scatter; 1 shrine/possible burial (Site –4144); 2 mounds (Sites –4137 and -4139); 2 WWII bunkers (Site-4143); and an historic leveled slope cut (Site –4136). A total of 3 sites and 2 features previously identified by Kennedy (1982) were relocated, recorded, and assigned state site numbers (Carlson and Haun 1989:8):

Hammatt and Borthwick (1989) conducted an archaeological survey and assessment for a 90-acre parcel in Kāne‘ohe for the proposed expansion of Bayview Golf Course. Modern development including the golf course, sewage treatment plant, surrounding subdivisions and flood control projects caused extensive modifications to the landscape; only two archaeological features (Waikalua-loko Pond and Waikalua Pond) were identified.

In 1991 the Army Corps of Engineers conducted a field investigation of the Keaahala Military Reservation for the Department of the Army. Their report concluded that, “… extensive development of the project site would have removed any archaeological or historic features which may have been present (1991: (1)-6).

In 1992, Hammatt, Borthwick, and Folk conducted an archaeological survey of the proposed Castle Hills Access Road. No archaeological sites were observed during the survey.

In 1992, Pfeffer and Hammatt conducted an archaeological assessment for the proposed 46kV Sub-Transmission Line for Ko‘olau-Kāne‘ohe. No archaeological or historic sites were observed in the project corridor.

Duncan and Hammatt (1993) monitored grubbing and grading operations for the Castle Hills Access Road. A historic trash pit was encountered during construction.

In 1995 and 1997 Cultural Surveys Hawai‘i (Stride and Hammatt 1995, Hammatt et al. 1997) conducted an archaeological inventory survey for the He‘eia Kai 272 Reservoir. A single, previously discovered historic site (Kaualauki Heiau, McAllister’s Site 328, State Site No. 50-80-10-328) was observed.

Perzinski and Hammatt (2000) conducted an archaeological inventory survey of the Kāne‘ohe Civic Center Playground parking lot. Extensive land development had significantly altered the original soil structure and no archaeological or historic properties were identified.

In 2006 Carson conducted an archaeological assessment for replacement of a caretaker’s house at He‘eia Fishpond, within the site boundary. Surface inventory survey and minimal subsurface testing were conducted; however no cultural resources were identified.

In 2006 Cultural Surveys Hawai‘i (Tulchin, O’Hare, and McDermott 2006; Tulchin, McDermott, and O’Leary 2006) completed a cultural resource investigation of two Kamehameha Schools parcels in He‘eia, including cultural and historical background investigations and systematic pedestrian surveys. A total of nine historic properties were identified, including two ditches, three terrace complexes, two road remnants, a garden planter, and two charcoal kilns.

In 2007, Cultural Surveys Hawai‘i (Runyon and Hammatt 2007) monitored construction activities related to traffic light replacement at the intersection of Kamehameha Highway and Ha‘ikū Road. No historic properties were observed.

3.1 Background Summary and Predictive Model

Among taro (*lo‘i*) lands during traditional Hawaiian times (pre-1778), the *ahupua‘a* of He‘eia, with its large fishpond and Kāne‘ohe Bay Fisheries, was undoubtedly one of the more rich food resource land divisions on O‘ahu. Such high productivity within a single *ahupua‘a* made He‘eia important and desirable. The desirability of He‘eia can be viewed in terms of chiefly control and the relatively high number of awarded *kuleana* (LCAs). After Kamehameha I’s conquest of O‘ahu (1795), He‘eia remained in the Kamehameha family until 1848, when Kamehameha III awarded it to Chief Abner Pākī. In the 1850s there were some 90 *kuleana* awarded within He‘eia, the bulk for *lo‘i* lands.

The mid 1800s saw a gradual shift in crop production to rice. By the late 1800s, rice was the dominant crop and was cultivated mainly by Chinese who leased both individual kuleana and large tracts from Bernice Pauahi Bishop, Abner Pākī's daughter. Pauahi was said to have been a frequent visitor to He‘eia, sometimes staying for weeks. The sweet mullet fish, for which He‘eia Pond was noted, “often graced the table of Bernice Pauahi Bishop” (Krout 1908). The fishpond was eventually leased to Chinese as well (Kelly 1975). Rice cultivation declined rapidly between 1910 and the 1920s and, within the project area, taro cultivation made a short-lived resurgence in the 1920s-1940s.

Saint Ann’s Catholic Church and schoolhouse was an important activity site in He‘eia, providing teaching, housing, and craft schools for the population. The church, schoolhouse, associated buildings, and ponds expanded over a five-acre area located southwest of the current project area. Due to the common proximity of cemeteries near church premises, associated graveyards could potentially be located in or near the project area.

Based on historic background research and previous archaeology in the area, there is a possibility that subsurface deposits associated with taro/rice terraces and historic military use may be encountered below modern fill layers during excavations in the project area. The project area also has the potential for pre-contact and historic cultural deposits as well as human burials.

Section 4 Archaeological Monitoring Provisions

Consultation with the SHPD determined that a monitoring program is warranted as an historic preservation mitigation measure for proposed construction activities at King Intermediate School. The following discussion outlines the provisions and procedures that will govern the project’s archaeological monitoring program.

Under Hawai‘i State Historic preservation legislation, “Archaeological monitoring may be an identification, mitigation, or post-mitigation contingency measure. Monitoring shall entail the archaeological observation of, and possible intervention with, on-going activities which may adversely affect historic properties” (HAR Chapter 13-279-3). For this project, the proposed monitoring program will serve as a mitigation measure that insures proper documentation should historic properties be encountered.

Hawai‘i State historic preservation legislation governing archeological monitoring programs requires that each monitoring plan discuss eight specific items (HAR Chapter 13-279-4). The monitoring provisions below address those eight requirements in terms of archaeological monitoring for construction within the project area.

1. Anticipated Historic Properties:

   The King Intermediate School project area has the potential for pre-contact and historic cultural deposits as well as human burials.

2. Locations of Historic Properties:

   Historic properties may be encountered anywhere within the King Intermediate School project area.

3. Fieldwork:

   On site monitoring is recommended for all initial ground disturbing activities. A qualified archaeologist will monitor all initial ground disturbance associated with the project’s construction. Any departure from this will only follow consultation with and written concurrence from, the SHPD/DLNR.

   Monitoring fieldwork may encompass the documentation of subsurface archaeological deposits (e.g., trash pits and structural remnants) and will employ current standard archaeological recording techniques. This will include drawing and recording the stratigraphy of excavation profiles where cultural features or artifacts are exposed as well as representative profiles. These exposures will be photographed, located on project area maps, and sampled. Photographs and representative profiles of excavations will be taken even if no historically significant sites are documented. Where appropriate, sampling will include the collection of representative artifacts, bulk sediment samples, and/or the on site screening of measured volumes of feature fill to determine feature contents.

   If human remains are identified, no further work will take place, including no screening of back dirt, no cleaning and/or excavation of the burial area, and no exploratory work of any kind unless specifically requested by the SHPD. All human

skeletal remains that are encountered during construction will be handled in compliance with HRS Chapter 6E-43 and HAR Chapter 13-300 and in consultation with the SHPD/DLNR.

4. Archaeologist's Role:

   The on site archaeologist will have the authority to stop work immediately in the area of any findings so that documentation can proceed and appropriate treatment can be determined. In addition, the archaeologist will have the authority to slow and/or suspend construction activities in order to insure necessary archaeological sampling and recording.

5. Coordination Meeting:

   Before work commences on the project, the on site archaeologist shall hold a coordination meeting to orient the construction crew to the requirements of the archaeological monitoring program. At this meeting the monitor will emphasize his or her authority to temporarily halt construction and that all historic finds, including objects such as bottles, are the property of the landowner and may not be removed from the construction site. At this time it will be made clear that the archaeologist must be on site during all subsurface excavations.

6. Laboratory work:

   Laboratory analysis of non-burial related finds will include standard artifact and midden recording, as follows: artifacts will be documented as to provenience, weight, length, width, type of material, and presumed function. Bone and shell midden materials will be sorted down to species, when possible, then tabulated by provenience, and presented in table form.

7. Report Preparation:

   One of the primary objectives of the report will be to present a stratigraphic overview of the project area which will allow for predictive assessments of adjacent properties, which may be the subject of future development. The report will contain a section on stratigraphy, description of archaeological findings, monitoring methods, and results of laboratory analyses. The report will address the requirements of a monitoring report (HAR section 13-279-5). Photographs of excavations will be included in the monitoring report even if no historically significant sites are documented. Should burial treatment be completed as part of the monitoring effort, a summary of this treatment will be included in the monitoring report. Should burials and/or human remains be identified, then other letters, memos, and/or reports may be requested by the Burial Sites Program.

8. Archiving Materials:

   All human skeletal remains and any associated grave goods or burial materials will be addressed as per SHPD/DLNR directives. Materials not associated with burials will be temporarily stored at the contracted archaeologist’s facilities until an appropriate curation facility is selected, in consultation with the landowner and the SHPD.

Section 5 References Cited

Baldwin and Alexander

1913 Map of Koolaupoko; tracing by W.H. Smith, 1921. Registered Map 408. Copies available from Cultural Surveys Hawai‘i Library, Waimānalo, HI.

Borthwick, Douglas F.

1989 *Archaeological Reconnaissance and Literature Search, He‘eia Marsh, O‘ahu; For Proposed Punawai Trunk Sewer*. Cultural Surveys Hawaii, Kailua, HI.

Bowser, G.

1880-1 An Account of the Sugar Plantations and the Principal Stock Ranches of the Hawaiian Islands. Hawaiian Kingdom Statistical and Commercial Directory 1880-1881:401-32.

Carlson, Arne K. and Alan E. Haun

1989 *Archaeological Inventory Survey, Malulani Sports Complex, Land of He'eia, Ko'olaupoko District, Island of Oahu (TMK 4-60965:1, 2, 4, 7-16, 22-51 and 4-6-16:32).* Paul H. Rosendahl Inc., Hilo, HI.

Carson, Michael T.

2006- *Archaeological Assessment for Replacement of Caretaker's House at He‘eia Fishpond within Boundary of Site 50-80-10-0327, He‘eia, Ko‘olaupoko District, O‘ahu Island, Hawai‘i, Portion of tax Map Key (TMK) 04-06-05:01*, International Archaeological Research Institute, Inc. Honolulu, HI.

City and County of Honolulu, Building Department

1996 Construction Plan for King Intermediate School. Copies available from the City and County of Honolulu, Building Department.

Clark, Stephan D., and Mary Riford

1986 *Archaeological Salvage Excavations at Site 50-0a-G5-101, Waikalua-loko, Kāne‘ohe, Ko‘olaupoko, O‘ahu Island, Hawai‘i*. Department of Anthropology, Bernice Pauahi Bishop Museum, Honolulu, HI.

Condé, J.C. and Best, G.R.

1973 *Sugar Trains*. Glenwood Publishers, Felton, CA.

Department of the Army

1991 *Defense Environmental Restoration Program for Formerly-Used Sites Inventory Project Report, Kaneohe District Park (Keaahala Military Reservation), Kaneohe, Ko'olaupoko, island of Oahu, Hawaii, Project No. H09HI017400*. Department of the Army, U.S. Army Engineer District, Pacific Ocean Division, Fort Shafter, Oahu, HI.

Devaney, D., M. Kelly, P.J. Lee, and L. Motteler.

1976 *Kāne‘ohe: A History of Change (1778-1950).* B.P. Bishop Museum, The Bess Press, Honolulu, HI.

Dorrance, William H.

1998 *O‘ahu's Hidden History*, Mutual Publishing, Honolulu, HI.

Duncan, Edward D., and Hallett H. Hammatt
1993 *Archaeological monitoring Results for Castle Hills Access Road, Kanē‘ohe, Ko‘olaupoko, O‘ahu (TMK 1-4-5-23:5)*. Cultural Surveys Hawaii, Kailua, HI.

Foote, Donald E., Hill, E.L., Nakamura, S. and F. Stephens
1972 *Soil Survey of the Islands of Kauai, Oahu, Maui, Molokai and Lanai, State of Hawaii*, U.S. Dept. of Agriculture, U.S. Government Printing Office,, United States Government Printing Office

Giambelluca, Thomas W., Michael A. Nullet and Thomas A. Schroeder
1986 *Rainfall Atlas of Hawai‘i*. Department of Land and Natural Resources, Honolulu, HI.

Hammatt, Hallett H. and Douglas F. Borthwick
1989 *Archaeological Survey and Assessment of a 90-Acre Parcel for the Proposed Expansion of the Bay View Golf Course, Kāne‘ohe, O‘ahu*, Cultural Surveys Hawaii, Kailua, HI

1990 *Archaeological Reconnaissance Survey and Literature Search for the Proposed Improvements to a Portion of the He‘eia Wastewater Collection System: He‘eia, Ko‘olaupoko, O‘ahu*. Cultural Surveys Hawai‘i, Kailua, HI.

Hammatt, Hallett H. Douglas F. Borthwick, and William Folk
1992 *Archaeological Inventory Survey of Castle Hills Access Road, Kāne’ohe, Ko‘olaupoko, O‘ahu*. Cultural Surveys Hawaii, Kailua, HI.

Hammatt, Hallett H., Mark Stride, and Victoria S. Creed
1997 *Archaeological Inventory Survey of An Approximately 5-Acre Site for Proposed He‘eia Kai 272 Reservoir, He‘eia, Ko‘olaupoko, O‘ahu*. Cultural Surveys Hawaii, Kailua, HI.

Hawaiian Government Survey
1881 Map of Oahu, Hawaiian Islands. Finished map by Richard Covington under the supervision of W.D. Alexander, Surveyor General.

Handy, E.S., and Elizabeth G. Handy
1972 *Native Planters of Hawaii: Their Life, Lore, and Environment*. Bishop Museum Press Bulletin 233, Honolulu, HI.

Harper, Joseph
1972 Pineapple, A Major Industry in the Area 50 Years Ago. *Ka Lama* (Newspaper sponsored by Kahalu‘u Ecumenical Youth Project (KEY) and Hui Ko‘olau), Kahalu’u Printing Co., Kahalu’u, Oahu.

Hawai‘i TMK Service
N. D. Hawai‘i TMK Service, 222 Vineyard St Ste 401, Honolulu, Hawai‘i. Tax Map Key [3] 7-5-010:64 and 7-5-017:20

Henry, Lehman L. (Bud)
1993 *He‘eia Fishpond Loko I‘a O He‘eia: An Interpretive Guide for the He‘eia State Park Visitor*. He’eia State Park, He’eia, HI.

Hiiaka-i-ka-poli-o-Pele
1926 Hoku o Hawaii. In *O‘ahu Place Names*. Jan. 5. Honolulu, HI.

Johnson, Donald D.
1991 *The City and County of Honolulu: A Governmental Chronicle,* University of Hawai‘i Press, Honolulu.

Kamakau, Samuel M.
1961 *Ruling Chiefs of Hawai‘i*. Kamehameha Schools Press, Honolulu, HI.

Kanahele, G.S.
1986 *Pauahi*. Kamehameha Schools Press, Honolulu, HI.

Kawachi, Carol
1990 An Archaeological Reconnaissance of He`eia Flatlands, He‘eia, Ko’olaupoko, O`ahu, TMK 4-6-16:10, 01 por. Historic Preservation Program, Honolulu, HI.

Kelly, Marion
1975 *Loko I‘a O He‘eia*. Department of Anthropology, B. P. Bishop Museum, Honolulu, HI.

Kennedy, Joseph
1982 *An Archaeological Reconnaissance at He‘eia Kea*. Archaeological Consultants of Hawaii, Honolulu, HI.

1987 *Archaeological Report Concerning the Ali‘i Landing Subdivision, TMK 4-6-04:11 and 4-6-05:5, He‘eia, Ko‘olaupoko, Island of O‘ahu*. Archaeological Consultants of Hawaii, Honolulu, HI.

Krout, Mary H.
1908 *The Memoirs of Hon. Bernice Pauahi Bishop*. Knickerbocker Press, New York, NY.

McAllister, J.G.
1933 *Archaeology of O‘ahu*. Bishop Museum Press Bulletin 104, Honolulu, HI.

Moore, James R. and Joseph Kennedy
1995 *An Archaeological Data Recovery Plan for the Proposed Malulani Woodlands Subdivision Located at TMK: 4-6-16:32 (Por.) In He`eia Ahupua`a, Ko`olaupoko District, Island of O‘ahu*. Archaeological Consultants of Hawai‘i, Haleiwa, HI.

Nagata, Ralston H.
1992 Letter to Manabu Tagomori, Adminstrator, Division of Water and Land Development Re: Archaeological Concerns Regarding He’eia Stream Clearing Project, He’eia State Park, Ko’olaupoko, Oahu, TMK 4-6-05:009, Job No. 85-OP-A1Division of State Parks. Department of Land Natural Resources, Honolulu, HI.

Perzinski, David, and Hallett H. Hammatt
2000 *An Archaeological Inventory Survey of the Kāne’ohe Civic Center Playground Parking lot (TMK 1-4-5-18:por.2, 52).* Cultural Surveys Hawai‘i, Kailua, HI.

Pfeffer, Michael, and Hallett H. Hammatt
1992 *Archaeological Assessment for the Proposed 46kV Sub- Transmission Line for Ko‘olau - Kāne‘ohe O‘ahu*. Cultural Surveys Hawai‘i, Kailua, HI.

Pukui, Mary Kawena, Samuel H. Elbert, Esther T. Mookini
1974 *Place Names of Hawai‘i.* The University Press of Hawai‘i, Honolulu, HI.

Raphaelson, Rayna
1929 *The Kamehameha Highway, 80 Miles of Romance.* Illustrated by J. M. Fraser, Published by Percy M. Pond, Honolulu, HI.

Rea, Charles D.
1912 Map Showing Areas of Pineapple Lands in West Kailua, Kaneohe, Heeia, Koolaupoko Ohau. Copies available from Cultural Surveys Hawai‘i Library, Waimānalo, HI.

Runyon, Rosanna and Hallett H. Hammatt
2007 *Archaeological Monitoring Report for Traffic Control Signal Work at the Intersection of Kalākaua Avenue and Fern Street, Waikīkī Ahupua’a, Honolulu District, Island of O‘ahu Tax Map Key (TMK): (1) 2-3-022, 023 & 032*, Cultural Surveys Hawaii, Kailua, HI

Schmeding, Debbie
1992 *Report of the Investigation of the Subsurface Stratigraphy of Southeastern He‘eia Peninsula*. Windward Community College, He’eia, HI.

Schoofs, Robert SS.CC.
1978 *Pioneers of the Faith: History of the Catholic Mission in Hawaii*. Revised by Fay Wren Kidkiff. Sturgis Printing Co., Inc., Honolulu, HI.

Sterling, Elspeth P. and C. C. Summers
1978 *Sites of O‘ahu*. Department of Anthropology, B.P. Bishop Museum, Honolulu, HI.

Stride, Mark, and Hallett H. Hammatt
1995 *Archaeological Inventory Survey of He‘eia Kai 272 Reservoir, He‘eia, Ko‘olaupoko, O‘ahu (TMK 4-6-14:5)*. Cultural Surveys Hawai‘i, Kailua, HI.

Stinnett, Robert
2001 *Day of Deceit: The Truth about FDR and Pearl Harbor*. Free Press, Touchstone ed.

Tulchin, Todd, Matt McDermott, and Owen O’Leary
2006 *Phase I1 Cultural Resource Investigation for Two Kamehameha Schools Parcels, He‘eia Ahupua‘a, Ko‘olaupoko District, Island of O‘ahu, TMK: [1]4-6-14:1, 6.* Cultural Surveys Hawaii, Kailua, HI.

Tulchin, Todd, Constance O’Hare, and Matt McDermott
2006 *Phase 1 Cultural Resource Investigation for Two Kamehameha Schools Parcels, He‘eia Ahupua‘a, Ko‘olaupoko District, Island of O‘ahu, TMK:{1}4-6-14:1,6.* Cultural Surveys Hawai‘i, Kailua, HI.

U.S. Army Map Service
1954 Map of O‘ahu Island. Copies available from Cultural Surveys Hawai‘i Library, Waimānalo, HI.

U.S. Department of Agriculture
2001 Soils Survey Geographic Database (SSUGRO).

U.S. Geological Survey

1924 Kāne‘ohe Quadrangle 7.5 Minute Series Map, USGS

1959 Kāne‘ohe Quadrangle 7.5 Minute Series Map, USGS

1978 Orthoimagery of Kāne‘ohe Quadrangle 7.5 Minute Series Map, USGS

1998 Kāne‘ohe Quadrangle 7.5 Minute Series Map, USGS.

2005 Orthoimagery of Kāne‘ohe Quadrangle 7.5 Minute Series Map, USGS

U.S. War Department

1919 Map of O‘ahu Island. Copies available from Cultural Surveys Hawai‘i Library, Waimānalo, HI.

1943 Map of O‘ahu Island. Copies available from Cultural Surveys Hawai‘i Library, Waimānalo, HI.

Waihona ‘Aina

2000 *The Māhele Database*. Electronic document, http://waihona.com, Accessed 5/15/2009.

Wall, W.E.

1918 Map of Hawai‘i Island. Copies available from Cultural Surveys Hawai‘i Library, Waimānalo, Hawai‘i.

Yent, Martha

1977 *Results of Archaeological Field Survey in the Interim Development Portion of the He‘eia-Matson Point State Park*. Department Land Natural Resources, Division of State Parks, Honolulu, HI.

Appendix A Land Commission Awards

LCA 2161 to Kaiewewena

No. 2161, Keiewewena /Kaiwiwaena/

N.R. 380v3

To the Land Commissioners, Greetings: I hereby state my claim for land in the *‘lli* of Kalimuloa in He‘eia, Island of O‘ahu. There are 6 *lo‘i* together in one place and also a *kula* adjoining my *mo‘o*. My house is in the *‘ili* of Pakele, in He‘eia also, which was from the *kūpuna*, and the *mākua*, to me.

KAIEWEWENA

F.T. 89v14

Helu 2161, Kaiwewena, See 395 page

Uhuuhu, ho‘ohiki‘ia, Ua ‘ike au i kona ‘āina ma ka ‘ili o Kalimuloa, He‘eia.

‘Āpana 1. 6 lo‘i.
‘Āpana 2. Kahuahale.
‘Āpana 3. He la‘au kanu na ko‘u Makua mai. He hau ma ke Ahupua‘a.

‘Āpana 1. Penei na palena:
Mauka, ko Makuahine ‘āina kalo
Ko‘olauloa, ko Makuahine ‘āina kalo
Makai, kula o Kalimuloa
Kailua, kula o Kalimuloa.

‘Āpana 2. Ua puni i ke kula o Pahele.

‘Āpana 3. Penei na palena:
Mauka, he kula
Ko‘olauloa, pela no
Makai, he Kai
Ma Kailua, he hau na Omino.

Mai na kapuna mai. Aole keakea ia.

Paekane, ho‘ohikiia, Ua like no ko maua ike me Uhuuhu i hai ‘ae nei.

F.T. 395-396v14

No. 2161, Kaiwewena, Claimant, From Page 89

Uhuuhu, sworn says, Claimant's land it is in He‘eia in the *‘ili* of Kalimuloa and is as follows:

No. 1. 6 taro patches.
No. 2. House lot.
No. 3. a *hau* grove (trees).

No. 1 is bounded:
Mauka by the taro land of Makuahine
Ko‘olauloa by the taro land of Makuahine
Makai by the Upland of Kalimuloa
Kailua by the Upland of Kalimuloa.

No. 2 is bounded: On all sides by Upland.

No. 3 is bounded:
Mauka by upland
Ko‘olauloa by upland of Wahine
Makai by sea shore
Kailua by a grove of *hau* trees.

Claimant had his land from his ancestors and has had it in peace to this time.

Paekane, says the above is all true.

[Award 2161; R.P. 994; Kalimuloa He‘eia Ko‘olaupoko; 2 *‘āp*.; .97 Ac.]

LCA 2162 to Kalei

N.R. 380v3

To the Land Commissioners, Greetings: I hereby state my claim for land in the *‘ili* of Paheleloa in He‘eia, Island of Oahu. There are 5 *lo‘i* together in one place and also a *kula*, which is also in my *mo‘o*. It was from Kaomi, /or the time of Kaomi/.

KALEI X, his mark

F.T. 127v14

Helu 2162, Kalei, See 440 page

Puhiki, hoohikiia, Ua ike au i kona aina ma ka ‘Ili o Pahele, He‘eia.

‘Āpana 1. 5 lo‘i
‘Āpana 2, 1 lo‘i
‘Āpana 3. Kahuahale.

‘Āpana 1: Penei na palena:
Mauka, pu‘u
Ko‘olauloa, poalima
Makai, pali
Kailua, ko Puhiki lo‘i.

‘Āpana 2
Mauka, kahawai
Ko‘olauloa, lo‘i no Kapakai
Makai, ‘auwai
Kailua, nahelehele.

‘Āpana 3:
Mauka, kula
Ko‘olauloa, hale o Kupahinu
Makai, kahakai
Kailua, punawai.

Na Paki mai loa‘a ia'u i ka M.H. 1832. ‘A‘ole mea keakea.

Poohina, ho‘ohikiia, Ua like no ko maua ike me Puhiki i hai ae nei.

F.T. 440v14

No. 2162, Kale, claimant, from page 127

Puhiki, sworn says, I know the land of claimant. It is in He‘eia in the *‘ili* of Pahele, as follows:

No. 1. 5 taro patches
No. 2. 1 taro patch
No. 3. House lot.

No. 1 is bounded:
Mauka by a hill
Ko‘olauloa by a poalima taro patch

Makai by a pali
Kailua by my taro patch.

No. 2 is bounded:
Mauka by a brook
Ko‘olauloa by taro land of Kapakai
Makai by a creek
Kailua by upland.

No. 3 is bounded:
Mauka by upland
Ko‘olauloa by the house lot of Kupahinu
Makai by a brook
Kailua by a spring of water.

Paki gave to claimant his land in the year 1832 and he has had it in peace to this time.

Po‘ohina, sworn says, the above is all true.

[Award 2162; R.P. 990; Puahele He‘eia Ko‘olaupoko; 3 *‘āp*.; 1.07 Acs]

LCA 2498 to Ehuiki

No. 2498, Ehuiki, He‘eia, Island of O‘ahu, January 5, 1848

N.R. 526v3

To the Land Commissioners, Greetings: I hereby state my land claim in the *‘ili* of Kalimuloa, consisting of 3 *lo‘i*, which adjoin Kaina's land and Kalehua. There is also an upland place, in this same *‘ili* which I got from Kahui -- I live under him. I got this in the year 1842. There is also a house, in the *Ahupua‘a*.

EHUIKI

F.T. 96v14

Helu 2498, Ehuiki, See 405 page

Kana, hoohikiia, Ua ike au I kona aina ma ka Ili o Kalimaloa, Heeia.

‘Āpana 1. 2 lo‘i
‘Āpana 2. Kahuahale.

‘Āpana 1. Penei na palena:
Mauka, ka lo‘i I lilo ia Kananui
Koolauloa, mo‘o ‘aina o Kaina
Makai, mo‘o ‘aina o Kalaau
Kailua, Kula.

‘Āpana 2:
Mauka, he kula
Ko‘olauloa, ka Kaiwena mahele hau
Makai, kahakai
Kailua, pā pua`a.
Mai ka wa kahiki mai na kupuna na Makua, aole keakea.
Nauka, hoohikiia, Ua like no ko maua ike me Kana I hai ae nei.

F.T. 405v14

No. 2498, Ehuiki, claimant, from page 96

Kana, sworn say, claimant's land is in Heeia in the ili of Kalimaloa as follows:

No. 1. 2 taro patches.
No. 2. House lot.

No. 1 is bounded:
Mauka, taro patch of Kauanui
Ko‘olauloa, taro patch of Kaina
Makai, taro patch of Kalaau
Kailua, upland.

No. 2 is bounded:
Mauka, by upland
Ko‘olauloa, *hau* grove of Kawewena
Makai, sea beach
Kailua, a fence.

Claimant had his land from his ancestors and has held it in peace to this time.

Nauka, sworn says, the above is true.

[Award 2498; R.P. 6190; Kalimuloa He‘eia Ko‘olaupoko; 2 *‘āp*.; .5 Ac.]

LCA 2515 to Makuahine

N.R. 532v3
Here is my claim for land: *‘Ili* of Kalimaloa, *Mo‘o* of Kiapa, 6 *lo‘i*, 1 *kula*, 1 house site.
MAKUAHINE X

F.T. 109v14
Helu 2515, Makuahine, (*kuleana haule*) see 420 page
Kipapa, ho‘ohikiia, ka me nana i kakau i keia kuleana o Makuahine, ua ae mai ‘oia nana i kakau. Kaiwewena, ho‘ohikiia, Ua ike au i kona ‘āina ma ka ‘ili o Kalimaloa, He‘eia.

‘Āpana 1. 1 lo‘i.
‘Āpana 2. 4 lo‘i.
‘Āpana 3. Kahuahale.

‘Āpana 1 penei na palena:
Mauka, he kula
Ko‘olauloa, nahelehele o Wawae
Makai, na lo‘i o Kaiwewena
Kailua, kula.

‘Āpana 2:
Mauka, poalima
Ko‘olauloa, Nahelehele
Makai, ko Kaiwewena aina
Kailua, ko Kapakai aina.

‘Āpana 3:
Mauka, ko Ka‘anui hale
Ko‘olauloa, kuapa o He‘eia
Makai, kahakai
Kailua, ko Nahuina hale.

Na Kaumiumi mai loa‘a ia‘u i ka M.H. 1837. ‘A‘ole mea keakea. Maka, ho‘ohikiia, Ua like no ko maua ike me Kaiwewena i hai ae nei.

F.T. 420-421v14
No. 2515, Makuahine, claimant, from page 109, claim not found
Kipapa, sworn say, I wrote the claim of *makuahine* and sent it in to the Land Commission.
Kaiwewena, sworn says, claimant's lands is in the *‘ili* of Kalimaloa, He‘eia.

No. 1. 1 taro patch.
No. 2. 4 taro patches.
No. 3. House lot.

No. 1 is bounded:
Mauka by upland
Ko‘olauloa by waste land
Makai by my taro land
Kailua by upland.

No. 2 is bounded:
Mauka by a *poalima*
Ko‘olauloa by waste land
Makai by my taro land
Kailua by the taro land of Kapakai.

No. 3 is bounded:
Mauka by upland house lot of Kaanui
Ko‘olauloa by a fence
Makai by sea shore
Kailua by upland.

Claimant had his land from Umiumi in the time of Kinau, about the year 1837 and has not been disturbed to this time.
Maka, sworn says, the above is true.

N.T. 99v10
No. 2515, Makuahine, 11 February 1852

Poohina, sworn, I had come as a stranger and lived on this land, Kahimuloa, from 1841 to the present time. I have seen that patch "Kiopa" over which there is a dispute between Makuahine and the *konohiki*. The patch is for the *konohiki* because Makuahine had taken the *konohiki's* five patches and included them in his claim. I have seen these patches; two of which are for Taro plants, one other patch of beach onions and two boundary patches which total five patches. Kapakai, Makuahine's brother-in-law has one patch, thus, both have six patches of their own, lying there, but Kiopa has not been included in this claim, except by the surveyor. I have known it was for the konohiki, because Kalunaaina and his group was [were] working when I first went there to live and this Makuahine was the head man of the land, Kalimuloa.

Keliikanakaole, sworn, I am a native of Kalimuloa in He‘eia. I had lived there at the time Keaniani had the care of all the ahupuaa lands in Ko‘olaupoko. I have known that this land in question was for the *konohiki* because all of the tenants of Kalimuloa were doing koele work. It was for the konohiki when the land was possessed by Makuahine and it is still with the konohiki to the present day.

The decision for this land has been postponed until a land officer has seen it.

[Award 2515; R.P. 1576; Kalimaloa He‘eia Ko‘olaupoko; 3 *‘āp*.; 1.35 Acs]

LCA 2562 to Nauka

N.R. 557v3

Greetings to the Land Commissioners: I hereby state my claim for land at He‘eia, Island of O‘ahu. December 26, 1847. 14 *lo‘i* at Kapa‘aiki, 1 at Keaume, Kaiaeaa 1, 1 at Makono, 1 at Kuhipono, 2 at Kakoiwi, 2 at Kanenelu, 1 at Kekahapakula, Kaika, at Hoapipi 4, are 1 pond, 1 *kula*, 1 house site.

NAUKA

F.T. 84-85v14

Helu 2562, Nauka, See 389 page

Helu 3347

Kauanui, hoohikiia, Ua ike au i kona aina ma ka ili o Koaena, He‘eia.

‘Āpana 1. 4 lo‘i, 1 loko & kahuahale.
‘Āpana 2. 1 lo‘i.
‘Āpana 3. 1 lo‘i.
‘Āpana 4. He Mo‘o aina o Hakoiwi.

‘Āpana 1: Penei na palena:
Mauka, kula o He‘eia
Ko‘olauloa, kula o He‘eia
Makai, Kahakai
Kailua, kula o He‘eia.

‘Āpana 2:
Mauka, ‘aina o Po‘ohina
Ko‘olauloa, Alanui
Makai, kula o He‘eia
Kailua, ko Pahia ‘aina.

‘Āpana 3:
Mauka, ‘auwai
Koolauloa, poalima
Makai, he kula
Kailua, ko Konoua ‘aina.

‘Āpana 4:
Mauka, kahawai o Makawiliwili
Koolauloa, kula
Makai, pali
Kailua, kula.

Na Paki mai loaa ia'u i ka M.H. 1832. Aole mea keakea.

Kana, hoohikiia, Ua like no ko maua ike me Kauanui i hai ae nei.

F.T. 389v14

No. 2562, Nauka, Claimant, from page 84

No. 3347

Kauanui, sworn say, I know claimant's land. It is in He‘eia. It is an *‘ili* called Koaena and is as follows:

‘Āpana 1. 4 taro patches & a fish pond & house lot
‘Āpana 2. 1 taro patch
‘Āpana 3. 1 taro patch
‘Āpana 4. A *mo‘o ‘aina*.

No. 1 is bounded:
Mauka by upland
Ko‘olauloa by upland
Makai by sea shore
Kailua by upland.

No. 2 is bounded:
Mauka by the taro land of Po‘ohina
Ko‘olauloa by road
Makai by upland
Kailua by taro land of Pahia.

No. 3 is bounded:
Mauka by a creek
Ko‘olauloa by a *poalima* taro patch
Makai by upland
Kailua by a road [sic]

No. 4 is bounded:
Mauka by pond
Ko‘olauloa by upland
Makai by a high hill
Kailua by upland.

Claimant had his land from Paki in the year1832, and has had it in peace to this time.

Kana, sworn says the testimony of Kauanui is true.

[Award 2562; R.P. 993; He‘eia Ko‘olaupoko; 4 *‘āp*.; 8.63 Acs]

LCA 3306 to Makahelu

No. 3306, Makahelu

N.R. 125v4

Greetings to the Land Commissioners: Here is my claim for one *mo‘o*, which was gotten in 1845. There is a *kula*. The *konohiki* is Nalaholo. It is at He‘eia, O‘ahu.

MAKAHELU

F.T. 103v14

Helu 3306, Makahelu, See 413 page

Kohai, ho‘ohikiia, Ua‘ ike au i kona ‘aina ma ka ‘Ili o Kawahamano, Heeia.

Apana 1. 1 mooaina o Kaaiuku, penei na palena:

Mauka, he kahawai

Koolauloa, ‘āina o Kaulahea

Makai, he pali

Kailua, ka ‘āina o Kekohai.

Na Naiahola mai loa‘a ia‘u i ka M.H. 1845. ‘A‘ole mea keakea. Ua kuai ia keia kuleana ia Kauanui $11.00 Dekemaba 28 1849 ua lilo ia ia.

Kalehua, ho‘ohikiia, Ua like no ko maua ike me Kohai i hai ‘ae nei.

F.T. 413v14

No. 3306, Makahelu, claimant, from page 103

Kekohai, sworn say, claimant's land is in Heeia in the ili of Kawahamano, and consists of 6 taro patches, a mo‘o‘aina.

It is bounded:

Mauka by a creek

Ko‘olauloa by the land of Kaulahea

Makai by a *pali*

Kailua by my land.

Claimant had his land from Naiaholo about the year 1845 and has had it in peace up to the close of the past year, when claimant gave his taro patch to Kauanui for the consideration of $11.00.

Kalehua, sworn says, the above is true.

[Award 3306; R.P. 2497; Kawahamama He‘eia Ko‘olaupoko; 1 *‘āp*.; 1.58 Acs]

LCA 3347 to Nauka

N.R. 130v4

Greetings to the Land Commissioners: Here is my claim. I, Nauka, am Pākī's man and I was appointed over the people. I have the say as to the konohiki's /work/ days and related matters. This is my claim; the name /of the land/ is Koaena and there is a *kula* and a house claim. They were gotten in 1839.

NAUKA

[No. 3347 not awarded; See Award 2562]

LCA 3572 to Kaniaa

N.R. 140v4

Greetings to the Land Commissioners: I have one *mo‘o* in the land of Wiwi, also one weed grown *mo‘o* is there. One *lo‘i* is in Pala‘au's land and a house is in Paele's place. This is in He‘eia and I got it in 1839

KANIA

F.T. 106v14

Helu 3572, Kaniaa, See 416 page

Pekane, ho‘ohikiia, Ua ike au i kona aina ma ka ‘Ili o Papala He‘eia, Mooaina o Puolo.

‘Āpana 1. 8 lo‘i.
‘Āpana 2. 1 lo‘i.
‘Āpana 3. Kahuahale.

‘Āpana 1 penei na palena:
Mauka, nahelehele o Papala
Ko‘olauloa, pali
Makai, aina o Pahia
Kailua, pali.

‘Āpana 2:
Mauka, ko Kaina aina
Ko‘olauloa, ko Kala‘au ‘āina
Makai, ko Wahine ‘āina
Kailua, ko Kalaau ‘āina.

‘Āpana 3:
Mauka, ko Wahine hale
Ko‘olauloa, ko Kaiwewena hale
Makai, kahakai
Kailua, Hau na Kaiwewena.

Na Uhuuhu mai hoaa ia'u i ka M.H. 1834. Aole mea keakea.

Nauka, ho‘ohikiia, Ua like no ko maua ike me Pekane i hai ae nei.

F.T. 416v14

No. 3572, Kaniaa, claimant, from page 106

Paekane, sworn say, I know the land of claimant. It is in Heeia, a mooaina in th ili of Papala, as follows:

No. 1. 8 taro patches.
No. 2. 1 taro patch.
No. 3. A house lot.

No. 1 is bounded:
Mauka by upland of Papala

Ko‘olauloa by a *pali*
Makai by the taro land of Pahia
Kailua by a *pali*.

No. 2 is bounded:
Mauka by the land of Kaina
Ko‘olauloa by the land of Kalaau
Makai by the land of Wahine
Kailua by the land of Kalaau.

No. 3 is bounded:
Mauka by the house lot of Wahine
Ko‘olauloa by the house lot of Kaiwewena
Makai by the sea beach
Kailua by Kaiwewena.

Claimant had his land from Uhuuhu in the year 1834 or about that time, and has had it undisturbed to this time.

Nauka, sworn, testifies to the truth of the above.

[Award 3572; R.P. 997; Koaena He‘eia Ko‘olaupoko; 3 *‘āp*.; 3.1 Acs]

LCA 3573 to Kailaa

N.R. 141v4
Greetings to the Land Commissioners: My claim is for *one mo‘o* at Kalimuloa in the land of Kahui, and a *kula* and a house. This is in He‘eia, O‘ahu and I got it in the time of Kamehameha I. KAILAA

F.T. 95v14
Helu 3573, Kailaa, See 403 page
Kaiwewena, hoohikiia, Ua ike au I kona aina ma ka ‘Ili o Kalimaloa, He‘eia.
‘Āpana 1. 4 lo‘i.
‘Āpana 2. Kahuahale.

‘Āpana 1 penei na palena:
Mauka, ‘ili o Pahele
Ko‘olauloa, nahelehele
Makai, mo‘o ‘aina o Kaina
Kailua, ko Ehuiki ‘aina.

‘Āpana 2:
Mauka, he kula
Koolauloa, he kula
Makai, ko Wahine pahale
Kailua, he kula.

Na Kaumiumi mai loaa ia‘u I ka wa o Kamehameha II, ‘A‘ole keakea.
Mahi, ho`‘ohikiia, Ua like no ko maua ike me Kaiwewena I hai ae nei.

F.T. 403v14
No. 3573, Kailaa, claimant, from page 95
Kaiwewena, sworn say, claimant is in He‘eia in the *‘ili* Kalimaloa as follows:

No. 1. 4 taro patches.
No. 2. House lot.

No. 1 is bounded:
Mauka, the land of Pahele
Ko‘olauloa, waste land
Makai, the land of Kaina
Kailua, the land of Ehuiki.

No. 2 is bounded:
Mauka, upland
Ko‘olauloa, upland
Makai, house lot of Wahine
Kailua, upland.

Claimant had his land in the time of Kamehameha I and has had it in peace up to this time.
Mahi, sworn says, the above is true

[Award 3573; R.P. 996; He‘eia Ko‘olaupoko; 3 *‘āp.*; 1.25 Acs]

LCA 4222 to Kohai

No. 4222, Kohai

N.R. 227v4

To the Land Commissioners: I explain to you that I have twelve *lo‘i* a parcel of *kula*, and a house lot.

KOHAI

Kawahamano, He‘eia, Ko‘olau.

F.T. 106-107v14

Helu 4222, Kohai, See 417 page

Kalehua, hoohikiia, Ua ike au i kona aina ma ka ‘ili o Kawahamano, He‘eia, Mo‘o‘āina o Kawahamano.

‘Āpana 1. 1 lo‘i.
‘Āpana 2. 5 lo‘i.
‘Āpana 3. 2 lo‘i.
‘Āpana 4. Kahuahale.

‘Āpana 1 penei na palena:
Mauka, he ‘auwai
Koolauloa, ko Kauanui aina
Makai, poalima
Kailua, ko Lua mo‘o‘āina.

‘Āpana 2:
Mauka, he pali Kahawai
Koolauloa, lo‘i no Kaulahea
Makai, pali
Kailua, ‘āina o Lua.

‘Āpana 3:
Mauka, kahawai o Heeia
Koolauloa, poalima
Makai, poalima
Kailua, ko Lua loi nahelehele.

‘Āpana 4: Ua puni i ke kula na ‘ao‘ao a pau o ka Hale.

Na Naiahola loa‘a ia'u i ka M.H. 1840. ‘A‘ole mea keakea.

Poohina, hoohikiia, Ua like no ko maua ike me Kalehua i hai ae nei.

F.T. 417v14

No. 4222, Kohai, claimant, from page 106

Kalehua, sworn say, the land of claimant is in He‘eia in the *‘ili* of Koahamano as follows:

No. 1. 1 taro patch.
No. 2. 5 taro patches.
No. 3. 2 taro patches.
No. 4. House lot.

No. 1 is bounded:
Mauka by a creek
Ko‘olauloa by the taro land of Kaulahea
Makai by a *pali*
Kailua by the land of Lua.

No. 2 is bounded:
Mauka by a brook
Ko‘olauloa by the land of Kauanui
Makai by a poalima
Kailua by the land of Kolua.

No. 3 is bounded:
Mauka by Creek of Heeia
Ko‘olauloa by a *poalima*
Makai by a *poalima*
Kailua by land of Lua.

No. 4 is bounded: On all sides by upland.

Claimant had his land from Naiahola about the year 1840 and has had it undisturbed to the present time.

Poohina, sworn says, the above is true.

[Award 4222; R.P. 1007; Ko‘ohamano He‘eia Ko‘olaupoko; 4 *‘āp*.; 1.508 Acs]

LCA 4266B, to Ehumakaweuweu (make) kuleana haule, See 445 page F.T. 133v14
Kahau, hoohikiia, Ua ike au i ke kakau ana o naiwieha, ka mea nana i kakau, ua lilo ka 1/4. Ua ike au i kona aina ma ka Ili o Koaena, Heeia, a ua hooili aku ia i kana wahine o Pau.

‘Āpana 1. 3 *lo‘i.*
‘Āpana 2. *Kahuahale*.

‘Āpana 1:
Mauka, poalima
Ko‘olauloa, ko Po‘ohina aina
Makai, pali
Kailua, ko Po‘ohina aina.

‘Āpana 2: Kula a puni o Piloloa.
Na Nauka mai loa‘a ia‘u i ka M.H. 1832. ‘A‘ole mea keakea.
Po‘ohina, ho‘ohikiia, Ua like me ko Kahau ko‘u ike.

F.T. 445v14
No. 4277B, Ehu, claimant, claim not found
[Awarded under 4266B]

Claimant died in the present year 1850. His widow, Pau, is his heir. I saw the claim of Ehu written by Naiwiha.

Claimant's land is in Heeia in the *‘ili* Koaena as follows:
No. 1. 3 taro patches.
No. 2. House lot.

No. 1 is bounded:
Mauka by a *poalima*
Koolauloa by the land of Po‘ohina
Makai by a *pali*
Kailua by the land of Po‘ohina.

No. 2 is bounded: On all sides by the upland of Piloloa.

Claimant's land is from Nauka in the 1832 and has had it in peace to this time.
Po‘ohina, testifies to the truth of the above evidence.
[Award 4266B; R.P. 1560; Koaena He‘eia Ko‘olaupoko; 2 *‘āp*.; 1.2 Acs]

LCA 5828 to Kapakai

N.R. 151v5
The Land Commissioners, Greetings: I hereby state my claim for land. I have one *lo‘i* in the land of Kahui. In the *mo‘o* of Nakuahine I have one *lo‘i.* In the *mo‘o* of Pukihi I have one *lo‘i*, a *kula*, a house lot, in He‘eia, Island of O‘ahu. I got these in the year 1846.
KAPAKAI

F.T. 107-108v14
Helu 5828, Kapakai, See 418 page

Makuahine, hoohikiia, Ua ike au i kona aina ma ka Ili o Kalimaloa, Heeia.

‘Āpana 1. 2 *lo‘i.*
‘Āpana 2. 2 *lo‘i.*
‘Āpana 3. 1 *lo‘i.*

‘Āpana 1 penei na palena:
Mauka, poalima o konohiki
Ko‘olauloa, ko Kaiwewena ‘āina
Makai, ko Kaiwewena ‘āina
Kailua, ko Makuahine ‘āina.

‘Apana 2:
Mauka, ‘āina kalo o Kailaa
Ko‘olauloa, ‘āina kalo o Kaina
Makai, ‘āina kalo o Kala‘au
Kailua, ‘āina kalo o Kala‘au.

‘Apana 3:
Mauka, he kahawai
Ko‘olauloa, ‘Ili o Kalimaloa no Puhiki
Makai, lo‘i o Ehuiki
Kailua, lo‘i o Kalowahalau.
Na Makuahine loaa ia‘u i ka M.H. 1846. Aole mea keakea.
Nauka, ho‘ohikiia, Ua like no ko maua ike me Makuahine i hai ‘ae nei.

F.T. 418v14
No. 5828, Kapakai, claimant, from page 107
Makuahine, sworn say, I know the land of claimant. It is in He‘eia in the *‘ili* of Kalimaloa as follows:

No. 1. 2 taro patches.
No. 2. 2 taro patches.
No. 3. 1 taro patch.

No. 1 is bounded:
Mauka by a *poalima* taro patch
Ko‘olauloa by taro land of Kaiwewena

Makai by taro land of Kaiwewena
Kailua by my taro land.

No. 2 is bounded:
Mauka by the *lo‘i* of Kailaa
Ko‘olauloa by the *lo‘i* of Kaina
Makai by the *lo‘i* of Kalaau
Kailua by the *lo‘i* of Kalaau.

No. 3 is bounded:
Mauka by a creek
Ko‘olauloa by the land of Puhiki
Makai by the land of Ehuiki
Kailua by the land of Kalohalau.

Claimant had his land from myself in the year 1846 and has had it in peace to this time.

Nauka, sworn says, the above is true.

LCA 5828; R.P. 5959; Kalimaloa Heeia Koolaupoko; 3 *‘āp*.; .43 Ac.]

LCA 6047 Wahine

No. 6047, Wahine

N.R. 221v5

Greetings to the Land Commissioners: I hereby state my claim for land. I have three *lo‘i* in the land of Kahui. In the land of Pōhaku I have one *mo‘o,* a *kula* and a house lot. I got these in the time of Kamehameha III.

WAHINE

He‘eia, Island of O‘ahu

F.T. 94v14

Helu 6047, Wahine, See 402 page

Kaiwewena, hoohikiia, Ua ike au i kona aina ma ka Ili o Kumupali, He‘eia.

‘Āpana 1. 2 lo‘i.
‘Āpana 2. 8 lo‘i.
‘Āpana 3. Kahuahale.

‘Āpana 1 penei na palena:
Mauka, kula o Kumupali
Ko`olauloa, kahawai o He‘eia
Makai, aina o Makakehau
Kailua, pali.

‘Āpana 2:
Mauka, ko Kalaau aina
Ko`olauloa, nahelehele
Makai, ko Makuahine
Kailua, poalima.

‘Āpana 3:
Mauka, he kula
Ko‘olauloa, ko Kaiwewena hale
Makai, kahakai
Kailua, he kula.

Na Ahukai mai loaa ia'u i ke kaua ana ia Kaua‘i. ‘A‘ole keakea.

Po‘ohina, Ho‘ohikiia, Ua like no ko maua ike me Kaiwewena i hai ae nei.

F.T. 402v14

No. 6047, Wahine, claimant, from page 94

Kaiwewena, sworn say, I know claimant's land. It is in He‘eia as follows:

No. 1. 2 taro patches.
No. 2. 8 taro patches.
No. 3. House lot.

No. 1 is bounded:
Mauka, upland
Ko‘olauloa, a creek
Makai, taro land of Makakehau
Kailua, a *pali*.

No. 2 is bounded:
Mauka by taro land of Kalaau
Ko‘olauloa by waste land
Makai by the land of Makuahine
Kailua, by a *poalima* taro patch.

No. 3 is bounded:
Mauka, upland
Ko‘olauloa, house lot of Kaiwewena
Makai, sea shore
Kailua, upland.

Claimant had his land in the time of Liholiho from Ka‘aukai and has had it in peace to this time.

Po‘ohina, sworn says, the above is all true.

[Award 6047; R.P. 992; He‘eia Ko‘olaupoko; 3 *‘āp*.; 2.3 Acs]

LCA 7523 to Kala‘au, He‘eia, Island of O‘ahu, December 22, 1847
N.R. 348v5

To the Land Commissioners, Greetings: Here is my claim in the *‘ili* of Kalimuloa. I have eight *lo‘i* of my own, also a small *kula*. My land was from Kalehua. My house is in the *‘ili* of Piloloa. I got these in the year 1846.
KALAAU X, his mark

F.T. 97-98v14
Helu 7523, Kalaau, See 407 page

Pekane, Ho‘ohikiia, Ua‘ ike au i kona aina ma ka ‘ili o Kalimaloa. He‘eia.

‘Āpana 1. 7 Loi
‘Āpana 2. 1 Loi.
‘Āpana 3. Kahuahale.

‘Āpana 1. *Penei na palena:*
Mauka, Mo‘o‘āina o Kaina
Koolauloa, ‘ili o Puulani
Makai, ko Wahine ‘āina
Kailua, poalima o ke Konohiki.

‘Āpana 2:
Mauka, Pau
Ko‘olauloa, Poalima
Makai, Kula
Kailua, ko Poohina ‘āina.

‘Apana 3:
Mauka, Pā Pua‘a
Ko‘olauloa, Ko Kaua pahale
Makai, he Kula
Kailua, he kula.

Na Kalehua, mai loa‘a iaii i ka M. H. 1846 ‘a‘ole mea keakea.
Kipapa, ho‘ohikiia, Ua like no ko maua ike me Pekane, i hai ae nei.

F.T. 407v14
No. 7523, Kalaau, claimant, From page 97

Paekane, sworn say, claimant's land is in the *‘ili* of Kalimaloa in He‘eia as follows:

No. 1. 7 taro patches.
No. 2. 1 taro patch.
No. 3. House lot.

No. 1 is bounded:
Mauka by the taro land of Kaina
Ko‘olauloa, uncultivated
Makai, by the taro land of Wahine
Kailua by a *poalima* taro patch.

No. 2 is bounded:
Mauka, by the taro patch of Kepau
Ko‘olauloa by the taro patch of *konohiki*
Makai by upland
Kailua by the taro patch of Po‘ohina.

No. 3 is bounded:
Mauka by a fence
Ko‘olauloa by a house lot of Kana
Makai by upland
Kailua by upland.

Claimant had his land from Kalehua in the year 1846 and has had it in peace.
Kepapa, sworn says, the above is true.
[Award 7523; R.P. 1415; Kalimaloa He‘eia Ko‘olaupoko; 3 *‘āp*.; 1.14 Acs]

LCA 10425 to Nahuina, He‘eia, O‘ahu, January 13, 1848
N.R. 549v4
To the Land Commissioners, Greetings: Here is my claim in the *‘ili* of Kalimaloa. One *lo‘i* was from Kanui and one *lo‘i* was from Panaai, a total of two *lo‘i*. I live under them. I got these in the year
1846.
NAHUINA
F.T. 302v14
Helu 10425, Nahuina, See 449 page

Kaiwewena, ho‘ohikiia, Ua‘ ike au I kona aina ma He‘eia, ‘ili o Kalimuloa.
‘Āpana 1. 1 lo‘i
‘Āpana 2. Kahuahale ma ka Ili o Pahelepoko.

‘Āpana 1, na palena:
Mauka, lo‘i of Kalehua
Ko‘olauloa, poalima
Makai, poalima
Kailua, lo‘i o Kalehua.

‘Āpana 2:
Mauka, he kula
Ko‘olauloa, pali
Makai, Kahakai
Kailua, Hale o Pa‘aluhi.

Na pa mai loaa ia'u i ka M.H. 1846. Ua lawaia ka lo‘i o Nahuina e Kalehua iloko o June 1850. Aole kumu o ka lawa ana i keia lo‘i. ‘A‘ole he poalima. Eia ka mea i lawe ai o ka hele ana o Nauina i Honolulu. Akai‘ a‘ole ha‘alele o Nahuina i keia Kuleana.
Po‘ohina, ho‘ohikiia, Ua like ko‘u ike me Kaiwewena i hai ‘ae nei.

F.T. 449v14
No. 10425, Nahuina, claimant, from page 303
Kaiwewena, sworn, say[s] I am an old inhabitant of He‘eia and know claimant's land. It is in He‘eia in the *‘ili* of Kalimuloa and consists:

No. 1. 1 *lo‘i*.
No. 2. House lot in Pahele.

No. 1 is bounded:
Mauka by the *lo‘i* of Kalehua
Ko‘olauloa by a *poalima* taro patch
Makai by a *poalima* taro patch
Kailua by lo‘i of Kalehua.

No. 2 is bounded:
Mauka by upland
Ko‘olauloa by a pali

Makai by sea beach
Kailua by house lot of Paaluhi.

Claimant had his land from Pa in the year 1846 and had it in peace till June of the present year when it was taken from him by the Hakumo‘o‘āina. Claimant has been to Honolulu the last six months and the landlord gives that as a reason for taking the *lo‘i*. But there appears to be no good reason for taking it.

Poohina, sworn, says the above testimony is true.

[Award 10425; R.P. 1001; Kalimuloa He‘eia Ko‘olaupoko; 2 *‘āp*.; .97 Ac.]

LCA 10613*O to Pākī, Abner

No. 10613*O, A[bner] Pākī, Honolulu, 12 February 1848

N.R. 569-570v

To the Land Commissioners, Greetings: As directed by the law, 1/2 of Pohakupu *‘Ili* of Kailua, Koolaupoko Oahu, is /entered/ by Pākī as representative of Kalaiopu‘u.

Respectfully,

PAKI

To the Land Commissioners, Greetings: As directed by the law, I hereby state publicly my claims for land as follows:

…

5. He‘eia, Ahupua‘a, Ko‘olaupoko.

….

Those are the claims which I hereby state to you.

Honorable A. PAKI, Head of the Treasury

Aigupita /Egypt/, February 12, 1848

N.T. 239v10

No. 10613, A. Pākī, 28 June 1853

COPY

A. Pākī 's lands in the Māhele Registry.

He‘eia Ahupua‘a, Ko‘olaupoko…

[Award 10613; (Oahu) R.P. 707;… He‘eia Ko‘olaupoko *‘Āpana* 1);

LINDA LINGLE
GOVERNOR OF HAWAII

LAURA H. THIELEN
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

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

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

July 14, 2009

Mr. David Shideler
Cultural Surveys Hawai'i
P. O. Box 1114
Kailua, Hawai'i 96736

LOG NO: 2009.2710
DOC NO: 0907NM21
Archaeology

Dear Mr. Shideler:

SUBJECT: 6E-8 Historic Preservation Review-- AMP
For the Proposed King Intermediate School
Heeia Ahupua'a, Koolaupoko District, O'ahu, Hawai'i
TMK: (1) 4-6-004: 002

Thank you for providing us the opportunity to review this Archaeological Monitoring Plan (AMP), (*Archaeological Monitoring Plan King Intermediate School at Kalimaloa, Heeia Ahupua'a, Koolaupoko District, O'ahu, Hawai'i, TMK: (1)) 4-6-004: 002 [Altizer, Shideler and Hammatt, PhD, June 2008]*) which we received for a second time on June 12, 2009.

This plan presents the protocols for archaeological monitoring of ground disturbing activities for school improvements including bus stops, parking lot, library roof, new chiller and mechanical room. This plan is necessary as cultural deposits and human remains exist in the project area.

This DRAFT AMP is accepted and meets the minimum standards for compliance under Hawai'i administrative Rules (HAR) §13-13-279 *Rules Governing Standards for Archaeological Monitoring Studies and Reports*. An acceptable report documenting the findings of the monitoring activities shall be submitted to the State Historic Preservation Division for review following the completion of the proposed undertaking.

We look forward to receiving a FINAL version of this plan. Please send one hardcopy of the document, clearly marked FINAL, along with a copy of this review letter and a text-searchable PDF version on CD to the attention of the "**SHPD Library**" at the Kapolei SHPD office.

Please contact me at (808) 692-8015 if you have any questions or concerns regarding this letter.

Aloha,

Nancy A. McMahon

Nancy A. McMahon (Deputy SHPO),
Archaeology and Historic Preservation Manager